# ATEE 2009 Annual Conference Proceedings

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# Introduction

This volume includes the Proceedings of the 34th annual conference of the Association for Teacher Education in Europe held at the University of the Balearic Islands in Palma de Mallorca, Spain from August 29th to September 2nd, 2009. The Conference was organized by the International Educative and Scientific Cooperation Office of the Department of Education in Catalonia and the University of the Balearic Islands. The theme of the conference was 'Knowledge creativity in teacher education. Education for knowledge creation'. The main objective was to find out whether educational practices of today's institutions, which offer initial and/or in-service teacher education, provide effective solutions toward cultivating the learning dispositions that underpin creativity. Many of the papers included in the present volume respond to this query and are centered on what is known about Knowledge Creation in different cultures as well as on which mindsets are most appropriate to develop Knowledge Creation in Teacher Education for a world which demands creativity of the many. Some papers also tackle challenging conceptual issues about whether educational goals for knowledge creation should be formulated in terms of skills, knowledge, habits of mind, personal traits, character development or acculturation, among others. Other papers look for satisfactory answers which may explain the process of producing new knowledge, which can be made more likely through effective education policies.

The volume includes the papers presented in the different Research Development Centers (RDCs) of the Conference which are the following: Research Observatory; Primary and Pre-primary education; Secondary Teacher Education; Vocational and Adult Education; Inclusion and Special Needs; Education for Social Justice, Equity and Diversity; Culture, Language and Citizenship; Educational Leadership and Management; Science and Mathematics Education; Curricula in Teacher Education; Teacher Education and Information Technology; In-Service Learning and the Development of Practice; Professional Development of Teachers; Professional Development of Teacher Educators, and Knowledge Creativity in Teacher Education.

All the papers included in the present volume have been reviewed and accepted by the Academic Committee of the 34th ATEE Conference formed by international expertise in the field of education. The editors would like to express their gratitude to the Academic Committee of the Conference, the International Educative and Scientific Cooperation Office of the Department of Education in Catalonia, the OISE-IKIT of the University of

Toronto, the Organizing Committee of the Conference, to the Institute of Sciences of Education, the Department of Spanish, Modern and Latin Philology, the Department of Psychology, the Department of Pedagogy at the University of the Balearic Islands, to the Govern of the Balearic Islands  and to the Ministry of Education in Spain.

**The editors.**

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## POSTER PRESENTATIONS

# RESEARCH OBSERVATORY

# CAN PRACTICE-BASED LEARNING FOSTER KNOWLEDGE CREATION? EXPERIENCES WITH PRACTICE BASED LEARNING WITHIN TECHNICAL AND VOCATIONAL TEACHER EDUCATION

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ABSTRACT

*The demands for teachers becoming producers instead of reproducers of knowledge are behind many uncertainties about teachers' pedagogical approaches and how one can best learn and/or teach. In the midst of all changes, practice based learning is often referred as the way to learn and promote knowledge in the modern society.*

*Practice-based learning has been in the heart of the technical and vocational teacher education programmes offered by Akershus University College (AUC), in Norway. This paper presents and discusses practice-based learning and how it is interpreted and built into the pedagogical principles of AUC's technical and vocational teacher education.*

Keywords: Vocational education, practice-based learning, knowledge creation

Many changes are taking place in society and educational institutions are seen more often as the places for creating rather than being repositories for knowledge reproduction. Today's high pace of change is challenging teachers regarding their fitness to meet constant demands for new knowledge. The demands for teachers becoming producers instead of reproducers of knowledge appear to be behind many uncertainties about the teachers' pedagogical approaches and how one can best learn and/or teach.

In the midst of all changes, practice based learning appears often in the headlines of new curricula and it is being referred by different disciplines and institutions as the way to learn and promote knowledge in the modern society. Its importance is confirmed by the European Commission's funding of several projects under the Lifelong Learning Programme. Although referred under different titles such as workplace learning, problem-based learning or experience-based learning, these projects have practice-based learning as their main focus.

Why such wide interest for practice-based learning and what does it have to do with knowledge creation? There are several evidences that classroom based instruction results in better learning when the students relate such learning to previous experiences.

It is often classified as an approach that moves away from surface to deep learning. Under this approach learners can construct knowledge by relating new information to what they already know or skills they have. The learner becomes thus an active seeker of knowledge and will more likely be better prepared to use what has been learned. Many universities are presently using practice based learning as they move from the traditional paradigm of teacher centred to student centred learning.

Practice-based learning has been in the heart of the technical and vocational teacher education programmes offered by Akershus University College (AUC), in Norway. Thus, the framework for this paper is how practice-based learning is interpreted and built into the pedagogical programme of the technical and vocational teacher education at AUC. This programme offers a pedagogical education to professionals that will either work as teachers at the upper secondary school level or as instructors in a company.

**The context of technical and vocational education**

For a better understanding of how Teacher Vocational Education and Training (TVET) is inserted in Norwegian higher education, one has to understand the context where this education takes place and for what purposes.  A brief overview of vocational education is given in Figure 1. This figure shows how a trade certificate is earned after 12 years of education in the school system and 2 years of practice as an apprentice in a company.

 This is also the minimum requirement for students that wish to become teachers in vocational education at the upper secondary level and apply to the TVET programme AUC. As one can see from this chart, the vocational education teachers must have a minimum of 2 years of practice to earn a trade certificate. In general, they work for some years before they apply to AUC's TVET programme. This means that the applicants to the TVET programme at AUC are adults with some years of work experience in industry, in crafts, or another professional area. Their decision to earn a degree in pedagogy is linked to their wish of becoming either teachers in the vocational areas of upper secondary schools or instructors of apprentices within a company.

**VOCATIONAL EDUCATION IN NORWAY**
**Normal pathway to a trade/journeyman's certificate**
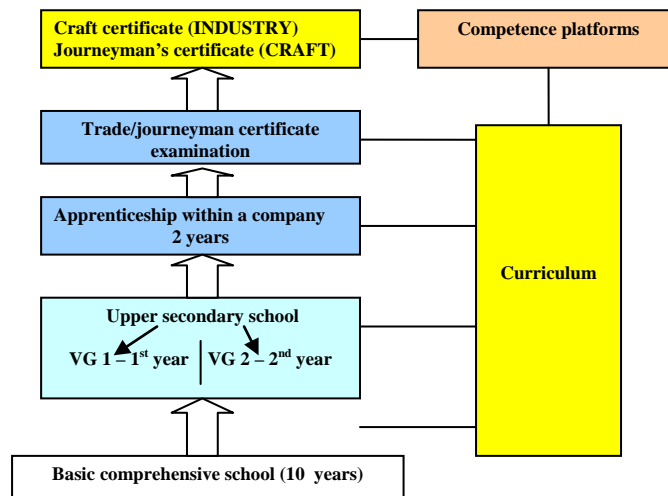


Figure 1: The path to vocational education in Norway

Vocational education (VET) in Norway is part of the educational system. It has been inserted in the upper secondary level of the school structure since the 1974 Upper Secondary School Law, when classic academic and vocational training programs were combined into a single comprehensive school. VET has through subsequent reforms been adjusted to its present structure shown in Figure 1.

General theoretical education and vocational education and training are offered side by side, often in the same school building, in classrooms and in school workshops. The insertion of VET programme in the educational system is a special and important feature of education in Norway because it maintains the possibility to continue studying at the tertiary level, which is open to pupils attending the academic as well as the vocational programmes.

This form of education requires a close collaboration between schools and the working life. Indeed, the VET system is built upon a tripartite cooperation principle mandated by the Education Act and established both at national and regional level. It involves employers' and workers' unions because education and training is conducted both in schools and in enterprises. Public and private enterprises accept apprentices and are approved as training enterprises by the county. Thus, training offices that ensure provision of places for apprenticeship have become increasingly common. Figure 2 represents the collaboration that exists between the social partners in the tripartite system.
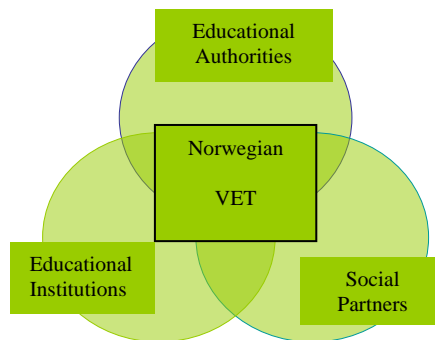
Figure 2: The tripartite system in Norwegian vocational education

## Practice-based learning and the knowledge society

There are many assertions and contentions about the importance and value of practice for all kinds of learning and development of skills. Its importance for the cognitive processes has been expressed earlier by researchers and educators (among them Dewey in 1938). In its evolution, practice as a concept has become the focus of many types of studies and it has been reaffirmed through in-depth investigations conducted by contemporary researchers (Lave & Wenger, 1991; Polanyi, 1962; Wenger, 1998). There is a wide range of studies that include research on motor learning and skilled performance (Schmidt & Lee, 2005), on situated learning (Lave & Wenger, 1991) and on communities of practice (Wenger, 1998).

Practice is a fundamental component in vocational education and its importance for learning is constantly reassured by research projects that focus on practice-based learning under its various forms and titles, such as problem-based learning and work place learning, and others. These concepts have been part of the vocational education community for a long time, but, recently, they have spread themselves to other types of education due to a wider interest of better understanding how practice relates to, or affects, knowledge acquisition.

Practice-based learning implies also that knowledge is not always explicit. One talks then about knowledge having a tacit dimension, which is incorporated in the person and is difficult to describe in words (Polanyi, 1967).

Thus, the concept of knowledge and its acquisition has been changing and has become quite complex in the post-industrial society. It oscillates between the stability of expertise for a predictable world and the constant demands for professional development in an unstable world that requires permanent updating of knowledge and skills. Knowledge has become a very complex concept to define as it is no longer understood as being solely abstract. The complexity of its meaning can be illustrated through a wide variety of modifiers that have been attached to the noun "knowledge". Thus, one can refer to different types of knowledge such as, for example, "situated knowledge", "tacit knowledge", "explicit knowledge", "reproductive knowledge", "creative knowledge" and many others. Since knowledge is no longer understood as an abstract concept, it can have a very specific meaning when attached to the concept "skills". The combination of "knowledge" with "skills" is often referred to as competence, which is a concept linked to one's performance in a professional area, i.e., one's expertise in carrying out professional tasks. The importance of such combination has enlarged the view about knowledge which Christensen et al. (Christensen, Shapiro, & Folmer, 2000, p. 20) refer to as:

> *Knowledge and skills and the ability to quickly and creatively translate this knowledge into new products and services have a growing importance for more and more companies as a key competitive asset to be considered in new high-tech industries or in the mature industries and sectors.*

These authors make a comparison between the industrial society and today's knowledge society which is very relevant for discussions about practice-based learning and changes in the processes of learning. Such comparison is presented in Table 1.

Table 1: A comparison between the industrial and knowledge society and their learning requirements

| Criteria | Industrial society | Knowledge society |
|---|---|---|
| The world | Stable | Unstable |
| Allocation of responsibility | Centralised decisions | Increasing delegation of decision-making, teamwork, personal/social skills for multi-professional team work |
| Knowledge needs | Specific technical and professional qualifications | Professional and systemic knowledge, learning skills |
| Use of technology | Automated functions. Limited information, sharing of tasks. | Using technology to integrate and transform work processes and functions within the company and value chain |
| Required competences and qualifications | Specific skills related to specific needs and skill requirements | Coherent structures. Problem-solving competence in new situations (breadth of competence |
| Understanding of professionalism | Specific definition of profession | Dynamic professional profile. Ongoing development and changes in relation to tasks, industry and technology development |

Source: Adapted from Christensen, Shapiro, & Folmer 2000, p. 20

By examining the differences of these two types of societies in relation to the set of criteria chosen for the comparison, one can infer that the unstable world in the knowledge society may be explained by the changes that have occurred, for example, regarding the allocation of responsibility, knowledge needs, use of technology, and required competences in the evolution from one type of society to the other. All these changes have increased the need for other types of competences, such as social and mental abilities (psycho-social abilities) in combination with professional competences. There has been, thus, a change in the learning paradigm, which has moved from being teacher centred, in the industrial society, to the greater focus on the learner and emphasis on competences and knowledge creation under the knowledge society. Christensen et al. (2000) discuss the concept of learning further by bringing to attention the separation that has existed earlier between theory and practice, and the recognition of the need to integrate these two concepts in today's knowledge society. In their argumentation, these authors refer to changes happening in societal development regarding technology and work processes and their relation to changes in the teaching spaces. To exemplify, another comparison between the industrial and knowledge societies is presented in Table 2, which summarises the characteristics of each society in

four critical domains that impinge upon learning, i.e., educational structure, teacher's role, concept of learning and learning processes.

Table 2: A comparison between the industrial and the knowledge societies in relation to educational structure, teacher's role, the learning concept and learning processes

|  | Industrial society | Knowledge society |
|---|---|---|
| Educational structure | Learning of practical skills and factual knowledge. Separation between professional and practical skills. Problem of connecting school with traineeship | Rethinking the concept of practice in relation to changing contexts. Integration of education and professional skills. |
| Teacher's role | Professional authority responsible for knowledge transfer. | Mentor, tutor, guided learning towards ever greater autonomy. |
| Concept of learning | Focus on teaching as mediation related to externally defined objectives. Learning as an individual process and oriented toward learning of skills and knowledge. | Learning happens in a context; identity is established through drills and practice in a community of practice |
| Learning processes | Teacher are responsible for achievement of established targets. Targets are given from outside. Focus on skills | The student and teacher define and achieve goals in collaboration. Learning to learn is a main objective |

Source: Adapted from Christensen, Shapiro, & Folmer (2000, p. 20)

Once again, reference is made to changes in teaching and learning, as for example, the role of teachers, who are no longer transmitters of knowledge but guides of autonomous learners who are knowledge searchers and creators. Learning has thus become a cooperative enterprise between learners who operate in changing contexts, which are constantly challenging the concept of practice. The instability of contexts poses new challenges to learners and teachers, who define and achieve their goals cooperatively.

A further concretisation of the development from an industrial to a knowledge society can be done through a model proposed by Thäng (Thäng, 1996), in which he describes the characteristics of each phase throughout four decades. In Figure 3, Per Olof Thäng outlines developments that have happened in the business world since 1970. The changes move from a *production culture*, in which the focus was mass production based on the routine-based work, followed by a *quality culture*, in which the production was

based on rules and procedures, and, finally, its movement toward a *competence culture* where production has been based on knowledge and expertise.

Changes in the culture of work organisations
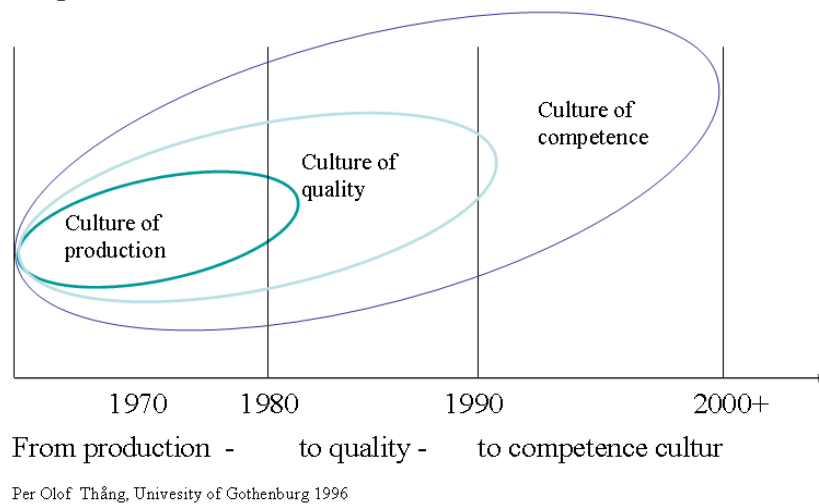
Figure 3: Changes in work organisations

In 2004, Ronny Sannerud expanded Thäng's model by including a possible new step to this development, which has been called *culture of innovation and competence*. Sannerud (2004) proposes specific forms of action and learning methods that can distinguish the different cultures. It is the authors' belief that this sketch can be fruitful in discussions about vocational training and vocational teacher education content and learning methods. Figure 4 is a modified and expanded version of Thäng's poposed representation of these changes on organisational cultures.

**Changes in the culture of work organisations**
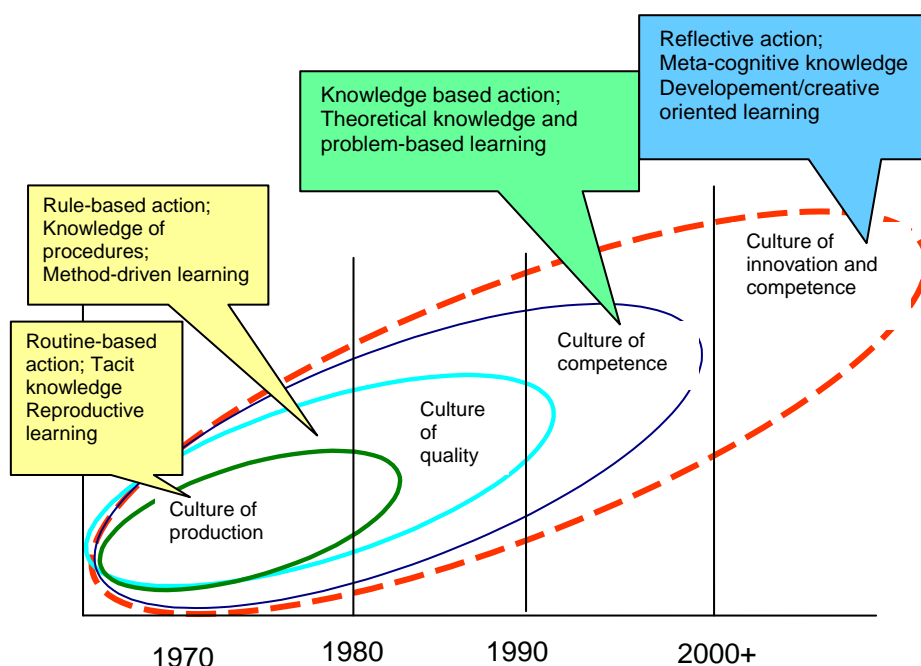


Figure 4: From a production culture to a culture of innovation and competence
Source: Ronny Sannerud (2004)

One can always wonder whether the TVET programme at AUC is capable of keeping its education in line with the developments of industry and society. Therefore it might be fruitful to examine both its content and teaching methods in light of the "theoretical framework" that has been presented.

The afore presentation of societal changes and their impact in the forms of learning and knowledge acquisition has had the purpose of preparing the ground to further discuss the education of teachers for technical and vocational education (TVET). This is an interesting type of education to be researched today for several reasons, but, perhaps the main ones can be summarised as:

a) First, this is a type of education where a teacher can best reconcile practice and theory.

b) Second, it is a very fertile ground for studying how learning takes place in the convergence of schooling and working life.

To be practical, it is necessary to look at examples of how things are done. Thus, next, it will be presented how AUC carries out the TVET programme in its interaction with the changes taking place in society. The question asked here is whether the practice based learning that is in the heart of the programme provides space for knowledge creation. To

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start with, it is necessary to take a look at changes that take have occurred in the work life and business culture.

**TVET programme at Akershus University College**

The purpose of AUC's TVET is to develop the students' didactical skills up to a level that will make them feel confident as professionals that are capable of carrying out their teaching in a conscious and effective manner, both in classrooms and in workshops. Thus, their learning takes place in the interplay between practical teaching and vocational experience, theoretical knowledge and vocational teaching didactical reflection.

The curriculum for Vocational Teacher Education offered by Akershus University College emphasises several competence areas. As an illustration, some of the areas have been selected for describing the learning outcomes for the teacher education programme for upper secondary school teachers of Building and Construction.

*Professional competence*

Professional competence requires a wide competence in the subjects represented within Building and Construction, as well as updated in-depth competence within one's own field of specialization. This includes both theoretical knowledge and practical work experience which gives confidence and authority in a teaching situation.

*Didactical competence*

Didactical competence implies that the students will be able to plan, work through and evaluate the teaching and demonstrate critical insight and reflection regarding their own pedagogical practice in relation to both school and work in industry and commerce.

*Social competence*

Teamwork, counselling and cooperative work are central themes directing the educational training. Social competence implies that the students are able to understand and show the ability to interact socially with their fellow students, their pupils in the teaching situation and colleagues at the workplace.

*Competence to change and to develop*

Continuous processes of change and development, both in schools and working life, require that people about to enter the workforce be adaptable and capable of taking a leading part in individual and organizational change and development processes.

*Competence in work ethics*

Implementing learning at schools or in the trade and commerce sector demands that teachers make frequent choices in relation to their pupils, apprentices, parents, employees and colleagues. Whoever is in charge of implementing learning activities must therefore be familiar with the legislation, state and institutional guidelines as well as the fundamental values on which teaching and instruction is based. This means that the teacher must be capable of carrying out well-reasoned, value-based decisions in practice. While each learning target is discussed separately, the study program aims to combine them into an integrated whole. Thus, teaching and working methods are focused next.

## Teaching and working methods

Akershus University College uses a broad and coherent repertoire of teaching methods, learning activities and evaluation forms that require the interplay between practical teaching theory, vocational experience, theoretical knowledge together with didactical reflection and practice. Several principles that support the choice of working methods are described in the following:

## Practical orientation

The study programme is rooted in the tasks and challenges that one meets within the teaching profession. This means that reflections made by the students about the teachers' practical work is a core aspect in the study programme.

**Problem-based orientation**

Under this principle, students should learn through working with problem situations and issues. Problem-based orientation takes place through project work, development work, problem-based learning and by solving problems related to tasks.

**Learning through examples**

The students learn when appropriate examples are analyzed, adapted, generalised and applied to their own practice.

**Learning through experience**

The student should be conscious of earlier experiences and create new experiences with different forms of pedagogical work. Through the process of planning and trying out new practices, one increases his/her repertoire of action in different practical situations in teaching and training.

**Experience orientation**

Through own experiences, the students become aware of their emotional and rational reactions that might occur in learning situations, and learn to express them. They should also be able to facilitate the same learning processes to their pupils.

**Value orientation**

The students should be conscious of and clear about their norms and attitudes in relation to the ethics and the consequences their choices might have for others. They should be able to justify their values and develop common norms in classrooms and for groups.

**Student influence**

The students should develop goals and plans for their own learning and they should take an active part in planning and completing their studies within the framework of the curriculum. They should take part in the development of content and be involved in on-going evaluations of the study programme and teaching and learning processes.

**Objective management**

The regulations determine the final level of competence. The objectives are clarified and interpreted collaboratively by teachers and students, and are made concrete in relation to the assignments the students work with.

**Connecting the teaching principles to German critical theory**

Some of the teaching principles afore mentioned, such as experience orientation, learning through examples and student influence, can be anchored in German Critical Theory (Frankfurter Schule), represented by Adorno and Horkheimer, and later Jürgen Habermas and Oscar Negt (Negt, 1981). Problem based orientation can also be anchored in that theory. In German Critical Theory, the concept of experience is very central and fundamental. With a few words, the concept experience can be defined as

> …an active relationship building, critical and creative process, which is collective. The human being shaped by society cannot learn individually. - Experience is a process, and always historically specific. (Olesen, 2000, p. 172).

At AUC, the teaching principle "learning by experience" or "experiential learning" which makes a broad use of the concept "experience" is fundamental in its TVET educational programme. The students' experiences are used systematically and the principles "exemplary learning and problem based orientation" are applied in accordance with the concept of experience as understood and defined by German Critical Theory. This means also that experiential learning as practiced by AUC stretches itself between the cognitive, psycho-dynamic and the social dimensions proposed by the Danish author Knud Illeris (Illeris, 1999) in Figure 5. Illeris emphasises

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that understanding the interactions between these three dimensions is essential for understanding the learning concept. In our understanding, this figure summarises the experiential learning dimensions that AUC attempts to practice.
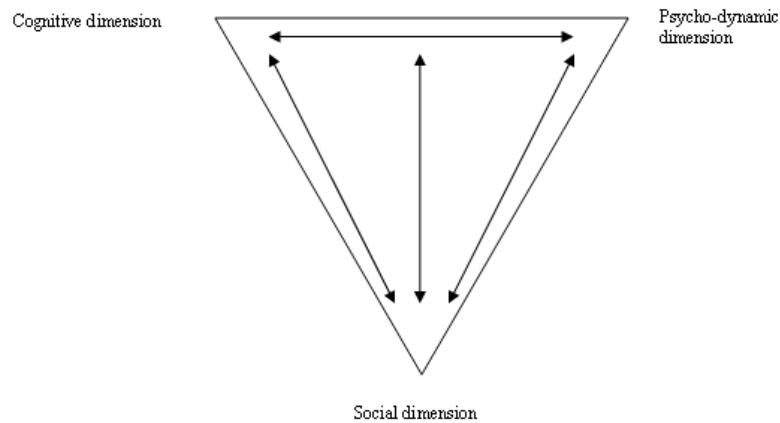


Source: Illeris (1999, p. 92)
Figure 5: The interactions between cognitive, societal and psychodynamic dimensions in the learning process

**Final comments**

Learning is an inexhaustible theme and many questions can be asked about what is the best way of learning. Will an integrated learning provide space for creative learning or knowledge creation? If learning ought to be creative, will there be no need for a basic and sound knowledge, which has been associated with reproductive learning? Must learning be productive? What about basic skills necessary for carrying out different tasks that require a high level of expertise? All these questions are frequently asked in debates about education and learning.

As a conclusion, it appears necessary to bring forward some ideas about productive and reproductive learning, and how they might be best reconciled, if reconcilable at all.

During the last 15-20 years reproductive learning has fallen to the bottom of the learning hierarchy, while innovative or productive learning is enthroned on the top (Elmholdt, 1999). This means that reproductive learning has been assigned a low status and it can be washed out under the enormous focusing on creative/innovative learning.

However, reproductive learning per se is an important type of learning in vocational training, especially when the focus is on the development of vocational skills and competence. Why is it so, when the present developments in learning theory seem to point out toward the direction of productive and innovative learning approaches? One argument is that a skilled worker, like a skilled musician, needs also to repeat work tasks over and over again, until the task is executed according a specific set of standards that assure the quality of a product.

Thus, Figure 4 must not be understood as expressing that reproductive learning is no longer applicable in vocational training. If one should be a carpenter, as an apprentice he/she will need to mount a window a number of times before he/she can accomplish tasks fast and efficiently, and according to a predetermined level of quality. It is rather so that the other learning methods that are presented in the figure are an addition and will have different weighting in different occupations. There is a big difference between a web designer and an aircraft mechanic. For a web designer, creativity has no limits because design is a creative profession while an aircraft mechanic has very limited opportunities to be creative in his/her practice. Procedures and rules must be followed perfectly.

In this paper we will not make any extensive discussion of this theme, but rather point out that the relationship between productive and reproductive learning generates questions that should also be included on the agenda, such as the following.

How will VET and TVET handle the large focus on creative / innovative learning when a significant number of occupations are learned through practice/training and performance in communities of practice?

VET and TVET meet significant challenges due to the change in industry and society, where both, reproductive and creative/innovative learning, are necessary. In vocational education, it is important that none of the forms of learning comes at the expense of the other. In other words: Is there a need to rehabilitate and uplift the status of reproductive learning?

AUC based the teaching on the principles mentioned above. How sustainable are these principles in future TVET where business - and society are constantly changing?

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# PLANNING INSTRUMENTAL TRAINING IN PUBLIC SCHOOLS- AN INTERACTION BETWEEN THE RESEARCHER, TEACHER AND STUDENT

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ABSTRACT

*The paper shows the different aspects of students' experiences of learning to play music in public schools. Is today's education in balance between the framework of the curriculum guide lines of Norway, the teacher's own musical skills and students' experiences and dreams? This paper is threefold. First, I describe the aim of the study and justify the selection method. Then I present the results from empirical data based on qualitative data from student interviews. In the third section I will discuss the practical utility of such research.*

Music education, public school, student interviews, national curriculum, local plans.

## Introduction

Music is one of several subjects, among other things, that are characterized by a low number of lessons each week and with characteristics that include concepts of well-being and a positive school environment. The school subject consists of three main activities: to make music, composition and listening. Within the activities making music (to dance, to play and sing music) we find, among other things, competence aims for all students concerning playing, singing and dancing. In this paper I will draw attention to how to learn to play an instrument. The Ministry's guidelines concerning how to learn to play an instrument is quite clear: all the students must have the opportunity to learn to play an instrument in school every year:

> This main subject area includes practical work with singing, playing various instruments and dancing in different genres and expressions on all year levels. (LK06, p. 138).

This guideline will provide music teachers with major challenges. To teach a large group how to play on a variety of instruments, will require competent lecturers and good framework conditions. The curriculum guidelines of Norway, LK06, also contain more specific competence aims after the Year two, Year four, Year seven and Year ten. Students should, among other things; learn how to play rhythm, melody and chords, and

they will play and sing either by ear or notes (p. 140-142). These frameworks should help to ensure varied ways to learn to play an instrument. The individual skills among both students and teachers can be very varied, which in many cases will require that the teacher must individualise how to learn to play an instrument to each student in class. I'm not sure if the teachers in school let students play instruments every year, and if there are any links between the Ministry's intentions and the actual teaching in the music discipline in school.

Many studies of the development of various national curriculum guidelines in recent decades have provided some knowledge of the changes in these guidelines. There is still a limited amount of literature that focuses on what students in Norway actually experience and learn in each subject (KD 2008-2009, p. 48). I want in this paper to present the results which are based on pupils' experiences of what is going on when students learn to play an instrument in public schools in Norway.

In this paper, I will, try to approach what we do in the concept of how to learn to play an instrument, and present results from a three-year study, based on group interviews with children from different years. There may be several factors that determine the scope and course with regard to how to learn to play an instrument, and one of the most important of these is probably the music teacher (KD 2009, p. 12).

The teacher's choice of repertoire and method can vary, not only from one school to another, but from one teacher to another. The conditions and framework in each school will also be a significant factor regarding how to learn to play an instrument. One of the most important pieces in terms of what actually is going on in schools is what instruments the schools dispose, and whether the music teacher has formal or professional experience how to play.

A study I conducted in 1990 among 314 teachers showed that music teachers often have a very different education and experience in the subject (Boee 1990). Updated figures from Statistics Norway (SSB 2007) shows that only six out of ten music teachers have credits in the subject. The figures do not tell if the music teachers know how to play rhythm, melody or chords, but nevertheless it gives some idea of the pupils' opportunities to play instruments in public school lessons. This paper has the following issue in the further presentation and discussion: *To what degree do students experience how to learn to play an instrument in correspondence with curriculum guidelines of Norway?* It will be interesting to clarify the factors which may prevent or help to meet

the national requirement.

**Method**

In Norway we have a tradition of substituting national curriculum guidelines every ten year, but the teachers' practice may not have changed with the same frequency. This paper tries to give some answers about the extent to which the music teachers included these guidelines in their own plans. I've tried to find some answers by using a qualitative method, based on the students' own experiences.

A design based on qualitative data, has proven to be suitable for mapping complex areas. Pupils' experiences from the school, turned out to provide plenty of complex data. Information in the form of a large number of dialogues, however, was very challenging to characterize in the analysis section. The fact that several persons put effort and time in this project, should lead to an improvement of the situation. It is therefore important that students, teachers and scientists participating in such a study discover practical use of their own contributions. I want the research to be an interaction between the University College and schools, and give something back, at least to the young people. What this new value will eventually be will be presented in the analysis section at the end of this paper.

A few years ago I got experience from using questionnaires. I discovered that it required painstaking follow-up, and many rounds of visits, to achieve an acceptable response research, and a sample that is representative. This resource was not available this time, and I was therefore forced to choose an either-or, and I chose to let the students voices speak in this research.

The employees at the selected schools in the study were drawn into the process in many ways, and it was constantly full transparency about interviews. Headmasters, team teachers and music teachers received feedback from the pupils' interviews, when I returned unedited sound recordings and full transcripts of what the students expressed. No lines were censored, and audio recordings were brought back to schools in the form of a CD without "clipping". In addition, I prepared a report that is available "for all" on the Internet, via the library website "HiST Brage"  Soer-Troendelag University College. The Internet link is:  http://idtjeneste.nb.no/URN:NBN:no-bibsys_brage_9342

Music Teachers across the country can read this, and they can copy and adapt practical tips and plans, and make them their own. As we see in this study in cooperation between the practice fields and the University College.

In my study I am interested in the experienced practice from how to learn to play an instrument in public schools. Some interesting questions that I want to find answers to include whether students of different ages experience how to learn to play instruments, and if they improve having been involved in school education? It will also be interesting to see if there is a correlation between the level and progress in education within public schools in the daytime and music- and culture schools in the afternoons? As a design to get a closer insight into this issue, I chose to conduct group interviews with students of varying ages.

I first sent out questionnaires to 600 parents at 11 schools in Trondheim. Two out of four schools with Year ten students could not participate in the study, for various reasons. Half of the parents gave their kids permission to be interviewed in groups of 4 to 5 students. Empirical data in this paper consists of responses from 275 students, distributed on 64 group interviews, conducted at 11 schools in the period 2006 - 2009. Students represent Year two, Year four, Year seven and Year ten. In the presentation of findings in this study, there will be considerable variation with regard to experiences from how to learn to play an instrument in public schools.

I chose these four years, because the skills linked to instrumental level are placed in these. I was able to compare the competence directly with the opportunities students may have to achieve these. If competence according to the curriculum guidelines of Norway should be that the students would master to play melodies, they must necessarily experience the activity to play on instruments on which it is possible to be play melodies. The study shows clear trends in connection with the activities that are somewhat deficient in order to meet the national requirements.

I made sound recordings of the group of students between 7 and 15 years old. The most important data source for this study is therefore taped interviews. I asked questions from several areas in the music discipline, not just instrumental. Students got seven questions, and I will in this presentation draw out two, which is directly related to the issue of this survey: "What do you do in music lessons, and what do you want to do and learn in music." The recordings made it possible to write down what the children and young people told me, and I have made a very limited selection of lines presented in the next section. I gave each of the statements in the presentation section a reference which is set

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in brackets. One example is this: "(4B6)". This represents Year four, school B and group No. 6.

A survey, presentation and analysis like this are not objective. I, the researcher, make my own priorities, both in the selections of questions in the interview phase, and also in the selection, categorization and presentation phase. In this paper the presentation of pupils' lines is significantly reduced. Which "glasses" do I put on when I select, and interpret the pupils' statements? In this process, I can't either ignore or forget the ten thousand music lessons that I have as an experience from the school. I recognize the situation when students tell stories from music lessons, and listen very well when they tell it in the same way and have the same opinion that I have myself.

## Adaptation to the individual student

I would like to include pupils' voices just because instrumental teaching according to the national guidelines ought to be adapted to the individual student. The student ought to be the most important piece and stay in focus of all education. In the book *From the child's point of view* (Fra barns synsvinkel), written by Brit Johanne Eide and Nina Winger Eide (2004), we can see that the children have been marginalized in the research of their own world.

> Asking children what they think about their own experience from school or to invite them to comment on their reviews about the upbringing and education situation in the home, nursery or school has not often been done in this perspective. (p. 23).

What does a teacher for example know about the student's music preferences? I remember in particular a survey a few decades ago; the conclusion was that students preferred classical music. How could the researcher document these results He had reached the conclusion by asking the teachers about what genres they believed the children preferred? But what can adults know better than the kids themselves, about their own music preferences?

If you choose to ask children and young people directly about their own experiences, you cannot hedge against, or eliminate unexpected negative response. The Swedish music educator Patricia Hagholm (2001) asks in a project student from Year six about what their wishes are concerning music lessons. One student responds: "change teacher (byta lärare)" (s.2). The students in my survey, turned out to have a very positive

attitude towards their teachers. A music teacher should be prepared for both positive and negative response in the mapping and in interview situations.

The study shows that only four out of ten students experience instrument training in music lessons. Students should play on instruments every year, according to national guidelines, and shall in addition to this demand:

> Participate in performances with the ensemble, play simple melodies and ostinatos, perform with instruments, experiment with instruments, be able to play simple melodies, improvise with instruments, use the music's basic elements, use chord progressions when playing an instrument. (LK06, my summary from Year two to Year ten, page 140-142) .

To ask students, will be a good starting point for a music teacher to make plans in connection with their own teaching. This paper shows what students from Year two to Year ten tell stories about how to learn to play an instrument. In the presentation I will first give a brief overall picture that shows the main activities that predominate the music lessons of today, and try to discover if something ought to be changed.


**My findings in the study**


The students in my study spoke mostly in a positive language. They dreamt about playing an instrument in music lessons. The summery of all the other wishes for more activities like singing, dancing, composition and listening, can not be compared with this strong desire to learn to play an instrument. Otherwise, the study showed that students feel that they don't play too much, and that schools have too few instruments and that they just to a small extent used instruments that the students themselves wished to learn to play on. There is also minimal correlation between education in public schools and what they experience in music- and culture schools and marching bands. My students told me about singing, playing and dancing. The study shows that 27 of 64 groups that were interviewed had experienced regarding how to learn to play instruments in public schools. This corresponds to 42% of all the 275 students who participated. Among students from Year two none told about this type of training, while all of the students from Year ten had an experience with instruments in music lessons. This graphic overview presents the responses from a sample of 41 group interviews. The students are from Year four and Year seven. Contents of the music lessons on the

Year four and Year seven in the period 2006-2007:
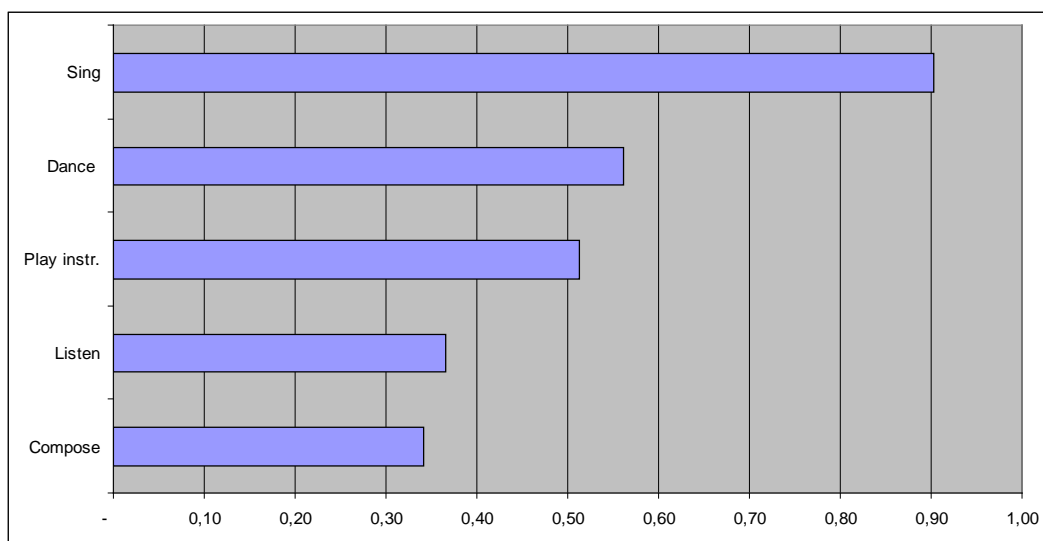


Figure 1. 41 groups on Year four and Year seven tell what they feel they do in music lessons

Figure 1 shows that 9 out of 10 students sing in Year four and seven, and that song is the dominant activity among 9 and 12-year-olds in Norwegian schools today. The answers I got from the youngest and the oldest ones in my study, was hard to count and put into "yes or no"-categories. It seemed like all sang in Year two, and very few in Year ten. The students didn't answer me with the words yes or a no. In Year two they started to sing during the interview, and in Year ten they spoke about evaluation and A's and B's in stead. In Year two we also find that to sing is the activity that is most often associated with the music subject. On Year ten they say that they don't sing so often in school. For these young people the theory parts in music are more stressed.

Students sing for a large part of their music lessons, but their dreams are often about other activities, such as how to learn to play an instrument. Figure 2 shows the wishes and dreams of 275 students from the Year two to Year ten. The students communicate nearly 200 dreams. This figure should be a very important source and information connected to local curriculums written by local teachers in the subject music.

Dreams for the music subject:
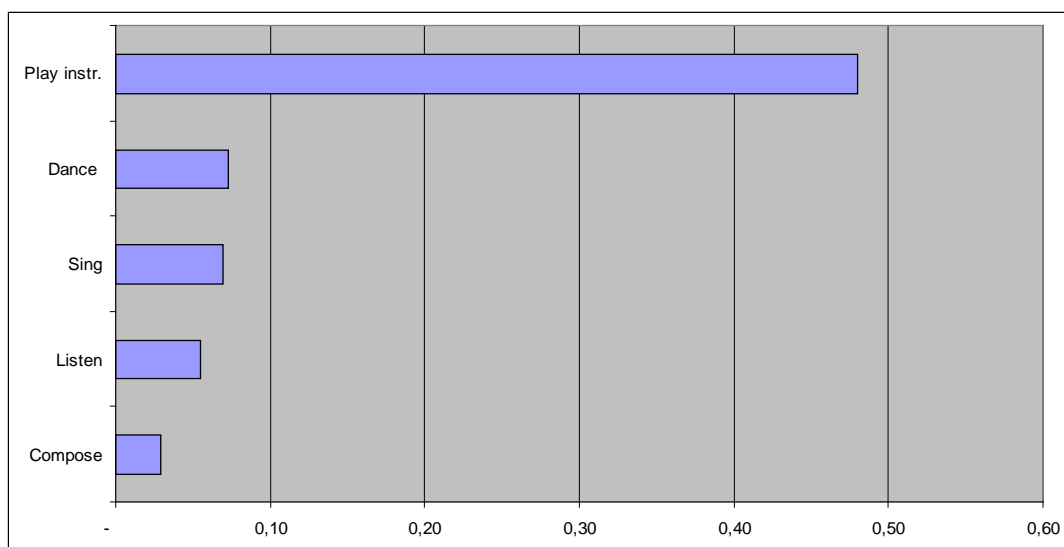


Figure 2. Dreams and wishes by category how to learn to play an instrument, dancing, singing, listening and composing. Half of the 275 students want to play

Half of the students in the total section of 275 students want to learn to play an instrument. We can see from Figure1 that 21 of 42 the groups, or 51 % of students from Year four and Year seven learn to play instruments in school. Careful categorization of student responses shows that the students who have a dream about this activity, do not get the opportunity in school today. This should lead to the conclusion that several schools ought to change the priority within the discipline, and increase the amount of instrumental teaching in next year's planning.

**How to learn to play an instrument in Year two**

Students at Year two have almost no experience of playing instruments in music classes at school. They speak about the activity, and have a very strong desire to play. Some seven year old students even play in a rock'n'roll band, while others learn to play instruments at the music and culture school. Most of the students at this age, however, learn to play at home, with parents or relatives as supervisors. Several of the smallest ones have a plan to begin to play at the music and culture school music after they first

learned to play the instrument at home. Students from Year two include the family into their answers, and responds to my question: "Do you learn to play here at the school?"

> *"No. But I might like to learn to play. Do not know. I'd like to play the trumpet. Tuba. Maybe drums. Flute. Violin, I have violin at home, at my grandfather's house. I have a harmonica home at Dad's house, and a drum." (2I2).*

Seven years old pupils mostly want to learn to play the drums, guitar and piano. The study that includes 78 students at the Year two shows that these three instruments are the most popular.

**How to learn to play an instrument on the Year four**

How much do the students at this age express a desire to learn to play an instrument? To get closer to an answer, I asked the following specific questions: "Do all of you in this group learn to play instruments in the music lessons at school during school day?" The student's response was yes, but was often changes to this one: "No, not really." An indication of the joy of playing is when the student who joyful told that she had learned to play on the *rectangle*! She probably meant to say *triangle*. But she had learned to play, and was happy and on the track of the correct word! 4 out of 10 students on Year four experience to play on instruments in the school, which is average for the entire study with 275 students. Rhythm sticks are the instrument that is mentioned most often in school education, while the keyboard and piano is not normally used as instruments in schools. But keyboard and piano are the instruments the students most often learn to play in the afternoons at the music and culture schools.

And what would a 9-year-old student do, if she can choose activities? Students would choose other subjects, and for example say like this boy, with a smile to the unknown researcher in the room, that gymnastics is the best subject in school, and not music. "What do you want to do in school?" I ask, and they would respond:

> *"I want more gymnastics." (4C1) "Play drums, piano or guitar. Guitar and drums. Do whatever we want to do! Played more on the instruments, we don't do that as much as we want to."(4A1)*
> *"What is the best experience?" I ask. "Playing drums!" "Have you played the drums?" I continue. "No, not before, no." (4A2). "Played. Run. Made our own songs. Played on different instruments. "4C1).*

More than half of all the student's dreams on the Year four, is the wish to play on instruments. The following chart provides a graphic illustration of how many students at Year four that plays what kind of instrument at the music and cultural school. 16% or 15 of 97 students play. We see that it is a relatively large variation in the choice of instruments. These students are nine years old.
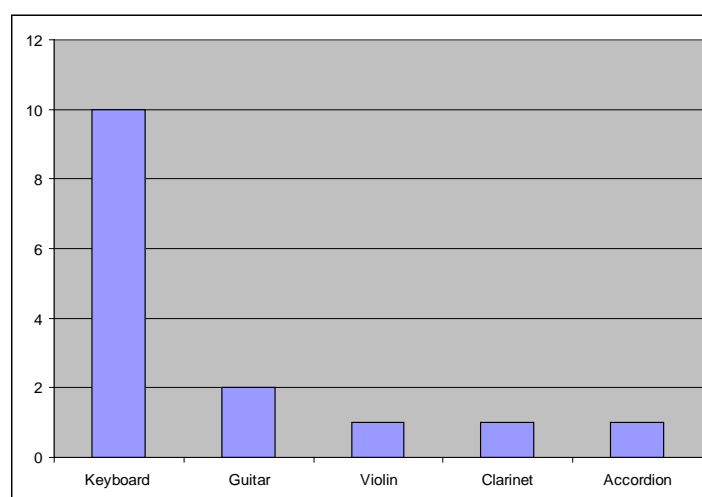


Figure 3. 15 out of 97 9-year-old students play these instruments at the music and cultural school

## How to learn to play an instrument on the Year seven

On the Year seven we find a lot of the same results as for Year four, both with respect to activities in school, and instrument distribution in the music and cultural school. No students in this study have experiences with the piano and keyboard in the music lessons in school. 14 of the 167 students at Year four and Year seven play on the piano, keyboard or accordion at the music and cultural school. Four of these are from Year seven, and ten from Year four.

You'd think students at Year seven play on band instruments in school? When I asked the 12-year-old students: "Do you play on electric instruments in school?" they answered me:

> *"Yes, we bring it to the school ourselves, but there are two instruments in school and ..." (7G1        )*
> *"Yes, and then we perform." "What do perform with?" I ask. "We perform with what we chose ourselves, at least sometimes. We perform with piano, and if we bring other instruments from home, we can use them. Yes. "(7G2).*

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We see that only a few of the students play in bands, and they are always using their own instruments, which mean that this activity is not for all students in a group. 12-year-old students in the Year seven don't tell about an experience with band instruments. The interviews with the six groups on Year ten, however, shows that student at this age have experienced percussion, electric base, electric guitar, synth and microphones.

Has there been a progression regarding how to learn to play on instruments from Year four to Year seven? Yes, the study shows a positive trend: In Year seven, the number of groups playing in the school has increased relatively much. 7 out of 10 groups have an experience of having played on an instrument during this year. Two of the schools seem to be "instrument schools". Here, the students also play on the guitar. The regular instrument at the other schools in my study is rhythm instruments.

**How to learn to play an instrument on the Year ten**

On Year ten the young people tell about methods and organization in the situations when they learn to play on different instrument or in a band. They think it is okay to switch instruments during the period with instruments by rotating between several stations. They also want a greater differentiation in terms of level and progression. 15-year-old students say that they have experienced that they participated in the guitar course, and that they know some guitar chords:

> *"Yes, A7, D, G. We learned a little song like this." (U2).*
> *"A, G, A7, D. I play guitar, and both of my brothers also play guitar ". "Rotation is good organisation and method". (U15) .*
> *"It is pretty much focus on the guitar! It's the instrument that we've worked with since the eighth grade. " (U2)        .*
> *"Has anyone attended the music and culture school?" I ask. "I've done that. I have played on the violin and have played electric guitar. "" Yes, I have played on the electric guitar." (U14).*
> *"Would you play the trumpet from the marching band in the lessons in school?" I ask. "I just didn't want to do that". (U2).*
> *"What did you play in the music and culture school?" I ask. "Cornet, choir" (U11).*

15 of 30 students from Year ten played in band or played band instruments in the afternoons. This high number is from my personal experience, not representative for the Year ten. The five students from the school U2 are very interested in music, and give an overall positive impact on the proportion of active musicians in Year ten.

A summary of progression from Year two to Year ten, says according to my study that it is a positive trend. Students have a strong dream about to learn how to play on instruments. The two factors that determine whether if the student learn to play, according to my interviews, depends on which year the student attends, and which school and teacher the student meets, and that a lack of education on instruments often are compensated by a offer from a private institution in the afternoons.

**Discussion**

My study shows that a new curriculum does not automatically change the teacher's practice in school. We know that the unwritten curriculum at one school will sometimes have just as much effect in the classroom as the new national official curriculum. In my study, I found that if teachers should choose instruments customized for all students, and in addition listen to what the pupils' want to learn, it must include a variety of instruments. This is exactly what the national guidelines also tell us. To change practice in a subject, even though in music, can be a long process. I have mentioned in the introduction to the method section that I have studied a variety of curriculum texts in connection with this survey, but still I don't know what these teachers actually set out in practice. A plan provides only information about what the teacher plans to implement. Some of the pupils' experiences when they learn to play instruments are consistent with national intentions, while other statements point in the opposite direction. Geir Johansen (2004) writes in an article that: "We must distinguish between the plan as it is formulated and the plan as it is realized" (Johansen, p. 112). He concludes the article by saying: "It seems therefore very difficult to predict what kind of music education students actually receive, reading a curriculum text" (p. 118).

**Final reflections**

Students meet many "musical supporters" in and outside school, with expertise in music. These teachers are an important resource, and contribute in their own way of musical development. During the lessons in school, students can meet these, by means of music teachers, but also when students sing English songs with English teachers,

dance Linedance with teachers in gymnastic, play keyboard with teachers from the music and cultural school and dance hiphop- dance with teachers from private dancing institutes.

Music Instruction in the public schools has lot of "extra wheels". It will be important that all these wheels are rolling in the same directions and at many times also at the same speed and rhythm! But it is not always like this. My study shows that there even will be possible for some of the students to carry out the school's music education, without having contact with instruments, or learning how to play an instrument in the course of 10 years and in any case the first seven years.

The music teachers don't always have credits in the subject music. Reports from the OECD (2005) refer to research that points to the importance of teacher expertise is the pupils' learning (KD 2008-2009, p. 48). The English researcher Anne Bamford (2008) points out in her book *The Wow-factor*, the importance of quality in education in the arts subjects and pupils' learning. Bamford's study shows clearly that a trained, experienced and "good" teacher gives the students the best education. Students do not always benefit from a subject taught by unskilled teachers.

Students in this study can contribute with useful input with regard to the specific choice of repertoire, and instrument selection and also in connection with the methodology. Teachers have their freedom in the choice of method, according to LK06, but my study still provides useful input regarding this. The study provides clear indications of what the students feel good or bad concerning learning and challenges. Students at Year seven provide several examples of weak methodology, which in turn affects the motivation and the learning effect:

> The teacher speaks through the entire lesson, we sing together all the time, we sing the same songs every week, they who want, are allowed to play instruments, those who own electric guitars themselves can play at school, only five girls in Year seven out of 60 students are allowed play in band during the week etc. (7B-G).

The study clearly supports that all the students should have the opportunity to learn to play on a variety of instruments, such as the guitars, the drums and on the piano every year, from Year one to ten. To sing, dance and play, can be seen in connection with the subjects English and Physical Education, and also with the education given by the music and culture schools in the afternoons.

In this paper, I have tried to look at the situation from the pupils' perspective. The study takes the young voices seriously. Music teachers should know that it is a very inspiring

and motivating process to ask and listen to answers from creative, bold, sparkling, singing, playing and dancing students! An interaction between the researcher, the teacher and the students will be helpful in the process to realize the student's dreams with respect to the music lessons in public schools.

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# CREATIVITY IN PRE-SERVICE TEACHING OF L2 STUDENTS OF ENGLISH

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ABSTRACT

*This paper deals with creativity in pre-service teaching of L2 students of English. The aim of the study is to investigate the level of creativity in student teachers' organisation of the communicative activities in teaching their first lessons and the extent to which student teacher-created activities enable learners to use language creatively. To achieve the aim a body of student teachers' lesson plans was analysed. The findings show that creativity is an important feature of student teachers' lesson planning. The results of the analyses indicate that factors such as learner age, level of language knowledge and part of the lesson influence the level of creativity in L2 class. Implications for further research are pointed out in the conclusive part of the paper.*

Key words: pre-service teaching, student teachers of English, lesson planning, creativity, creative use of language.

## Introduction

Creativity (productivity) is one of the design features of human language (Widdowson, 1996). It may be defined as "the capacity of language users to produce and understand an indefinitely large number of sentences, most of which they will not have heard or used before" (Crystal, 1997).

Creativity, i. e. the ability to produce and understand novel sentences is one of the main aims of foreign language learning. Communicative language teaching, the dominant approach to teaching foreign languages today, drew on two fundamental dimensions of language - creativity and functional and communicative potential of language. Richards and Rogers (2001) distinguish three principles of communicative teaching. The communication principle states that activities that involve real communication promote learning. The task principle claims that activities in which language is used for carrying out meaningful tasks promote learning and the meaningfulness principle states that language that is meaningful to the learner supports the learning process.

The desired goal of communicative language teaching is communicative competence. It refers to "what a speaker needs to know to communicate appropriately with a particular language community" (Saville-Troike, 2006:101). In order to learn how to

communicate effectively and appropriately a learner is to be provided with the opportunities to use the target language not only as a code and as content but as a skill and a means of communication. Therefore, two types of activites may be distinguished in the communicative language classroom: pre-communicative activities (structural and quasi-communicative activities) and communicative activities (functional communication activities and social interaction activities) (Littlewood, 1981:86). While pre-communicative activities enable learners to (re)produce accurate grammatical structures, communicative activities encourage learners to use language creatively, i.e. to engage in communication that is likely to occur in natural setting.

When organising lessons in a foreign language classroom teachers do not use only the procedures and activities that are set by the teaching method and the textbook author but they develop their own teaching activities and materials that meet the needs and interests of a particular class. By creating own activities teachers tend, among other things, to encourage and motivate learners to participate in classroom interaction and thus improve the ability to communicate in the target language.

Creativity is considered to be one of the characteristics of a good language teacher. Future teachers of English believe that creativity is one of the most important characteristics of a good language teacher (Čurković Kalebić, 2006).

This study deals with creativity in pre-service teaching of L2 students of English. The concept of creativity is considered from two perspectives: student teachers' creativity in organising teaching activities and creativity in learner language use that is promoted by student teacher-created activities.

**Aim of study**

This study focuses on first teaching experiences of future language teachers in terms of students' creativity in preparing activities for their first lessons and in terms of the objectives of teacher student-created activties.

The study atempts to answer the following questions:

1. To what extent are student teachers creative in the organisation of teaching/learning activities in their first teaching experience?

2. To what exent do student teacher-created activties enable learners to use language creatively?

**Database**

This study was carried out on a corpus of 88 lesson plans written by 44 undergraduate students of English language and literature at the University of Split, Croatia, during their initial teaching practice training. Each student wrote two formal lesson plans, one for teaching in elementary school and one for teaching in secondary school.

**Procedures**

First, lesson plans were analysed in terms of the authorship of the communicative activites. A distinction was made between other- and student teacher-created activites. The category of other-created activities refers to "ready-made" activities, i.e. activities in coursebooks, activity books or teacher's books. The category of student teacher-created activities stands for any activity that was designed by a student teacher and for which the student prepared materials (texts, exercises, visual support). Second, student teacher-created activities were analysed with respect to the type of language production (use) they tend to promote. Thus, a distinction was made between the activities intended for the accurate use of code (pre-communication) and the activities that promote creative use of language (real communication). The classification with respect to the type of language use is illustrated by the examples from the corpus.

a) Activities intended for the accurate use of code

*Example 1 (Lesson plan 68)*

*Stage 5: practicing modal verbs*

*Objective: to help learners master the use of modal verbs of probability*

*Procedures:*

- *learners are given sentences*
- *learners use words in brackets and rewrite the sentences using modal verbs*

*Grouping: pairwork*

*Aids and materials: student teacher-created material*

*Estimated time: 5 minutes*

b) Activities intended for the creative use of language

*Example 2 (Lesson plan 62)*

*1.2. Warm up: association game (family)*

*Objective: to arouse learners' interest for the new topic*

*Procedure (the sheets of paper are already on the board):*

- *tell the learners they are going to play an association game and explain how the game is played*
- *divide them into three groups A, B, and C (each row is one group)*
- *ask the learners to name the box that is to be uncovered (e.g. B1)*
- *each group makes one guess at a time*
- *the group that guesses the word for each column gets one point and has to explain other words in that column (if the guess before every box is uncovered)*
- *the group that guesses the final word gets three points*
- *add the points for each group*
- *the group that gets the most points is the winner*
- *aids and materials: student teacher created material, board*
- *grouping: whole class*
- *estimated time: 10 minutes*

For the purpose of data analysis the following stages of the lesson were distinguished: warm-up activities (activities organised at the very beginning of the lesson whose aim is to prepare and motivate learners for learning in that lesson), revision (reviewing previously introduced contents), introducing new language (presenting and explaining new language structures), practising new language (using new structures), round-up (activities organised in the conclusive part of the lesson).

To analyse the communicative value of student teacher-created activities a classification of the activities was made on the basis of the types of activities that are found in foreign language teaching methodology books (for example Johnson and Morrow, 1981, Stern, 1992, Hedge, 2000). The following types of communicative activites were found in the sample: question and answer sets (a distinction was made between display questions, i.e exam questions to which the asker already knows the answer (e.g. *How do you spell "birthday"?*) and referential questions, i.e. real questions to which the asker does not know the answer (e.g. *What did you do yesterday afternoon?*)), conversation, game, quiz, interview, role-play and discussion.

**Results and discussion**

There were 430 communicative activities in the student teachers' lesson plans. Out of that number, 209 activities were found in the lesson plans for elementary school teaching whereas 221 activities were noted down in the lesson plans for secondary school teaching (Table 1).

Table 1: Distribution of other- and student teacher-created communicative activities in the sample

| Type of school | Number of other-created communicative activities (%) | Number of student teacher-created communicative activities (%) | Total |
|---|---|---|---|
| Elementary school | 90 (43%) | 119 (57%) | 209 |
| Secondary school | 112 (51%) | 109 (49%) | 221 |
| Total | 202 (47%) | 228 (53%) | 430 |

Findings show that creativity is an important feature of student teacher lesson planning; more that one-half (53%) of the communicative activities in the analysed lesson plans were created by the student teachers. Student teacher-created activities and materials were more frequent in planning lessons in elementary than in secondary school teaching. Lesson plans for teaching in elementary school contained more student teacher- than other-created activities whereas in secondary school lesson plans it was the opposite, other-created activities were slightly more present than student teacher-created activities. These findings seem to indicate that the degree of student teachers' creativity in lesson planning might depend on the age of learners and the level of learners' language knowledge; the younger the learners are and the lower the level of their language knowledge is, the more creative student teachers are in preparing their lesson plans.

Table 2 Distribution of other-created communicative activities in student teachers' lesson plans

| Type of activity | Type of school | | Total |
|---|---|---|---|
| | Elementary school | Secondary school | |
| Warm-up | 7 (8%) | 15 (13%) | 22 (11%) |
| Revision | 15 (21%) | 2 (2%) | 17 (8%) |
| Introducing new language | 17 (19%) | 15 (13%) | 32 (16%) |
| Practicing new language | 40 (44%) | 76 (68%) | 116 (57%) |
| Round-up | 11 (12%) | 4 (4%) | 15 (7%) |
| Total | 90 (46%) | 112 (54%) | 202 (100%) |

Other-created activities are not equally distributed in the lesson plans (Table 2). Activities for practising new language are much more frequent than other types of other-created activities; more than one-half of other-created activities belong to this type of activity. It is the most frequent type of other-created activities in both elementary and secondary school lesson plans. Activities for introducing new language and warm-up activities are second and third in frequency respectively. Students' relying on other-created activities to introduce new language was more frequent in elementary than in secondary school lesson planning. As for warm-up activites, student teachers used more "ready-made" activities in secondary school lesson plans than in the plans intended for teaching in elementary school. Other types of other-created activities (revision and round-up) were not significantly present. However, it has to be pointed out that when planning these types of activities for elementary school teaching student teachers depended more on other-created activities than when planning their lessons in secondary school.

Table 3 Distribution of the types of student teacher-created activities

| Type of school | Activities intended for accurate production | Activities intended for creative language use |
|---|---|---|
| Elementary school | 70 (59%) | 49 (41%) |
| Secondary school | 62 (57%) | 47 (43%) |
| Total | 132 (58%) | 96 (42%) |

The results presented in Table 3 show that in the whole sample more student teacher-created activities were intended for accurate production of language than for creative language use. This is true for both types of schools, i.e. for different levels of language teaching.

Table 4 Distribution of the types of student teacher-created activities intended for accurate production

| Type of activity | Type of school | | Total |
|---|---|---|---|
| | Elementary school | Secondary school | |
| Warm-up | 4 (6%) | 14 (23%) | 18 (14%) |
| Revision | 12 (17%) | 3 (4%) | 15 (11%) |
| Introducing new language | 18 (26%) | 15 (24%) | 33 (25%) |
| Practicing new language | 31 (44%) | 26 (42%) | 57 (43%) |
| Round-up | 5 (7%) | 4 (7%) | 9 (7%) |
| Total | 70 (53%) | 62 (47%) | 132 (100%) |

Practicing new language was the most frequent student-created activity intended for accurate language production (Table 4). In both types of schools it was the most frequent activity created by student teachers. Second in frequency was introducing new language. Other student-created activities were less frequent and their distribution varied with respect to the type of school. Thus, student teacher-created warm-up activities intended for accurate language production were much more frequent in secondary than in elementary school lesson plans. On the other hand, creativity in organising activities for reviewing language structures and content was more pronounced in lesson plans for elementary than for secondary school. Activities that students created for rounding-up the lesson were equally present in students' lesson plans in both types of school.

The findings show that students were the most creative when planning the activities for the main part of the lesson. This is not surprising since in this part of the lesson the majority of activities are organised. A significant amount of self-designed activities for revising language contents in elementary school seems to indicate that students believe that learners at this age and language knowledge level will be more successful (and perhaps more motivated) if they revise already grasped contents in novel ways, i.e. if

they are engaged in new communication patterns. The same explanation may be provided for the extensive use of novel, student teacher-created warm-up activities in the secondary school lesson planning. The aim of these activities is to tune the learners in the new lesson by using formerly acquired language items and structures in a motivating way.

Table 5 Distribution of the student teacher-created activities intended for the creative use of language

| Part of the lesson | Elementary school | Secondary school | Total |
|---|---|---|---|
| Introductory part | 15 (30%) | 8 (17%) | 23 (24%) |
| Main part | 12 (25%) | 20 (42%) | 32 (33%) |
| Conclusive part | 22 (45%) | 19 (41%) | 41 (43%) |
| Total | 49 (51%) | 47 (49%) | 96 (100%) |

With respect to the part of the lesson in which they were organised, student teacher-created activities that promote creativity in language use were not equally distributed in the sample. The findings show that these activities were the most frequent in the conclusive part of the lesson whereas they were the least frequent in the introductory part of the lesson. These results might be explained by the application of the general principles of organising foreign language lessons and the student teachers' expectations concerning learners' language ability. That is to say that the extensive use of student-created activities that promote creative use of language in the conclusive part of the lesson reflect the students' application of the principles of introducing new language. According to these principles (see, for example, Harmer, 1991) creativity in language use is the final stage of the process of introducing new language. So, it is not surprising that students planned majority of such activities in the final part of the lesson. However, findings indicate that the frequency of these activities, with respect to the part of the lesson in which they occur, might also depend on the learner age and expected learner ability. Thus, these activities were much more frequent in the introductory part of the lesson plans in elementary school than in the same part of secondary school lesson plans. Furthermore, greater presence of these activities has been found in the main part

of secondary school lesson plans than in the respective part of elementary school lesson plans.

Table 6 Distribution of the types of student teacher-created activities intended for the creative use of language – elementary school

| Part of the lesson | Type of the activity | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Q-A* (display questions) | Q-A (real questions) | Conversation | Game | Quiz | Interview | Role-play (written assignment) | Total |
| Introductory part | 10 (20%) | | | 4 (8%) | 1 (2%) | | | 15 (30%) |
| Main part | | 3 (6%) | | 6 (12%) | | 3 (6%) | | 12 (25%) |
| Conclusive part | | | 12 (25%) | 8 (16%) | | | 2 (4%) | 22 (45%) |
| Total | 10 (20%) | 3 (6%) | 12 (25%) | 18 (37%) | 1 (2%) | 3 (6%) | 2 (4%) | 49 (100%) |

*Q-A= questions-answers

An inequality in the distribution of the types of student teacher-created activities that promote creative language use in elementary school lesson plans might be noticed.

The most frequent type of such activities was a game. This finding is not surprising since games present not only the type of communication that occurs in natural language use but they are also motivating and contain elements of competition.

Conversation was second in frequency. This activity occured only in the conclusive part of the lesson. Its aim, as stated in student teachers' lesson plans, was to enable learners to express their own experiences and/or attitudes towards the content dealt with in the new lesson. Pseudocommunication (answering to display questios) was third in frequency; in the introductory part of the lesson student teachers often organised activities in which learners were to ask and answer questions about the known content.

Other types of these activites were not significantly present. However, it has to be pointed out that students showed a lot of creativity in designing activities and preparing materials, particularly for games.

Table 7 Distribution of the student teacher-created activities intended for the creative use of language – secondary school

| Part of the lesson | Type of the activity | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | Q–A *(display questions) | Q-A (real questions) | Conversation | Discussion | Quiz | Role-play (written assignment) | Total |
| Introductory part | 6 (13%) | | | | 2 (4%) | | 8 (17%) |
| Main part | | 2 (4%) | 4 (8%) | 14 (30%) | | | 20 (42%) |
| Conclusive part | | | 7 (15%) | | | 12 (26%) | 19 (41%) |
| Total | 6 (13%) | 2 (4%) | 11 (23%) | 14 (30%) | 2 (4%) | 12 (26%) | 47 (100%) |

*Q-A= questions-answers

In secondary school lesson plans discussion was the most frequent type of student teacher-created activity that promotes creative use of language. About one-third of these activities were discussions on different topics. Discussions were always organised during the main part of the lesson. Second in frequency were role-plays. These activities were always organised as written assignments in the conclusive part of the lesson; learners were first asked to write down a role-play and then to act it out in front of the rest of the class. Third in frequency was conversation. Other types of activities were less present.

The findings presented in Tables 6 and 7 might indicate that learners' decisions concerning the choice of activities for the creative use of language depend to a certain extent on the lerners' age and the expected level of learner language knowledge.

**In place of a conclusion**

The findings show that student teachers' lesson planning, i. e. organising activities in foreign language classrooms is a complex process that is influenced by a number of factors. Further research in this area should gain insight into the nature of decisions that students make in the process of planning their first lessons. Such research could contribute to better understanding of the process of becoming a teacher. Findings from such research would help toward the improvement of the organisation of teacher

education courses in general and practicum and school-based teaching practice in particular.

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# TEACHER'S KNOWLEDGE CREATION ON STUDENTS' MORAL PROBLEM-SOLVING STRATEGIES: AN ACTION-RESEARCH PROJECT

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ABSTRACT

*Aiming at the students' moral development, a two-month research project was held in a class of six formers at a Greek primary school. Focusing on the teacher's journal, this paper examines the way in which she engaged students in challenging school-situated practices, thus creating new knowledge on at least three levels: (i) motivating students to examine moral norms and values (e.g. based on Brecht's The Caucasian Chalk Line), (ii) applying techniques for the monitoring of their ability to tackle moral dilemmas (using pre- and post-questionnaires) and (iii) adopting flexible teaching approaches, thus connecting curriculum with real life moral problem situations.*

*Key words: knowledge creation, moral conflict, life problem situation, The Caucasian Chalk Circle, action research.*

## Introduction: Teaching moral development in multicultural classrooms

The cultivation of students' moral development in the sense of moral reasoning and acting in a philosophically autonomous way (Power, Higgins & Kohlberg 1989; Alexander, 2003) is of urgent need in the socio-cultural context of postmodern age of today (Lyotard, 1979). It allows students to face conflicting values, participate in value-oriented discourses and be involved in establishing and even altering normative moral rule systems. This process is of crucial importance especially in multicultural classrooms, where students come from diverse socio-cultural backgrounds, thus having different subjectivities and conceptions of morality (McLaren, 2003).

Greek primary teachers are frequently challenged to implement school practices within the curriculum for the improvement of their students' skills in generating genuine intellectual and emotional responses to real life situations (Frangoudaki, 2004). In doing so, not only do they employ novel teaching practices (Pont, 1996) but they also enhance their own academic and pedagogical background knowledge (Schoonmaker, 2002). More specifically, while educating students to promote their skills in social understanding and formatting concepts, ideologies and subjectivities, teachers can be

engaged in challenging school-situated practices and make students competent in negotiating solutions to life aspects of a personal or social nature.

The formation of a learning context for the promotion of students' moral education could effectively be realized in the field of Literature. Since this context is characterized by a weak classification and framing (we borrow the terms from Bernstein, 1990: 36-46), it does not stem from a sound scientific background, nor does it convey strict epistemological definitions. As a result, Literature –when taught as a school subject– is expected to have a particular efficacy in generating genuine emotional and intellectual responses in students, thus promoting their moral education. Moreover, the nature of the subject allows it to provide an "ecologically valid" context for the development of innovative learning environments built on flexible, child-centred instructional methods (Brewer, 2000).

Within the above theoretical framework, a research project was carried out in a sixth grade multicultural classroom of a Greek primary school, in order to help students improve their skills in generating genuine intellectual and emotional responses to real life situations. Supported by a teacher educator in the role of the teacher's mentor –since she exploited her interest in Literature and navigated her in creating challenging school situated practices– the teacher implemented an action research project which was held in field experience encouraging reflection and knowledge creation (Schon, 1983; Bullough & Gitlin, 2001: 159-180; Armstrong & Moore, 2004; Dana & Yendol-Hoppey, 2009). More particularly, based on the belief that stimulating "communication on values" in the mainstream school practices is an important part of teachers' professional task, the teacher encouraged students to analyze different perspectives, make comparisons and judgments and give their own opinion on real life situations (Veugelers, 2006). The whole project gave the teacher the opportunity to follow a research-based approach collaboration with a senior researcher, thus developing her reflection and justifying the decisions taken and activities engaged in through research methodology (Kansanen, 2006). This happened for the first time in her nineteen-year-career, giving rise to knowledge creation in teaching moral problem-solving strategies in a multicultural primary school.

The present paper describes the implementation of this project and examines the conditions under which students' conceptions of morality were formed and developed, resulting in changes in their moral attitudes (Nunner-Winkler, 1996; Oser 1996). The

methodology implemented by the teacher allows the monitoring of strategies she used while tackling the aims of the task (Cohen & Manion, 1994).

**The schedule of the project**

Given the difficulties children meet when confronted with problems of moral nature in everyday life, the teacher developed a two-month teaching intervention in a class of nineteen six formers at a primary school in the area of Western Macedonia, Greece. Following the theoretical principles of action research (Carr & Kemmis, 1986; Armstrong & Moore, 2004), the project was held in the Literature course and consisted of four complementary parts:

(a) the teacher and her mentor met regularly before, during and after the intervention in order to design the instructional and research methods to be applied, find solutions to problems arising, as well as gain feedback from each other;

(b) the teacher encouraged students to study certain literary texts concerning equivalent moral dilemmas and developed a series of child-centred procedures on the subject, thus exploring their feelings and gaining insights into their attitudes, values and perceptions;

(c) the teacher trainer had an in-depth interview with the teacher;

(d) the teacher trainer observed the final session of the teaching intervention in the classroom.

During the intervention, the teacher kept a journal where she recorded in detail the methodology she applied, as well as her everyday experience in the classroom. It is the *analysis of the accounts* of this teacher's journal that the present paper focuses on.

**The teacher's methodology: a description according to her journal accounts**

The teacher used a wide range of multicultural challenging texts posing similar moral problems (Johnson-Laird, 1989), so that students from various socio-cultural backgrounds could encounter them in their negotiation of moral issues:

i. D. Ioannidis (2004), *The Caucasian Story* – a novel in the literature schoolbook

ii. Bertold Brecht, *The Caucasian Chalk Circle*, which was included within the first text ("a play within a play")

iii. I. Sastre, *The Lost Doll* – a children's play – and

iv. The Old Testament, *Solomon's Story of the Two Women*.

Starting from the first story, as part of the curriculum, the teacher set a framework for delineating, enacting and discussing moral problems. The two first stories unfolded with a reference on a common problem, since two mothers (the natural and the foster one) claimed the same child. In the third story two girls claimed the same doll, while in the fourth one two women claimed the same baby – one of them being its natural mother.

The intervention was designed on the basis of the following initial assumptions: the texts conveyed a set of moral messages leading to possible interpretations; effective school based practices could be employed in order for the students to perceive moral messages and respond to them; the teacher could probe on the students' interpretations and promote them so as to be adjusted to their own cultural realities: *If you were in the position of the child, which mother would you choose to go with?". "How would you feel if you were in the chalk circle yourself?"*

The intervention unfolded in a total of six phases:

i. Reading of the schoolbook text including *The Caucasian Chalk Circle* and notional clarification of the moral problem posed.

ii. Examination of the students' perceptions, beliefs, attitudes and values concerning a parallel problem posed in the third story (*The Lost Doll*). Pre-questionnaire on the story.

iii. Approach to the last selected parallel text (*Solomon's Story of the Two Women*) through cooperative learning, workshops and assignments.

iv. Discourse on authentic analogies concerning problem situations from the lives of students and responses to them. Use of innovative teaching approaches.

v. Repeated examination (similar to that of phase 2) of the students' positions on *The Lost Doll* and detection of possible changes in opinion. Post-questionnaire on the same story.

vi. Reflection on the effectiveness of the intervention.

The students worked in groups in order to be involved in constructive criticism of views (Murphy, 1997) and were encouraged to play the devil's advocate as a way to reflect and evaluate their beliefs and the available evidence (Ikuenobe, 2002). They were also challenged to face conflicting values, participate in value-oriented discourses and be

involved in establishing or even altering normative moral rule systems, thus examining their views through processes of critical thinking (Mihalakopoulos, 2007; Moon, 2008: 125-137). In order to examine whether the students would make sufficient progress in resolving interpersonal and social dilemmas, the teacher relied on the following research questions:

- What were the students' positions on the specific moral dilemmas found in the texts?
- In what ways did the students' positions and interpretations of these moral messages evolve?

The teacher used two kinds of tools:

(a) educational material created for the development of flexible, child-centered methods and strategies –according to the principles of social models of teaching (Joyce, Calhoun & Hopkins, 2002: 32-34; Joyce & Weil, 1986: 215-305)– such as open-ended stories, real or imaginative scenarios, role play, dialogues and comics created by students;

(b) research tools in order to evaluate the progress in the students' concepts about moral values and social skills. These consisted of:

- the teacher's personal journal
- a pre-questionnaire filled in by the students during phase 2.
- a post-questionnaire filled in by the students during phase 5.
- a questionnaire for the evaluation of the project by the students.

The pre- and post-questionnaires were the same; they were built on and accompanied by the text of Sastre (in the form of an open-ended summary), which raised moral questions and was brief, almost de-contextualised and with mild emotional tension (a toy was the reason of the conflict).


**The results of the project**


The students confronted dilemmas and tried to solve moral problems posed in various conditions, coming out from the literary texts, as well as their own personal experience. They had the opportunity to express their opinion twice: before and after the study of the texts and their engagement in meaningful oral and written exchanges in the classroom. The teacher's progress in creating new knowledge on how to teach students so as to use moral problem-solving strategies corresponds to the students' readiness in

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responding to the question posed in the pre- and post-questionnaire: *"Is the first or the second girl of the story justified to be the owner of the doll?"*. Based on the Sastre's story, the question was used as a benchmark to evaluate the effectiveness of the program.

According to the findings, the majority of the students' answers (13 out of 19) in the pre-questionnaire implied a positive reaction to the acquisition of the doll by its original owner (*"she owned it because she had bought it"*). In the post-questionnaire, conversely, the students' positions (18 out of 19) were definitely in favour of the second owner of the doll (*"because she took care of it and loved it more"*). These findings reveal the students' critical attitudes about the equivalent dilemmas being present in the other three thematically related stories which underline the basic moral dilemma students had to deal with within the project: *"Is the natural or the foster mother justified to be the owner of the child?"*. The students' statements also manifest the extent to which their positions and interpretations about concrete moral messages have changed owing to the intervention. The notes the teacher kept in her journal prove the findings of the questionnaires and offer a more clear picture of her knowledge creation on teaching moral problem-solving strategies: the students learned to analyze criteria, to evaluate consequences and to search for assumptions behind alternatives: *"They compared the two women's behaviors"*. *"The students were encouraged to give their own end to the real story.... Then, they presented their stories"*. Being this so, they seem to have clarified value conflicts derived from the texts and given solutions, thus developing moral problem-solving attitudes and skills: *"A child belongs to the one who takes care of it"*.

The teacher engaged in responsive questioning techniques, thus prompting the students to make discussions upon the texts, make connections and see relationships. Her responsiveness to children's thinking was developed through close observation and a knowledge of teaching practices for provoking more sophisticated thinking (Horowitz et al., 2005: 110), as well as longer and more sophisticated comments on the texts (Banks et al., 2005: 244). Some examples included in her journal are (on the Brechtian story):

> "Why didn't the native mother save her child from the fire?". "What could you do if you were in her position?". "Why did the servant save the child?". "How did she do that?". "Was it an easy task?". "How did she bring the child up?". "What solution could the judge give to the problem?".

In addition, the teacher tried to organize a supportive, non directive and flexible environment, aiming at nurturing rather than learning effects (Joyce & Weil, 1986: 18-20). She created a climate of comfort and empathy for the students (Hart, 2009), thus setting a framework for analyses of their personal and social values and behavior, as well as for the development of their skills in negotiating moral issues and seeking for solutions: *"The students were provided with enough time to express their opinions within groups"*. *"They were asked to compare the two women"*. *"They were asked to complete sentences, writing down their feelings on the stories"*. *"They completed a questionnaire to evaluate the program"*. *"They were asked to orally express their opinion about the program they participated"*.

The aforementioned comments highlight the students' ability to define problems, make judgements, express their intrinsic feelings, gain insight and somehow achieve solutions to problems posed by the stories (Efklides, 2006):

> The children made interesting suggestions: the two mothers could share the time keeping the child with them; they could share the same house, so that they all live together continuously; the child could choose which mother would prefer to live with; the child could find out which mother loved it most; the natural mother should approach the child beforehand, buy him presents, show him her love and play with him, so that he gets to know her better before he finally decides which of the two mothers to choose.

The teacher also developed more inclusive assessment methods, thus engaging the students in meaningful work, revealing their attitudes and opinions on the subject matter under consideration and viewing them "as learners who have experiences, ideas, and home and community resources that can be built upon to help them master new knowledge and skills" (Banks et al., 2005: 253). In attaining this, she offered them the opportunity to refer to personal experiences similar to those of the stories' characters: *"I was disappointed with my friend, when he/she…." (complete the sentence with an imaginary scenario on what happened)"*. *"Our friendship was proved when… (complete the sentence with an imaginary scenario on what happened)"*. Students at different zones of proximal development were allowed to gain access to the various kinds of assistance they needed (Horowitz et al., 2005) and develop deliberate perceptual skills (De Bono, 1984), in order to respond to the questions they were asked: *"Many students asked details about the heroes of the stories, because they were in a difficult position to decide about the fortune of the child"*.

**Discussion: the teacher as a creator of new knowledge**

Under the light of the results, a change is revealed in students' attitudes about the ownership of the doll in the Sastre's story. As expected, they were successfully enlightened to clarify value conflicts deriving from the texts and engaged in critical thinking while selecting combinations of skills and strategies in order to process heterogeneous information in a logical manner, distance themselves from their personal convictions and prejudices, and "arrive at well-founded and logical inferences, substantiations and choices" (Matsagouras, 1997: 250). More precisely, based on forms of thinking such as analysis and reasoning they developed abilities and dispositions such as justification, value statements, inquiry and reasoning from premises, analyzing arguments, testing hypotheses, estimating probabilities and thinking creatively, reaching problem solving and decision making (Lipman, 1991: 40-46; Halpern, 1996: 30).

Their ability to put themselves "in someone else's shoes" and "act out" moral conflicts, form critical attitudes about dilemmas and change their positions and interpretations about concrete moral messages seems to have influenced their conceptions of morality and their ability to form moral judgments (Hart, 2009). The new knowledge thus derived from the project corresponds to a competency which seems to have concerned on both parts of the educational procedure:

1. the teacher herself, since she became competent in creating teaching practices for the negotiation of moral issues,
2. the students, who became competent in negotiating moral issues and solve moral problems.

As for the teacher educator in navigating the teacher, her ideas and suggestions seem to have enhanced the teacher's competency in implementing effective teaching practices: by creating a facilitative teaching and learning environment formed within the literary classroom, the teacher was helped to focus on the students' experiences and form connections among their attitudes, views and beliefs. As a learner as well as a teacher, she seems to have been engaged in challenging school-situated practices, learned new skills within her profession and constructed her own knowledge as a part of this learning (Murphy, 1997; Bullough & Gitlin, 2001). According to its theoretical background, the whole task may be considered as drawn on the Vygotskyan concept of social constructivism (Hua Liu & Mattheus, 2005). The outcome benefit seems to concern both the teacher's competency and students' skills in generating genuine

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intellectual and emotional responses to real life problems. Furthermore, it may be seen as a powerful avenue for promoting the teacher's professional growth in many ways: creating instructional opportunities adapted to diverse learners, promoting critical thinking and active inquiry in the classroom, basing the instruction on subject matter knowledge, students, the community, and curriculum goals, and reflecting on the teacher's teaching in order to improve it (Schon, 1983; Guyton, 1996: x-xi; Dana & Yendol-Hoppey, 2009).

All these kinds of knowledge are strongly connected to each other, as well as to the mentor's navigation under which the project was held, as illustrated in Fig. 1.
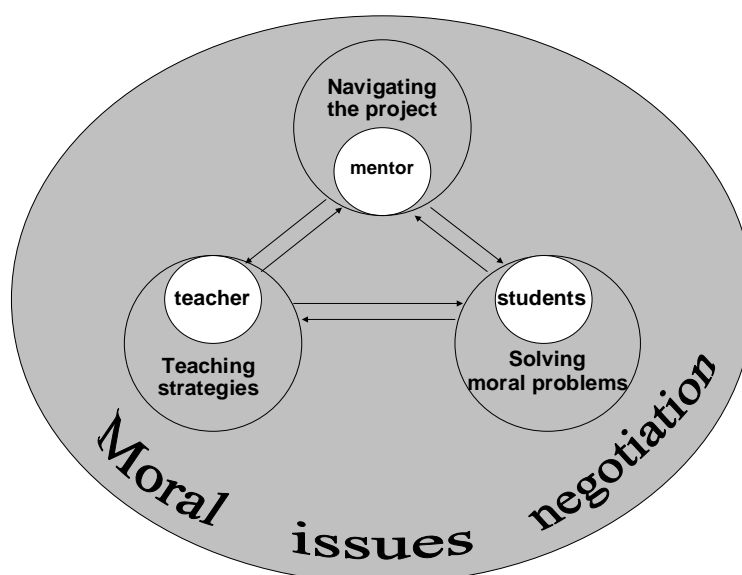


Fig. 1. Knowledge creation on moral problem-solving strategies: The bi-directional interaction of parameters within the project

Focusing on the teacher's contribution to the creation of new knowledge, we could maintain that she developed her competency in how to use school curriculum context in order to increase students' ability to face dilemmas and find solutions to hypothetical real life problem situations, giving them a sense of achievement (De Bono, 1984). Based on her understanding of the students' zone of proximal development, she appreciated how to assess and support their readiness for learning, as well as how to use that readiness to challenge her students to learn, thus making them able for developmental progress. While supporting students to reach the upper bounds of their

zone of proximal development, she managed to teach in a "developmentally appropriate" manner and adjust scaffolding to them (Horowitz et al., 2005: 105-106).

After a thorough examination of her accounts included in her journal concerning the methods she applied and the feedback she received from her students, it can be argued that her learning creation underpinned her own as well as students' creativity (Lubart, 1994) and was reflected in three levels: (i) in motivating students to examine moral norms and values (e.g. by choosing properly selected stories to teach), (ii) in applying techniques for the monitoring of the students' ability to tackle moral dilemmas (pre- and post-questionnaires given to students), and (iii) in organising a teaching intervention which adopted innovative teaching approaches (e.g. combining texts of similar theme and developing flexible child-centred activities).

Taking into account the project's results which cut across the above three levels, we could argue that through this intervention not only did the teacher cultivate her students' skills when dealing with norms and values shared by society in a specific socio-moral context, but also managed to enrich school curriculum with literary subjects that make the children's perceptual world wider. Moreover, instead of teaching a decontexualized set of skills to be passed from teacher to students, she connected curriculum and pedagogy in direct and intentional ways with the lives of children. On a theoretical level, her method is subjected to the collaborative interactive model of teaching and could be enrolled in a set of powerful models that widen perspectives on problems, generate lucid and creative writing and speaking, increase empathy and group cohesion and enhance the development of self and others (Banks et al., 2005: 247; Lubart, 1994).

In other words, the model she applied focuses on the individual and on the shaping of human groups that support one another's struggles to achieve meaning and strength for self-responsible self-determination (Joyce & Weil, 1986: 139-214).

On the other hand, provided that not only did the students come from diverse socio-cultural backgrounds but also the texts referred to contexts of different eras and places, the teacher built a culturally responsive practice while making a step in educational research (Dana & Yendol-Hoppey, 2009). Based on the material of the intervention, she formed tools in order to assess students' progress in solving moral problem skills. This skill has a positive impact on her professional development, evoking her to build a "know how" in implementing school practices for the improvement of students' skills in negotiating moral issues, thus engaging her in action research efforts and empowering her as a decision maker and a self-regulated professional. Her feedback from students'

learning through reflective processes can be considered as metacognition on her part (Efklides, 2006). The creation of social messages thus is expected to have influenced her for a positive sense of identity and an academic self concept.

Moreover, while the teacher seemed to be sensitive to the social messages students receive from the media and the society, her knowledge creation overcame her technical competence in teaching skills –such as leading discussions and managing groups– and incorporated the various cultures, experiences and needs of students. In this way, her knowledge in teaching diverse learners significantly influenced what students learned and the quality of their learning opportunities (Banks et al., 2005: 243).

Going a step further, we could argue that the intervention seems to have been highly effective on students' achievement on meaning and strength for self-determination. According to the teacher's journal, which comprised feelings, judgments and estimates as a metacognitive experience (Efklides, 2006), *"All students engaged in meaningful work in order to become responsible members of both the classroom and the wider community"*. This judgement can be supported by an indicative fact which took place a few days after the end of the project: *"A problem was created concerning the use of the basketball court during the breaks: the students worked in groups and solved it immediately by finding a solution, all by themselves"*.


**Conclusion**


To sum up, we should agree that forming a powerful educational environment the teacher successfully combined the curriculum and instruction in order to help students understand moral problems and clarify value-based actions in the moral and social domain. Using Literature as an abundant cognitive field providing a large and flexible range of topics, she combined thematically related texts on moral conflicts in order to reveal the multifaceted and heterogeneous aspects of the social world. Through a thorough examination of characters, actions, objects, norms and rules deriving from the texts, she offered students the opportunity to set conditions for the critique of conventional rules and the formation of their own values. Enlisting them in a teaching-learning partnership, she encouraged them to connect the characters' adventures with their personal ones in a climate of sharing and empathy. As a result, it would not be an overstatement to say that the teacher managed to penetrate the students' perceptual

world on moral issues, thus helping them clarify their moral self and accept responsibility for their decisions and activities (Colby & Kohlberg 1987).

Taking all these facts into consideration, we conclude that the project could be viewed as an example of "good practice" in enriching the personal qualities of students, creating empathetic reactions to others and leading them toward mental and moral perceptions which promote moral development and self-concept. The teacher's engagement in inquiry processes aiming at facilitating the students' moral growth and development resulted to the creation of her knowledge on how to increase her own personal technologies for acquiring "fresh" ideas and skills, thus making one more step to her professional development (Dana & Yendol- Hoppey, 2009).

Although specific and local, the intervention could represent a significant contribution to professional understanding and so should be shared. Furthermore, it could serve as an impetus for future research on what teachers need to know and be able to do (Levine, 2006) within the field of moral education.

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# WHO BECOMES TEACHER IN HUNGARY?

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ABSTRACT

*In September 2006, the Institute of Pedagogy at the ELTE University Pedagogy and Psychology Faculty initiated an action research to monitor the operation of the BA teacher's training and the academic specialization of educational sciences as well. Goal of the research was to find out how the system can be effective in the framework of the new, two level higher education system. Professors from the teacher training and educational sciences were involved into the research group.*
*The following description summarizes the process and the theoretical background of the research and introduces the family and socio economical background of the students studying at the BA course.*

## Hungarian context

Expansion has been perceived in Hungarian Higher Education since 1990's, parallel to the expansion of secondary education. The expansion is revealed not only in the number of participant, but also in number of institutions being involved in Higher Education. The increasing number of students was a consequence of a regulation in 1996, which made possible for applicants to have entrance exams without limitation. In addition to this possibility, private financed education was permitted beside the public financed education in 1997. This influenced not only the number of participant but also their motivation. (Kocsis, 2003). The Bologna-process has began under this circumstances, and due to this conditions, the motivation of key players were very low, they were not interested in the changes, but the State did not developed impact analysis before introducing the Bologna system, and it did not implement other impact analyses after the introduction.

Hungary has introduced the new, two-circle degree Bologna regime from September 1, 2006. The traditional college and university level training programs were replaced by a three-tier system consisting of a basic training program (BA, BSc), a master level program (MA, MSc), and doctoral level (PhD, DLA) program. As a consequence of these changes, Teacher Training was transferred to Ma level. The transformation reorganized the structure of Teacher Training system: the traditional, dominantly

concurrent system was changed to consecutive one. Traditionally students took part in five years scientific training parallel to the teacher training. In the new system, before the entrance exam of the 2 years Ma training they have to choose between the scientific training and the teacher training, which focuses on developing teaching competencies. In this situation, Ba level teacher training courses play a new role: they have to orientate the students to choose the teacher profession. For achieving this mission, a 10 credits course is available on this level.

**Research context**

Beside to the Higher Education development processes, structure of Eotvos Lorand University also was changed. New Faculty was formed in 2003, which profile is twofold. On the one hand, it teaches students attending pedagogy, psychology, psychical education and recreation as their major. On the other hand, it also has students from all faculties of the University in its teacher training or teachers' further training programs. It implements teacher-training courses in co-operation with the departments and methodological sections of other faculties and institutions, which provide the fieldwork training sites for the university.

In 2006, the Institute of Educational Science started the Action research to monitor the re-organization and developing process as well as the curriculum development. The main goal of the research is to monitor the implementation process and support it with empirical and theoretical background. 15 professors and 3 students participated in the research group.

The Action Research based on the theoretical framework of Kemnis and Carr (Carr-Kemmis, 1986, Atweh- Kemmis-Weeks, 1998). This method was chosen to build close connection between practical and theoretical elements of our work. The Action Research Method assists teacher trainer to understand and develop the educational process as a permanent circle process, which consists of perception of changing problems and search of solutions. Besides these possibilities, this method opens the door to form a new relation between theory and practice by involving questions raised during the educational process into the research and the permanent connection between research and action.

The research focused on different data: curriculum, students' conception about learning, teaching and school, teachers' conception about development. It requires different scientific tools (questioners, interviews, document analysis, observations) in order to have theoretical conclusions and to understand the process.

In the following section, societal background of students, their views about education, school and learning are presented.

**Theoretical background**

Researches about teacher's thinking usually focus on beliefs and knowledge of teachers. These two concepts are not easy to separate because both of them are organized on the basic of earlier experiences, and these experiences play dominant role in the further learning processes and decisions. According to Richardson (Richardson, 1996), belief is a statement, which the owner thinks or believe true, but there is not necessarily facts behind it while condition of knowledge is an epistemological justification.

There is not definite answer to the question whether a specific knowledge basis exists which can be adapted only during the teacher training and which is essential for starting the teacher profession. There are researches, which say that the correlation between performances during the studies and effectiveness, success of the practical work is not as close as we could anticipate. Theoretical knowledge and practical competencies can be set against each other. According to it, teachers can separate their learned knowledge from the practice, and do not apply them consciously in solving practical problems.

The negation of importance the theoretical knowledge can be contradicted with the results of several surveys. According to them the knowledge of teachers about school, children and learning, influence teacher's practical work very much. Also, according to the constructivism, the teacher's beliefs, values have principal role in the effectiveness of teachers' work. (Clark and Peterson 1986, Schön 1987, Shulman 1986). This fact has consequences in the teacher training, because students have experiences from their own education, and these experiences can be in contrast to the idea of the effective and productive teacher what their study focuses on.

Their beliefs are based on the following elements:

- Own experiences of would be teachers; come from their own education.

- "Ready" knowledge received from others. Successful adaptation of this knowledge is affected by personal openness and motivation of the students. It is also important whether the knowledge they receive during the course is relevant and adequate or not; and also, how the knowledge can assist the confirmation of the previous experiences.
- Personal beliefs about the world, the human relations and their development.

**Research process**

Who becomes teacher? Who wants to be teacher? These are the most important questions to be answered in order to assist professional socialization of the students, to develop their teacher competences and support their own learning process.

It can be the starting point of our curriculum and organization development, so we examined this field first, as a part of our Action Research. We have organized a survey to conceive and understand the situation in which our students are when they entrance to the Ma level teacher training. The data collecting was made among students taking part on BA level 10 credits Preparation Courses.

Plenty of questions were rising in the first part of the Action Research about the students' preconceptions; therefore the research group conducted a survey among students. The survey intended to be an evaluation to see what conceptions they have about school, learning and children.

The questionnaire consists of multiple-choice and open-ended questions, and aims to following area:

1. What kind of societal groups the students arrived to the teachers training?

2. Which factors determined their choice: when they decided it, which factors and experiences influenced their choice?

3. The former school experiences of the students: what was the societal background of their classmates, what was their impression about the elementary and secondary school education?

4. The values related to the teaching profession, the prestige of the profession among the students.

5. Educational attitudes of the students.

The questionnaire was tested among 56 students, at the beginning of the second semester of 2006/2007. Survey data were collected among students participating in the course "History of Problems in Education" and "Beliefs and Experiences in the School. 77 students in first semester of 2007/2008 were examined. 67,5% of students studied in Faculty of Humanities, 15,6% in Faculty of Sciences and 7,8% in Faculty of Informatics. In the following section, we introduce some results in order to answer the question formulated in the title.

**Why do they choose ELTE University?**

First of all is worthy to examine the reason of decision being teacher. There were returned a few answers in most cases, however the following patterns were formed after the content analysis: the reputation of the university had the highest frequency, 77,6% of respondent mentioned it. There were 20% of answers, were mentioned facilities study provided. The following of family tradition ("my parents studied here") or the high quality of social life appear only in several answers. The conditions seem to be not important by choice excepting for the central location of the university buildings.

**How many people, and who would like to be teacher?**

Students typically think that choice of profession is around age of 16-18 but most of them also think that it is not closed even after the entry exams. Typical age period of the decision to be a teacher is at the end of the elementary school and the age of 16-17. 31% of them is not sure whether would like to be a teacher or not, but 9% of them is sure not want to be. 48% of the students who participated in the program said that „Yes, ma main goal is to be a teacher." Rest of them regarded it as an alternative. Those, whose main goal is teaching, are influenced by the parents or teachers, but teachers' influence is the main one (43%), family traditions are less typical. In the case of 66%, there is not a teacher in the family, but if there is – it seems – it both attracts and repel them. In the case of 8 %, parents and teachers influence the choice of career together and similarly to it, 8% of them are influenced by other circumstances. (Films, books, etc.) 39% did not answer to the question that influenced their choice.

**What kind of previous school experiences do they have?**

Around half of the students, the parents have higher degree qualification; at least 77,3% of the fathers and 85,3% of the mothers have secondary school qualification. Both in the elementary school and the secondary school they had classmates from families are in same social status. It results that they have limited experiences about other social groups and also about how mixed groups can work together. However, composition of the previous classes of the students correlates to the father's position in the employment market. (p<0,023).
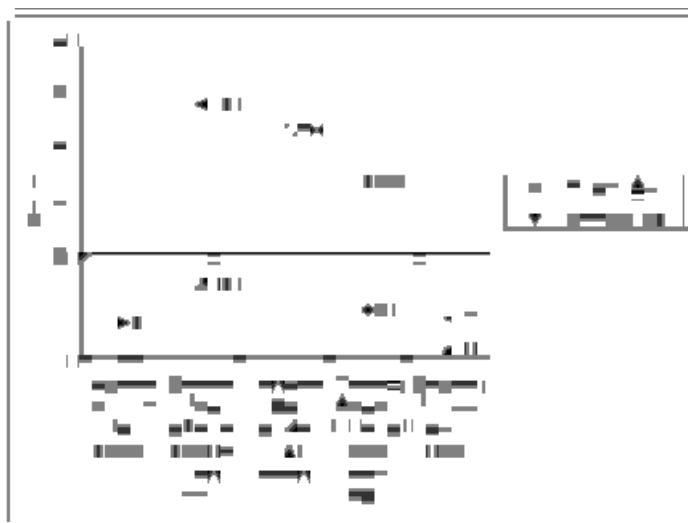


Presence of classmates who are from lower social status families is much more typical in elementary school classes than in the secondary schools. It shows the selection mechanisms of educational system. Opinions about quality of education in secondary schools correlate with opinions about schooling; so the students, who thought that the education is good in their schools, regarded the effectiveness of schooling also well. At the same time, there is significant relation between opinions about education and schooling and opinions about the reputation, recognition as well as student teacher relations.

**How do they see the teaching profession?**

Views and opinions about teaching profession is very important in the relation of trainings. In its title, one of the introductory courses refers to the exploration of the pedagogical experiences and views, and this is in the focus in its content as well. The survey also tried to map it, as we could see in the previous point.

Those students, who would like to be teachers from their childhood, typically go forward along their cherished plan, and admit that other people influenced their decision. They often coached the younger students, and know the devotion and love of the children; they think that it is possible to assist children in order to get on better than their parents. They regard this job variegated, not fixed or defined where their ideas can show up well. Differences between these students and those who do not want to be teachers or who are still irresolute are significant. Among those who do not want to be teachers, the rejection has three components: (a) presumed characteristics of the students' own personality (impatience, lack of self-confidence). (b) Characters of the job (hard, responsible) and (c) position of teaching profession in the society (salary, recognition). In the following diagram, you can see the rates of these features in % of the responders:
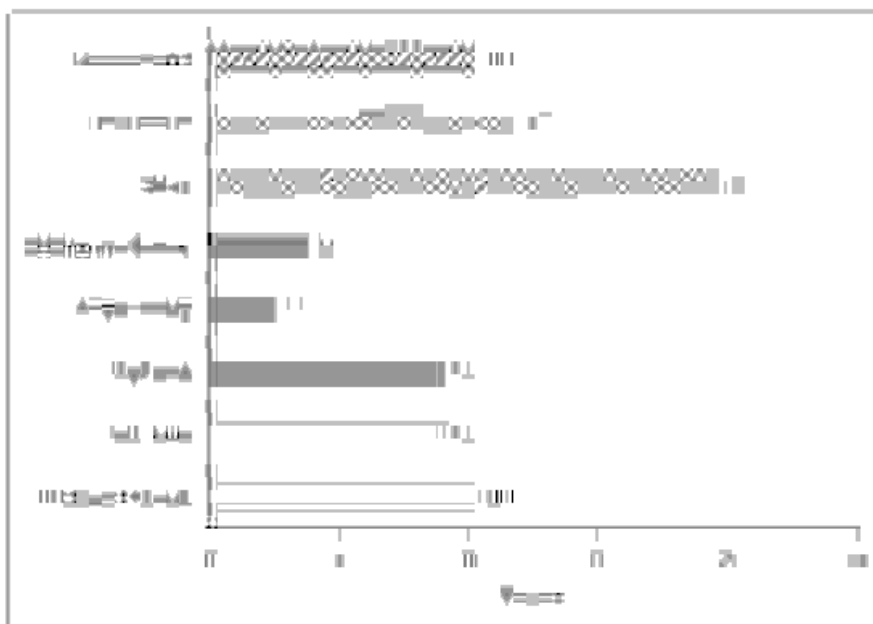
**Summary**

1. There are lot of similarity in the school and learning image of students; appearance of tinged experiences does not necessarily happen in a spontaneous way.

2. It should be considered during the training that would be teachers almost don't have those kinds of school socialization experiences, which are not related to their own social classes.

3. The family linkage of teacher profession is typical only for a small part of the students. It shows that „transmitted" teacher identity is weak; it is a result of school impacts, which students can get during the course. Among these impacts, students regard education more positive antecedents than schooling.

It is typical that the students make the choice of career at the age of 16-18 but most of them think that it is not closed with the entry exam. 31% of the students are not sure whether s/he would like to be teacher but 9% of them are sure for not being teacher.

Both the elementary and secondary schools they went to classes where they met children from similar families. It is the reason why they have not so much experiences about different societal groups. Their opinion about the quality of education correlate with their opinion about the schooling; so those who regarded the education of their schools good, gave higher points to the effectiveness of the schooling as well. This group thinks that it is possible to assist to the children to get on better than their parents. They regard the teaching profession variegated, not fixed where their own initiatives can be showed up. In these questions, they have significant difference of opinions with those who do not want to be teachers or who are uncertain yet.

We think that the most important lessons learned of the action research and training is that it is proved that – because of the selective educational system - would be teachers have homogeneous school experiences and views. It is crucial factor to get to know the students and use their previous experiences. It gives important, new and difficult tasks for the teachers training courses based on reflective approach and recent pedagogical concepts. It can be important that such courses are in preparatory phase in the educational structure, which can provide the conceptual framework in the higher education pedagogy for a systematic, on-going development work.

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# FUNNY, ISN'T IT? PUPIL HUMOUR WITH THE TEACHER AS TARGET

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ABSTRACT

*Two trends emerge from a literature study on humour in education. First, most articles are about the use of humour by teachers. A second finding is that pupils' humour aimed at teachers is often seen as baiting or misbehaviour. Suspecting that this was probably not the case, we took a sample. Students following a teacher education degree course at two universities in Flanders and taken from a wide variety of different subject branches were encouraged to write a brief account of a humorous situation which really happened that they remembered from their own time in secondary education. Our research questions are: "What types of humour do pupils use?" and "What motives underlie pupils' use of humour with respect to teachers?"*

*We found 5 types of humour and 6 different pupil motives. In the paper we set out the various categories in order of frequency. Each category is illustrated with examples. Looked at from the perspective of the intention behind the humour, it appears that pupils' humour directed at teachers makes a predominantly positive contribution to the relationship between pupil and teacher. Our first finding is that pupils' humour with respect to teachers is not related to particular academic subjects. There is clearly a relationship between pupil humour and characteristics of the situation. The most frequent relationship is that between pupils' humour and the quality of the teacher's classroom control. Pupil humour is used as a form of boundary-seeking and boundary-crossing behaviour. However, the clear winner is pupil humour as atmosphere maker. A significant feature of this category is that the pupils do not use jokes or pranks as a reaction to an unpleasant situation or as a reaction to excessive or lax classroom discipline. These pupils use humour to make things more fun. Of course, the teacher is still the object of that humour, but it is not the pupils' intention to tease or hurt the teacher. The humour is consistent with a pleasant classroom atmosphere and a good relationship between pupils and teachers.*

Keywords: humour, emotions, pupil teacher relationship, pupil behaviour, social behaviour

## Introduction

Anyone wanting to know what the prevailing view is with regard to a particular subject area within the existing academic literature can apply a simple technique. Type a few key words into one of the various meta catalogues of international periodicals and pick the first ten articles which focus on that subject. Admittedly, the academic reliability of this method leaves something to be desired, but it does at least provide an indication, as it yields the most accessible articles by the most influential publishers at that moment. Here is a brief summary of the results we got for the combination 'humour' and 'education'.

Torok et al (2004) identify various types of teachers' humour. Bartlett (2003) discusses the positive effects of the use of humour by teachers. Wanzer et al (2006) make a distinction between appropriate and inappropriate teacher humour. White (2001) asked both teachers and pupils about appropriate humour by teachers and concluded that the two groups have different opinions on this. The article by Garner (2006) has a strong moral slant and points, above all, to the dangers of certain types of humour that teachers may use. Hellman (2007) sets out seven steps for learning to use humour successfully in the classroom, while Weaver & Cotrell (2001) give ten steps. Perlmutter (2004) sees humour as a powerful weapon for dealing with difficult pupils. Not quite as clear-cut, but still in the same vein, is the article by Girdlefanny (2004). McMorris et al (1997) look at to what extent humour is permissible in test situations.

Two trends emerge from an examination of the above list. In the first place, all the articles are about the use of humour by teachers. The teacher uses humour, inter alia, in order to grab pupils' attention, to provide mnemonics, to jazz up dull material and to curb misbehaviour by pupils. There is no mention made, whatsoever, of pupils as users of humour, despite the fact that it is unlikely that only teachers use humour. In the above articles it is frequently said that the use of humour by the teacher fosters a positive classroom atmosphere, which in turn raises the question as to whether the same does not also apply to pupils' humour. It may be that pupils' humour tends to be seen as disruptive and would need to be sought not with the keyword 'humour', but rather under 'misbehaviour' or 'baiting'. Perhaps authors and researchers simply don't want to give pupils ideas. We believe that there is a gap in the literature and what follows is an attempt towards filling that gap in the form of an exploratory study. Our first research question is therefore: "What types of humour do pupils use?" We have limited our research to humour in which the teacher is the target.

A second finding is that the use of humour in education is not always a good thing. Humour is often recommended as a powerful weapon, although sometimes a word of caution needs to be sounded: there is appropriate and inappropriate humour. There is humour which dissipates tension and humour which provokes tension. There is humour that works and humour that doesn't work. In other words, humour is not automatically either positive or negative. The approach adopted in the present article is to look at the intention behind it. Humour used with a negative intention is humour intended to be wounding. Humour used with a positive intention is humour which is meant to contribute to creating a good classroom atmosphere.

Our hypothesis is that pupils also use this latter category of humour and are therefore not only out to make life difficult for the teacher. Our second research question was thus: "What motives underlie pupils' use of humour with respect to teachers?"

**Research design**

Anyone who has ever been to a class reunion knows that the stories swapped are above all stories concerning events which made a significant impact on the teller. Stories which have strong emotions attached to them seem to be the ones that are best preserved in our memories.

Humour often seems to evoke strong, usually positive, emotions. Humorous situations are engraved in our memory. Using memories as research material might seem a relatively straightforward task, but the drawback to working with memories is that these change as time goes by. Very often what actually happened is deliberately embellished, but it is also true that our memory is distorted by the passage of time without there being any conscious intention to do so. Despite our best efforts, details are forgotten and then filled in retrospectively to fit in with the overall point or message of the story. However, this limitation did not represent a significant obstacle to answering our research questions.

Students following a teacher education degree course at two universities in Flanders and taken from a wide variety of different subject branches were encouraged to write a brief account of a humorous situation which really happened that they remembered from their own time in secondary education. Two conditions were imposed; firstly, that the student concerned (or his or her classmates) had to be the originators of the humour; and, secondly, that the teacher had to be the target. In all, 62 anecdotes were submitted, of which 56 (90%) met both conditions.

This study is of a qualitative and exploratory nature. The collection of anecdotes was analysed using an iterative process. In the first round each anecdote was described in terms of the nature of the humour and the underlying motives of pupils. Each description was then allocated two key words. For both the category 'type' and the category 'motive' the key words were inventorized and compared in terms of content similarity and overlap. Finally, the descriptions, key words and categories were

modified until we were left with a series of relatively clear and exclusive categories. Although complete exclusivity was not feasible, each anecdote was classified under a single type of humour and a single motive.

**Results**

We found 5 types of humour and 6 different pupil motives. In the following section we set out the various categories in order of frequency, from the least frequent to the most frequent. Each category is illustrated with examples. Names are represented by an X.

*Types of pupil humour*

The first type of humour is what we have called 'humorous drawings and graffiti', of which we found 2 cases among the anecdotes. Using Photoshop pupils turned photographs of their 4 teachers into caricatures, drew cartoons or wrote entries in a school magazine showing teachers in a humorous light:

> The result was 'Pol-magazine'. The name was a combination of P-magazine (a Belgian men magazine) and Pol X, our then Latin teacher. He appeared in all his glory on the cover of the first issue with his head mounted on the body of a heavily-muscled athlete. The competition of the month involved the Maths teacher: the first person to secure Mr X's toupee and deliver it, in person, to one of the editors, won the CD of the week.

A second type of humour uses 'animals', of which 3 cases were written up. Pupils reduced one teacher to hysteria by letting a bat loose and got a similar reaction from another teacher by releasing a small army of stick insects in a Biology lesson. The clucking of a chicken was also put to ingenious use:

> Our Latin mistress was a bit deaf. She used to ask: 'What did you say?' at least twenty times a lesson. During the lunch break someone caught a chicken and put it in a box. At our school there were masses of chickens, geese and dogs running around that belonged to the janitor. We put the box with the chicken on the floor between the last two rows of desks. The chicken made very loud clucking noises throughout the whole lesson and every time it stopped someone gave the box a kick to get it going again. Our teacher couldn't work out what was going on and kept asking: 'Do you hear that, too?' while we all killed ourselves laughing. The poor woman probably thought she was paranoid.

The following category is that of games and came up 13 times. On one occasion the whole class secretly played a version of the naval warfare game 'Battleships' during the

lesson, while another class played a version of 'goose' involving individual tasks such as having to walk around your own desk three times. One class shouted 'peep!' every time the teacher walked past a particular mark on the blackboard and when the teacher got wise to this and erased the mark, the class shouted 'boom!'. Another class counted every time the teacher used a particular filler word and shouted 'goal!' every tenth time. Another class decided to celebrate New Year at a random moment during a lesson, including counting down to midnight, novelty whistles, confetti and wishing each other a happy new year. Yet another class started a snowball fight on a part of the school grounds that was off-limits to pupils (in this case the school garden). Others played a form of 'bingo':

> We each drew up a list with the names of five members of the class. When the teacher mentioned all five names on someone's list, that pupil was the winner and had to jump up and shout 'bingo!' Everything went pretty smoothly and relatively quietly at first, until we got to a point at which the teacher wasn't saying any names anymore and we got more 'creative', as it were, in order to get the teacher to say the names. We tried to draw attention to the person whose name we wanted the teacher to say.

A frequent sub-category within 'games' is 'hide and seek', which came up 6 times. This might involve only a few pupils or an entire class. Favourite hiding places included the adjoining school hall, the store cupboard, the broom cupboard, behind curtains and outside on the window sill. One class even managed to make it look as if the classroom was empty although they were still all there.

> We had Latin seventh period and we had just had French in the same room, the previous period. Everything had been arranged in advance. When the French lesson ended, everyone got their satchels and took their coats off the hooks in the corridor. We turned the lights out and we all went over to the side of the classroom that could not be seen from the corridor if you looked through the small observation window that was set into the door. We heard the Latin teacher coming up the corridor towards the classroom. He looked through the window and then carried on walking. When he was far enough away – which we had to guess, as we didn't want him to spot us, if he was still there – we put
> the lights on again, hung our coats in the corridor, put our satchels and writing implements back where they were and pretended that we were just waiting for the class to start.

The following category is what we have termed 'word play' and comes up 15 times. In cases this actually involves the absence of words because the classes concerned agreed to maintain a collective and sustained silence. One pupil managed to entirely conceal the fact that she was bilingual from her French teacher. Other pupils arranged, in advance, the questions they were going to ask when it was their classmates' turn to hold a presentation in class, which were supposed to be spontaneous. With one teacher the class regularly managed to get a discussion going about subjects that had nothing to do with the material to be covered.

With another they managed to get private and personal information about his love life out of him. In 2 cases pupils managed to get teachers to do things like singing a medley of Freddy Breck songs or to sing a song accompanied by a guitar. 2 classes did a count-down in unison at the start of experiments in a physics lesson or did the Mexican wave when they felt like it.

4 teachers were the object of teasing about their surnames, baldness, a heavy regional accent or their use of the blackboard. One pupil used the teacher's didactic technique to her advantage:

> Our teacher explained in French the material she was going to cover during the lesson and what she wanted us to do. She opened the door, stepped out into the corridor and began speaking Dutch. Then she stepped back into the classroom and began speaking French again. Her message was clear: there was to be no speaking Dutch in the French lesson. After a quarter of an hour I put my hand up, because I could hardly understand a word of what the teacher was saying. When she asked me what I wanted, I got up, opened the door and asked my question in Dutch from the corridor.

The final category of types of pupils' humour in relation to teachers, is characterized by the creative use of 'physical objects'. This category came up 23 times. Just about everything the pupils had to hand was used for the purposes of humour. These included: name cards being swapped around; a drink can being put above the door; the door itself being taken of its hinges and replaced (loose) into the doorframe; wiping more off the board than teacher intended; secretly operating the remote control in order to sabotage the use of the video in the lesson (featured in at least 3 anecdotes!); the bottom of a packet of chalk being opened or a toy bat being put on the overhead projector. Pupils shook a snow–covered tree while the teacher on playground duty was under it. Pupils whose teacher told them to stay seated after the bell rang rolled out of the classroom on wheels. Other physical objects employed were: stink bombs, eggs, a fan, a novelty whistle, musical instruments, school desks, fancy dress costumes, the teacher's car (sic) and even a test paper. Moreover, some very creative ways were found to do assignments set by the teacher. One pupil made a model of Troy with matches and then restaged the city's being razed to the ground, by setting it on fire. A group of pupils made an advertisement which contained hidden references to the teacher. One pupil played a prank with a set of weights:

> In the second year of secondary school we had History with a particularly eccentric teacher. He wouldn't let you do anything, except 'listen actively', of course. We were strictly forbidden to leave anything on the desks or to move so much as a muscle during the lesson. One day, one of us was looking for something in his satchel. The teacher's face

went red with anger. Still furious, he jumped up, marched over to where the pupil was sitting, shouted something inaudible and picked up the satchel.

He opened the window and emptied the contents out of the window. There was a deathly hush. You don't normally expect a teacher to do something like that, but our History teacher was a law unto himself. A few weeks later, the same pupil again put his hand into his satchel and began looking for something just like he had done during the previous lesson, except this time he had put fifty kilos worth of weights inside. The teacher again got up in a furious temper, went over to where he was sitting and picked the satchel up by the strap. It moved, but he couldn't get it off the floor…

**Motives behind pupil humour**

The first motivation for humour is the category 'celebration'. In total, 3 anecdotes were submitted. It is probably no coincidence that, in all 3 cases, the behaviour described took place during the celebration of the last 100 days of secondary school, which could indeed also be seen as a festival of organized humour.

At least 7 times novice teachers were put to the test. We have therefore called this category 'testing out'. Swapping name cards around is a classic, as is the packet of chalk open at one end, but pupils also took advantage of typical beginners mistakes such as the over-use of filler words. Pupils also go further with beginning teachers or clearly go out to see how far they can go.

Sometimes pupils are confronted with problems that are not of their making and the solutions they come up with are often hilarious. This category, which we have termed 'solutions', also came up 7 times. On 3 occasions pupils looked for ways of getting more marks and on two occasions pupils were bothered by particular characteristics of the teacher, specifically body odour and sweat patches. In 2 instances creative approaches to problems within the classroom - in this case unpleasant smells and excessive noise - were found. Unfortunately not all of them worked:

> In the first year of secondary education we often had lessons in a classroom that was right next to the toilets, which meant that it nearly always stank. Most of the teachers made a point of leaving the windows open during the lesson, but the French teacher was the only one who told us to keep them closed. So we had to put up with this unbearable smell in her lessons. The idea was to let off a stink bomb in the waste paper basket at the back of the room. We reckoned that Miss X was bound to be overcome by the stench herself and would then realize that windows had to be left open. In the next lesson we exploded the stink bomb, as planned, but, even though the stench was unbearable, Miss X didn't so much as turn a hair. She must have had either a permanently blocked nose or something wrong with her sense of smell.

In 9 cases pupils used humour as a way of rebelling, usually against teachers who were

regarded as being too strict. In addition to 5 innocent pranks, the category 'rebellion' alsocontains 2 pranks which can hardly be termed humour. On the other hand, however, there are 2 that were genuinely funny, such as the abovementioned trick with the weights and the prohibition on the speaking of Dutch in the French lesson, as described above.

We put 13 anecdotes into the category 'misbehaviour'. These are essentially reactions from pupils to teachers who fail to keep order in the classroom. In 2 instances the teacher is the target of ridicule and in 4 cases things got really out of hand and pupils went way beyond reasonable boundaries. The remaining 7 anecdotes are basically innocent practical jokes which distract the teacher or interfere with his or her covering of the material. In one incident, a particularly under-confident teacher gets so flustered, that he makes things worse:

> The lesson was about gravity, gravitational acceleration and the weight of objects. The Physics teacher wanted to do an experiment to measure the time it took for a falling object to reach the ground. The boy next to me asked if he could do a countdown before the teacher let it fall. Taken aback by this rather strange request, the teacher agreed. Instead of just that boy, the whole class began to count down. Three, two, one and then everyone collapsed with laughter: the teacher had opened the wrong hand and dropped the stopwatch instead of the object.

The majority of the humorous anecdotes submitted, 17 in all, come under the category 'atmosphere makers'. These were not motivated by teacher's being too strict or having toolittle control and were therefore not aimed against the teacher. From the context descriptions provided with the anecdotes we were able to deduce that pupils thought that the joke would be fun for their classmates and that, at the same time, the teacher would also find it funny. The pupils' assessment was that the joke concerned was an appropriate part of a pleasant classroom or school atmosphere, although this doesn't change the fact that it is always the teacher who comes off worst. Games such as hide and seek and messing around with the remote control are popular. Another format is the well-timed witty remark:

> We had a teacher for Biology who was completely bald. Once he took out some Bunsen burners in order to show us how exciting the world of fire and flames was. Suddenly a great tongue of flame shot out and almost caught him in the face. I shouted out: "Sir, look out! Mind your hair!

*Relationship between types and motives*

The number of anecdotes analyzed is too small to permit any definitive pronouncements about the relationship between the type of humour and pupils' motives. Nonetheless it is still revealing to examine these in schematic form (see table 1).

Table 1: relationship between types of humour and pupils' motives

| | Celebration | Testing out | Solutions | Rebellion | Misbehaviour | Atmosphere makers | Total |
|---|---|---|---|---|---|---|---|
| Drawings & graffiti | 1 | | | | | 1 | 2 |
| Animals | | | | | 1 | 2 | 3 |
| Games | | 2 | | 2 | 2 | 7 | 13 |
| Word play | 1 | 1 | 2 | 3 | 7 | 1 | 15 |
| Physical objects | 1 | 4 | 5 | 4 | 3 | 6 | 23 |
| Total | 3 | 7 | 7 | 9 | 13 | 17 | 56 |

In the present study the biggest numbers probably have the greatest value as indicators of possible trends. We note that a very wide variety of physical objects also serves an equally broad range of humorous purposes. Physical objects are primarily used to test out new teachers, to solve problems, as an act of rebellion, to tease weaker teachers and, most of all, in order to create atmosphere. With weaker teachers verbal pranks were used more often than pranks involving physical objects, while the opposite is true in the case of strict teachers. It may be that verbal humour makes the prankster more readily identifiable (and thus more likely to be detected). This plays a role with strict teachers and less so with weaker teachers.

Word play was of only minor significance in atmosphere makers. Likewise, what we have termed 'games', were more common than the use of physical objects. One rather surprising finding was that teenagers still went in for 'hide and seek'.

**Discussion and conclusion**

Our first finding is that pupils' humour with respect to teachers is not related to particular academic subjects. The anecdotes involved at least 16 different disciplines, all in small numbers. Only Dutch (with 7 anecdotes) and French (with 9) are high scorers, but both of these are subjects for which pupils in Flanders also have a considerable number of lessons per week. It thus seems to us that there is no link between the number of pranks and the subject area.

However, there is clearly a relationship between pupil humour and characteristics of the situation. This is obvious in the case of the celebration of the last 100 days, but there is also a surprising category of situations in which pupils seek a humorous way out of situations that they see as problematic, such as nuisance from smells, noise or excessive temperatures. Pupils also showed creativity in their attempts to boost the number of marks awarded, although this is an instance of cheating rather than genuine humour.

The most frequent relationship is that between pupils' humour and the quality of the teacher's classroom control. Pupil humour is used as a form of boundary-seeking and boundary crossing behaviour. Every teacher remembers being tested out by his or her pupils as a novice.

 After all, pupils need to know where they stand. Most teachers, possibly after an initial settling-in period, manage to do this. Some, however, are excessively strict and pupils pay them back in a way that is at least humorous, while others continue to have a discipline problem and end up suffering the consequences. It is, incidentally, very doubtful that these teacher see the pranks played on them by pupils as humour. The fact that humour is used more as form of rebellion than as misbehaviour is not an indication of the number of strict or weak teachers. It is more likely that pupils would be inclined to think twice before playing a prank with strict teachers.

However, the clear winner is pupil humour as atmosphere maker. A significant feature of this category is that the pupils do not use jokes or pranks as a reaction to an unpleasant situation or as a reaction to excessive or lax classroom discipline. These pupils use humour to make things more fun. Of course, the teacher is still the object of that humour, but it is not the pupils' intention to tease or hurt the teacher. The humour is consistent with a pleasant classroom atmosphere and a good relationship between pupils and teachers, although sometimes there is a difference between the innocent intention of the pupil and the effect on the teacher, for example, if he or she doesn't (initially) see the funny side. However, in such cases this is simply an error of judgement on the part of the pupils.

Having answered our research questions, we can only conclude that the current lack of attention paid to pupils' humour in the international academic literature is unjustified. Pupils' humour can teach us a great deal about their educational situation and especially about their relationship with teachers. Humour also has an important function as an indicator of classroom control. We hope that this conclusion will encourage teachers to engage in action research. Moreover, we advocate a positive approach to pupil humour.

This limited study has shown that pupils, by using humour, clearly want to make a positive contribution to pedagogical practice.

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# ARE MARKS RELATED TO CHAIRS?

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ABSTRACT

*It is commonly said that "birds of a feather flock together"; which comes to say that you can judge a person by the company he keeps. This idea is often applied to our students by saying that bad students usually sit down together in the classroom. And even more, it is often said that good students use to be seated in the first rows of the classroom (because they can listen better to the teacher from there); and bad students use to be seated at the last rows (and they can talk without being scolded by the teacher). Is all this true? In this article we try to answer this question by analyzing an experiment that was performed by collecting data about the exact position of students during an academic course, their classmates, their position changes along the course, and their marks.*

Keywords:    Students' marks. Sits. Classmates.

## 1      Introduction

Not all students are equal. Some of them are shy, and they are afraid of the professor questions. This feeling makes them be seated far from the professor in order to avoid questions. For other students being far from the professor is an opportunity to talk with their classmates when they cannot follow the explanations. This is also frequent in students that cannot hold the attention for a long period. Other students, contrarily, want to be as closer to the professor as possible, in order to avoid the noise and thus having a better understanding. The immediate question is: does the position of the students in the classroom have a direct relation with their marks? And if so, what is this relation? Is this relation equally important when we talk about studying theory in the lecture rooms or practicing in the laboratory? Should the students be as closer as possible to the blackboard?

There is another important factor which is supposed to be related to the marks: the people who is seated around the student. It is commonly said that "birds of a feather flock together"; which comes to say that you can judge a person by the company he keeps. In the case of students, it is often said that bad students usually sit together in the classroom. Here again, the question is whether all this is true. What influence have your classmates in your marks? Is this influence important? What are the factors that participate in this influence? And more important, can we, professors, handle this factors in order to improve the learning process of our students?

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In this work we present an experiment performed during an academic course in an engineering school which puts some light over these questions. The experiment studied the position of all the students in a classroom, their movements during the academic year, and the relation of their position with their marks and the marks of their neighbours. The analysis of the data collected in the experiment confirmed that the position of a student really influences his marks.

The rest of the article will present the experiment from which we will conclude several ideas that form our position. For space reasons, part of the material has not been included in the paper, but all the material has been made publicly available in the web page of the experiment. Here, we will only focuss on the most important results. We think that this paper is a good starting point for a vivid discussion about how to distribute students in a classrom.

Section 2 presents the experiment and the context in which it has been developed. The results obtained are also presented and analized in this section. In Section 3 we provide our interpretation of the resuts and define our position arguing for it based on the empirical results obtained. Section 5 concludes. Finally, future work is discussed in Section 6.

## 2      The experiment

The experiment was performed in the *Escuela Técnica Superior de Ingeniería del Diseño* located in the Technical University of Valencia. The exact details of the experiment are the following:

**Initial Date:** Sep 29, 2008

**Final Date:** Dec 22, 2008

**Sample Size:** 73 students

**Place:** Technical University of Valencia, first year course of Industrial Design Engineering

**Subject:** Computer Science Fundamentals and C programming

**Initial Hypothesis:** Students who sit close to the professor get the best marks. Students who sit in the last rows get the worst marks.

The data of the experiment were collected by the own professor, who had a map of the classroom with each sit and computer (see Figures 4 and 5). He registered the exact position of each student every day both in the laboratory and the classroom where theory was taught. During the experiment, one exam was done in December. The marks from the exam have been analyzed in combination with the other data.

## 2.1    Data Collected

All collected data have been put together in a Microsoft Excel workbook which analyzes them and extracts some figures and charts allowing different studies of the data.

For space reasons, in this paper we will only show some of the results obtained, but, all the information related to the experiment including the collected data, the Microsoft Excel spreadsheets, and the results obtained, is publicly available at:

*http://www.dsic.upv.es/~jsilva/sitsandmarks*

One of the most important things observed in the data after the experiment is that there exists a big variability in the position in the classroom of each student along the course. This can be also observed in Figures 1, 2 and 3 that show, respectively, the mark and the average distance to the professor of each student in the laboratory, in the lecture room and combining both of them. The figures show in the X axis the average row in the class of each student, and in the Y axis the mark of the student. Despite the lecture room has 7 rows, all the average rows concentrated between rows 1 and 4. Similarly, the laboratory has 10 rows, but almost all data is concentrated between rows 4 and 7.
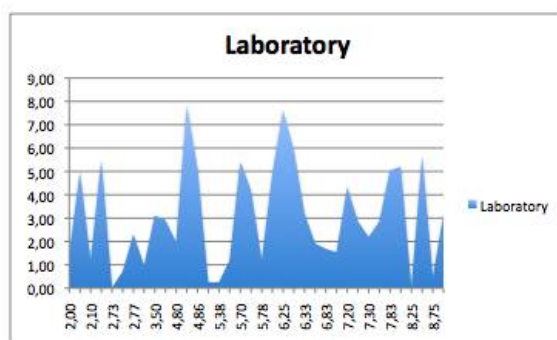


Figure 1: Relation mark-distance in the laboratory
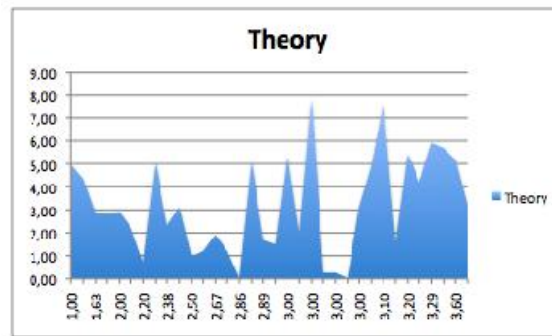
Figure 2: Relation mark-distance in the lecture room
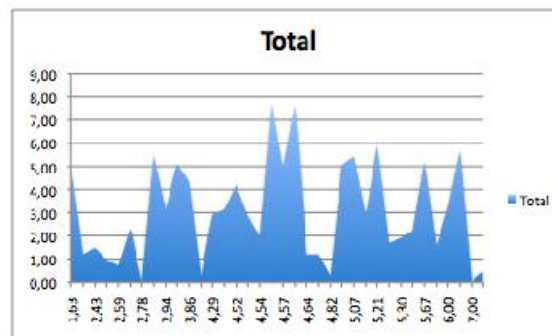


Figure 3: Total relation mark-distance of students

## 2.2    Results Obtained

When we started to analyze the data we were very discouraged after producing Figure 4. This figure is a map of the lecture room where each chair has a different code (A2, B6, etc.) and a number indicating the average mark of all the students—different students in different days—who sat in this place (of course, taking into account repetitions). Depending on the mark, each chair has a different colour according to the following table:



Clearly, this figure discards our initial hypothesis that best marks were in the first rows and worst marks were in the last rows. Contrarily, the two best marks are in the last row. However, this is not concluding because the rest of marks are randomly

distributed; and thus, we could not determine were the best and worst marks are. In principle, it seemed that they are not related to chairs.
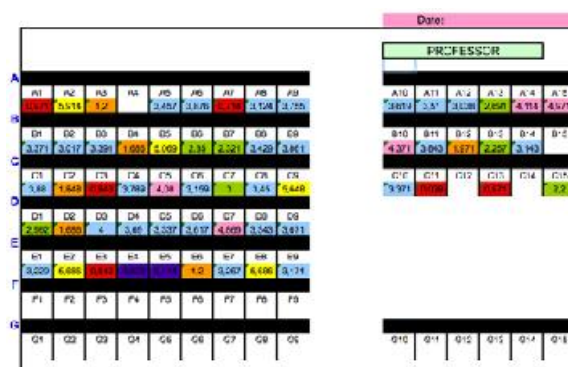

Figure 4: Average mark of sits in the lecture room

After we produced Figure 4, we analyzed the data related to the laboratory (see Figure 5), and we discovered one important and unexpected relation: best marks are concentrated in the last rows of the laboratory. In fact, all pink chairs are in the second half of the laboratory; and there is only one red and one orange chair in the last four rows. This result is completely contrary to the initial hypothesis.
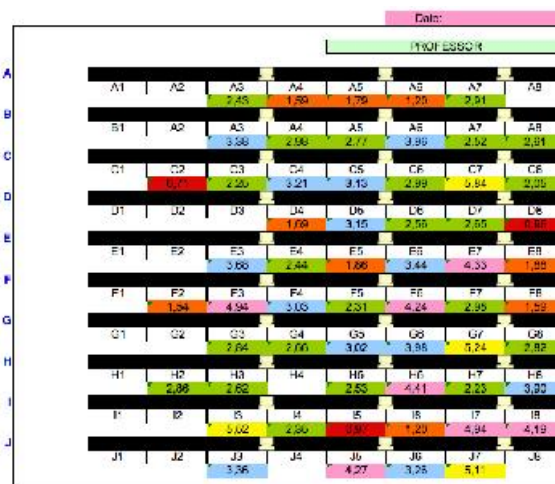

Figure 5: Average mark of sits in the laboratory

It is also interesting to know the position of the students that went to the classes but did not go to the exam. In principle, one could think that these students are those who are less prepared, or at least, less interested in the subject.

Figures 6 and 7 show respectively the position of those students in the lecture room and in the laboratory. Here, each chair is labelled with a number that indicates the number of times a non-evaluated student sat there. Depending on the label, each chair has a different colour according to the following table:
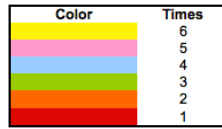
This second sub-experiment confirms the previous one, because a very similar result is obtained. Firstly, data showed that non-evaluated students are seated randomly in the lecture room. But, contrarily, they prefer the front rows in the laboratory. Almost all blue, yellow and pink chairs are in the first four rows.
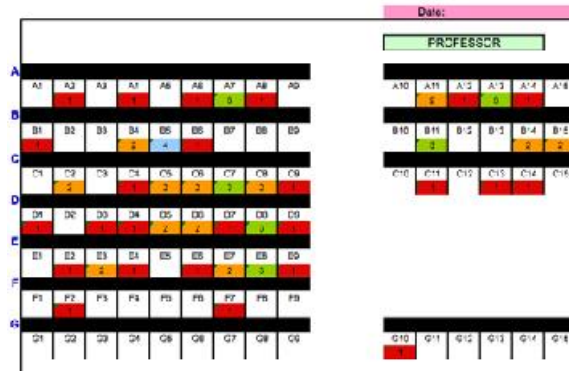


Figure 6: Lecture room's sits used by non-evaluated students

There is another conclusion that can be extracted from this part of the experiment but not from the figures—we conclude this idea from the data in the Microsoft Excel spreadsheets—. Those students that only come to the classroom once or twice, and that do not go to the exam, sit at the last row; indeed if there is plenty of free space. For instance, in Figure 6, rows F and G have been only visited once in the whole course by this kind of students.



Figure 7: Laboratory' sits used by non-evaluated students

The last part of the experiment focussed on the relation between the marks of a student and the marks of the classmates that sit around her.

The classmates of a student were easy to identify because in the laboratory, they have to share the computer. Therefore, students are seated by pairs and work together. To get the average mark we considered all the students that worked together (in the same computer) along the course.

The result of this study is depicted in Figure 8. There, X axis represent the mark of each student; and Y axis represent the average mark of her classmates. If the Y axis is zero, it means that the classmates did not do the exam.
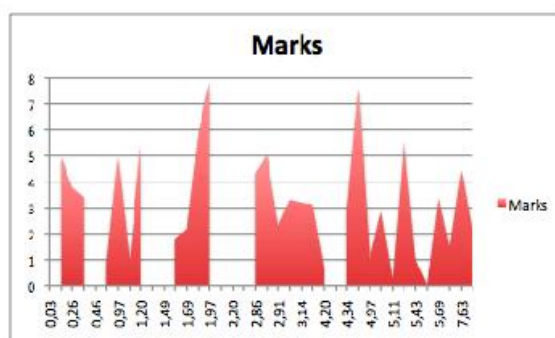


Figure 8: Average mark of the students' classmates

What we expected was something like a diagonal growing up from (0,0) to (8,8). This would mean that students with a high mark work with students with a high mark; and students with low marks work together. Nevertheless, the resulting chart is completely different: There are good students seated with bad students and vice versa without any apparent logic relation.

When we analyzed the data in the Microsoft Excel spreadsheets in order to get a response, we discovered that, in general, all the students worked with the same classmate (they were seated together) along the whole course. A change of classmate was not frequent; and this is the cause of the chart.

We should remember that the experiment was done on a first-year group. This means that students did not know each other at the beginning of the course, and thus, they seated randomly in the first class. At this moment the couples were formed, and they continued along the course. We need more data to provide this result with a greater confidence, but we could give a preliminary conclusion: students are faithful to their classmates and they usually work together along the whole course.

From the previous result, we can also conclude that, in the collected data, there is not a direct relation between the mark of a student and the mark of her classmates.

## 3    Interpretation

The results of the experiment contradict the original starting hypothesis, and they suggest that the students with the best marks are seated at the end of the laboratory, or randomly at the lecture room.  After the experiment, we changed our mind, and now we think that the original hypothesis could be good for secondary school, but not for the university.

After some interviews, we think that students in the front rows are students that are conscious of their limitations and they sit there to better interact the professor. In fact, the number of questions that come from last rows is sensible lower than the number of questions that come from the first rows. A student that can select any row, and she sits at the end of the class is implicitly saying to the professor "*I am here to listen to you, not to participate. So do not ask me questions*".

We think that this experiment is a very good starting point to start a debate about how to handle the position of students in a classroom. Our main conclusions that configure our position are the following:

The position of a student in the classroom changes a lot along the course.

The position of a student in the laboratory is different from her position in the lecture room.

Many students are seated close to the blackboard in lectures, but they are seated far from the blackboard in the laboratory.

In the laboratory, best marks are in the second half part of the classroom.

In the lecture room, good and bad marks are distributed randomly around the classroom.

In the laboratory, people who will not be evaluated is seated in the first rows.

The very last row of the lecture room is only used by people who later does not go to the exam.

The same students work together along the whole course.

There is not a direct relation between the mark of a student and the marks of her classmates in the laboratory.

Apart from the discussions in this paper, there are many different possible reasons and consequences for each of the previous statements. They should be discussed and further investigated by the teaching community.

# 4    Conclusions

We have presented the results of an experiment performed in an engineering school. They are surprising because they contradict our initial hypothesis. The analysis of the results has provided several interesting conclusions and ideas that would be very interesting to share with other professors and colleagues.

The most interesting result is that best marks in a laboratory correspond to those students who sit at the end. We are sure that the data of the experiment will motivate a vivid debate.

# 5    Future work

This experiment and the whole experience in general have been very satisfactory and have provided a lot of useful information. Next academic course, the same experiment will be massively applied in different courses from the same and other degrees.

The main objective is to confirm the results of this experiment and be able to extrapolate them to other kind of students and courses. The fact that in our experiment the position in the laboratory was relevant and the position in the lectures was not is probably due to the practice-oriented nature of the subject. However, a different subject may present different results.

Similarly, the configuration of groups in our experiment has been influenced by the fact that students were in their first-year course. The influence of classmates could be different in last-year students. This is something that must be studied.

Combining different experiments we will be able to identify classes of students depending on the subject and other parameters. This information could be crucial to define a methodology for the location of students.

The final objective is to determine where to locate each student to improve the overall quality of the teaching.

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# PRIMARY AND PRE PRIMARY EDUCATION

# KNOWLEDGE CREATION, PLAY AND EDUCATIONAL DRAMA IN THE IRISH INFANT CLASSROOM

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ABSTRACT

*In this paper, the authors look at the nature and role of Play and Educational Drama in not only the Irish context but on an international one. The continuum is discussed. The writings of luminaries in Early childhood Education are mentioned as grounded theory, particularly that of Friedrich Froebel. The process nature is described as well as the role of teacher-intervention. A DVD of children "at work" in Educational Drama is presented and strategies suggested so as maximise the use and efficacy of these media as conduit for Knowledge Creation in its broadest sense.*

Key Words: Educational Drama, Froebel, Play, Infant and Role-Play

"There's nothing more powerful than an idea whose time has come....." This was the sentiment of Victor Hugo in 1885. One could readily attach such a statement to the relevance and importance of play in education today. In times of economic and social change such as these, when uncertainty prevails in so many areas of life, grounded theory, particularly in the area of education points the way to the values, principles and methodologies we need to conserve, develop and make relevant to the lives of our children.

In this paper, the authors look at the principles underlying educational drama and play and trace their development in the fields of Early Childhood Education moving into the areas of Play and Educational Drama. The tried and tested principles of such luminaries as Dewey, Piaget and Froebel are discussed as is the work of more contemporary experts in the field, such as Vygotsky, Singer and Singer and Moyles. In the same way that knowledge creation is discussed in theory, the authors extrapolate the relevant findings so as to make them pertinent to the teaching and learning which takes place in most Irish and European schools of today.

In the Revised Irish Primary School Curriculum (1999), it is asserted that a continuum extends from play into drama. Whilst the authors refute the absolute nature of this assertion, they acknowledge and value the complementary nature of Play and Drama as agents of learning.

The Irish Infant Drama Curriculum holds as an objective within the strand Exploring and Making Drama, that the child should be enabled to *'Develop the instinct for make-believe play into drama'*. Such an objective gives the teacher a clear rationale for facilitating the use of play and its subsequent development into drama within the school day. The principles of the Primary School Curriculum promote free-play with educational materials eg. magnets in science, ball-handling in Physical Education..... Within the Drama Curriculum, space can be created for organised or structured play opportunities. As children "try out" different roles in varied scenarios using the appropriate social and linguistic behaviours, they equip themselves with a skill set from which they can draw when in a similar scenario. A follow-up Drama lesson presents an opportunity for the child to practise the knowledge and skills he has acquired and consolidate them in practice.

Recent developments concerning Play in Ireland include the publication of the Síolta Guidelines (2007) as well as the foundation of the National Play Resource Centre.

This was set up to provide information, support and advice on a range of issues affecting the development of children's Play in Ireland and to promote awareness of the benefits and value of Play in school- age settings. Effective Play policies were acknowledged as a priority. It was also an aim of the NPRC to increase the opportunities for children to play at and after school with a range of activities.

The development of links between schools and after school services was acknowledged as vital in order to augment awareness of the importance of such a service. *'Educational drama, has its roots in child play, in particular, social role ormake-believe play'* (Toye and Prendiville, 2000:10).

Hendy and Toon (2001) help to clarify the differentiation between socio-dramatic Play, founded on the lived experiences of the child and thematic-fantasy Play as a departure from these lived experiences i.e. the fantasy world behind a wardrobe, as suggested in C.S Lewis' *Narnia* Adventures.

Consider amongst the range of functions and benefits of Play cited amongst the plethora of Play theory available, preparation theory, which sees Play's role in assisting a child as practice for the adult world.

One can instantly see the merits of such a viewpoint, particularly when we refer to the realm of socio-dramatic role-play, where the child draws on the familiar (usually domestic) world in which they are immersed on a daily basis, as material for his or her play. Such learning is founded on the stuff of the adult-world......... household chores,

cooking, shopping, healthcare, repairs. The child practises the motor skills necessary for sweeping up the beans an unruly child has just spilled in his shop, rehearsing or improvising chastising his mother (play mate) for such inappropriate behaviour in his premises.

The theory of Play's purpose as preparation certainly holds truth about Play's potency, but in order to grasp the holistic nature of Play, one must consider its potential for new learning.

Tina Bruce (2002) claims play promotes the development of creativity and abstract thinking in young children, drawing on both socio-dramatic Play and thematic-fantasy Play. Inherent in this argument, is that the discovery-learning opportunities that free Play presents children with, offer opportunities to practise and hone problem-solving skills. Through processes of trial and error, exploring cause and effect, children learn new knowledge about the world and their surroundings. They learn this new knowledge through the use of their own hands and minds because they are the creators and purveyors of the knowledge themselves. Ownership of learning and motivation to learn are natural by-products of such activity. These provide the impetus for all future learning and facilitate the realisation of this quest for learning.

"Drama structures aim to provide meaningful and active contexts for children to explore the relationship between language identity and human behaviour in social circumstances." (Toye and Prendiville). Play initiated by the child, similarly, provides such active contexts to explore this relationship. Children come to school with an innate capacity to be accomplished players.  They, through imaginative Play, employ the drama elements of time, place and presence. Children can set their "shop" beneath a table introducing new characters and perhaps re-playing old scenes with adjustments. Such adjustments might include the use of new language structures, tones of voices or possible outcomes. This enables children to try out responses to particular circumstances in the "no-penalty" arena of Drama and Play. In this vital stage, in the merging personal and social identity of the child, Play and its development into Drama can be used as a safe haven for children to explore, extend and use what they already know about the world, hence the creation of new knowledge.

The elements of synchronicity between Drama and Play include, its open-ended nature, its opportunities for negotiation and problem-solving and the subsequent creation and development of narrative. Just as educational Drama is not about the acting out of a story but its creative exploration and development, imaginative Play provides scope for

the creation and re-alignment of narrative as well as character and plot development. In Educational Drama, as in imaginative play, process is paramount.

Socio-dramatic Play and Educational Drama provide opportunities for groups of children to engage in problem-solving activities. An example of the fusion between Drama and Play would be in the setting of a scenario where the children are required to enable a group of toys of mixed swimming-ability to cross an imaginary river using their co-operative skills. All of the aforementioned characteristics of Drama and Play can be traced and identified in the process.

As the child plays, the objects that he or she uses are imbued with significance. Everyday items come to represent other objects because they are treated as such, e.g. an upturned hat is used as a shopping-basket or a bucket as a seat for a story-teller. As other players join the play, the rules are negotiated in accordance with the conventions of Play and adjustments are made, where appropriate. In this instance, should another player use an object for other than its intended purpose, e.g. use the hat on his head, he may be redirected by the other children to use it as a basket, as originally envisaged.

Piaget's concepts of absorption, accommodation and assimilation are readily viewed in the dramatic Play scenario. The situation is absorbed by the players, additional information is shared along with the ensuing dilemmas and the relevant adjustments are made as the totality of the experience is accommodated and the new ideas are assimilated. In this way, plot and character development hinge on the evolving narrative in action. Though at a cognitive stage of "Concrete Operations" according to Piaget, these very same concrete objects nevertheless can take on different identities, as referred to above. In order to reach Piaget's state of equilibrium, the whole process may be repeated a few times so that the children experience total ownership of the situation and for the ensuing outcome to be fully internalised for further use and development in the knowledge creation process. *"Play in any situation, whether we look at adult play or child play, has the tendency to extend towards the unfamiliar and towards the more difficult."* Liebschner (1992:60).

Vygotsky (1978), in line with Bruner (1966), Piaget (1962) and Singer and Singer (1990), concludes that play develops children socially, emotionally, affectively, linguistically, cognitively and culturally. As the child engages in problem-solving and decision-making with his peers, he may have the opportunity to enter new stages of learning growth. Vygotsky (1978:102), maintains that "in play, a child behaves beyond his average age, above his daily behaviour: in play, it is as though he were a head taller

than himself." His concept of the zone of proximal development sees teaching as a dialogic process building the competencies of both teacher and pupil as the zone represents the gap between that which the child can grasp independently and that with which they can reach with the help of others.......... The teacher's role at this juncture of development is concerned with scaffolding in terms of Play.  It demands the sensitive and appropriate intervention of the teacher into the fictional world.  The teacher's learning agenda needs to be sympathetic to and aligned with the concurrent learning of the child in the play-centre. Take a scenario where one child is returning to the shop as an angry customer who was sold out-of-date eggs.  He complains to the shopkeeper who must resolve the issue. As a result of the child "functioning" in the role, as opposed to acting out a role in Play, the learning is happening on many levels....the shopkeeper is learning how to deal with a complaint and make recompense, as is the child who is in this role.  Similarly in the case of the complainant who learns how best to state his or her case so as to affect a satisfactory outcome.

Froebel, upon whose ideology the College, in which the authors lecture, is founded, throughout the 1840s, presented many educational ideas about the educational value of Play. However, later in his life he turned his attention more to the symbolic significance of Play. His belief in the cognitive, social and emotional learning potential of Play encouraged him to highlight that "Play however useful educationally was more than a mere tool for the educator......" Play is, after all, a child's work.

Dewey (1958) argued that children's understandings can remain superficial unless the learning is grounded in complex multi-disciplinary "real world" contexts. Socio-dramatic Play allows the child to learn in familiar worlds in a contextualised manner, practising his or her own social norms in domestic surroundings.  As the child engages with his peers, a cultural exchange may be taking place extending the learning from the familiar to the unknown.  Such an inter-action facilitates cultural exchanges in terms of practices, experiences and modes of communication.

As the teacher observes the children engaged in such interchange, she becomes privy to the newly-created learning environment and resulting derived knowledge. While appearing to the outsider to be a spectator, she is, in fact, taking the role of Boal's *spect-actor* (1995), at once observer of the action and participant in the action, albeit in a non-invasive manner.  In the event of the use of teacher-in-role as an intervention, where the story is firmly rooted in the children's Play, teacher intervention can challenge them to consider choosing an avenue through the introduction of a dilemma. Such a dilemma

may be selected for its cognitive/social/ moral learning opportunities. Gura (1992), believes that optimal learning takes place when children become partners in play. Learning-themes for the classroom can be inspired or extended from such material presented in the play arena. In addition to an acknowledgement of the children as creators of the learning, this marriage furthers the teacher's learning objectives for the class at large.....

A key principle of Pretend Play is that the adult must be willing to suspend their disbelief and join in the (child's) construction which must be taken seriously. A signal should be used by either the adult or the child to indicate that they want to return to the real world from the pretend world. This 'contract' creates a safe environment within which Play can operate.

Several studies indicate that unobtrusive adult presence enhances Pretend-Play by increasing its diversity, its duration and the maturity of the pretence. O'Connell and Bretherton 1984; Harris and Kavanaugh ,1993 in Hendy and Toon (2001:23). However, Play is not always helped when adults either initiate ideas or asks too many intrusive questions. The child needs to be given the time and space to establish and begin the Play. In fact, children need time "to grow into" new ideas, especially those introduced by an adult - Hendy and Toon (2004:24). Hence, the fragile Play process needs to be given an opportunity to grow and flourish by the child before the adult intervenes. Children may respond well to being asked by an adult to share the experience of developing a role-play area within the classroom.

Teacher intervention in the child's Play can serve a variety of purposes. The teacher can intervene with the intention of changing the prevailing mood of the play-centre, for example, the teacher can focus the attention of the children through the introduction of a tension or alternatively by adding a new object of symbolic significance (prop). These can be introduced or developed by the teacher to guide towards intended learning goals. Problems, dilemmas or constraints can be introduced into the Play by the teacher to challenge the pupils, developing skills of negotiation, problem-solving, cooperation and communication.

Play-Centres are a feature of most Irish Infant Classrooms. What is a play-centre? It might best be described as a "Mini-world" within the classroom where Play is encouraged and practised and various props may be available to accompany and enhance the experience. Through Play, the children practise in the fictional world for their actual lived experience. The more encouragement and facilitation of the Play

process that is afforded by the teacher, the more evident in observation is the child's progress on the steps of Morgan and Saxton's Five-Step Categorisation of Identification which helps teachers to recognise the ways in which children enter the world of Drama. This extends from dramatic playing through to acting – mantle of the expert (being ones-self but looking at the situation through special eyes, enables the child to bear a role of expertise, eg. Fire-fighter drawing on his second-hand knowledge of fighting fires)-Hendy and Toon (2001:28). This application of knowledge and understanding, based on the child's experience of the world (real or imagined) facilitates a confirmation and refinement with an accompanying transference of knowledge. Knowledge is stored to be practised and re-examined as and when the need arises.*"Play areas provide a setting for a cultural forum within which the children can create and re-create meaning form the sum of their experiences."* (Brown in Moyles 1994:64).

Drama is a social art-form whose meaning is subject to a shared negotiation. This is because shared fictional worlds are constructed in dramatic play through dialogue. Using Play and its development into Drama in the classroom creates opportunities for co-operative and intensive involvement with small groups of children. The processes involved demand a discovery-based problem-posing approach to knowledge construction. Meaning is co-constructed through the use of symbolic objects and the form of Drama. The voice, the body and spatial relations are the components of the form Drama takes. Thus, the children are engaged as artists in the classroom.

An Office for Standards in Education (OfSTED) survey in 1994 reported that,

> better overall standards in literacy were achieved where the development of spoken English is taken seriously and well-planned. When this occurred.................drama and role-play were used effectively.

This highlights and endorses the centrality of contextualising language-based learning. Hendy and Toon (2001:42) claim that children become active contributors to their own learning, by being given the responsibility of having the relevant knowledge for the Play situation in which they are engaged. In so becoming, they employ appropriate language and communication strategies for the situation in which they find themselves. Emotional development may take place within the learning situation encountered by the person in the role adopted. Similarly, perhaps using dilemmas as a stimulus, moral development may occur as a result of decision-making processes have been experienced along with the resulting consequences (Winnicott, 1971).

In order to make cognitive advances, children need to talk out the learning that has taken place within the Play arena. The decisions, choices and outcomes and the corresponding character's feelings and intentions are all areas of consideration for discussion. According to Hendy and Toon (2001:63), discussions concerning these present children with opportunities to learn about themselves, their character, their strengths, their likes and dislikes. By commenting on the direction taken within the stories created, children are offered a powerful tool for reflection and re-evaluation. Opportunities for such reflection are vital for consolidation of learning in the classroom. Such opportunities rarely present themselves in daily life.

The development of Play into Drama and dramatic narrative facilitates the use of Drama conventions to serve the need to reflect. The art-form provides a forum to reflect on the action through the body. The use of freeze-frame or still-image can provide one such means of reflection. Guided by the teacher, a theme or area of learning is selected for consideration through the use of an appropriate convention. Working collaboratively, the child employs cognitive and affective capacities as well as skills of concentration and motor-control in their presentation. The group provides the content for ensuing discussion with the class-group in the pursuit of further input and insight.

Whilst the children are engaged in viewing the Drama work of others and adopting the role of a critical audience member, they are learning and being enabled to read meaning through body-language, spatial relations and social cues. Inherent in this is the ability to read, reflect and respond appropriately to the communications of others so as to affect the most favourable outcome for all concerned. This is synonymous with the work of Howard Gardner et al in the area of Multiple Intelligences. Those intelligences which are particularly developed in the area of Play and Educational Drama are the interpersonal, intrapersonal and kinaesthetic. Implicit in the interpersonal and intrapersonal intelligences, is the ability to recognise and react appropriately to social boundaries. This involves respect for "personal space" and sensitive and socially appropriate responses to the reactions of others. Kinaesthetically, the child's sense of self in terms of his or her body is enhanced as a result of its expression in a physical manner to communicate meaning. In the process the children may come to a heightened sense of understanding of the power and versatility of their body.

The child's engagement in dual worlds, real and imagined, permits him or her to hold these two worlds in his/her mind simultaneously. This allows a "duality of action" to

take place- Hendy and Toon (2001:64). Hence, what the "pretend-self" learns and experiences, so does the "actual-self". O'Neill and Lambert (1982:20) discuss the synthesis of language, feeling, understanding and thought in terms of the enrichment it offers the individual's inner and outer worlds. Such an increased awareness and understanding of the outer world offers increased competence and confidence in operating within this world. In order to use the learning, the child needs to be able to recognise the relevant situation for purposeful application. The careful understanding of the merits of the process and meaningful utilisation of its procedures are highly influential in deciding the efficacy of the outcome in terms of knowledge creation and the amassing of meaningful frames of reference – the results of the internalisation of newly created knowledge.

Earlier in the paper, the authors referred to the learning which takes place in both Play and Drama as situated within a "no-penalty" arena. This means that as well as learning without negative consequences, the child is learning without fear of failure or the expectation of a formulaic result. Whilst engaged in this "mini-world", the child can become empowered to deal with the actual world within which he lives. Boal (1995) described such dramatic explorations as "a rehearsal for the revolution". By practising in the second world for the first, the participant builds his confidence and courage to move towards action......

Accompanying this paper is a DVD. A number of excerpts highlight many of the items raised. Section One of the DVD demonstrates a synthesis between Play and Drama. In the Drama titled, 2 The Adventures of the Travelling Toys", the Infant Class first meet the Teacher-in-role as Station-Master, who complains that a bag of toys have been dumped on the platform. The abandoned toys come to life and wander along the train-tacks, lost. As it begins to snow, each group of children are asked to design and create a house to shelter one of the five toys for the night. The children have been provided with a range of materials, such as wooden blocks, stickle-bricks, Lego and Unifix cubes.

The DVD clip illustrates the negotiation and collaboration taking place as the children decide on the dimensions and design of the particular structure, with accompanying features e.g. door, garage, etc. The range of size of the toys used demanded the devising of structurally appropriate creations.

The DVD shows the role of the class-teacher in a supportive role, questioning the children about their structures and offering assistance where deemed appropriate.

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Following the construction of the homes, the children were asked to present their work to the class and discuss its salient features.

The second section highlights the symbolic use of materials to scale as the children are asked to consider how the toys might cross an imaginary river which they encounter (represented by a blue scarf). Problem-solving skills and skills of collaboration are demanded as the children work with a group of mixed-ability swimming toys. It is indicated, for example, that the smallest of these is a bath-time frog, who is an exceptional swimmer. The DVD exemplifies the various creative approaches undertaken by the children to enable the toys to cross the river. The teacher's role, in addition to supporting and facilitating discussion of the children's ideas, is the narrator of the action. Having gathered the children's solutions, each group is invited to play out the action whilst the teacher narrates it. The open-ended nature of the dramatic episode is crucial to the investment and involvement of the children.

Zooming out from the Irish context of the DVD, one may reflect on the juxtaposition of this particular setting and the research (Bennett and Kell 1979; Tizzard et al 1988; Pascal 1990; Gura 1992) that suggests that even those teachers that espouse Play and its benefits don't necessarily devote the time necessary for its pursuit. In order to redress the balance and close the gap between rhetoric and reality, teachers need to be given the support, acknowledgement and resources necessary to sustain Play so that, as Froebel indicated, the child can get on with the business of knowledge creation and learning in its truest sense......

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# CREATIVE STUDENT OF A PESSIMISTIC TEACHER?   DISCOURSE ON ELEMENTARY EDUCATION IN POLAND

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ABSTRACT

*In this paper I would like to analyze teachers' viewpoints on elementary education in Poland and their impact on school achievements on 9-year old children and educational practice. Examining 267 teachers', three scales of teachers' opinions were identified: Educational Pessimist, Educational Formalist and Independence Promotor. One of the surprising findings is apparent: lack of confidence in children and their creativity and self-initiative presented by their teachers. Teachers are convinced that effective teaching requires precise instruction, strict control and limiting children's creativity.*
*How development of creative thinking is possible in such circumstances?*

Key words: school achievements, teachers' opinions, elementary education, educational, educational pessimism, creative student.

## Introduction

In the paper, I will present the selected results of a nationwide research of the nine-year-old pupils who finish their first key stage in a primary school, conducted in 2008 by the Central Examination Board. The purpose of this research was to collect information about a level of mastering the basic skills (language and math) by the nine-year-old school children. Apart from that, there were analysed the environmental and school conditions of these educational achievements. The research was financed by the European Social Fund.

Two main research questions were posed:

1. What is the level of educational achievements of children who completed their elementary education in the scope of language and math skills?

2. What is the influence of the environment and school on the skills learned by the children?

The school factors included, among others: education and job seniority of a teacher, as well as opinion of the teachers about the fundamental aims and methods of teaching the language and math during the first three years of the primary school. 5.000 pupils from the third grade of the primary school from different rural and urban areas (representative sample) as well as 267 teachers took part in the research carried out in 2008.

In this paper, I will try to give an answer to the following question:

Is there any relation between the opinions and declarations of the teachers regarding the aims and teaching methods in the elementary education, and the achievements of the school children?

What is the relationship between teachers' opinions and educational practice?

In the first part of the article I will present results of survey checking teachers' opinions on aims and methods of elementary education. Whereas the second part will be devoted to comparison of the opinions with the educational practice, that is the results of observance of lessons carried out in 20 third grade classes in the primary schools in large Polish cities.

## 1. Description of the scales that characterise the opinions of the teachers

In order to examine opinions of primary education teachers about teaching the language and math during the first three years of the primary school, two questionnaires were prepared. The first one included 40 statements regarding the aims and methods of the language teaching, whereas the second one included 40 parallel statements regarding teaching math. The questionnaires were filled out by 137 teachers in 2006 and 267 in 2008.

The answers collected from the teachers during the research in 2006 were subject to a statistical analysis. Factor analysis and CLV algorithm (Clustering Around Latent Variables) were used. As a result of the conducted analysis, at first there were selected 48 statements and out of them were created six scales of features, which are compared in table 1 below. Here is a detailed description of the received scales.

Table 1. Reliability of the scales created from the selected items of the questionnaires designed for the teachers

| Name of the scale | Number of items | Reliability (α-Cronbach) Cronbach's alpha test |
|---|---|---|
| **Educational Pessimism** | 7 | 0.677 |
| **Anti-group work** | 5 | 0.645 |
| **Educational Formalism** | 14 | 0.796 |
| **Child Self - Initiative** | 6 | 0.623 |

| | | |
|---|---|---|
| **Active Participation** | 10 | 0.731 |
| **Creativity Development** | 6 | 0.655 |

**Educational Pessimism**

This scale includes items that express the conviction about minimal intellectual abilities, as well as skills of pupils from the first three grades of the primary school. Therefore, it includes opinions about lack of cognitive independence of the students, the teachers did not believe that school children could find some interesting solutions to a given task, as well as statements that express reluctance of the teachers to allow the children to undertake some less formal and more spontaneous educational activities.

**Anti-group work**

The scale includes statements according to which the respondents do not believe that performing the task by all children together has any sense. There is a general conviction that the linguistic or mathematical tasks carried out in a group have smaller educational effect because this results in a situation when only the best student is active, while the rest of the school children who cannot cooperate during the task, simply, waste their time.

**Educational Formalism**

The content of the items included in this scale measures intensity of an attitude which consists of not very reflexive and rigid teaching of simple schemes and rules acquisition, which can be verified by means of simple tasks. A teacher who agrees with the statements included in this scale thinks that the most important is to introduce a formal knowledge regarding the language, as well as practice the algorithms of

mathematical operations learned by children, while his or her preferred method of conducting the classes requires from the pupils mostly great dose of discipline and subordination.

**Independence Promotion**

The scale includes statements which accept the need to develop self-independence of the pupils during the educational process. Therefore, it is possible to presume that a teacher who agrees with the statements of this scale appreciates and reinforces the children's individual and spontaneous initiative, both in terms of solving the tasks and willingness to share ideas with others.

**Creativity Development**

The statements included in this scale create a picture of a teacher who is willing to conduct the classes in a creative and elastic way; a teacher who is ready to use various 'unusual' solutions and believes that teaching should be closely related to everyday life, as well as everyday experiences of the children.

**2. Hierarchical Structure of the Scales**

Some of the scales presented above, describing opinions of the teachers, proved to be quite closely related with regard to content, and they are highly correlated with each other:

Table 2. Correlations between particular scales of the questionnaires designed for the teachers

| | Educational Pessimism | Anti-group work | Educational Formalism | Child Self – Initiative | Active Participation | Creativity Development |
|---|---|---|---|---|---|---|
| **Educational Pessimism** | 1.00 | 0.53* | 0.25* | -0.16 | -0.09 | -0.26* |
| **Anti-group work** | 0.53* | 1.00 | 0.27* | -0.24* | -0.16 | -0.29* |
| **Educational Formalism** | 0.25* | 0.27* | 1.00 | 0.19* | 0.09 | -0.04 |
| **Independence promotion** | -0.16 | -0.24* | 0.19* | 1.00 | 0.51* | 0.36* |
| **Active Participation** | -0.09 | -0.16 | 0.09 | 0.51* | 1.00 | 0.35* |
| **Creativity Development** | -0.26* | -0.29* | -0.04 | 0.36* | 0.35* | 1.00 |

The asterisk [*] signifies correlations which are important at the α=0.05 level.

In this situation, it was decided to create a hierarchical structure of the scales (see picture 1.) by combining the most correlated scales:

o From the *Educational Pessimism* and *Anti-group work* scales which characterise negation of the children's abilities, as well as approve only the traditional methods of teaching, was created a new scale called ***Negative Attitude;***

o Whereas, from the *Child Self-Initiative, Active Participation* and *Creative Development* scales which present constructive approach to the educational process, was created a scale called ***Positive Attitude***.
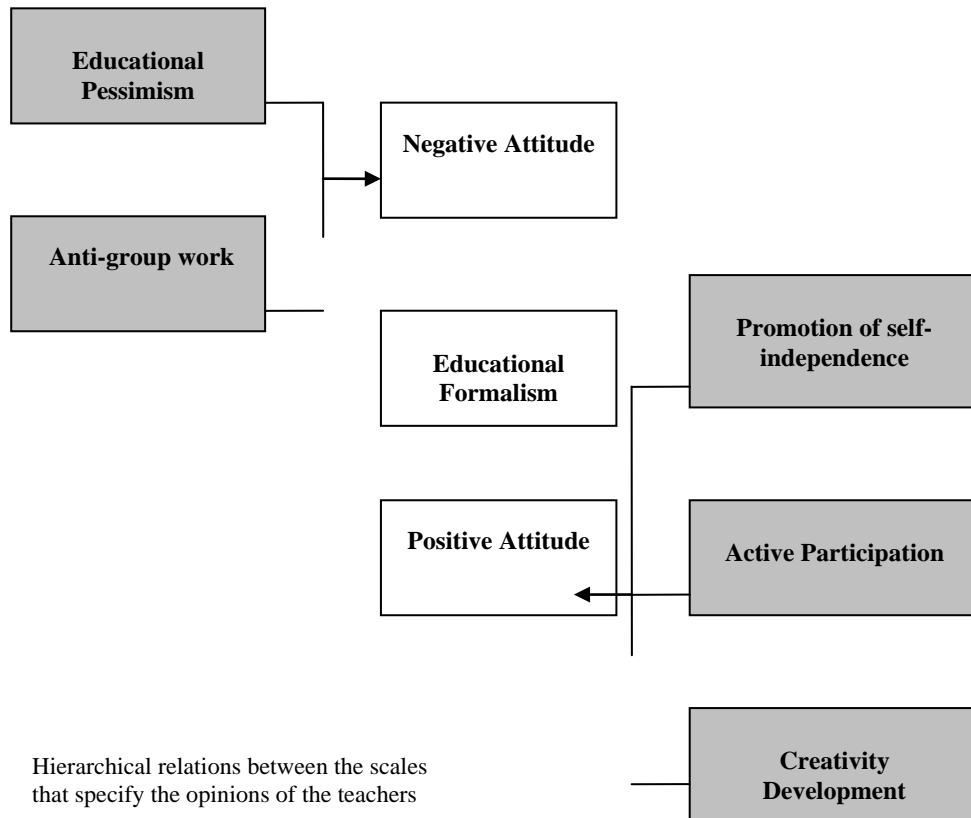
**Picture 1.**  Hierarchical relations between the scales that specify the opinions of the teachers

## 3. Relations between the results of the school children and opinions of the teachers

In order to examine educational viewpoints of the teachers in the year 2008, the surveys included 65 statements regarding the following three issues:

- Educational pessimism
- Educational formalism
- Independence promotion

Most of the statements were taken from a tool used for research purposes in 2006. However, this tool was subject to a significant revision.

The changes regarded mostly resigning from three categories, which appeared to have slight connection with the results obtained by school children. Educational viewpoint categories, which were excluded, are: *anti-group work, active participation* and *creativity development.* Moreover, wording of some statements was changed, and some new were added to increase reliability and accuracy of the scale.

Due to the changes, it was necessary to conduct new psychometric analysis of the created tool. In statistical analyses, construction of indexes based on IRT ( item response theory) was used.

Partial credit model of item response theory (IRT) was adjusted to the teachers' responses on questions regarding their viewpoints on three scales.

## 4. Correlations between the achievements of the school children and opinions of the teachers

On the basis of teachers' answers given in the research carried out in 2008 on questions regarding their educational opinions, the results were calculated in three scales: (1) *promoting independence,* (2) *educational formalism,* and (3) *educational pessimism.* Results of independent analyses showing correlation between each scale with school children's skill level, are presented in table 3.

For all language skills, *educational pessimism* turned out to have a statistically significant negative effect on the school children's results, whereas for mathematical skills it was *algorithmical skills* scale. *Independence promotion* had a significant positive effect for *reading*. However, it is worth emphasizing that for the remaining three language scales, *independence promotion* had a positive effect on the level of statistical validity (p-value between 0.05 and 0.1), and when applying alternative hypothesis, we would also have achieved significant positive effect of *promoting independence* for these scales. Among mathematical skills, *independence promotion* had a significant effect only on *the skill of solving text exercises*. The effect of *educational formalism* turned out to be close to zero and statistically insignificant.

Table 3. Calculation of the influence of educational opinions on the school children's results. Statistically significant effects are in bold

| Language skills | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Reading | | Writing | | Grammar | | Spelling | |
| | effect | SE | effect | SE | effect | SE | effect | SE |
| **Independence promotion** | **0.048** | 0.02 | 0.050 | 0.02 | 0.054 | 0.02 | 0.051 | 0.029 |
| **Educational formalism** | – | 0.02 | – | 0.02 | – | 0.03 | –0.003 | 0.030 |
| **Educational pessimism** | – | 0.02 | – | 0.02 | – | 0.02 | **–0.084** | 0.029 |
| **Mathematical skills** | | | | | | | | |
| | Algorithmical | | Textual maths problems | | Research problems | | | |
| | effect | SE | effect | SE | effect | SE | | |
| **Independence promotion** | 0.013 | 0.029 | **0.052** | 0.026 | 0.011 | 0.025 | | |
| **Educational formalism** | 0.029 | 0.028 | –0.018 | 0.025 | –0.010 | 0.025 | | |
| **Educational pessimism** | –0.049 | 0.029 | **–0.083** | 0.025 | **–0.070** | 0.025 | | |

During the survey, the teachers were asked to present their opinion according to the following scale: *„strongly agree" – „agree" – „disagree" – „strongly disagree"*, regarding statements describing factors, which can obstruct meeting educational aims in elementary education. Results of the analysis are presented in table 4. Encoding was used, and the results presented in table 4 show the relation between the school children's results, and giving one of two positive answers on a given statement by the teacher.

Table 4. Calculation of the effect of agreeing with given statements in the question "What obstructions do you meet when executing educational aims in integrated teaching?" on the school children's results. Statistically significant effects are in bold

| **Language skills** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Reading** | | **Writing** | | **Grammar** | | **Spelling** | |
| | **effect** | **SE** | **effect** | **SE** | **effect** | **SE** | **effect** | **SE** |
| Lack of clear educative aims to meet in classes 1-3 | **−0.184** | 0.091 | −0.022 | 0.110 | 0.030 | 0.114 | −0.194 | 0.114 |
| Lack of good textbooks for integrated teaching | 0.031 | 0.064 | 0.113 | 0.075 | **0.153** | 0.077 | 0.099 | 0.078 |
| Lack of easily accessible methodics counselling | −0.044 | 0.049 | 0.023 | 0.058 | −0.027 | 0.060 | −0.061 | 0.060 |
| Lack of adequate support from the headmaster | 0.009 | 0.094 | 0.079 | 0.111 | 0.047 | 0.116 | −0.203 | 0.115 |
| Lack of experience exchange between 1-3 class teachers | 0.049 | 0.105 | 0.017 | 0.125 | −0.224 | 0.126 | **−0.283** | 0.126 |
| Lack of cooperation between 1-3 and 4-6 class teachers | −0.065 | 0.065 | 0.059 | 0.078 | 0.037 | 0.080 | −0.098 | 0.080 |
| Lack of adequate cooperation with parents | −0.100 | 0.071 | −0.114 | 0.084 | −0.106 | 0.088 | 0.014 | 0.090 |
| Lack of adequate number of educational aids | −0.063 | 0.049 | 0.018 | 0.058 | −0.012 | 0.060 | −0.040 | 0.060 |
| Bad classroom conditions, hindering work with children | −0.039 | 0.058 | −0.006 | 0.069 | −0.028 | 0.071 | −0.040 | 0.071 |
| Lack of discipline and behaviour issues in the classroom | 0.092 | 0.075 | −0.017 | 0.090 | 0.027 | 0.092 | 0.126 | 0.093 |
| Children are not willing to learn and do not work systematically | **−0.109** | 0.049 | **−0.146** | 0.059 | −0.118 | 0.061 | −0.050 | 0.062 |
| Lack of clarity regarding integration in 1-3 classes | −0.011 | 0.072 | 0.042 | 0.086 | 0.020 | 0.088 | 0.018 | 0.088 |

| Mathematical skills | | | | | | |
|---|---|---|---|---|---|---|
| | Algorithmical | | Textual maths problems | | Research problems | |
| | effect | SE | effect | SE | effect | SE |
| Lack of clear educative aims to meet in classes 1-3 | −0.136 | 0.120 | **−0.197** | 0.093 | −0.093 | 0.092 |
| Lack of good textbooks for integrated teaching | 0.043 | 0.071 | 0.054 | 0.066 | −0.010 | 0.067 |
| Lack of easily accessible methodics counselling | −0.013 | 0.057 | −0.013 | 0.051 | −0.002 | 0.051 |
| Lack of adequate support from the headmaster | 0.052 | 0.105 | 0.061 | 0.100 | −0.009 | 0.096 |
| Lack of experience exchange between 1-3 class teachers | −0.206 | 0.131 | −0.036 | 0.106 | −0.096 | 0.112 |
| Lack of cooperation between 1-3 and 4-6 class teachers | −0.118 | 0.077 | −0.025 | 0.069 | −0.102 | 0.067 |
| Lack of adequate cooperation with parents | **−0.187** | 0.081 | **−0.170** | 0.074 | −0.086 | 0.074 |
| Lack of adequate number of educational aids | −0.091 | 0.057 | −0.061 | 0.051 | −0.049 | 0.051 |
| Bad housing conditions, hindering work with children | −0.099 | 0.069 | −0.025 | 0.062 | −0.026 | 0.060 |
| Lack of discipline and behaviour issues in the classroom | 0.058 | 0.091 | 0.088 | 0.080 | 0.051 | 0.081 |
| Children are not willing to learn and do not work systematically | **−0.136** | 0.058 | **−0.112** | 0.052 | **−0.117** | 0.052 |
| Lack of clarity regarding integration in 1-3 classes | −0.154 | 0.089 | −0.027 | 0.075 | −0.080 | 0.076 |

A statement, which had a significant statistical effect for five of seven analyzed skills, was *"Children are not willing to learn and do not work systematically"*, which is strongly related to the previously analysed *pessimism* scale. This rule does not apply to only two language scales – grammar and spelling. A very interesting result is the only statistically valid **positive** effect. For *grammar* scale for the statement *"Lack of good textbooks for integrated teaching"* – pupils of teachers who agree with this statement get higher results in *grammar* than pupils of teachers, who do not agree with it. It is worth mentioning that for *writing* scale, also for this statement we achieved a significant

positive effect. However, it did not exceed a statistical validity threshold (p-value = 0.13).

Other negative statistically significant effects were visible when the teachers were accepting *"Lack of clear educative aims to meet in classes 1-3"* statement, and they amounted to: 0.18 for *reading* and -0.30 for *the skill of solving text exercises*. For the statement *„Lack of experience exchange between 1-3 class teachers"*, there was a significant negative effect for spelling. For *„Lack of adequate cooperation with parents"* statement, significant negative effects for *algorithmical skills* and *solving text problems* were observed.

## 5. Teacher's opinions and educational practice

Teachers' opinions regarding elementary education were compared to the results of lessons observation, conducted by teachers in third grades of the primary school. 20 schools from big cities were chosen to participate in language and mathematical skills study of third graders.

The analysis of results of the school children in skill study allowed for dividing schools (classes) into two categories: schools, which got results over the average result of schools from cities over 100,000 inhabitants, and schools below this average. During the survey, the trained observers participated in a total number of 78 classes devoted to developing language and mathematical skills of pupils, lasting 3521 hours total. The observation took place from 15 May to 10 June 2008.

### Belief in children?

All teachers working in 20 classes in the schools selected for survey purposes, hold a Master's degree. All these persons had long job seniority and a significant professional output. The mean age was about 45 years. It has to be stated that it is a very well trained group of teachers, with vast professional experience.

On the basis of opinions formulated during the survey, each of the teachers was described according to three scales: *educational formalism, educational pessimism* and *independence promotion*. Educational formalism measures intensity of an attitude,

which is characterized by placing emphasis on the teaching process based on mechanical teaching of simple schemes and rules, which can be easily learned and verified. Educational pessimism shows level of belief in small intellectual abilities and knowledge of school children, whereas independence promotion is connected with a level of acceptance of a belief that in teaching process individual actions of pupils should be emphasized.

It is worth paying attention to intensification of educational pessimism among teachers working in schools, which obtain results below average – as much as nine (of ten) teachers get below average result, whereas some of them have a very strong conviction that children are characterized with low abilities.

Similar situation concerns formalism, although its scale is a little bit smaller. Seven teachers often are characterized with high level of formalism and educational pessimism.

On the other hand, teachers from these schools obtain results below average for promoting independency scale.

Belief in a statement that **if the teacher did not explain something, then children do not know it**, is shown in practice quite commonly, in all of the observed schools:

> *Bartek! What do you say?*
> *How did you get it if it has not been introduced during a lesson yet? ($^2/_4$ fraction)*
> *I did not teach you how to multiply by 12.* **How do you know how to do it?**
> *In order to do something, you have to wait for my instructions.*
> *And you have to appropriately arrange the map.* **I will judge it, not you.**
> *Open the notebooks. Don't do anything.* **I will tell you and explain everything.**
> *We have to glue the map to an empty sheet. I will show and say how.*

It is one of the most typical characteristics of the observed classes. It is followed by other qualities – domineering and talkative teacher, children not intellectually active, repetitive schemes supplied by a teacher, and pupils not really interested in the lesson. As a result, the start of education does not look very optimistic.

**Creativity of school children?**

In as much as 13 schools, lessons were lacking a part, in which pupils could be creative. Signs of children's creativity could be observed during 8 classes, on the remaining 70 actions of children were imitative.

In effect, children were creative during 3.0% of classes as an average, that is slightly over one minute during a typical lesson. Again, they had more chances to be creative during lessons concerning language education, mainly as far as schools from the upper half are concerned.

They could:

➢ write proverbs about friendship;

➢ design machines, for example to create clouds, and write manuals;

➢ write poems;

➢ design and make posters inviting to visit Warsaw;

➢ forecast and paint what Poland would look like in 50 years time;

➢ show in drama scenes what they would like to bewitch for themselves and others if they had such a possibility;

➢ design book cover.

During classes developing mathematical skills, only once children had a chance to show creative initiative – they were formulating various questions matching the wording of an exercise. It gives an average of 3 seconds of mathematical creativity per 45 minutes of a lesson.

Several times during the classes there were situations, which – probably - according to the teachers or authors of the textbooks, were supposed to give children a chance to act creatively. However, they did not fulfil their function because of excessive engagement of a teacher. Here are some examples:

*We have there (in a textbook) a picture story. There are 6 pictures. And in a moment we will say what we see in these pictures. Have we got the books open?*
*What we see in the first, second, third, fourth, fifth and sixth picture? Let's start from the first one.*
*Good. In the second?*
*Excuse me for a moment. (to a pupil, who describes the picture)*
*Is everybody looking at the picture?*
*(the pupil continues)*
*Grzegorz described the pictures very well. I will distribute sheets of paper, on which you have sentences with a mixed sequence of the story's events. You will do it very quickly, glue it to the notebook, but right now don't glue anything, we will check sequence of events. What is the first event?*
*Maybe let's start with reading out all the events?*
*Pupil: The first one...*
* Oh, you are reading it in a correct sentence. Good. Do all of us have number one marked?*
*Second one, maybe somebody else. (pupils read successive events) ...*
*On the basis of the sequence of events we will tell the picture story. It will be quite easy exercise for you. (a pupil tells a story)*
*Speak up a little bit, please.*
*Very well, who also wants to tell this story? Wojtek. (the pupil tells it)*

*(Children prepare a journal. The teacher collects materials prepared by them.)*
*I, **guessing your suggestions**, have prepared a colourful string and I will try to put everything in one piece.*
***I have already prepared the journal**, we can show it to our mums at the meeting.*

## Children asking questions?

Pupils in the observed classes were very strongly "controlled" – their actions were mostly a reaction to the teachers' actions. It is reflected in a form and frequency of spontaneous questions asked by school children (table 6). Spontaneous – that is formulated from the children's initiative.

Table 6: Number and frequency of spontaneous questions asked by the pupils during observed classes. Numbers characterising frequency inform how often a given type of questions was asked

| During the observed classes, pupils asked: | | Classes total | | | Language education | | | Mathematical education | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Schools total | Lower part of the schools | Upper part of the schools | Schools total | Lower part of the schools | Upper part of the schools | Schools total | Lower part of the schools | Upper part of the schools |
| organizational questions | Number | 407 | 207 | 200 | 221 | 119 | 102 | 186 | 88 | 98 |
| | Frequency | 8.7 | 8.6 | 8.7 | 9.3 | 9.0 | 9.7 | 7.9 | 8.2 | 7.6 |
| questions for explanation, justification | Number | 28 | 14 | 14 | 13 | 7 | 6 | 15 | 7 | 8 |
| | Frequency | 125.8 | 127.6 | 123.9 | 157.9 | 152.4 | 164.3 | 97.9 | 102.7 | 93.6 |
| other substantial questions | Number | 86 | 48 | 38 | 55 | 31 | 24 | 31 | 17 | 14 |
| | Frequency | 40.9 | 37.2 | 45.7 | 37.3 | 34.4 | 411 | 47.4 | 42.3 | 53.5 |
| Classes lasting time (in minutes) | | 3521 | 1786 | 1735 | 2053 | 1067 | 986 | 1468 | 719 | 749 |

As it can be seen, children ask organizational questions most often – their frequency is very similar, despite type of school and classes. During a typical lesson lasting forty-five minutes, about 5 such questions are asked.

Other questions seem to illustrate a level of children's helplessness and teachers' dominance level:

> *Do we glue it at the beginning of the textbook? Can we glue it now?*
> *Are we first solving it and then gluing, or first gluing and then solving?*
> *Are we writing?*
> *When we write these sentences, do we start from the new line?*
> *Is it a new sentence?*
> *Can I colour it with markers?*
> *Miss, do I have to write it here?*
> *Can I mark it this way?*
> *Miss, can I do calculations on this sheet of paper?*
> *And can we sign it?*
> *Miss, where do we sign it?*
> *Will we need a pencil?*
> *Do I have to write in pencil?*
> *What do I have to write here?*
> *Miss, and here the result?*
> *Do we write here or not?*
> *Here minus sign?*
> *Can I use a marker?*

A large group of questions is connected with a willingness to grab attention and additionally it shows boredom of the pupils:

> *If I finished writing, can I go out?*
> *And what to do if somebody finished rewriting?*
> *Can I start the second page?*
> *Can we read the exercise?*
> *Can we start doing calculations? ("No" – says the teacher)*
> *Can we do the next one?*
> *Do we have to do number four as well?*
> *Can we do number four?*
> *Can I draw something?*
> *Can we start writing?*
> *Can we do it alone? (the teacher does not react)*
> *And if somebody finished?*
> *Miss, can I draw a mushroom?*
> *Miss, what to do if I finished number five?*
> *And what do we have to do now?*

Rarely school children asked substantial questions, that is connected directly with a topic of the lesson.

Clarification or justification questions were rare – during the whole research process there were only 28 of them. Small number of these questions appeared despite school types – they were appearing one time per 126 minutes of the classes. And only some

teachers were trying to give a comprehensive answer. In 59 of 78 observed lessons, none of such questions were asked. At the end it is worth emphasizing the fact that on 37 of 78 observed classes, that is on the half of them!, school children were asking only organizational questions.

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# SECONDARY TEACHER EDUCATION

# THE TEACHER'S DUAL AWARENESS- ABOUT BEING "MET" OR ABOUT MEETING "THAT SOMETHING"

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ABSTRACT
*The pupils' quotations in this article come from the survey, 2004: "Signalement af den gode og effective underviser – eleverne har ordet" ("Description of the skilled and efficient teacher – the pupils have the floor") involving pupils from lower and upper secondary school.*
*Although pupils know that they go to school to learn something, their starting point is "themselves": "I'm OK" or "I'm good enough". The teacher's starting point is her intention of teaching. Creating an effective learning environment the teacher need to be attentive to the intentions of the pupils, especially when there is a lack of merging.*

In Denmark teachers have a triple focus in teaching: the pupils' academic standard, their socialization and their democratic upbringing, with the general objective of strengthening the capability of the individual pupil, to live her life in a society of high complexity.

To teach is so to say "Someone who wants to make a difference with somebody else" and asking the question *what* it is you want to do, leads on to the question *how* to do this. Traditionally the answers from teachers become a range of pedagogical-methodical principles, where I believe that they tend to play down the most crucial one: *The observation of her own interaction with her pupils.*

## Recognition must be followed up by structure

As the leader of the class the teacher is responsible for the quality of relations. I mean that she is responsible for inviting the pupil to the kind of cooperation which is characterized by mutual respect and recognition. The latter concept is often referred to at present and yet there is much doubt about its substance. "Is everything supposed to be equally well?", "Are you not allowed to criticize at all?"

I see the appreciative idea of pedagogy as an ongoing process.

As a starting point teacher and pupil recognize that "the other" has a right to experience things the way she does. The appreciative approach therefore becomes a way of meeting other people, which requires that you basically are willing to distinguish between the

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experiences, and the acts of the participants. The idea is that acts may be criticized and affected in a desirable direction, without depriving the person her self-esteem.

The teacher should not have to worry about whether or not democracy in her class, suffers from the fact that she is the main decision maker during a school day. The pupils' comprehension of the teacher is that she controls the class, and provides the subject with its substance.

The teacher more or less becomes the embodiment of her subject – for better or worse. The teacher's involvement, her will power and capability of teaching her subject is being revealed by the pupils the instant she enters the classroom.

As Peter, told me two weeks after his start at upper secondary school:

> Well I had a really good English teacher at lower secondary and I intended to choose English as my major subject. Then I met the English teacher …and now I have chosen chemistry!

Not that the pupils are demanding much:

> There is no such thing as a special recipe for how to act as a good teacher. It depends - but as long as you try to be mostly positive and take an interest in the subject you teach, then I suppose that's it. It's liking your job, that makes the difference, says Anne.

The teacher may solve her pedagogical paradox – to be in charge and control the events without destroying the pupils' initiative and commitment – by viewing herself as part of the tuition and therefore also open to assessment. Self assessment on the basis of pupils' feedback, may supply the teacher with the kind of information which is out of reach through her academic standard, namely an answer to the question: How do pupils see teachers facilitate their teaching?

The teacher-pupil cooperation represents a complementary reciprocity – a kind of appreciative dialectics – including both a general presence of the teacher and an interest in the individual pupil.

> … if only the teacher is considerate and tries to appear positive, it  is as if it helps, I think. In such situations you feel much more like taking part, than if they just sit there looking as if they would rather be at home, Mette says.

> My Civics teacher, when you talk to him, you can see that he is able to – well, usually a teacher has one way of teaching. But this teacher has a way for each individual, in which he gives information and instructions. He can see through people which is really good. It really is as if he knows me – well, knows me the school way, yes that's it , says Robert

The asymmetric distribution of roles lay down the framework for the encounter between teacher and pupils, and they accept, or better, need the teacher as their learning leader. But the learning is situated in strong relations founded in respect.

I learn a lot from my English teacher. But I don't know if it has to do with her being young and having lived for some time in England, and that I learn English very easily. So we are good at cooperating – teacher – pupil – in the sense that we have different strong sides, and therefore compliment each other. We get along very well in the longs run, let me say it like this that you cooperate with the teacher, Anton tells.

## The teachers dual awareness

The same instant the teacher meets the pupil, the pupil meets the subject. The learning process of the pupils will then be kick-started by the teacher's introduction which is expected to be clear and committed.

Good teachers have a considerable interest in what they
do… and they really involve themselves with their task, says Robert.

A good teacher knows how to explain things in many different ways, in case you don't understand … there really are teachers who, you know when you don't quite understand what they say, they just use the same explanation all over again. And perhaps they just talk louder… and  you  know that doesn't really work at all, Mette tells.

Teachers who enter the class room, sit down by their desk saying: You may start with this and that… and then just keep seated and let us do the work, ehh… I mean, they do not teach their subject well. A good teacher is someone who not only knows the rules of a language or of mathematics… but who also come to your desk to help you if you need it and who helps everybody, Anton and many others need awareness.

The dual awareness is about identifying the teacher with her material and about being able to stage it, so that it will be available to the pupils as an appropriate disturbance. Several studies show that the teacher's conduct – especially during the first 5 to 10 minutes of a lesson – is crucial to the peace to work in the class room. The Danish psychologist Jan Tønnesvang describes it like this:
"Teachers must together and individually strive to develop a personally rooted working style and teaching style…(…)meaning that the teacher as a person must be placed in the centre of her professional competence. The term teaching style referred to by Tønnesvang is what the pupils call the teacher's charisma:

When they say something you are interested in or if you just like the way they are extremely well, their entire charisma, it makes a big difference. If they act alive and vivid or like someone who really is involved in what they say, then you are much more likely to listen to them. Or those who know a lot about their field of work,  and  know how to use examples in their conversations,  Mette says.

No teacher has yet managed to get me hooked on German, and well … that is for one thing because I am not interested in the subject … and on the other hand I don't know if I had taken   much interest in mathematics, if I hadn't had such great teachers. But it is good to

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have a great teacher from the very beginning… so that you are absorbed in the subject straight away , Peter has experienced.

## The teachers personality

Peter tells us about his meeting with "the it" that catches his attention. He can not find the right words to explain that it is the teacher's personality which catches him. Robert explain it in the presence of the teacher: *…looks directly into my eyes and is seriously committed*, as he says.

Studies also show examples of the opposite effect, that pupils find the teacher's personality an obstacle to their learning.

> If a teacher enters the class room in a grumpy mood, she has one of those days, then her class reacts like … well like nothing matters – I mean, fuck that, Lene describes.

You may say that the teacher uses her personality as a working tool, and it is vital to stress that it is her professional personality that is on duty. This emphasis contains a break with the former opinion of the conflict between being professional, and being personal or private. I believe that this separation is false, and that the separation should be between privacy and professionalism. This facilitates the comprehension of the positions on which the participants involved in the actual teaching is acting. The pupil is *a pupil* and not a child, friend or consumer of school and the teacher is the pupil's professional adult, not a friend or mother. The proportion of conscious on subconscious communication is 1:9; this is an important reason why the teacher must reflect on her own actions and communication: If I want to be able to ….; then I must work with….Which means that she must correct her performance in those cases, where the private person "takes over" from the professional teacher in an undesirable way.

The reflection might be done as a feedforward- feedback

That is why I must
1. stop being/doing…
2. develop being/doing..
3. go on being/doing…

So I would like the
pupils to think about
me as their teacher:

1.
2.
3.
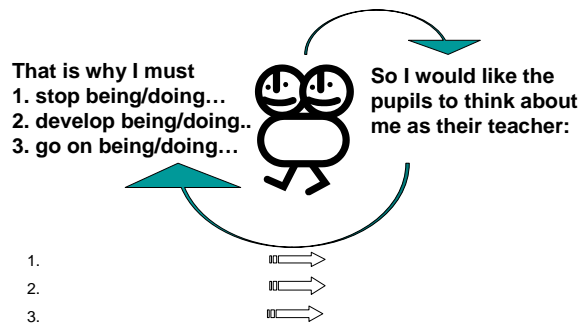
**The teacher is an eye opener**

The teacher knows what the pupils do not know – and she knows what they are expected to know. Topics and issues that the pupils would never choose of their own free will, either because they don't want to deal with them or because they do not know them.

This is the starting point of  teaching and the teacher makes it clear which aspects are compulsory, and therefore must be done and which are negotiable. If you wish to generate a positive and efficient learning environment, it necessarily must extend beyond the present self-understanding of the individual pupil. The teacher's choice of content and working method link together the pupils in a working community, where it is not her task to verify the pupils in their own everyday culture, but – on the contrary – to offer them experiences which provoke and annoy them  in a way that move their development. It goes for the academic as well as the personal development, and it takes place at the individual as well as the collective level

By the presentation of new material the teacher may risk to hit a wall of dissociation from the pupils.  "For tomorrow you must continue your work with the paper about Hans Christian Andersen's poem "The Story of a Mother", says the teacher.

The answer from a pupil marks his intention, or better, his no-intention:

"I don't mean to criticize you, but I don't feel like working with his poem. He does not ring a bell at all with me."

As an experienced teacher I know that pupils do not become more enthusiastic about Hans Christian Andersen, when  told that it is their own responsibility to be so. The external command ought to be replaced by an inner motivation, creating in them a

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purpose to learn about matters, which do not seem meaningful to them at first glance. Their ability to do this depends on the quality of the teacher-pupil relationship, and may be observed during this very special and in a way sensitive moment, where the teacher succeeds or does not succeed in making the pupils interested in the topic.

The ability of creating a feeling in the pupils that this matter mean something to each and every one of them"all 25", gives the communication a social validity, which make them dare to lose themselves on their way towards new learning.

> She must listen to what it is I try to tell her and look at it from my point of view … and try to say, well, how is it he really thinks and: Ok – then he calls for me to act like this. Simon

**The teacher is a role model**

The teacher's values make the basis of the choice she makes, and the professional personality (**red**) is the basis of how she *interprets* her task, how she considers her didactics and how she *acts* in her role.



**Qualifications**
The crafts man knows the
**TASK**

**Competences**
The eye opener/ role model acts
**RELATIONS**

**Professionel personality**
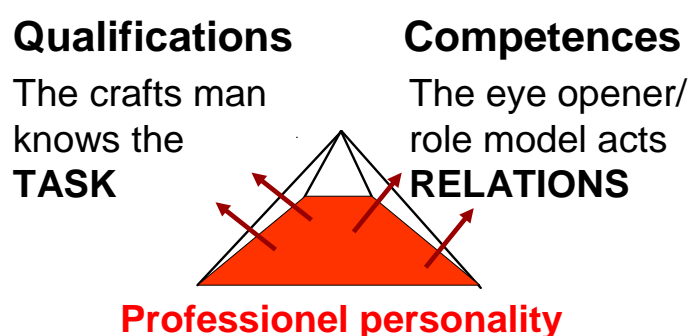
Pupils do not know the Act of the Danish Public school, or the teacher's didactic reflections on her teacher roles, in relation to the task and the pedagogic intention. The pupils observe a teacher personality in her acts and they want to meet her in the learning process:

> A teacher must be able to make comments, bring forward her views, but still be open and accepting to the pupils' views. It must not be a one-way thing, because it simply will not work. It has to be two-ways, as all learning is two-ways to me, Lene says.

Besides from what the teacher learns during her teacher training the pupils expect to meet a person they can relate to. Anton pinpointed the teacher's challenge in this conversation: When do you as a pupil have respect for a teacher?

> If the teacher dares to be himself and does not … well, eh sometimes you have the feeling that some teachers change themselves, you know in front of the class… in order to be … well, yes to be a good teacher, yes exactly. But they really just lose marks that way. They just must be themselves and you can easily sense when they are.

> How can you sense that a teacher is herself?
> It is…eeh, really not possible to explain, it is something you can just tell, whether or not she likes to be inside the person she is  [pause]…plays.

> Why do you say "plays"?
> Well because he has a role, hasn't he, he is not born a teacher is he?

The teacher's way of relating to her profession shows the pupils an approach – a way to act –  to what school is about:  working, learning and growing. The teacher's professional behavior becomes normative and also educative, the teacher is exemplary. I stress this because the teacher relates to the pupils through the subject. That is where they meet, it is through that the working relationship takes shape. Without the subject there would be no relation.

As I already have described the teacher's professionalism is not only a question of academically related qualifications, but to a similar extend a question of the ability to show commitment, pleasure in one's academic field, and ability to focus on one's part in the various phases of the pupils learning processes: "look at me as the person I am" – the teacher's part is an empathic, perhaps a reality rectifying counter-strategy, which acknowledges the pupil's experiences and need of self-esteem.

"Show me who I may become" – the teacher must give directions as to how the pupil navigates between his polarity: You are here now, and I know that you must end up over there.

"Let me be like you" – the teacher's part is to be a role model, not a seducer. The pupil mirrors himself in the teacher as a self-object, and the teacher's task is to move the pupil's "appetite" away from himself to the material and his own learning.

"Challenge me without suppressing me" – the teacher's part is to be a good otherness, to offer appropriate intrusions. If the pupils participation in class activities are interfered by the fear of sanctions, they will stop their work immediately after the teacher turns their back to them.

The teacher's academic and personal competences are tangled up to form an overall image. Some debaters in the current pedagogic debate claim that phenomena like joy of life, vigor, involvement, humor are irrelevant to the implementation of the profession. My conclusions of my suvey from 2004 tell me they are wrong. I triangulated my results with the only similar Danish survey, "Unge i Skolen"(Youngsters at school) from 1974.

The evident merging of the answers through time and place was not excpected. In spite of different school laws, teaching culture and pedagogical-methodical principles pupils over a number of 30 years had the same experiences how teachers facilitate their teaching. The keyword are those mentioned above, added with strong competences of communication and good academic skills.

A Danish survey from 2003 " Den autentiske lærer" ( The authentic teacher) pursued the aim of good teaching, expressed by well-reputed teachers. My comparative analysis shows that both pupils and teachers imply the same number of universally human values as precondition of good teaching, - except for one crucial difference: Teachers are not aware of the intense focus on their communication, and I see this as a treat for future pedagogical development.

A teacher's teaching competence is a result of her own general education, her values, training and ability to communicate. The challenge for all teachers is to act as eye-openers and role-models, using their own attitude as the driving force.

There are no guarantees that she succeed in building up a learning environment - interesting, varied and full of confidence as the pupils are asking for.

But it is worth working on it. As the leader of the class the teacher is responsible for the quality of relations. As anywhere else relations are like a mirror. We are reflected by each other and our identity is formed by stories told about us by other people.

# IT'S GOOD TO TALK – THE BENEFITS OF PEER LEARNING IN DEVELOPING PROFESSIONAL PRACTICE

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ABSTRACT

*Student placement and practice in schools form the backbone of any Bachelor of Education degree and are the cornerstone around which professional practice develops. The main innovative feature of this venture is the incorporation of peer assessment, support and team working into the practice. This has the added advantage of allowing students to develop their assessment skills and their ability to give constructive feedback which are crucial aspects of dealing with pupils in schools. In this way this project is innovative in developing students as critical thinkers, synthesising research and practice and preparing them for the assessment aspect of teaching.*

Key words: placement, professional practice, peer learning

## Introduction

Student placement and practice in schools form the backbone of any Bachelor of Education degree and are the cornerstone around which professional practice develops. Many models have been developed in order to ensure that students gain from their time spent on placement and the model dominant in many universities in the UK is one where the student works individually in the classroom, although with the support of the classroom teacher/mentor and a university tutor. However this traditional model of a lone student teacher, instructed by an experienced professional in the school or university, is increasingly at odds with the model of teaching and learning taking place in schools and even in Higher Education. Following the constructivist approach with its image of learning as communal, collaborative and given over to the construction of meanings rather than receiving them (Bruner, 1996) there has been a move from a focus on the transfer of a body of knowledge to a more dynamic view of the classroom, with teachers being facilitators of learners' knowledge construction. This shift, which also recognizes the importance of discourse in the promotion of learning (Vygotsky, 1987) is discernible in literature on teacher development For example, Hargreaves (1994) advocates the establishment of professional learning communities and collaborative situations in teacher development. It is therefore appropriate to ask how a constructivist approach might impact upon the traditional model of school based work in teacher

education. What are the consequences when the tutor is no longer seen as primary 'expert' but one facilitator among many in a learning community?

Peer learning has been one manifestation of this change and has appeared in various forms in several professional disciplines (Boud, 2001). Peer learning can take many forms in teacher education but it is its role in the classroom-based element that is addressed here. There is a strong body of recent research evidence asserting the value of student teachers learning from each other on placement (Bullough et al, 2002; Bullough et al, 2003; Sorenson, 2004) and paired placement, that is two students being placed in the same school, has emerged as a means of engendering this. However there are many models in existence even in paired placement studies. Smith (2004) advocates a very formal approach with one student taking on the role of lead trainee and the other the role of back-up trainee. Here the emphasis was not on giving feedback to each other but on the benefits to be gained from observation. Other studies such as Parsons and Stephenson (2005) argue that it is the opportunity for discussion and professional dialogue around a shared classroom experience that is central with students encouraged to have a structured interaction through scripted discussion guides. Nokes *et al*, (2008) were much more fluid and did not attempt to control in any strong sense what the paired teachers did allowing pairs to develop organically the level and extent of collaboration they desired. Le Cornu (2005) emphasises the mentoring aspect of working in pairs on school placement and describes how students were expected to provide professional support for each other with the aim of enabling them to fully engage in professional learning communities of the future.

The model presented here shares some characteristics with previous studies in that it encourages peer observation of lessons followed by professional dialogue but differs in the emphasis placed on shared planning.

The project required arranging School-Based Work (SBW) placements for students who were in the first year of a four-year Bachelor of Education (Post-Primary) degree at Stranmillis University College, Belfast. In previous years, a single first-year student would have been assigned to a particular school for SBW, but for their 4-week placement in March and April of 2009, fifty-two first-year students were distributed in groups of between two and six to fourteen different schools. In addition, the students were paired by their main subject of study: Technology and Design, Religious Studies, Business Studies, or Mathematics and Science.

They were required to plan all their main subject lessons together and each would deliver some of the lessons. The structure of the model had been discussed fully with the school teacher tutors who would be working with the students during their placement and the university tutors who would be supporting and evaluating the students. Agreement was reached before the placement that team teaching was too ambitious at this stage of the programme although could perhaps be revisited in later years. Students were therefore encouraged, within the constraints of timetable, each to take full responsibility for teaching a particular class, with the other student helping to prepare the lessons, observing this class being taught on at least 2 occasions during the week and engaging in professional post-lesson dialogue that would be incorporated into the review of the lesson undertaken by the student teaching. The students were given little guidance on effective joint planning as this was an area that it was felt could be allowed to reflect the relationship between the students and develop as the placement progressed. To prepare them for being effective observers they had the opportunity before placement to partake in micro-teaching, i.e. to prepare and deliver a mini-lesson to a group of their peers and a tutor. This gave them the opportunity to practise peer observation and the experience of receiving feedback from their peers and tutors.

In order to give some structure to the peer observation element a structured framework was developed by the team. Students made comments on four areas:

- personal presentation

  *eg.: presents a professional appearance*

  *speaks clearly, expressively, at an appropriate pace and volume*

  *moves easily around the room*

  *speaks in appropriate language*

- organisation and structure

  *eg.: the lesson purpose, structure and context are clearly outlined*

  *there is provision for appropriate assessment of learning intentions*

  *teaching aids/resources are prepared*

  *key points & conclusions are summarized at the end*

- classroom management

  *eg.: questions are challenging and motivating*

  *the needs of the range of students are accommodated*

  *suitable variation of activity to encourage student engagement*

  *activities are effectively timed*

- subject knowledge

  *eg.: clear explanations are given*

  *material used is factually accurate*

The same format was then employed during peer observation in schools. For each area students were required to indicate only whether or not this had been observed during the lesson, not to comment necessarily on the quality of what had been observed. It had been agreed by all involved at an early stage that this was not to be seen as an assessment exercise of one student by another as this entirely undermines the nature of professional learning partnerships and while space was given for comment students were encouraged to be supportive rather than critical thus emphasising personal and professional support for each other. These peer feedback sheets were kept by both students, the observer and the observed, and formed the basis for at least some of their daily reflections. Students are encouraged from the very beginning of their placements to become reflective practitioners as the profession as a whole moves in this direction (see for instance GTCNI, 2007) and are thus required to evaluate their own teaching on a daily basis. It was anticipated that the peer observation process would facilitate a deeper and more meaningful reflection helping students to identify areas for improvement.

The peer planning, evaluation and observation were to operate only for the students' main subjects. Each student was to teach for approximately five hours a week; this included teaching of the student's main subject, subsidiary subject, and the subject of Learning for Life and Work, (CCEA, 2009). Groups of pairs were placed in the same school so that up to 8 students would be in one school. This allowed the visiting university tutor to be able to spend a full day at a time in each Year 1 partner school, providing support for the students and the school tutors who would be working with them. A number of suitable host schools were identified and preparation days held for teacher tutors, university tutors and students.

The logistical implications of this were significant for the schools and timetabling was the first immediate challenge – should two Religious Studies students, for instance, have a year 8 class each, or should they share the same year 8 class, taking the lead in alternate lessons, or alternate weeks? – and then there were issues of accommodating a large number of students and providing for them a facility in which they could plan and evaluate together, bearing in mind that their time in school might be their only opportunity to do this; for the tutors, it was an experiment to see what new challenges and opportunities would arise when spending the best part of a day in the schools with

the larger numbers of students – would they actually get more time with the students and develop a better relationship with the school, for instance?

**Methodology**

The model was evaluated using questionnaires and focus groups. First, a brief attitudinal questionnaire was distributed to the participating students. Items included a number of five-point rating scales where students were asked to gauge their attitudes to the main aspects of the assessment. The questionnaire also included open ended questions where students were able to express their opinions in more detail. The response rate was just under 50%. In addition a separate Focus Group meeting was held for all six of the students from one of the schools to explore further some of the issues raised by the questionnaires.

Focus Group feedback opportunities were also arranged for the teacher-tutors from the participating schools along with the visiting college tutors. The intention of the Focus Groups was to facilitate discussion of the range of issues that had been encountered and encourage consideration of all the relevant perspectives.

**Results**

Preparation for School placement. In the questionnaire the participating students were first asked to rate the overall effectiveness of the preparation for their second semester school placement, much of which had been delivered in three full days in November. Based on a five-point scale (where 1 = not effective at all and 5 = very effective) the mean student score was 3.8 (Std Dev. 0.707) with 64% of students giving a score of 4 or 5. Many of the students expressed their appreciation of the preparation, as in the following example:

> Preparation was extremely valuable for me and helpful in preparing for SBW [School Based Work] – it gave me more confidence for starting to teach. (female Religious Studies student)

A large number of the students made a wide range of additional comments, some requesting more detail on lesson planning and evaluations, others seeking earlier guidance on the completion of the Formative Profile or a move to a more spacious

room.  One student noted that she felt 'quite overwhelmed' with the amount of information imparted in such a short period of time and suggested that the sessions be more evenly distributed throughout the year before the placement itself, rather than being concentrated in such a short period of time.

As school placements are in effect a working partnership between schools, students and the university it is very important to give due consideration to the views of the teachers and teacher-tutors with regard to preparation for school placement, as expressed in the focus group interviews.  In general the partner schools expressed much satisfaction with the arrangement in place; communication between the schools and the university college was considered to be effective and efficient.  In addition teacher-tutors met with university tutors in advance of the placements to prepare for the placements and to pre-empt any potential difficulties; such a planning and preparation meeting was considered to be both valuable and important, as the following comment by a teacher-tutor clearly shows:.

> [Preparation for school placement was] Very good, both staff and student [were] well informed of arrangements and what was expected during school based work (Teacher-tutor).

## Micro-teaching

As detailed above, students took part in a micro-teaching activity (informally assessed by their peers and a tutor) shortly before the beginning of their school placement in the second semester.  In the evaluation students were asked to rate the effectiveness of this exercise on a five point scale (where 1 = not effective at all and 5 = very effective) and the results were again positive: the mean score was 4.38 (Std Dev. 0.571) with no students awarding a score of less than 3.  A large majority of the students (96%) found the activity to be either 'effective' (4) or very effective' (5), as one student explains:

> I thought this was a brilliant experience.  It gave me confidence to stand up in front of a class.  It was helpful to get feedback on my lesson so I would know what to improve for SBW. (female Religious Studies student)

Further analysis reveals that almost half of the students commented that they would like to see more micro-teaching exercises, and that these should take place earlier in the year or indeed throughout the year, allowing time for reflection and development based on the feedback.  One student also noted that the micro-teaching experience helped alleviate fears concerning the College tutors:

Micro-teaching was an excellent idea to hear feedback on teaching but it should perhaps have been done earlier in the year to allow more time for improvement and perhaps repeated closer to the time to see if we have improved. (female Religious Studies student)

…it was also good to see how the tutor observed you and that they weren't scary. (female Religious Studies student)

A similar view of this dynamic between student and teacher was confirmed by a teacher who commented:

The core value of this exercise was to build a relationship with the students who I would be supervising and to help them understand that my voice was only one of many that they could learn from. Hopefully they could understand that they were now part of a critical learning community where their peers' comments could be as useful a bridge to learning as anything a tutor might say.

## Peer Observation

Students were asked to rate the effectiveness of the paired approach with regard to peer observation in schools, once again using a scale of 1 to 5 (where 1 = not effective at all and 5 = very effective).  On this occasion the mean score was 4.04 (Std Dev. 1.113) with a range from 1 (two students rated the peer observation as 'not effective at all') to 5 (88% of students awarded a score of 4 or 5).

The majority of students commented further that they appreciated the opportunity to receive critical feedback from a peer, offering insights that they themselves would not have been able to gain while teaching.  Several students also added that the regularity of the observation was a clear benefit over the less frequent College tutor visits, allowing more opportunity to assess their own development over the four week placement.  Some students in the more practical subject areas (e.g. Technology & Design) mentioned that the presence of another adult in the classroom/workshop could also be very useful.

I enjoyed the peer observation as I thought it was useful to see what other people thought. Also they could suggest what to improve.  It was almost like filming yourself without the camcorder!! (male Religious Studies student).
Good for positives and things to work on.  Also a tutor only sees you once but another person can see you and watch you develop and gain confidence.  (female Religious Studies student).
This worked well, having help when needed, especially in practical class. (male Technology & Design student).

Interestingly, only three of the students mentioned the benefits gained through their own observation of another student teaching.  These three students all noted that their

observation would give them further ideas on effective teaching methodologies if they ever had to teach that particular lesson themselves.

Negative comments regarding the peer observation were rare. Of the three students who rated the exercise as ineffective (scores of 1 or 2), one student claimed not to have taken part in the activity at all, another objected to the nature of the peer observation form which he described as a 'tick exercise', while the third appears to have had little support from their somewhat distracted and distracting peer:

> Peer observation did not work as well as I would have liked as my peer was more of a distraction to the pupils in the classroom and rarely gave verbal or positive feedback. He also did not always turn up to observe my classes and pupils saw how my peer was distracted in classes, using his phone and placing (?) his head on the desk. (female Religious Studies student).

Class teachers were quick to recognise the potential benefits that emanated for the student teachers from peer observation. Many of the teachers noted that peer observation provided the student teacher with an opportunity to see another student teacher deliver a lesson and to see how they interacted with the pupils in their classes. Peer observation provided welcome opportunities for the student teachers to observe each other; the students could see one another's strengths and, equally importantly, identify areas where further development could be achieved. One teacher reported how the value in the whole process lay in the opportunity that students had to 'highlight positives and ways to improve'. Another teacher noted that the students were 'very honest with each other – perhaps more honest than we could be', and suggested that students found it easier to accept criticism from their peers than from teachers or university tutors. From focus group discussions it was clear that a majority of the teachers were of the opinion that the process of peer observation was very valuable, and indeed central, to students' development as classroom practitioners.

**Joint Planning**

The responses of students regarding the joint planning aspect of the project were however often less than positive. Once again students were first asked to rate the effectiveness of the joint planning approach using a scale of 1-5 (where 1 = not effective at all and 5 = very effective). The mean score on this occasion was 3.48 (Std Dev.= 1.12) with a wide range of scores from as low as 2 to 5. Indeed over two fifths (44%) of

the respondents gave the joint planning activity a score of either 2 or 3 in terms of its effectiveness (see Figure 1 below)
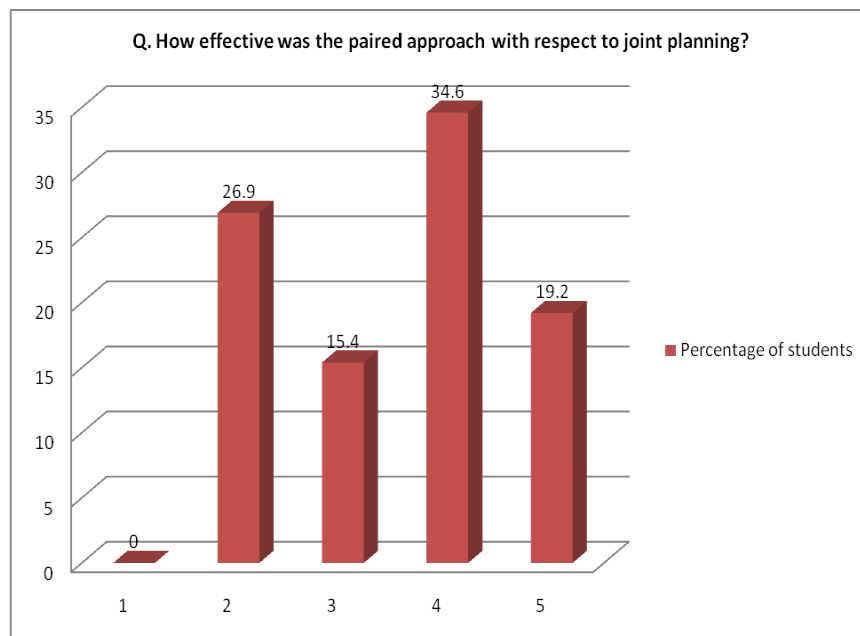


Figure 1

On analysing the comments it is clear that the joint planning was successful for more than half of the participating students. One Science student mentioned the practical benefits of joint planning in her subject as 'there is a lot to get organised'. Another elaborated further, claiming not only that the joint planning approach was 'extremely valuable' but also that it 'made SBW a lot more enjoyable and less intimidating'.

It is clear however that a number of serious concerns emerge in another 40% of students' responses: first, many students remarked on the sheer impracticality of joint planning. The following comments are typical in this regard:

> It was hard to find time to plan together as we had different lessons and classes, and it should just be a time to gather information and ideas instead of planning lessons together. That needs to be by yourself. (female Business Studies student).

> I did not plan a lesson with my pair as she did not live in halls and she left straight after she had finished classes (male Technology & Design student).

Second, some students mentioned the incompatibility of approach between partners and noted how this could make it difficult to come to a consensus in the planning discussion. There is the suggestion in the first example below that the more conscientious student may have resented being paired with someone they perceived to

be less dedicated, and in the second example there is an inference that a less committed student could surreptitiously benefit from an unequal partnership:

> It was a waste of time – a lot of hassle! Even though we taught the same things to the same year – yet different classes, we both had different views on the way it was going to be taught, and its outline, resources etc. It would be good if [the] other student could work at the same level with the same dedication and commitment. (female Technology & Design student).

> I believe in my case joint planning didn't work as my peer was a lot more relaxed than me. We were also, at the beginning, not teaching the same topic and it would therefore have been too awkward to plan together. By the end of SBW my peer had caught up with my topic and was instead teaching my lessons without my knowledge. (female Religious Studies student).

The remaining students seemed to take the joint planning idea and adapt it to suit their particular context. All of these students mentioned that while the actual written plan of the lesson was best completed by the individual who would be teaching the class, there was nonetheless considerable merit in having a joint discussion in the early stages to generate ideas and receive constructive criticism before putting pen to paper in writing the actual lesson plan. The following comments typify this opinion:

> It was great to have someone in the same subject area for support, to bounce ideas off each other and we didn't necessarily have to both write the one lesson, just had an input on the lessons and gave ideas. (female Maths/Science student).

> We didn't plan lessons together as we taught different years. However when we were planning lessons we did ask each other questions and advise each other on some sections of the lesson plan. I found it very effective having a peer there for support and advice rather than planning the lesson together. (female Technology & Design student).

Student teachers, in general, have a tendency to work in isolation from others. However, according to many of the teachers, as a result of joint planning, the students were able to learn from each other by engaging in professional discourse with one another. The process of joint planning was reported on in a positive manner by most teachers. One teacher, for instance, explained how the 'students coped well as a team and were able to take a peer's outlook and view and use it to improve their own teaching'. However, it was recognised that certain logistical difficulties exist, in particular for those students who lived far apart; one teacher commented that for the two students who lived in Halls accommodation the process worked very well. In addition one teacher noted that the 'actual pairing of students' can be a crucial factor in the success of the process, especially if two weak students were paired together on placement.

University tutors visiting the students also concurred with the view that a good working relationship between the students was essential to ensure success, particularly with respect to joint planning:

> Where relationships were good between students, and there was a sufficient level of professional maturity, the process worked very well. (University Tutor).

**Conclusion**

A majority of the literature to date has focused on the mechanisms for implementing peer observation systems and its links to enhanced professional practice. However little attention has been given to the complexities involved in delivering the peer observation process, and how it may be managed and integrated in order to maximize benefits for teaching and learning. Upon reflection, this project may have been somewhat over ambitious in the complexity of the intended outcomes.

The evidence from this work confirms the results of other studies as to the efficacy of peer observation in school based work contexts (Boud 2001; Bullough *et al* 2002; Bullough *et al* 2003; Nokes *et al* 2008). It also shows that, in this case, students valued an induction process that allowed a common understanding of peer review to emerge. Further, some of the students' comments in relation to the role of the tutor during the micro-teaching sessions suggest a discernible shift from their expectation of the tutor as 'expert external assessor' to facilitator and critical friend. Clearly this constructivist turn was in the minds of the tutors with responsibility for the project and was a mark of success for them.

A unique aspect of this research was to consider the value of joint planning and the results suggest that in this particular project it enjoyed a lesser degree of success. Analysis of the discussions illustrates not only the benefits of paired planning, but also problems, misunderstandings, and limitations of time use. In contexts where students and tutors considered the process to be working effectively the students were extremely enthusiastic about its value. Where students did not value it, the evidence suggests that there were two key issues: practical arrangements and professional responsibility (particularly team-working). While the tutors placed significant importance on the development of observation and peer-review skills prior to the time in schools,

exploring the processes and skills required for successful joint planning did not receive the same level of time investment.

Based on the evidence presented above, there are a number of recommendations fundamental to enhancing outcomes for future placement students. Firstly the schedule for preparation needs to address the issues highlighted by students in terms of moving from a 3-day intensive period of preparation to a staged model allowing more time for reflection.  The revised schedule must also accommodate three key changes: a more focused input with students on how to approach joint planning; an increase in the time dedicated to micro-teaching sessions; and the development of a more robust and meaningful instrument, or indeed a range of instruments, to record peer observation feedback.  This instrument can be developed through research into current benchmark practice and also collaboration between university tutors, host teachers and the students themselves, all of whom have a vital contribution to make to the enhancement of both the process and levels of understanding gained.

While the project seeks to learn from the data generated a number of challenges remain. For example, engendering the desire to move beyond the current state of what could be described as minimum passive participation by a small percentage of unmotivated students cannot be solved by simply changing processes.  For it would appear self-evident from this evaluation that no matter how valuable the constructivist notion of joint planning is in theory, even constructivism falls foul of logistical difficulties such as students lacking the time or space or will power to meet!

Notwithstanding these apparent difficulties in (particularly) the joint planning aspect of the first year of this innovative School Based Work model, there is much to celebrate and build upon from this pilot in the years ahead: students, teachers and university tutors were overwhelmingly positive about the value of peer observation as a learning tool; students appreciated the greater sense of camaraderie from being placed with other year 1 students in the same department and the presence of a critical friend throughout their placement; teachers valued the honesty with which students evaluated each other's classroom practice; and university tutors adapted readily to their role as a source of support and a facilitator of learning.

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# SECONDARY TEACHERS' PERCEPTIONS OF THE EFFECTIVENESS OF THEIR PRE-SERVICE EDUCATION AND STRATEGIES TO IMPROVE PRE-SERVICE EDUCATION FOR TEACHERS: A SCHOOL BASED TRAINING ROUTE IN ENGLAND

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ABSTRACT

*This study aims to provide a deeper understanding of the impact of an EBITT course on teachers' early professional development, identify strengths of the course and also the ways in which the training could be improved. Data collected was recorded during individual face- to- face interviews using a structured interview schedule. In devising our approach we utilised the model suggested by Sharon Feiman-Nemser in her article How do Teachers Learn to Teach? in Cochran - Smith et. al. (2008)* Handbook of Research on Teacher Education.
*The data was analysed to explore (after 2-4 years reflection) :which elements of initial training were valuable and less valuable, what they have learned since the course, which aspects of the course the teachers feel should be improved. It was cross referenced against findings from national surveys of teachers in their post qualifying year of teaching (induction year) and early years of teaching conducted by the TDA. These findings were presented as part of a common wider international study on the same theme in four countries (UK, Spain, Australia, and Ireland).*

## Introduction

The paper begins with a review of some recent research on teacher development in the early years of teaching and the choice of a theoretical model to interpret findings.

Each year in England about 6000 trainee teachers qualify by undertaking an employment based initial teacher training route (EBITT), where training is mainly school based. As part of the evaluation process providers are encouraged by the TDA (Training and Development Agency) to collect views from past trainees about their initial teacher training during the early years of their teaching career. For this study we have selected and interviewed seven secondary teachers from a variety of different subjects who undertook their employment based Initial Teacher Training course two to four years previously at this university.

Longer term reflection on learning has potentially much to teach us about the effectiveness of the training route. In many respects I provides richer data than that collected directly after completion of a course. After two to four years teachers should display a much deeper understanding of the professional role of the teacher, and have significantly more pedagogical knowledge on which to draw. At present, little data is

collected in this way in England. The time elapsed since initial training is potentially a weakness in the validity of the data, but this is mitigated by putting the initial training in context of how well it prepared them for the early years of teaching.

The professional training in this one year route is largely school based and trainees are assessed against national standards before qualifying as a teacher. Teachers on this route are employed by the school as *unqualified* and most receive a salary or training grant. Currently each trainee has an individual training plan which must include a minimum of 60 training days (per year) but during the training period(s) covered in this paper this regulation did not apply. The route has proved to be popular with trainees as it is a personalised programme that can take into account prior experience. Schools value this route because it provides enhanced professional development opportunities for school staff when supervising and delivering the training. We consider that our findings can be usefully integrated with that from other countries and thus will contribute to the generation of new knowledge.

## Literature Review and Theoretical Considerations

In England the Training and Development Agency for Schools (TDA 4) undertakes an annual survey of teachers in their post qualifying year (NQT), which is completed by teachers in February after about six months teaching. In this survey the core questions remain the same but additional questions are added each year to reflect changes in requirements. Overall, teachers rate their initial training highly. In the 2008 survey (TDA 4) of 14,000 teachers (44% response rate) 86% of secondary NQTs graded their training as good or very good. Our own July 2009 internal survey of 52 teachers (100% response rate - Appendix 2) confirms that there was a high degree of satisfaction with their training. The base line data from the TDA NQT survey for our 2005-6course produced less reliable findings in that only 19 teachers completed the survey and that the analysis combined primary and secondary responses. The timing of data collection about teachers' perceptions of their ITT is clearly important. It is reasonable to expect a variation in responses to the same questions when asked on completion of the course, after 6 months teaching and after three years in the profession as a consequence of professional growth in the early years of teaching.

A recent national survey (Springate et. al. 2009) of 1300 teachers with two to three years experience, found that 75% of secondary teachers had taken on new responsibilities, mostly in their second year of teaching, with a considerable minority not receiving additional support or training. A substantial majority reported that their training and development needs were identified accurately on completion of their initial training and addressed during the first year of teaching. Following the induction year teachers had an annual professional review

(called performance management) during which teachers' performance was assessed and developmental needs identified. During this period three out of four teachers reported that they had effective support to help them develop teaching skills but could have been better prepared for new responsibilities by undertaking more directed learning, researching teaching and learning for different groups and by becoming better organised in terms of time management. These are clearly some of the factors that would colour the responses of teachers with two to four years experience when asked to reflect on their initial teacher training.

A three year longitudinal study by Wilson and Demetriou (2007) during which 10 teachers were interviewed in the early years of teaching also provides some insight into the ways in which teachers build upon learning in the initial teacher training. This training is largely school based with the development of teachers in their first post largely managed by individual schools. Although there is now a national framework for the development of teachers at different stages of their careers   the meeting of school and national needs is seen by teachers to be more important than meting individual professional needs. The main reason for schools not supporting the attendance of early years teachers at external courses that were not directly related to raising pupil outcomes.

Since the teachers interviewed in our study were largely school based during their initial teacher training we believe that their learning styles are similar to those of early years teachers. While there is a substantive literature on how teachers learn (Billet 2001, Schon 1983, Erault 2004, Hodgkinson and Hodgkinson 2004, Hoekstra 2007) there is less known about how new secondary teachers learn. Teachers not only need to have good subject knowledge but also know how to construct this knowledge in a way that will assist the learning of pupils. For much subject content this is being taught with limited subject pedagogic knowledge and without the benefit of experience.

Experienced teachers are also faced with teaching new knowledge, but they have the advantage of having a complex professional knowledge to draw from. About including how individual pupils learn and the contextual factors that influence learning. Various dimensions to aid understanding of teachers' learning including informal / formal, professional knowledge / personal knowledge have been proposed.

The findings of the study by Wilson and Demetriou (2007) suggest that teacher learning takes place mainly by reacting to classroom issues and informal dialogue with colleagues, with little reference to educational research findings. There are emerging issues such as how teachers acquire an identity as a teacher and how colleagues influence professional understanding.. To survive, new teachers need to have self- belief and the personal qualities to pass through an emotional process as well as gain technical competence. This is thought most likely to take place if the school provides a supportive environment in which there are shared values and collegiality. The concept of teacher "disposition" appears to be important but little is known about this. So, for the purposes of this paper we decided to analyse the interviews with early career teachers using a framework suggested by Feiman - Nemser (2008) .

Feiman-Nemser suggests that learning to teach can be conceptualised into four broad themes. These are learning to think like a teacher, learning to know like a teacher, learning to feel like a teacher and learning to act like a teacher.  In our study we saw that one of our respondents felt that they had to *reflect and think of how you make progress with the class and (this) comes with so much more responsibility. You have to take into account their abilities and how they feel”.*

This demonstrated that the teacher was moving beyond their initial naive beliefs. Thinking like a teacher means that you need to develop a more critical approach, 'taking a critical examination of one's beliefs, a transition to pedagogical thinking and a development of meta-cognitive awareness' (Feiman-Nemser).

There were four aims to the research:

To identify:

- which elements of the training were considered valuable (and for the course to build on those elements if possible)

- which elements were less valuable and explore why (and whether these were still 'live' issues for the course)

- what the teachers had learned since completion of ITT (to gain a picture of early teacher professional development subsequent to the course)

- what their future CPD needs/desires were (in order to see whether the course promoted a disposition towards continuous professional development)

**Methodology**

All teachers interviewed for this paper qualified as teachers by the one year school - based Graduate Training Programme (GTP) (TDA, 1). The programme is managed by a partnership between Sheffield Hallam University and three Local Authorities (similar to school districts) called the YDTP (Yorkshire Development and Training Partnership). The YPDT has to meet the national requirements for teacher training (TDA, 2), that are determined by the Training and Development Agency. Trainees have to satisfactorily meet the QTS Standards to successfully qualify and enter the Induction year (TDA, 3). The programme that we have gathered evidence from trains about 60 secondary teachers each year.

Our data is from in - depth interviews with seven teachers who have between two and four years experience since qualifying as teachers. We wanted to explore how well early career teachers could reflect on the learning achieved during their initial teacher training course and also their subsequent learning. We chose teachers with a range of subjects and backgrounds prior to starting their training and who were working in different types of school. The teachers were requested to take part in the structured interviews as part of our quality improvement cycle and sent the interview schedule in advance in order to allow for a considered response to questions.

In five out of seven cases the interviewer knew the teachers involved and in four cases teachers continued to work at the same school in which they trained. Several interviewees said they enjoyed the interviews as they were able to review their progress during the early years of teaching with an educationalist independent of their school.

The interview questions are in Appendix 1. They were written with an intention to explore the experiences of training and subsequent learning using the four dimensions described by Feiman-Nemser. This framework claims to incorporate and highlight major theories and findings in research on teacher learning. Moreover, it is compatible with contemporary frameworks for understanding teaching and learning, and it underscores the interconnectedness of content, process and contexts in learning to teach.

The key challenge was how to design research questions that considered the interaction of the person, programme and school setting and could account for the changes in what teachers know, do, think and feel over time. Teacher interview questions were devised from the literature of early teacher development (Feiman-Nemser, Wilson, Demetriou, Koetsier and Wubbles), findings from data collected nationally by the TDA in the annual Newly Qualified Teacher Survey (2008), our own 2009 data about the GTP and a steer from the ATEE Secondary Education RDC. The data was then interpreted against a model of how teachers learn, particularly when training was largely in a school based context.

Interview was chosen as the most suitable method to understand the teachers' experiences 'from their points of view, to unfold the meaning of their experiences and to uncover their lived world' (Krale et al, 2009). Although an interview can be described as 'a conversation with a purpose', a time limit of 45 minutes was agreed in advance. The majority of the interviewees had made brief preparatory notes against the questions and this helped them to think through their responses. It was nevertheless difficult for the researcher to keep the interviewee to the point of the  question as information was supplemented by anecdotes, stories, observations and information that was not directly relevant to the research. As  Sennet (2003) observes:'The craft consists in calibrating social distances without making the subject feel like an insect under a microscope.'

There were four interviewers with a range of experience at interviewing. The apparent simplicity of a structured interview approach can belie the difficulty in gaining depth to responses. This proved to be difficult with questions with more than one sub section for example Q3 had too many different points and the interviewee failed to fully address them.  In addition the wording of some questions did not clarify the specific terms used by Feiman-Nemser (Q2 and Q4). Interviewers were keen to get as much data as possible but the scope of the questions proved to be over ambitions for the time allotted and some aspects of Q3 for example, were not explored.

The interviews were transcribed and collated against each question on a chart. Analysis consisted of itemising all the points transcribed against the key questions ( agreed by the Secondary RDC): what teachers think of their course: which aspects should be improved: what they have learned  since the course and future CPD needs. The exact questions used are given in appendix 1. The collated data against the full interview schedule was coded according to the Feiman-Nemser themes and compared with national data on NQTs and early teacher professional development as appropriate.

**Findings**

**These are grouped under the four dimensions of the FN model.**

**1 Learning to think like a teacher**

How did the teachers who trained on the EBITT route **learn to think like a teacher**? Feiman Nemser here points to the intellectual work of teaching: learning to examine critically one's existing beliefs about teaching and learning and develop an awareness of how they influence the teacher's thinking and practice; making the transition to pedagogical thinking - linking ends to means - and developing meta cognitive awareness where a trainee develops more defensible views about teaching and learning.

When our respondents focussed upon pedagogical thinking, they talked about planning lessons and schemes of work and the reasoning behind them. They said their thinking changed when they had to take full responsibility for planning. Once in the role of a teacher there are *"higher expectations of pupils and their behaviour than when I was a cover teacher: this was probably due to the ownership of the lessons." (Teacher G)*

The use of the QTS Standards was sometimes seen as a framework to help thinking like a teacher and as a prompt to address specific issues to develop their learning. In one instance a school *"adopts more of a tick box approach, rather than using the standards to focus learning."* However in a different situation the standards focus teachers:

> At the beginning of the course I knew I wasn't as good a teacher as I should be. I felt as though I didn't know what to do to become better and had policies and strategies thrown at me. You don't know where it happens, but the techniques start to bleed into your practice. When you do these things consistently day in and out then it then becomes embedded. One day I couldn't do it but a year later then I could. Some of the help came from my mentor, some from the course itself. (Teacher D)

When this teacher states *"You don't know where it happens....."* it would appear that they have an area of undiscovered self as they move towards a more conscious state of thought of how teaching strategies affect learning. This was also seen in another respondent: *"The school prepared me for different abilities and needs so I had to quickly learn how to adapt my lessons."*

There were some useful elements from university based sessions that assisted in developing teachers thinking. A training session about personal well-being enabled one person to critically reflect on their own working habits and he quickly realised not to overwork himself - *"it gets you nowhere".*

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*"Meeting with other GTP students and being able to put your own learning and experiences into context"* demonstrates the development of meta-cognitive learning. Training sessions resulted in positive feedback where trainees were given and valued the time to meet each other away from the classroom.

The biggest challenges that face teachers in their first few years can really focus the way they learn to think within their profession. For one it was their own self assessment and assessment of the children" that was the biggest challenge.

Another found the challenge of early additional responsibilities to be very emotional:

> I then put myself forward as a Head of Year and the challenges have been enormous – work life balance; work-work balance; what to do at work and what to take home. I was so early into it as I got the job at the end of my NQT year. I just got on with it and made loads of mistakes and still do. The staff make it possible for me to succeed and give me loads of support. The biggest challenge is trying not to let those people down. (Teacher B).

This teacher took on responsibility early in his career which forced him to begin to think wider than previously as a classroom teacher in order to encompass a broader pastoral role. The support of colleagues is clearly a factor in his success and in the way he has been able to think through issues and address them.

When teachers are placed under stresses to meet particular targets then this also is a challenge which can force their thinking into a different path:"Working in a National Challenge School and dealing with all the pressure that brings with it." (Teacher F)

In a school like this certain standards of achievement have to be met, thus forcing thinking into areas such as intervention strategies which enable more students to achieve and thus raise the levels of attainment in the school.

Evidence that teachers were engaged in fundamentally examining their own existing beliefs was more limited in respect of new ideas and learning. In one case t there seemed to be little progression in thinking like a teacher. "For me there was little transition as I had already been teaching as an unqualified teacher." (Teacher B)

## 2 Learning to know like a teacher

Good teaching depends on a wide range of knowledge and this is recognised by Feiman-Nemser as **learning to know like a teacher**, along with the 'knowledge teachers generate in practice'. Teachers need to know a great deal in order to develop the learning of all their pupils including:

Subject knowledge

Subject pedagogy

How children learn

How children develop

How culture and language affect their learning ( Ball and McDiarmid, 1990)

Assessment

Curriculum

Classroom management

Behaviour management

Thus knowing like a teacher requires considerable preparation. Those following the EBITT route have often previous experience within the school in which they train. Some (Teachers B, C, D E, F and G) had previously worked as teaching assistants *"I knew the kids from being a TA at the school during the previous year"*. This prior learning had given these teachers an insight into the abilities of pupils and *'Considerable understanding of children's emotional needs'*. Relationships are already in place with pupils and therefore the teachers know what to expect from their pupils. Many secondary teachers enter the profession because they have a passion for their main subject. The positive aspect of the EBITT route is the resulting preparedness for teaching. One teacher stated he

> I felt well prepared because the course is 'on the job learning… it never leaves you. On a PGCE you don't realise how relentless it I – you get that straightaway on the GTP course. It's a fantastic way of training . You realise straightaway what the job entails (Teacher D).

Feiman-Nemser talks about knowledge *for* teaching and knowledge *of* teaching. Knowledge *for* teaching occurs beyond the classroom and knowledge *of* teaching takes place in the context of daily working practices. The evaluation of centrally held sessions from the interviewees was very positive and clearly provided a good knowledge base for the trainees. Teachers also rated their training visits to other schools and contexts where gaps in knowledge could be filled. From the recent survey undertaken with GTP secondary trainees in 2008/9 (Appendix 2) trainees still highly value the training sessions out of their school context. However, an area for development is ensuring trainees read and understand key national policy documents. Further training is also identified as requiring attention is EAL teaching and learning. The central training sessions also have 'spin-offs' where professional learning and the development of knowledge takes place. This was noted by one respondent (Teacher E) as:

- *the social aspect of working with fellow course members*
- *their viewpoints about the course*
- *understanding different contexts and ways different schools opera*ted

And training from the second school placement

- *gave experience in 16-18 albeit limited*
- *revealed the way a similar school dealt with issues and problems but in different ways*

The experiences of working in other contexts and with other people shapes the knowledge base which teachers develop. Working with other course members also contributed to learning.

> I met one guy who was a PE teacher and wanted help with dance and I wanted help with some PE. We still share ideas. He sent me a piece on Stomp which was good for boys. (Teacher C)

In addition the support from subject leaders and departmental colleagues helped trainees *"with ideas and issues in certain areas like physics which was not my specialism."* (Teacher C). This is development of subject knowledge but not necessarily of its pedagogy. The example given points towards the need to develop wider subject knowledge in science. In most cases pedagogical knowledge development was a weakness (Evans et. al. 2008).

Within the classroom the knowledge required to teach is immense. The interviewees discussed in detail the range and amount of knowledge that they had to learn - especially teaching strategies, subject knowledge and behaviour management. For example,

teachers have to anticipate what pupils will find difficult and enable them to make sense of their learning a exemplified by the statement

*"I find it difficult to interest pupils on the theory side partly because the pupils would rather be doing the practical work." (Teacher A)*

Our data shows that trainee teachers require considerable help from support staff within the school and are often expected to be proactive in this. Comments include:

> I should have asked for help more often but was too proud to ask too many questions. Upon reflection and knowing staff much better I know this would not have been an issue at all. (Teacher F).
> Not having a network of teachers of the same subject. I had to build up everything on my own.. I still think the GTP is a brilliant route because everything is done for the job.(Teacher C).

Hence the role of the school Initial Teacher Training Coordinator is key to in ensuring that trainees needs' are anticipated and met. (Evans et al., 2007)

Knowledge for teaching is incorporated into the QTS Standards. The standards for QTS require teachers to have knowledge of EAL and the broad range of individual needs. The national NQT Survey for 2007 showed that only 33% of respondents felt their training was good or better in preparing them to teach pupils with EAL. By 2008 this had increased but only slightly to 38%. This area also got the lowest rating in our own cohort and was only as being adequate by GTP trainees. Meeting individual needs can be achieved in several ways. In one case a teacher was working at a school where she taught dance. She needed to learn about ways to engage wheelchair bound students:

> I worked with children in wheelchairs at my last school. I got a lot of help from mentors to get pupils involved in break dance. It was really emotional to see them move their arms and so on.(Teacher C).

Her initial training may not have specifically prepared her for this but the structures within schools allowed for the teacher to gain support in learning how to develop teaching strategies. The same teacher had little experience within her training to apply learning gained from a second placement school on EAL. However, recently she found that she was able to reflect on that knowledge and apply it in her current school:

> I went to another school and did some training to help with EAL; I didn't put it into practice until recently. I have put some work on Indian dance into the curriculum so this has been helpful. (Teacher C).

In order to *know like a teacher*, respondents often learn from other people. For example,

> Learning is through other members of staff both through observation and coaching. Gaining coaching awards which are 'levelled' around pedagogic knowledge and also skills.(Teacher F).

Others talked about how they learned *"on the job"* and *"...learning through doing was the best practice"*, evidence pointing towards the development of 'knowledge of teaching'. However one teacher stated that observing other 'expert' practitioners teach or best practice in the beginning of one teacher's career did not have much impact on their learning to know what a good lesson might look like:

> Looking at an 'Expert Practitioner' (or) going to see a fabulous teacher teaching a fabulous lesson wouldn't have meant a thing to me at the beginning of the course. (Teacher D).

How does the use of standards develop the ability to know like a teacher? It would appear that they are viewed as either helpful *"for target setting. Teachers should be*

*accountable." (Teacher D) "Made me look into EAL – as I would not have done that".(Teacher C) "Useful as a ticklist and checklist."* (Teacher E) or as a hindrance - *"I never used them to make me a better teacher. I felt I was jumping through hoops."* (Teacher B). *"Standards folders has never been looked at since the day the assessor looked at them."(Teacher E) I am still finding the standards difficult to understand."* (Teacher A).

The overall view was that standards are useful in themselves but the quantity of evidence required for assessment excessive.

The EBITT route into teaching is very much a personalised approach. Trainees are able to tailor their training plan to their needs which might include observations, attendance on courses, visits to other schools, school based training and so on. The route itself was seen as being useful in aiding these teachers to know like a teacher in terms of knowing how to pace yourself (a session on Teacher Well-Being was part of the training package) so that you don't overwork yourself - *"Understanding what is required of you, being a role model, setting reasonable targets which can be achieved rather than just meeting government standards."* The elements which make up the EBITT route are all seen to be helpful in developing the ability to learn to know like a teacher. Respondents cited behaviour management training, *"I brought back ideas and strategies from course to use immediately in the classroom";* the career preparation profile which one respondent reflected into his own teaching; good quality school INSET and observations of other teachers. In one case training was not considered enough in order to know like a teacher - *"It didn't matter how many times I was told about behaviour management – I still had bad lessons so the only way was to actually do it and learn from it."*

Wilson and Demetriou (2007) talk about the development of new teachers being regulated through national policy frameworks and managed by individual schools. This has an influence on teacher learning and often leads to pressures which restrict wider learning. Attendance at external training requires that classes have to be left creating tensions between the school and the individual needs of the teacher. However schools also have pressures to perform well in league tables and school leaders are sometimes reluctant to allow teachers to attend external training courses which are not related to pupil outcomes. In addition, training for teachers from a wide variety of subjects has to be well thought through to be perceived as useful by all participants. Thus trainees have

an individual training plan made up of external training days, schools visits and school-based training.

One teacher felt that he got little training or support from his department or school in order to develop his pedagogy. He had also not been able to attend some school based events due to teaching commitments. Three years later the teacher is now very aware of the importance of CPD. Respondents in our sample all remarked on how useful external courses were and how they implemented these in their own practice. In reflecting on their learning during the EBITT course the trainees noted that there were areas that were not included which may have developed their *learning to know* about teaching further:

- More time to visit other schools
- Teaching strategies
- Mini plenaries
- Starters for lessons
- Subject knowledge

Since their initial training year some challenging areas of *learning to know like a teacher* have have become apparent. The *"fundamental importance of assessment"* and the "levelness of work" were cited by two teachers; another reflected upon how *"different learning styles (VAK) translate into the learning ladder* (comprehension, analysis, evaluation) ... *and the composition of a lesson*." They then recognise how this is *"affected by the external contexts (weather) and pupil emotional needs/development"*.

All of the teachers felt that they were still *learning to know* about these things as evidenced by the following responses

> On the GTP course this (learning about assessment) is spoon fed you - you are given schemes of work. You are only half way in. Afterwards you have to do your own and then realise how important and interconnected all these things are and how it informs every aspect of teaching. Still learning it and miles away from where I want to be. (Teacher D).

> I know I still have a long way to go.(Teacher B)

> I've started collaborating.. (Teacher C)

In the few years since these teachers had their initial training, they have developed their ability to learn how to know like a teacher –in particular with regards to accountability for the outcomes of learning:*"Having to measure the impact of teaching and strategies with students and being accountable for the outcomes." (Teacher F)*

The same teacher also remarked on the need to meet the demands of the inspection framework and knowing what is required in this area. The use of data to inform learning and teaching is also mentioned by some in order to know the best way in which to plan for learning experiences for pupils. Learning is an *"active, constructive process that is heavily influenced by an individual's knowledge and beliefs..."* (Borko and Putman. 1996).

Teachers interpret new knowledge and experience through their existing beliefs and modify and interpret ideas based on what they already believe and know. So as these teachers developed their pedagogy they then needed to apply their knowledge in order to meet accountability structures or introduce new curriculum: *"Introducing BTEC dance; teaching A level dance – I had not done it myself or taught it; GCSE on my own; dance shows"* (Teacher B)

There were some areas of training identified which would have made the trainees better prepared in terms of learning to know like a teacher. Assessment is a large part of the curriculum and for one teacher this was a constant struggle:

> I struggled with the wider aspects of the role, e.g. assessment after the course because my mentor did not support me or coach me in developing this aspect of the teacher's role. (Teacher E).

The role of mentors is crucial in developing teacher knowledge as they are usually the first point of contact within the school for the EBITT trainee. When trainees have a less than satisfactory experiences their knowledge remains under-developed and they may not be aware of this until later in their career. Lack of commitment from one mentor meant that mentoring was nonexistent for one trainee (Teacher E) who realised the impact of this now when he then had a good NQT Induction tutor.

One trainee thought that their knowledge as a teacher could have been improved had they been introduced to a wider repertoire of teaching and learning strategies. Teaching is a complex role and for one trainee this was identified as a need to "learn more about the complexity of teaching on the job". There are also very specific areas of *learning to know* about a role or about a specific area of teaching: preparing for a managerial role (this is an area that teachers move into within the first 3 years of their career); developing understanding of autism and special needs was another area identified as a possible career path for one; subject specific training was common to many of the respondents; further study at Master's level and finally:

I know there are loads of new things out there. I want to learn and share them. I have learned about my new role but I really want to learn more strategies and make myself better. (Teacher D).

This shows that for some teachers the consolidation and deepening of their knowledge is central to their learning *to know like a teacher* and learning to feel like a teacher.

## 3  Learning to feel like a teacher

We asked teachers about aspects of their training which made them **feel like a teacher**. Feiman-Nemser states that feeling like a teacher '*signals the fact that teaching and learning are deeply personal work, engaging teachers' emotions and identity as well as their intellect'*. Developing a professional identity, as a teacher, is a very complex activity bringing together past, present and future ideals and realities. Teachers combine these beliefs and experiences with the images of the kind of teacher and colleague that they want to become and what kind of classroom they want to have (Featherstone,1993).

What teachers most remembered about their training was *"being worried and scared about the amount of data collection that was shown as necessary as evidence of meeting the standards." (Teacher C)* At a training event a previous student had shown her evidence files in a dozen large folders. The feeling of anxiety as a beginning teacher was very clear. However, for some there is less transition into the role as some had been working in classrooms as unqualified teachers, covering for absent staff or as teaching assistants.(Teachers B and C) Others felt themselves a teacher from day one as the students did not know that they are a trainee.(Teachers B, E and F) Evidence showed that there were specific things that actually made the EBITT teachers feel like a teacher from early in their training - *"This course makes you feel like a teacher from day one. ....you are part of the school. Children know you are here for a year day in and day out and they have a different view of the teacher to that of a PGCE student only there for a few weeks."* This trainee tells of his journey from *"30 pairs of eyes looking at you"* to after the course when *"you feel sharp." (Teacher C)*

The transition from a support role within a school to a teaching role can mean some marked changes in the way teachers feel. One teacher had been accustomed to being

called by his first name, "to be called 'Sir' felt strange". This teacher had to reconcile images of themselves as a teacher and what this really meant for them.

Another trainee said they felt 'unleashed' to teach the subject he wanted to. The trainee brought to his first post positive experiences of the previous placement where he felt he had ALL his 'shocks and horrors' whilst in a supportive environment. However he felt secure in his identity as a result, unlike other NQTs at the school. For one of the trainees he was straight into a full 75% timetable as the school fully funded him. This was tough. The positive impact was a 'sink or swim' mentality and a chance to get straight on with the role which suited him as a mature candidate. It was very emotional and stressful. However, he felt that *the (EBITT) course sets you up for promotion opportunities more quickly as you continue in the same school so you are more quickly seen as a competent teacher"*.

The security of an identity as a teacher was a common thread for those who had been working in the school prior to their training year:"Because I was unqualified, I already felt, although fraudulently, like a teacher, albeit inexperienced. .... But I had worked as a cover teacher." (Teacher B)

One teacher had already been a cover teacher for a year in the school and had a couple of years teaching experience in South America. She felt very much like a teacher. The emotional impact was positive and she knew how to conduct herself in a professional manner and have high expectations. Those who had prior experience in the school, found that they are often treated like a teacher from the outset, and therefore it was relatively easy to find their identity as a teacher. Equally they knew enough for others to respect them and make them "feel part of the team from the start of the year". (Teacher F).

The teachers in the sample found it hard to articulate what made them learn to feel like a teacher. This might have been because most had been working in schools for some time. One was honest in his approach to and enthusiasm for teaching,

"The best thing is turning difficult kids around - I now feel that I'm quite good at that. I'm rough and ready - interpersonal skills are not my strong point - which has led to me to perhaps rubbing up some the wrong way." (Teacher A)

Reflecting on his personal skills has made this teacher begin to look deep inside himself. At this stage he is still finding the move from an Army background to teaching a difficult move and has as yet to establish his full identity as a secondary teacher.

The university training provided some opportunities for trainees to learn to feel like a teacher. It was for some "A good way of reflecting – highlighting what I was constantly being told". (Teacher A) It also provided new challenges for teachers to "develop a more knowledgeable understanding of how process and practices work." (Teacher F) The training provided throughout the EBITT route is intended to enable the teachers to narrow the gap between their vision of teaching and the realities faced.

The transition into management roles and the way in which teachers are expected to feel in this role was difficult for some to reconcile. In one case,

> it was suggested...that I might be Head of Year. It was not really what I wanted. The challenge was enormous – work-life balance; work-work balance; what to do at work and what to take home.....the biggest challenge is not to let people down.(Teacher B).

Little preparation was evident for those who took on these roles as their career progressed and one teacher commented that a" school needs a system to **prepare** teachers properly to take on more management roles." (Teacher E)


## 4   Learning to act like a teacher


Learning to act like a teacher is about developing the capacity to make judgements in changing and often unique circumstances. To act like a teacher Feinman-Nemser considers that teachers need a repertoire of skills, strategies and routines and the judgement to figure out what to do and when. Learning to act like a teacher demands "adaptive expertise" (Hatano and Oura; 2003) Teachers learn through working with others by asking questions, sharing information, seeking help, experimenting with innovative actions and seeking feedback. Day to day activities in classrooms draws on developing knowledge in practice as well as learning through collaboration of pupils and teachers. Learning to act like a teacher can come from the school's setting and the teacher's interest and disposition to learn. In daily classroom life teachers choose how to act and what to do. In other words they exercise personal and professional judgements. The judgements may be intuitive or more explicit, driven by experiences and emotions.

The data collection from our teachers suggests that learning from personal experiences of immersion in the classroom are a starting point for many teachers – *the first year was hard work because you have to learn how to do all the elements of teaching."* As time went on with this teacher, he found that

*"having a failed lesson taught me more than having a good lesson because you were less able to see what was good about the lesson." (Teacher D)*

Development of acting like a teacher was also enhanced by training sessions and placements in other schools for example,

> The training sessions OUT of school, provided me with practical ideas and strategies to try out.
> The second placement which gave me experience in KS5, albeit limited, revealed the way a similar school dealt with issues and problems in different ways. (Teacher E).

The second placement also "provided models of good practice" for subject specialism enabling teacher's to seek out ways in which they could develop their ability to act like a teacher.

When teachers are supported well they are able to 'act like a teacher' and can develop strategies for learning. One teacher stated

> I had lots of support – with Head of Science who went over resources; ways of teaching; helped me with ideas and issues.(Teacher C).

This teacher was training in an unusual pairing of subjects – Science and Dance. Her experience with her mentor in Dance was quite different and much more hands on. Each lesson was observed and alternative strategies offered immediately, enabling her to put action into practice immediately.

As the EBITT route is very much independent 'hands on' learning on the job, thus is unsurprising how most of our teachers *learned how to act:* One remarked that he*"Learnt on the job how pupils progress and develop and how different strategies and tactics work for different pupils."(Teacher D)*

This independence allows them to choose how to act and support the learners in their classrooms and build up a tacit knowledge.

Management of one's self and time are often skills that trainees cite as an area of difficulty. Learning how to be professional in terms of time management and still keep a work-life balance seems to create tensions for some of those in the sample.

> It was hard work in the evenings but it paid off as I felt I was able to teach.(Teacher C).

> My timetable starts at 8am, before the rest of the school starts and on a couple of days my classes run to 4.45pm. The result of this was that I missed events put on for visiting PGCEs- who I think got a better deal than me.(Teacher A).

and went on to say:

> ....during my GTP year I was paid overtime to teach a couple more classes out of school hours - which restricted the amount of time I had for greater involvement in the school and in school training opportunities.

Time constraints during what is a most important year for laying down the foundations of *how to act* as a professional and develop high quality teaching and learning experiences for pupils, clearly had an impact on this teacher who recognises the importance of the sessions he had missed and the impact they may have had on his pedagogy. As time goes on and teachers enter their second and third year they are able to engage with other activities enabling them to develop knowledge about practice.

*The workload seems more manageable than last year because there is so much less paperwork to do." (Teacher G)* As a result of this she has been able to engage in more professional development activities, including a master's degree. She said, *"I have learnt to become more efficient and manage my time more effectively – would not get everything done otherwise."* (*Teacher G*)

How teachers learn to act as a teacher is interwoven with developing subject specific pedagogical techniques, behaviour management, classroom management and personal skills within a classroom setting: This is illustrated by one teacher who remarked that

> 3 years prior experience working as teaching assistant in a special school gave him the skill of patience. I enjoyed building relationships and giving low ability pupils positive experiences in order to develop their expertise.(Teacher D).

This same teacher had a clear grasp of what it was to act like a teacher as he had an *"understanding what is required of you as a role model".* Prior relationships and experience with children was a positive influence in terms of behaviour management for another teacher who felt he *"didn't have to enforce his expectations because of prior relationships and role which also established me as 'approachable'."* (Teacher E). In the first month another teacher realised the importance of planning organisation and establishing good relationships with children. However a different teacher (with prior experience) noted that over-preparation of behaviour strategies can be a problem in developing the art of *acting like a teacher*. This teacher also found that: *"I had to learn very quickly and adapt lessons as many of the pupils had not been taught Spanish before."*(LS)

Behaviour management is a key area for most beginning teachers. In the national NQT survey 83% felt their training was good or very good in helping them establish and maintain a good standard of behaviour in the classroom. Our own survey of trainees (Appendix 2) backed this up with trainees stating that training was very good in this aspect.

Developing this sophisticated understanding of how students learn and what they should learn requires both codified and context specific knowledge i.e. knowledge of how to teach (Erault; 2004). Teachers also have to learn to act in particular ways where different gender groups require adaptations to their learning activities as Teacher C found:

> Boys wise: I tend to tailor some activities towards the boys. Girls tend to like dance. Boys have to have certain music and like boisterous (activities) with kicks and lifts – then I move onto discuss poise and balance.

Working with others clearly helps trainees and beginning teachers to act and develop their skills in the classroom. For example:

> I have learned so much from other people that has helped me in dealing with pupils behaviour; their needs. I learned particularly from one colleague about structures and boundaries with pupils; it really helped me and still does. (Teacher B).

Another found the best way to act was to observe other teachers. When teachers recognise that routines and structures were essential parts of their organisational skills then they develop their ability to act – *"when you do these things consistently day in and out then it then becomes embedded"*. For example Teacher D

> It didn't matter how many times I was told about behaviour management – I still had bad lessons so the only way was to actually do it and learn from it. (Teacher B).

The TDA standards for Qualified Teachers are seen to focus the way you act as a teacher but real learning takes place in the classroom "*I just needed to get into the act of teaching and learning, as you go along."*

A real challenge to the way they learn to act like a teacher is getting on with other colleagues and the politics of the school. For one teacher:

> Getting on with colleagues is hard for me - there is a bit of tension between the teachers and myself although we are all in the same department. (Teacher A).

Teacher G felt that some members of the department saw her as a threat to them and did not understand this particular route into teaching. She found *"different ways to react to situations which have been learnt from watching others around her"*. Another commented that *"The politics of school is the hardest thing. You can't teach that. You need to adhere to it. I've made some big mistakes."* His observations about the kind of people who go up the ladder were that *"political animals go further than good teachers". (Teacher D)*

Perhaps here we are seeing that learning to act like a teacher and developing the skills required to 'go up the ladder' are quite different to each other. This is particularly interesting observation since several of the teachers have gained or are actively seeking promotion (Teachers B, D, E and F)

**Discussion of findings:**

**Using The Fenman-Nemser Model**

The interviews with 7 EBITT teachers undertaken after 2 -4 years of teaching have provided a perspective on how the course (school based training) has prepared them for the early years of teaching.

Analysis was undertaken using the Feiman -Nemser model (FN) with the aim to gain a deeper understanding of how teachers learned. The structured interviews were intended to elicit rich data about the learning process during the training period and subsequently. Analysing the model and its use in this study revealed that it was often difficult to separate the four FN dimensions in the analysis. At times we felt this to be a somewhat possibly simplistic separation of the dimensions of learning to teach and this was not evident in the way the learning process was articulated by the teachers. This may be a result of secondary training being directed towards a single subject. It did, however, enable the authors to compare and contrast aspect of interviewees learning about teaching or specific responses to identify key issues.

We found evidence of all four dimensions being explored by the teachers through a constructivist approach to learning. This is perhaps an inevitable feature of this route since it is based on an immersion approach to learning and involves knowledge of the ways of doing things within a specific context. The teachers articulated the learning process with *learning to feel like a teacher* being bound up in the finding of solutions for problems of a practical nature.

In analysing the trainees' responses we found evidence to suggest that in learning how to think, know and act like a teacher – these processes were bound up with and dependant upon learning how to feel like a teacher. This last aspect was not readily detailed by the teachers who were still articulating various constructivist ideas for action within the classroom. We found little evidence of the teachers articulating the wider aims and purposes of their subject, purposes of education and schooling or analysing the

limitations/ strengths of their existing views about teaching. This was disappointing as teacher education should not serve to merely confirm trainees existing pre conceived views about education which are then reinforced by the school context. Nor should teachers see their training as merely learning how to conform to existing school or educational practices. However this may be a consequence of how the competency based model of teacher education for teacher professional development in England is interpreted by schools and trainers. The FN model incorporates a deeper understanding of practice into the theme of feeling like a teacher and this was interpreted by the teachers in a superficial way. It could be said that our teachers' approaches, values and norms are those which 'work' in the complex and demanding arena of the classroom and the training seeks to identify and experiment with these approaches.

The FN model is able to encapsulate within its four dimensions the QTS Standards as well as a number of other theories. However, the professional standards provide a much more detailed and potentially useful framework for trainee teachers – particularly in terms of describing a professional identity and the detail of the professional knowledge, actions and attributes of a teacher. The QTS Standards can also facilitate the creation of a more personalised course where the trainee undertakes an initial needs analysis (against the Standards) and can then focus their training and professional development accordingly.

Moreover the school based route develops teachers through a highly personalised programme building on an individual's strengths, identifying their needs and evidencing their work against the QTS Standards. This helps teachers to understand and meet the requirements, focus their learning and identify future training needs.

The school based training programme is an 'immersion' approach to learning. This enables the trainee to very quickly become part of the teaching team and culture of the school and have the status of a teacher in the eyes of pupils. This approach to training enables the well qualified trainee to learn, feel, know and act like a teacher very quickly. The design of the EBITT course is perceived as high challenge/ high expectation. It enables trainees to develop pedagogical content knowledge and knowledge about pupil development/ needs in a highly intensive way. It enabled the trainee to see the effect of different behaviour management strategies with different groups over a longer continuous period of time than other routes.. Trainees find it an advantage to have previous experience working within a school setting prior to undertaking the course. It

helps them to understand the possibilities and realities of the role and enables them to learn how to establish relationships with pupils.

Retention within the profession is a key factor in assessing the 'value' of a course particularly since, according to a new report co authored by Professor Alan Smithers from University of Buckingham, Four out of ten trainees fail to enter a classroom six months after finishing their course (The Independent 14/08/09). The figures for employment based training are better than other routes and our on our GTP route all teachers have been successful in gaining teaching posts. The majority of our interviewees said that success on the course had enabled them to gain recognition and promotional opportunities within the school or externally immediately on completion. The above report also revealed that teachers who learned on the job through school or work based training were most likely to stay on in the profession.The report recommends that more weight should be given to school-based training schemes.

Training days with content related to practical teaching concerns allowed for the exchange of ideas/ sharing concerns and facilitated high quality reflection. The teachers did not mention the need to learn about the philosophy and sociology of education in order to learn to teach. This reinforces the instrumental nature of the course as 'training rather than educating and contrasts with practice in other European systems. The teachers did not reflect deeply on the meaning of their learning or consider wider issues of purposes and aims of education.

Whilst the combination of in-school together with university and Local Authority support is seen as a good mechanism on the whole, there were a number of issues relating to consistency and rigour. In at least two cases the school mentoring support was considered barely adequate, timetables were not always correct, QTS Standards were not routinely considered as part of the formative learning process or even in some cases referred to and onerous folders of collated evidence were considered of limited value by the mentor and the trainee. Some interviewees felt there was a need for clearer role definitions/ expectation of the supervision expected of mentor in order to ensure consistency across the programme and safeguard a high quality individual experience. Whilst the university visits were useful they were not always undertaken in a private space- one teacher felt this should be a right for all trainees.

The purpose of the recommended evidence base collection (at that time) was not well understood and viewed as onerous and unnecessary by all the teachers. There was a

strong steer for the course to explore alternative assessment methods which were not paper based eg viva, or an external report.

Several trainees felt that more visits to other schools to gain experience of other contexts and other ways of teaching and learning together with more out of school training should be a compulsory part of the course. Other schools can also offer teaching and learning experiences that cannot be supplied in the trainees setting.

The nature of the EBITT course means there is less divide between the formal aspects of training at the University/Local Authority and the practical school based elements - the so called theory/ practice divide. However, many of the responses to the interview questions threw up anecdotal evidence about their progress as a teacher rather than interpreting this inn depth. This raises the question of the extent to which teachers on the EBITT route engage sufficiently in educational theory, the awareness of aims and purposes of education and their own ontological and epistemological positions.

Such perspectives were a common feature in initial teacher training courses in England 20 years ago, particularly in the Bachelor of Education degrees. The current QTS Standards do not require these perspectives and are based fundamentally on a 'training' notion of teacher preparation which raises the issue of the impact on the professional role and identity of the teacher of the future. Recent directives for teaching in England to become a master's level profession may provide the platform for this.

The TDA survey on early professional development (Thewlis, 2006) shows that the priority areas of development for many teachers in their second and third years include:

- ensuring their first experience of performance management builds consistently upon their induction
- preparing to take on additional responsibilities
- expanding their subject knowledge and pedagogy, and
- developing their behaviour management skills.

Our findings generally support the TDA conclusions. The teachers in our study talked of how they developed understanding of subject pedagogy, self and pupil assessment (including data) and a deeper understanding of the connectedness of planning teaching, learning and assessment. They also talked about developing an understanding of the wider role of the teacher e.g. taking on managerial responsibilities.

Our sample of teachers expressed a range of views about the career development available for teachers in the second or third year of teaching. Opportunities for the teachers ranged from a management shadowing opportunity, to promotion to Head of Dept and promotion to Head of Year. 84% of early career teachers have taken on one or more tasks or responsibilities since completing their NQT year. Of this number 69% had undertaken a subject coordinator/ management role and 34% a mentoring or management role. (Springate et al, 2009). However there was little mention of corresponding training to go with these roles. One teacher stated that there were no systematic training opportunities to prepare teachers to enter a managerial role. None of the teachers said that there was a specific training support programme for teachers in their second or third year of teaching. Instead their CPD was very much self- directed (a wish to undertake Masters level work) or where they had been identified and fast tracked into managerial positions. These findings of a mixed picture are supported by the above report (Springate et al, 2009) which claims only a small number of schools strongly support teachers with high potential and provide them with high quality professional development opportunities. The majority of the schools do not consider identifying the training needs of teachers in their second and third years in any way different to other teachers.

> In the majority of schools….as a result, the individual developmental needs of teachers in the early stages of their careers were not identified or addressed well in around half of the schools…..In a small number of the schools, teachers identified as having high potential had been supported well by their senior managers; their aspirations for subject leadership or other responsibility were recognised; they had been provided with relevant high-quality professional development opportunities; and they had been 'fast-tracked' to a post of responsibility. (Springate et al, 2009).

**Summary of conclusions and recommendations**

- The Feinman- Nemser model was sometimes difficult to apply to the interview data as the four categories overlapped

- Teachers value the YDTP structure for supporting school based training

- All interviewees were mature students with a considerable variety of work backgrounds prior to entry into the profession.

- Entry into first teaching posts and retention is very high on this route

- All teachers in the sample enjoyed and valued the course and felt it prepared them well for their teaching careers: they valued the 'immersion' approach: being based in one school with internal and external training opportunities

- In England there is more focus on competency standards. The Standards are generally considered useful when they are understood in relation to the activities of teaching and learning.

- The quality of the in- school support and particularly the mentor/ school based tutor is essential for high quality training. The person selected for this role by the head teacher should be someone who fully understands the requirements of the role and is given time to do it. Not all teachers received high quality mentoring support during the course

- There should be more external training days and visits to other schools are highly valued - they should be compulsory

- The evidence base against the QTS Standards could be slimmed down and alternative methods of assessment considered so as to reduce to paperwork

- Teachers interviewed displayed little evidence of having acquired a wider theoretical understanding of education disciplines ( philosophy, psychology, sociology).

- All teachers in the sample were fully committed to the profession and actively looking at ways of enhancing their teaching capabilities through self directed professional development

- Structured support for early professional development is limited and variable

- Issues that were of concern to the interviewees in the future - politics/ relationships with staff, how to / preparing for promotion ; preparing for further study and further CPD opportunities

- There is little research reported about the early professional development of secondary teachers in the literature

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**Web sites**

TDA (1 ) Information about the GTP route

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TDA (2) Requirements for Initial Teacher Training

ihttp://www.tda.gov.uk/partners/ittstandards.aspx?keywords=requirements+for+ITT

TDA (3) QTS Professional Standards

http://www.tda.gov.uk/partners/ittstandards.aspx?keywords=QTS+Standards

TDA (4) Newly Qualified Teacher Survey

http://www.tda.gov.uk/partners/datasurveys/nqtsurvey.aspx?keywords=NQT+survey

# VOCATIONAL AND ADULT EDUCATION

# KNOWLEDGE CREATION THROUGH WRITING SKILLS IN VOCATIONAL EDUCATION AND TRAINING

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ABSTRACT

*In 2006 Norway introduced a new reform in lower and upper secondary schools, known as The Knowledge Promotion. Among several new issues, this reform focuses on the implementation of basic skills in all school subjects. Altogether, there are five basic skills, regarded as key competences: Being able to express oneself orally, being able to express oneself in written form, being able to read, being able to do mathematical operations and being able to use digital tools. This marks a great difference from former curriculum, and is mainly reflected in the change of curriculum goals from knowledge to competence goals in all subjects. The main purpose of this paper is to present and discuss what this mean to teaching and learning strategies of teachers in Vocational education and training (VET).*

Keywords: Writing skills as knowledge creation

## Introduction

I will focus on one of the basic skills, *writing skills,* and investigate as a main approach, in what ways writing skills and writing activities in school context can create knowledge in subject relevant for education and future profession for pupils and youngsters. Even though teachers in mother tongue are teaching in some of the basic skills as a part of the VET curriculum, I will in this paper specifically focus on how the VET teachers implement writing skills in their various vocational subjects.

This approach is a main aspect of my ongoing Phd-project *Teachers´ implementation of basic writing skills in Upper secondary Vocational education and training*. This paper intends to present some issues and tendencies in the field and discuss these on theoretical basis. The presentation will focus on the attitude and practice of VET-teachers on writing and knowledge in subject, and main questions are:

What kind of learning strategies do VET teachers use in writing activities, and do these develop competence in writing or knowledge in subject, or is there a mutual outcome?

Do VET-teachers have an explicit argumentation and purpose of writing, concerning increasing knowledge or writing competence to pupils?

How is writing linked to vocational practice in school context, and what is the content of writing?

What kind of texts and writing activities is practised in different subject and in different curriculum? Are there differences in writing in and across curriculum? In general, how do writing skills and knowledge in subject balanced altogether?

**Background**

The Knowledge Promotion intends to promote a good learning environment for all. Teachers and instructors shall stimulate pupils and apprentices/trainees in their personal development and in their ability to understand democracy and have a democratic participation in society, and at last, to attend a constantly changing and developing working market (Berge 2005). To reach this goal, The Knowledge Promotion has introduced and integrated basic skills in all subjects.

There are some specific reasons behind the decision of implementation of basic skills in all subjects. The first is related to the low level of attainment of Norwegian pupils in several international and national surveys/tests, showing that the youngsters are not as good in reading, writing and mathematics as the Government and educational authorities expect them to be, also considering the expenditures in the school system.

Add to this, a longitudinal research in Norway of writing competence of about 3300 15 years old pupils, showed that the majority (75 %) wrote narrative texts about personal/private issues, and very few (10%) were able to write argumentative genres (Berge 2005). Secondly, the Government and educational authorities are concerned about the participation of all inhabitants in building and developing a democratic multicultural society. Third, and perhaps the most important, is the fact that the post industrial society and professions in general are being more text-based, and therefore demands complex literacy skills.

The Knowledge Promotion has created a greater focus in Norway on literacy and writing skills in general. For instance national tests in writing as a basic skill is arranged every year, and it is established a National centre for writing research and training from 2009.

**The concept of literacy**

The knowledge Promotion is characterized as a literacy reform. In the White paper to the Storting (Norwegian Parliament) leading up to the reform The Knowledge Promotion, the understanding of basic skills corresponds to the English concept "literacy":

> These basic skills correspond to the English concept "Literacy", which fathoms broader than just to be able to read. It includes skills like "to identify, to understand, to interpret, to create, and to communicate". Digital Literacy" is a concept used to define and describe both basic digital skills and innovative use of ICT in learning activities.(White paper no 30 2003-2004, p 33. Translation: Tove Berg).

As we see, basic skills in The Knowledge Promotion are to be understood as something different than just technical and formal skills. Basic skills shall facilitate functional ability to handle and promote concrete subjects, tasks and professions.

Furthermore, literacy as a concept is to be understood as and includes all resources of meaning and activities, in written language, in visual presentations and multimodality texts where we create meaning with texts and in texts (Berge 2005). This corresponds also to the modern understanding of text as a wide concept, including oral and written language, pictures and music. The concept of literacy also concern use of written language in all types of texts, in daily life, in education and training, and in professions (Karlsson 2006). Within a context we will find many literacy practices, and a wide range of literacy events (Ivanic et al. 2009). Therefore, the concept of literacy has to be used in plural form because literacy, meaning able to read, write and speak also implies to coop with texts form different cultures and professions (Karlsson 2006, Ledin 2001).

**Writing in Vocational education and training programs**

The upper secondary school includes both general studies and vocational training. Upper secondary school vocational and educational training has a form of dual structure. Four years of learning programme is composed of two years of schooling in technical and vocational training followed by another two years of apprenticeship on learning contracts in enterprises. However, also the learning programme in enterprises is accredited by public school authorities.

Vocational and educational training contains of nine different educational programmes, such as Health and Social Services, Electronics and Technical and Industrial production. This presentation will focus on the schooling context and not the part of apprenticeship in enterprises.

The importance of writing skills cannot be underestimated due to the fact that society and workplaces in general, are being more and more based on texts and language competences. The use of written language in society is increasing, and the demand for competence in written production in various genres has increased. To manage changes in content of jobs and lifelong learning, pupils must develop their literacy or more specific writing competence related to their future profession (UFD 2003-2004).

**Writing skills in curriculum**

Competence goals in The Knowledge Promotion consist of integrated basic skills in subjects and replace the former knowledge goals. To possess knowledge and to be able to practise is part of the same thing, as we have seen above. Related to writing basic skills, the meaning and understanding of the term "competence" is to be understood as functional. In a way we might say that basic skills secure the practising of knowledge, and then give a functional meaning to the term "competence". This is also corresponding to the meaning of DeSeCo´s understanding of competence. In this sense it is important to avoid separation between knowledge and practising. Competence is the ability to manage complex challenges and to carry out a complex task (Knain, 2005).

The basic skills are both explicitly and implicitly expressed in curriculum. Teachers and instructors have to interpret and make their own understanding of how to integrate the basic skills in disciplines. Each educational programme specifies more or less explicit basic skills within the discipline as a separate part of subject curriculum. Here I give two examples of writing basic skills in Health and Social Services and Technical and Industrial production. Orally and writing skills are here combined:

> To be able to express oneself orally and in writing in Health and Social services means to be able to communicate with other people. The ability to communicate is essential when meeting people in different life situations. The elaboration of written plans, documentation and summaries are central tools. (Health and Social Services – Translation: Tove Berg, 2007).

To be able to express oneself orally and in writing in Technical and Industrial Production means to be able to describe, explain and document working tasks. This means also orally and written presentation of hazard or risk evaluations and reports of deviation. Further more it is about to use a precise language to avoid mistakes and misunderstandings. (My translation).

Add to this, the basic skills are also more or less implicit formulated in each curriculum related to competence goals in school subject. The competence goals are quite open, and for some competence goals, both skills and knowledge are combined and integrated. I will give some examples of some competence goals from the same educational programmes, first year of the schooling part:

Examples of some competence goals from Curriculum *Health and Social Services:*

- Discuss health-, lifestyle – and nutrition- and dietinformation and advertising in media
- Explain how each one can keep a good defence against sickness and prevent infections and
  explain what disperse of infections can lead to
- Explain how the body is build and functioning related lifestyle sicknesses and explain consequences of deficiency of vital body functions
  (My translation)

Examples of some competence goals from curriculum *Technical and Industrial Production:*

- Consider and evaluate costs related to a working task
- Explain a working process for idea to final product
  (My translation)

To manage a subject or to have professional technical skills means not only to have cognitive or practical competence. It means also to be able to articulate and communicate subject or subject tasks through language and semiotic resources in texts, orally or written. To carry on a profession you need to speak, to read and to write (Berge 2005). Therefore, writing skills are to be understood as functional and are something more than just formal and technical skills, as punctuation or orthography. Related to each subject, writing skills are connected to writing traditions, writing demands and text culture in the specific subject. The purpose is to promote learning of subject and professional attitude (Hertzberg 2006). But how are the writing practices in the schooling part of vocational education and training? How is writing being used? What is the purposes and content of writing practice? Teachers have to a large extent the main responsibility to decide writing practices in general in school

**Teachers' attitude towards writing**

How do teachers of different school subjects interpret these, more or less open competence goals and writing basic skills in particular? And what is their attitude towards writing, their own writing competence and experiences of writing?

Not surprisingly, writing competence of pupils is regarded as important by all teachers. They are aware of the demands of communicative skills in society and in professions. They are also aware of the integrated basic skills in subject, but maybe more uncertain of how to interpret some of the competence goal in curriculum in sense of writing skills in subject. This is an ongoing debate among teachers and school authorities. More important though, is their own experiences of writing, because this seems to have impact on their own teaching in writing or initiative to writing practices in class. It is of course different culture between teachers of general subject as mother tongue, foreign language or mathematics and teachers of technical and vocational subjects (Tarrou 2004). But also teachers of technical and vocational subjects are a mixed group. Some have educational background from university college, others have vocational certificate and pedagogy. Traditionally, university college education is considered to be more written based than vocational training and handicraft professions. Therefore, it is reason to question if educational background of teachers has influence to their own writing skills and writing experiences. It is maybe obvious that teachers with 3- 5 years of university college education is more comfortable with writing than their colleagues coming from practical professions without academic education (habitus) (Bourdieu 2007). But even more important is the possible connection between these issues and teachers' learning strategies in writing and how writing is being used in subject. At this stage, this connection is highly hypothetical.

**Literacy practices and teachers' learning strategies and didactics in writing**

Training in writing skills has in general two different aspects; writing across the curriculum and writing in the disciplines. These two aspects presuppose different methodological strategies. We might say that The Knowledge Promotion and integrated basic skills, makes all teachers as teachers in literacy, in developing the competence of pupils in writing, reading and speaking. Do teachers in Vocational education and

training regard themselves as language teachers in this way? And how is this reflected in their learning strategies?

We might assume that writing in the disciplines or subjects and writing across the curriculum, differs among educational programmes and professions. And culture and tradition of professions have impact on texts and writing. A profession is highly influenced by its specific terminology, and all teachers seem to concern much about this aspect. They do explicit training in precise and accurate vocabulary when pupils shall communicate specific subjects.

When it comes to text-writing, in a wide sense of meaning, teachers´ learning strategies seem different form training in subject vocabulary. First of all, text-writing in class by pupils often implies quite big task related to the subject, as team work or project work.

 Together with these tasks, teachers give handouts with relevant competence goals copied from the curriculum, where they also give an interpretation and specification of these goals in taxonomic demands and grades. The pupils then are acquainted with how to reach a good, middle or low mark. But the text-type itself, is not more specified than as a genre classification, as report, documentation, summary etc. A genre as text model, with its specific marks, is not an issue to teachers. Pupils seem not to get any other information or training from teacher in how to write the hole text, how to start the text, how to structure and organise the content of the text. But they still seem to write texts more or less according to teachers' expectations. How come? What kind of elements or what have impact on the literacy practices in vocational education and training? Do teachers and pupils after some time copy more or less without being fully aware of it, the way of writing text typical for the specific context, this means the subject and culture and learning of the subject? Are there similarities or differences among subjects in the sense of how to learn to write and use text types, genres and literacy events in general? This issue will be further investigated in my research project.

As we have seen above, terminology is important for teachers in their subject and in pupils' literacy practices. Teachers seem not very concerned about to teach model writing, in the sense of genre specific teaching. It is a certain disagreement among researchers and teachers about the value and effect of explicit or focal text-model or genre training to develop pupils´ writing skills (Berge 2008). On the other hand, there are agreements of the impact of tacit knowledge due to text structure and how to write texts in specific subject, educational system or profession (Karlsson 2006, Beaufort

2007, Freeman 1987). Maybe this can be an explanation to teachers´ learning strategies in this field?

Traditionally, tacit knowledge by handicraft workers is transferred form the master to apprentices by practical showing and doing, with use of few words. Or to put it in other words, practical activities is often combined with oral language, and therefore not to same extent language depended. This is a culture of learning which perhaps many teachers in vocational training by their roots and background also have affected their learning strategies. Regard the school context, which I refer to here, the teachers (and pupils) do both practical teaching in workshops and more theoretical training in classrooms. Though, classroom seems to be place for writing activities. Despite the context of learning, classroom or workshop, can the learning culture and learning strategies of teachers still be characterize tacit and implicit when comes to texts and genre training and literacy practices?

Each profession and also subject in vocational education and training seem to have its own characteristic of literacy practices. When comes to text types or genres, there are no static form of for instance the genre *report*. In spite of similar name of the genre, it is created and gets its constitution within a socio-cultural context, a profession or education (Ledin 2001). For instance will a report from a hospital have different characteristics than a report from a car-accident. It is relevant to ask: If we want to be acquainted with these characteristics, we need to be acquainted with the culture from inside and learn the text types little by little through practical work, to see, listen and hear the practice of colleagues.

Teachers focus more on the purpose of writing in their learning strategies. What is the specific function of a text? Why write a text and to whom? Overall, texts can have many different functions as documentation, planning, problem solving, presentation or information. In many ways each function or purpose also implies to whom the text is addressed, who will read and use the text. These functional aspects of writing are more or less the same in every subjects or professions. Do these aspects have characteristic of writing in the disciplines?


**Summary**


How can we summarize writing activities and training in writing skills in vocational education and training? Integrated basic skills in all subjects indicate parts of general

subjects into technical and vocational subjects. To communicate the subject is equally important as cognitive and practical competence. However, competence in writing will vary among teachers, and perhaps this is depended on the educational and cultural background (habitus). In general we might say that teachers in mother tongue have a general competence in formal and linguistic issues. Teachers of technical and vocational subjects have competence in text culture related to vocational subject and professions. Writing activities and training can be realised in two ways in the school context, - writing across the curriculum and writing in the disciplines. Each of them demands different methods. First, what kind of writing activities and writing skills are the most dominant one in vocational education and training? It is perhaps not possible to make any conclusion at this stage, but writing activities are strongly connected to big subject tasks as team work or projects. Pupils get most likely no explicit training in text models or genre. This seems to be acquired more implicit by pupils inside the context step by step. Combined with vocabulary training, the main aspect of writing is writing across the curriculum. Writing activities is used to learn subjects. On the other hand, literacy practices and literacy events are highly affected by purposes of writing, as for instance documentation, problem solving, presentation or information. In general, this implies more or less same writing strategies in all subjects or professions and can therefore be characterised by writing in the disciplines. So far, both aspects of writing and literacy practices are being relevant in the schooling part of vocational education and training.

When it comes to teachers learning strategies and occupational didactics in writing, it seems as tacit knowledge still dominate the learning culture. Traditionally this has been the learning culture within practical professions, with less focus on written language and theory. However, it is a question in what way new competence goals promote new didactics, learning strategies and learning outcome across traditional borders? Put in general words, is the tacit and more or less implicit way of teaching sufficient to develop and increase writing competence of pupils and youngsters corresponding to demands of society and professions? It is probably many methods to develop writing skills to pupils. Nevertheless, the Knowledge Promotion implies that all teachers ought to have a certain writing competence and responsibility to develop and increase writing skills to pupils. It also seems as literacy practices are being used to create knowledge in subject. If the literacy practices are relevant to professions in real work life is at this stage hard to say.

Writing skills are a complex competence. In general writing skills can not be understood as one type of writing, but imply different aspects of writing activities and strategies related to a social cultural context.

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# INCLUSION AND SPECIAL NEEDS

# AN APPETITE FOR LIFE - ABOUT MOTIVATION

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ABSTRACT
> *The roles of a teacher are many and sometimes they are hard to handle. This paper is about motivation. We can ask some questions: How can I create a pleasurable and motivating environment for my students? How can we motivate all students when teaching? How do we get children's attention?*
> *The article analyses five principals of teaching, motivation, activity, concretion, individualization and cooperation. In the Swedish teaching plans from 1962, 1969 and 1980 MAKIS  (in English MACIC) is highlighted.*

Keywords: motivation, teaching, special needs, enthusiasm, creative activity

## An appetite for life- about motivation

All teachers, special needs teachers, teacher assistants and principals are daily confronted with the "dilemma" of motivation or lack of motivation, including their own as well as students' motivation for learning.

One might question oneself; how can I create a pleasurable and motivating environment for my students?

How can we motivate all students when teaching?

How do we get children's attention?

How can we make all parents attend parent meetings?

Motivation is a matter for everyone and at different levels in a society.

## The joy and possibility

When I attended Teacher's College in the 60's the conception of motivation was an important part in our education. We learnt, among other things, that it is the teachers' job to motivate and encourage the students; we should inspire them as well as be a raw model, both through our behaviour and our teaching methods.

Today we talk more about school offering "enjoyable learning environment"/ "encouraging teaching". In Sweden, The Swedish National Agency for Education

(Skolverket) (2006) recently wrote a report "The joy and possibility" about this. We want all students at all levels to be motivated and feel joy when learning.

**I think some of us**

1. Some of us teachers think children are so hungry for new information and motivated to learn that there is no need to create an enjoyable learning environment.

2. Others say that we, the teachers and our methods, play the most important part in creating joy for learning among students.

3. Again, there are others that mean that: "Sure we can talk about encouraging teaching, but what it comes down to is plain hard work – school and learning has nothing to do with joy and desire. I make sure they work hard, and those who aren't I make them work – sometimes by talking about the future and future grades, sometimes I ask the parents for help".

Whatever standpoint we might have of all these mentioned, we are dealing with children and students desire for learning.

In the dictionary Uppslagsboken (1996) it says:

> Motivation plays an important part in all learning processes. It explains why some students like school and school activities and do their best at all times. It also explains why some students are unmotivated and hate school and avoid doing well. (p.411).

The same book explains the difference of inner and outer motivation:

> Inner motivation comes from within the child itself while outer motivation can be a bribe, praise, threat, criticism and all too often we say: "what will happen to your grades if….

Also, we can, with praise and bribes, create a certain degree of motivation. Or?

**To want something**

Maybe we can divide our students into two groups; those who are motivated to learn and those who aren't.

Soon we will learn that some of them like certain parts of learning but not all.

Also, we will learn that some students are very motivated when it comes to geography and Swedish, but not maths.

Many students like physical education; others hate this subject.

Also, some students like your teaching better than mine, which makes them more motivated in your classes.

Dahlin/Ingelman (2002) has divided children's motivation into four categories using the parameters "want to" and "being able to/can":

° Students who are able to/can, but don't want to
° Students who can and want t
° Students who can't, but want to
° Students who can't and don't want to

How do we encourage and motivate those students who don't want to and aren't able to learn? Can we divide students and others into these four categories? In my opinion these categories clearly shows how big our task is. The whole school system is based on us assessing our students. Together and through our work we can see their weaknesses and strengths, their desires and hates, want to and don't want to, knowledge and...

Pretty soon we will discover what they can and want to and what they don't want to and can't. Also, many children don't like schoolwork and aren't motivated to learn in the classroom, but during recess they have high knowledge of games and are interested in learning new ones - motivation are high! And who hasn't seen a student turn into a silent mouse when a politician or an artist enters a stage? All of a sudden they are really motivated to be quiet!


**1962**


In 1962 nine-year compulsory school was introduced and with that the government decided on the first Curriculum (teaching plan) (Lgr 62). Motivation was important then and the teaching plan talks a lot about the children and their learning, the teacher's role and the schoolwork. In the teaching plan from 1994, the word joy is mentioned:

"Exploration, curiosity and joy for learning shall form a foundation for teaching."

Nowhere is the word "motivation" mentioned, but so is the word "stimulate":

"School shall stimulate each student to grow and develop with their tasks".

Both quotes use the word "shall". It is an order from the Swedish government that we, the teachers shall stimulate students to learn. If we look the word stimulate up, we get several synonyms: Encourage, motivate, inspire, give a big kick, enthusiasm, increase, help etc etc.

The question for us using the curriculum for the compulsory school system, Lpo 94, then rises: how do we inspire the children/our teaching? The tools in hand for this are, according to the teaching plan, our teaching methods, our role as a teacher and the tasks we give the students. This is the inner environment.

Children are also affected by the outer environment, both indoors and outdoors, in how successful we are in creating an inspired teaching environment.

A bad school yard, low nourishing food, crowded and dirty areas etc will not help to motivate students, nor give them energy to learn!

MAKIS – MACIC in English

Many teachers know the meaning of MAKIS, others have only heard of it. Some of us use MAKIS – motivation, activity, concretion, individualization, cooperation, when planning the education. I'm one of them. The teaching plan/curriculum from 1962, Lgr 62, writes about M – Motivation: "As a general rule, all teaching must be motivating for the knowledge to last. Education must focus on students' interests and needs. In psychological and pedagogical terms that is motivation". (p. 46)

We are now talking about the teacher motivating the students. Education must focus on students' interests and needs. The teaching plan gives examples on how teachers can create motivation, a desire for learning.

1. For example, the students can take part in planning some areas of a class.

2. Also, the introduction of a new subject/class is very important; for example teachers clearly need to explain the purpose of this new subject.

3. Students will be more motivated if teachers bring up current issues. Many teachers can do this. If not, we lack an important method in our teachers' education. You inspire and encourage children, colleagues with exciting news and details when starting the class, the day, a new theme…

**About birds**

In one of my classes we were going to learn about birds. To motivate and inspire the children, I talked about a feather – a feather I'd received from the Indian Black Eagle, son of Standing Bear. The children were amazed, had I really got a feather from an Indian? We examined the feather together – the children were even more interested to

learn more, more about almost anything it felt. We had started off the class and now the children were inspired to know more. My task is to help them "land" their projects, both when the class of the day is over but also when leaving this specific subject. This particular day we needed to land the project before the day was over. Therefore I told them a story "The bird and the Bear". Also, I told them about the Taosindians in Arizona…

**Concretion – one of five principals of teaching**

In the teaching plans from 62, 69 and 1980 MAKIS and motivation is highlighted. These five principals of teaching, activity, concretion, individualization and cooperation all help to increase motivation. One principal increases the other; they go hand in hand.

For example, I use a feather to make it more concrete when talking about birds; it's an actual thing that one can smell, feel, look at, taste…to start the class off with and go on from there. Those children we worry about might need something as concrete as a feather, when talking about birds, to get them start using their imagination. This is highly important for us teachers and principals working with students with special needs.

I believe that little knowledge about MAKIS and the understanding for how important these principals are when teaching plays a big part in the Swedish school's setback and increasing stress, students tired of school, students not passing school etc.

Finally, some words about the writer and psychologist Abraham Maslow. Maslow talked about human needs and how these must be satisfied at one level before one can feel needs from higher levels. An example: motivation increases in a safe environment, in a warm climate. Maslow has a foundation for his "Three pyramids of needs" (Ingelman, 2003) where he differ aesthetic needs from the intellectual needs and the driving needs.

**William Glasser**

One of Maslows students, William Glasser, has written several books about school development, the teacher's role, and motivation. In his book "Motivation in the

classroom" he brings up a highly current issue for us in Sweden. What can we expect? What can the children expect? Will teachers and students motivation to learn increase or decrease? Glasser (1996) writes about his situation in the US:

> Despite teachers hard work they more often meet students who are not interested in learning. This is not a new problem; schools have been criticized since World War 2 for not being successful. For example, in a report from 1984, "A nation at risk" that was sent to the President, the Nation Commission on Excellence in Education for the schools to prolong the school days and the school year, make classes more difficult and give more homework. If this report was the only criticism against school it would be easy to dismiss. It might be written in a new language, but has been said several times before without any positive changes.

Instead of the suggestions from the Commission, Glasser suggests for changes that the Swedish teaching plan from 62 talks about and the importance of the five principals for learning. Glasser emphasizes the C in MACIC – *cooperation*.

It is crucial for a positive teaching. He concretely shows how teachers can organize so called "learning groups". He brings up theories of cooperative learning and wants to prove that positive group works increases motivation, which increases the will for learning and students make a greater effort.

## Dahm

Now, some words from Oscar Elis Leonard Dahm: principal, politician, teacher from the town Kalmar, Sweden (1896): "All positive teaching must come from heart and mind. The mind will explain the feelings, the heart will clarify the thoughts". (Dahlin/Ingelman 2002)

To feel joy and keep that joy in teaching might be about explain feelings and clarify the thoughts. A warm classroom with an organized structure.

## The joy and possibility

In the report " The joy and possibility" from The Swedish National Agency for Education (Skolverket) 2006, they say:

> The teaching plan emphasizes the students desire to learn. Studies show that the students' desire to learn is dependent on the teachers desire to be a teacher. The teachers own trust for his or hers teaching methods, competence and the liking for teaching are factors students use, no matter sex or socioeconomic background, when assessing who is a good teacher and what characterizes a positive learning environment. (p. 42).

**At last**

The Norwegian teaching plan (1993) writes, which corresponds with this article's headline: "Upbringing shall give students an appetite for life, encouragement to do what they want and further develop what they learn".

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# CULTURE, LANGUAGE AND CITIZENSHIP

# TEACHERS' CONCEPTIONS ABOUT SEXUAL HEALTH EDUCATION IN UKRAINE

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ABSTRACT

*This paper is about the sexual health education situation in Ukraine and the conceptions of Ukrainian (student) teachers, consultants and trainers in health education. The major problem in sexual education in school in Ukraine is the overcoming of psychological barriers by teachers to address a question about «sex» with students. A problem is predefined that most teachers belong to the generation, educated in a spirit of Soviet Union where sexuality was a taboo. In independent Ukraine, the theme of sexual education is part of the school and the university curriculum. So, most of the teachers are interested in means to educate sexual health.*

Key words: sexuality, health education, Ukraine, taboos, HIV/AIDS

## Introduction

Sexual health education is a relevant topic in teacher education. One of the most convincing reasons, that forces society to spare more attention to sexual education of their children is a statistic one. It shows that in Ukraine sex begins in 13-14 years - more than ten percent from the children of this age already had sexual experience. Twenty percent from those, who were 15-16 years and 25 percent from 13-14 years old didn't use contraceptive during sex and almost every third was drug influenced or consumed an alcohol before entered into a contact with a partner (statistics of International Bank of Reconstruction and Development).

Apart from that, Ukraine stands in the first rows among the European countries that makes an epicenter of AIDS distribution. So far the AIDS epidemic, which spreads over all the territory of Ukraine, is concentrated in the «groups of risk» - mainly among those, who accept drugs through injections. But, after prognoses, during only ten years an epidemic will spread on a general population by a transmission from the persons of one floor to another. So, for the last decade of distribution of infection among those, who pricks drugs, fallen down from 84 percent to 40 percent. However much the fate of

cases, when an infection was got during sexual relations, grew from 11,3 percent to 38 percent (statistics of International Bank of Reconstruction and Development).

For education, especially teachers in biology and health (care) have opportunities to focus on sexual health topics. In this paper we focus on the situation of sexual education in Ukraine. We also report about research on conceptions of pupils and teachers of sexual education. The research questions were: Which conceptions about sexual health education of teachers in health education in Ukraine can be found? And which of these conceptions can be used in developing a teaching strategy for effective sexual health education?

In the first paragraph the sexual health situation in Ukraine is described. The research question that is investigated in Ukraine is explained in paragraph 3. Paragraph 4 reports about the results of the investigation. Finally the conclusion and discussion on what consequences for teacher education can be formulated.

## Theoretical background & situation in Ukraine

*Sexual education in general*

Some authors (Horbunova, 2006) consider that actuality of the problem of sexual education is conditioned by a lot of reasons. The first is related to the absence of the differentiated approach to the children in accordance with their sexual belonging. The second one is the incompetence of teachers and parents in the questions of sexual education of children, which results into the swift growth to the absence of early orientation on implementation of social role in life (father, mother, wife and husband). Especially sharp are the contradictions between: on one hand the increasing of family's role as bases of modern society and on the other hand youth's unreadyness to create a family; the confession of the growing role of woman in society and man's unwillingness to accept it in their own family; understanding of family's values and standards of sexually-role relations and instability of modern matrimonial relations; the increasing number of divorces, especially among young people; declared equality of women and men in family and failure to carry out by men their social roles of husband and father.

In Ukraine the main task of actual sexual education is the promotion of a harmonious development of a rising generation and into moral intersexual relations, an into the strengthening of marriage and family. Therefore sexual education can not be examined

dissociated from the general questions of education, which prepares the young generation not only to work and to public activity but also to the personal life. Together with that «sexual problem» is also a social-hygienic problem, related to the health, capacity, mood of people and their way of life.

*Sexual education in the school curriculum in Ukraine*

The theme sexual education is part of the school and the university curriculum. It fragmentary takes place in such subjects as: Biology, Valeology, Health Basics, Psychology and others. The problem decision of healthy conduct choice is fixed on the new integrated course of the school program – Health Basics, the task of which is to influence by pedagogical methods on consciousness and conduct of students by development of their values, relations, vital and special skills, friendly to the health, safety, harmonious development and success.

In the courses of Valeology and Health Basics sexual education is seen as the basics for a healthy family and as a prophylaxis of sexually transmitted diseases. It occupies such problems as: evolution of carnal knowledge; physiological and social-psychological preparedness to sexual relations; physical health as a necessary condition for valuable sexual relations in the family; gender context of the children's and teenager's sexual education system; marriage and law; family's functions in society; planning of the pregnancy; genetic counceling; methods of contraception; abortion and its consequences; venereal diseases and AIDS as a result of casual relations and unprotected intercourse; narcotic and toxic elements like alcohol $using as a factor that stipulate inherited diseases and violates sexual functions in future.

Actually, great expectations are laid on the subject of Health Basics; teaching of disciplines that form motivation on the healthy way of life for students requires a new, high-quality method of research on teaching, that is based on the principle of knowledge's acquisition, not seen as a task of for teaching. These methods form a competence approach (knowledge is for the sake of abilities) which is based on forming and development of vital skills. It also grounds the necessity of forming the realized behavioural reactions, which would allow successfully deciding a task of self-defence from a risk conduct, overcoming of vital difficulties, everyday problems and other problems which open up in maintenance of educational subject (Voroncova & Ponomarenko, 2006-2007).

Health Basics – is an obligatory subject in Ukraine for pupils of 5-9 classes (10 – 14 years old pupils). The continuation of this subject is "School against AIDS" for 9-11 classes, and is not obligatory. Health Basics is a cross curricular subject with Valeology, Biology, Basis of Life Safety and Physical education as the main subject areas.

In sexual socialization an important place also is occupied by the lessons of Physical Education, which promote the perfection of both physical and moral qualities of man, eliminate possibility of provocation of early sexual interest, form honest, friendship, sincere between the persons of different sex. Physical education, from one side, must eliminate or weaken harmful influences on child's organism, which would stimulate a premature sexual learning. From the other side – to create terms which are instrumental in switching from hormonal activity of the sexual ripening on other activity and the same to improve physical and mental development of rising generation (Kolbanovskyy, 1979).

It is known that harmony in sexual intercourse is determined by a good physical preparation. It is well-proven by Ukrainian and foreign sexologists, that a good physical condition of a man to a great extent determines his sexual desires (Kravets' V., 2005). Women, which execute physical exercises regularly, have fewer problems with a menstrual cycle (Kravets' V., 2005). The physical loadings are useful to the girls, the muscles of abdominal press and pelvis become more elastic that is enough important in the period of maternity.

Today in scientific circles precede a discussion about the speciality of teachers which can lay out the subject "Health Basics". At the same time numerous scientific labours (Polulyah, 2002; Horashchuk , 2005; Kyryl'chenko, 2007 etc.) lead to efficiency of intercommunication between the health of children and physical education which confirms an idea about expedience to inculcate this discipline by teachers from physical education.

Unfortunately, the system of Physical Education teacher's preparation, which exists today, does not answer these requirements, connected with the inclusion of Ukraine into European educational space. Achievement of the proper high-quality level of PE teachers' professional readiness has to become the purpose of pedagogical processes for athletic education and for the development of youth's motivation on a healthy life style by facilities of physical education (Shyyan & Slyvka, 2008). So, the task of finding new technologies in teacher's preparation is immediate for Ukrainian education, and the best

results can be found with interchanging and account of cross cultural experiences (Van der Geugten, et al., 2008).

The main problem in educational philosophy is the question about new methods of research, which can make a mind enough sharp and flexible for an "unstereotype thought" – such, that could absorb and retain information and be creative during all working process.

In school Biology acquaintance with the differences of man and woman individual's role in the process of kind preserving begins in the section "Plant". Here pupils get the first knowledge about sex organs and cells, differences in their structure and functions. The section "Animals" acquaints pupils with differences in a structure and role of man and woman individuals. In a section "Man and his health" pupils, studying the features of organism systems structure, meet with the differences in their structure for man and woman. In a theme "Locomotory system", the features of pelvic bones structure, skeletal muscles of man and woman are examined; in a theme "Blood" goes speech about content of red corpuscles for the individuals of different sex; in a theme "Respiratory organs" a question is studied about the sexual differences of vital capacity of lights. The special place in a biology course occupies theme "Reproduction and development of man's organism". The structure of the sexual system features of its functioning for men and women processes of impregnation and pregnancy, disease of the sexual system, and their prophylaxis. A separate place in this theme is occupied by the questions of birth and equal responsibility of man's and woman's control of the most favourable terms creation for womb development, birth and growth of a child.

The school biology program, unfortunately, small attention is given to psychosexual teenager's development, stages of sexual appealing and differences of this process for girls and boys. Extra education is needed here.

**Historical backgrounds**

The analysis of maintenance of school curriculum shows that the proper place is taken to the question of sexual education, but, unfortunately, it does not give the desired results. There is a row of reasons, why sexual education at school is ineffective. One of them and, probably, the major, there is a problem of overcoming of psychological barrier by teachers to affect a question about «sex» with students. A problem is

predefined that most teachers belong to the generation, educated in a spirit of Soviet Union where, as it's known «there was no sex», so there was no necessity to speak about sex. Except for that, the totalitarian modes repress the sex appeal of the citizens in general, so as the last is the most powerful method of expressions the unique human individuality, which are hostile to essence of totalitarianism. Obviously, that formed in society in which it is not accepted to affect the question of sexual education, and the educational process is build on principles of serving the knowledge and its control, it's psychologically hard for teachers to tune on principles of competence forming for students in the problem of sexual education. Consequently, today's state of the problem is a direct investigation of "sexless pedagogic" of the past years in a collision with expansion of «sexual revolution», and its basic criterion are the teachers that didn't have special preparation and are not acquainted with the methods of sexual education.

Pupil's lack of information about elementary questions in sexual education is an alarm signal. Most teenagers hear about sexual life and baby birth from the persons of the same age, or as we got used to talk - "in the street", on television and internet. Only 19% of young men got necessary advices from parents, which feel free them to tell about intimate. Only third part of future mothers can get such information in the own family.

Educators who stand opposite to formal sexual education says that "school sexual education" can authoritatively curve the nature of sexual attitudes, because they are interpreted exceptionally in terms of biological instinct, and because it takes place in a neutralizing "laboratory" atmosphere. They argue the position with the fact that, when children will not hear about sex at school, in any case, they'll hear about «it» in the street. But such argument can serve as only evidence of necessity for parents in the proper and deferential method informed their children about carnal knowledge, and beginning from the age of 2-3, when sexual integration of child – boy or girl started.

Parents have to know, that relationships teenagers enter in intimate not only through an especially physical train. They just want to try new feelings, wish to grow up quickly, feel a requirement in love and closeness, and they are afraid to fall behind from the children of the same age... And only correct sexual education can help young men and girls to say „yes", if they indeed want it and ready to the intimate relationships, and „no" – if they against (Putilina Y., 2009).

**Cultural backgrounds**

An addressing to the best traditions of Ukrainian culture which equates sexual education with education of senses can, to a significant degree, help parents and teachers to get success in sexual education of the children. The prime example of it is comparing between concepts "to have sex" with a concept "to have love". From the ancient time the Ukrainian woman differed by self-respect, she always was a guard of home morality; she didn't stand infidelity of the man. Relations in the Ukrainian family were built on confession of equality of rights between man and woman. The emancipation of the Ukrainian woman is related not only to tailings of matriarchy in Ukrainian character, but also often with the forced absence of man at home (liberation wars, kozakuvannya, chumactvo). A woman often was responsible to stay ahead of the family and to execute masculine work. The important element of the system of costs of family education is equilibrium of paternal and maternal, masculine and womanish elements (Vyshnevskyy, 1996).

**Field research in Ukraine**

*Research question*

The project 'East West' of INHolland University investigates for several years health education in order to develop effective teacher strategies in The Netherlands, Ukraine and Belarus (Brinkman, Van der Geugten & Jager, 2006; Van der Geugten, et al., 2008).

This year the project focused on the following questions: How can (student) teachers in Ukraine educate youth effectively about sexuality? And how can pupils in Ukraine effectively be educated about sexuality?

*Target group*

A visit to the Ukrainian cities Kiev and Lviv is made. There have been investigated 69 pupils between 14 and 16 years at three different schools and 52 (student) teachers and trainers in health education in the age of 17 till 70 years old at different institutions: Salus Foundation (trainers), Lviv Inservice Institute (consultants Health Education and student teachers Health Education) and National Taras Shevchenko University Kiev (student teachers).

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Research method

The research method consisted out of three parts. First all the respondents made as a pretest a Hierarchical Concept mapping and drawing test (HC-test) to inventory their conceptions about sexuality and sexual education (Boschhuizen & Brinkman, 1995; Kievits, et al., 1998).

Secondly the respondents played 'the cup game', a game to make people realize about the fastness sexual transmitted diseases (std's) like HIV/Aids spread when having unsafe sex (Rutgers Nisso Groep, 2008). All the respondents got a cup half filled with water, two of the cups were filled with lots of salt (the respondents weren't aware of the salt). The respondents got the assignment to poor over water with people they like. In this way the salt spreads. After a couple of minutes the respondents are asked to sit down and take a sip of their cup. Everybody who tastes salt had to stand up, in general all the respondents stood up. The fast spread of salt shows the fastness of the spread of a std when having unsafe sex. For the pupils the game is to emphasize the importance of having safe sex, for teachers and trainers this is an example of an educational mean for sexual education.

Finally the respondents filled in an questionnaire to inventory the opinion of the pupils about the game, to check if the pupils understood the meaning of the game, to inventory how the teachers and consultants think about sexual education and education means for sexual education before and after the cup game.

**Results**

*Pupils*

According to the HC-test the investigated pupils in Ukraine associate positive aspects with sexuality, like feelings and relations. The pupils drew hearts, couples and flowers, this is mainly related to emotional aspects of sexuality. According to results from the questionnaires the pupils have knowledge about several std's, nevertheless their knowledge is low. The pupils write that sex with an unknown partner is unsafe sex. Somehow this is true, on condition that no prevention method is used. Pupils don't mention that.

Even though pupils in Ukraine aren't very used to active learning, they think the cup game is nice and instructive. This corresponds to the research results that youth prefers to be informed about sex by discussion, games and images (De Graaf, et al., 2005). The

majority of the pupils would like to play a game like the cup game more often, they are not specific about the content of the games they prefer in future. The pupils find it difficult to speak about this subject in the classroom, this had to do with feelings of shame and insecurity. With the cup game pupils are in a relaxed way introduced to sexual education.

Based on the research there have been formulated some recommendations: (1) Separation of girls and boys in some topics of sexual education. In this way girls and boys feel more free to discuss gender related topics. Educate girls and boys together about sexuality to achieve that they learn from each other. (2) In sexual education in Ukraine the educators should make use of the emotional and positive feelings the pupils have when they think of sexuality, to introduce sexuality and to educate effectively. Because following Ausubel (1986) 'the most important single factor influencing learning is what the learner already knows'. (3) Use active means of education. Pupils like it and they learn more then only listening to the teacher. (4) The teacher can inventory the conceptions of the pupils about several aspects of sexuality before they educate about sexuality, for example with a mind map.

*Teachers, trainers and consultants*

The teachers, trainers and consultants made also a HC-test, played the cup game and filled in a questionnaire. This field research confirmed the taboo on sexuality, even with teachers and trainers in health education. The respondents were the whole time very interested, but at the same time when the subject sexuality came up most of the respondents laughed and started feeling uncomfortable.

According to the HC-test the respondents think physiology and anatomy are important in sexual education. Consultants find it important that youth knows about their physical development in puberty. The drawings consist of relationships, love, lots of hearts, flowers and couples.

According to the questionnaires the respondents think the cup game is suitable for sexual education, and most of them will try the game with their own pupils. The respondents think they can educate youth better on sexual health with games as educational means. They expect youth to remember the message better. The respondents think std's, pregnancies and lack of knowledge is the biggest problem in their surroundings. In their opinion this should be more emphasized in the school program. The respondents think school and parents are an important source of sexual education.

Next to the teacher and the parents, they think psychologists and doctors are the right persons for sexual education.

From the interviews it becomes more clear that Ukrainian parents seem to be reserved concerning the sexual development of their child. Delfos (2003) says the relation between parents in the family influences the sexual development of the child. The Ukrainian children can take over the shyness of their parents and think it's strange to talk about such subjects. Moreover parents seem to be frightened when their children talk about sexual health related issues. Parents complain to the teacher that they shouldn't promote sexuality and having sex. This can be a reason why teachers don't want to educate sexual health. Next to that most of the respondents don't write about HIV/Aids or homosexuality in their HC-test on sexuality, nor in the questionnaire or the interview.

In general there wasn't a visible change in conceptions about sexual education in the HC-test before the cup game and in the questionnaire after the game. But the respondents mention especially the importance of the way sexual education is given in the questionnaire. Most of the respondents are not satisfied about the present sexual education. They think most problems in their environment are caused by lack of knowledge. According to the respondents the education should be improved with using activating didactic means (like the cup game), then sexual health education will be effective. Then pupils learn in a playfully way, that is positive for communicating the message of the didactic mean. Based on the research there have been formulated some aspects to take into account for Ukrainian teachers and trainers in sexual education.

(1) Parents are reserved concerning sexuality, it is important that teachers talk to parents before they educate sexual health in the classroom. With this you prevent parents who complain and disagree with talking about the topic. It is important that teachers emphasize that sexual health education is about risks and sexual development of the children, and not to promote sexuality. Part of the respondents tell that parents but also colleagues think you promote having sex or becoming a homosexual if you talk about these topics in the classroom. To educate about sexual health the teacher can inventory the conceptions of the children (also mentioned in the previous paragraph).

(2) Teachers should be prepared to educate sexual health. On one hand the teacher should have the knowledge and the skills to educate sexual health. On the other hand the teacher should be aware of his or her own conceptions about sexuality.

(3) Sexuality must become part of the school curriculum. Then teachers have to educate about sexuality, and parents can't complain. Of course it's still uncertain which topics teachers talk about in the classroom.

(4) Inviting a guest from an organization makes it sometime easier to talk about sensitive topics for teachers and pupils.

(5) Teachers can use an anonymous box for questions and topics of pupils. The teachers knows what pupils like to know and the pupils will not feel insecure. In this case it's not up to the teacher to choose the topics, but up to the pupils.

(6) Teacher can make appointments about language, there are different (rough) words to use for genitals and sexual intercourse. With these appointments teachers and pupils feel less ashamed about the words they say, and everybody knows what's allowed and what isn't.

(7) Using active didactical mean in sexual education stimulates pupils to discover ideas and insights by themselves. The teacher challenges the pupils by using active educational means to think critical and to reflects on their learning process.


**Discussion**


This paper described the sexual education situation in Ukraine and reported about field research on conceptions of Ukrainian teachers and pupils about sexuality.

Sexual education of the children is the complex task for parents, teachers, physicians, psychologists, social services, government etc. But sufficiently often responsibility holds from one shoulder on other, as a result children that weren't explained and educated suffer of, and didn't know how they have to manage with their natural necessities. This paper provides some points of discussion.

How do cultural aspects of sexual education haven to be taken into account? For example sex before marriage, how do people think about sex before marriage in Ukraine? Is it uncommon, is it allowed? Do adults think different than youth on this topic? No matter what the answer is, teachers should know what to do in sexual education. Do they have to prevent youth from having sex, or do they have to prepare them on having relationships and (save) sex?

Besides, important is the issue if sex is still a taboo in Ukraine. As earlier explained in independent Ukraine sex isn't a big secret anymore. Nevertheless the generation that

grew up in Soviet Union times - when sexuality was a taboo - are today's parents and teachers. Sexual health is part of the school and university curriculum, and teachers are interested in means to educate sexual health. The conditions are improved to talk about sex and sexuality more freely. Although a taboo can not disappear with the independence of a country, it is embedded deeply in peoples thoughts and behavior. That is also experienced during field research by Dutch researchers in Ukraine. Sexuality appears on adverts on the street, television and internet. But the subject is still difficult to talk about in the classroom. Teachers don't feel free to talk about it and parents are also not positive if children learn about sexuality (some say that you then promote sexuality). Moreover the reactions of Ukrainian pupils and teachers in the past years on games about relations, love and prevention of sexual transmitted diseases made by Dutch researchers were received with lots of laughing and tension.

Another point of discussion are the goals of Physical education in Ukraine. As described before Physical education in Ukraine tries to change hormonal activities of children. But we need to know more about the practical application and effectiveness of this goals for education. How is it possible and why is it necessary to change hormonal activities of children by (sexual) education?

It is clear that in developing programs for sexual education, the historical and cultural aspects of Ukraine have to be taken into account. Most relevant is how the goals of sexual education in Ukraine fit the goals of other European colleagues, and how we can prevent children from (sexual) risks with education and educational means.

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*Reference is translated from Cyrillic.

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# TEACHERS ROLE IN SELF-ESTEEM AND INITIATIVES OF THEIR STUDENTS?

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ABSTRACT

*This workshop is about the The professional pedagogic role teachers can play in scaffolding the self-esteem development and the initiatives of students.*

*The results of the research in 50 primary schools in Bali showed children of low educated parents, live in mountain villages, who did not visit pre-school and maintain the restricted code, have a lower self-esteem and show less constructive initiatives.*

*Schools have a powerful job to do, especially the village schools. Teachers can integrate the support of children in personality growth when they are creating knowledge.*

Keywords: self-esteem, initiatives, teachers professional pedagogic attitude, rural areas, parent education.

This study is about the relationship between self-esteem and initiatives of young people and the professional pedagogic role teachers can play in scaffolding the self-esteem development and the initiatives of students. The research field is the elementary schools in Buleleng Area in North Bali, Indonesia. The search will find cultureless risk factors in development of self-esteem and initiatives in Indonesia and Holland.

**Research question and relevance**

Many children in Holland as well as in Bali do not take constructive initiatives to develop themselves optimally (Eggen e.a, 2004, Blom e.a, 2005, website EVD, ministerie van Economische zaken, Holland). What is the reason children do not take the right initiatives? Can teachers support the process of taking the right initiatives by their professional pedagogic attitude?

Teachers in Holland and Indonesia face some educational problems: 1. Some teachers work in rural areas (Vegt, A. L. van der & Velzen, J. van (2002), 2. A group of children become drop-outs: 57.000 in 2004 in Holland ( Berghuis e.a. 2006),  3. Teachers have to deal with an increasing amount of behavior problems and criminality (Eggen e.a, 2004, Blom e.a, 2005). It is obvious that some children in both cultures take many constructive initiatives and others do not.

Modern education programmes and new learning models in Holland work on social, moral and cognitive development of children and try to reduce in-constructive activities (Bron, 2006, Blok e.a. 2006 and van der Vegt en van Velzen, 2002). However, in-constructive initiatives and behaviour have also intrapersonal aspects. Children with a low self-esteem take less constructive initiatives. Rosenberg (1965) found that young people with low self-esteem had more problems in social situations. Verhulst (1996) discovered a relationship between behaviour problems and a negative self-esteem. And although Baumeister et al (1996) and Thomaes (2007) declared that there is a relationship between high self-esteem and behaviourproblems, they did not mention the fact that the seemingly high self-esteem narcists has an hidden low self-esteem (Foddis et al 2002). The high self-esteem is in case of the narcists a defence mechanism in which the inner sources of the self-esteem will be compensated (Morf and Rodewalt (2001).

Self-esteem in this study is as value of the self (Rosenberg, 1968), self-respect and self-confidence (Branden 1994). Self-concept is an integration of different self-concepts at cognitive, social, emotional and moral concepts on implicit and explicit level. Integrated self-concepts shape a person's identity. There is a 'real' self, the actual self-esteem and the 'ideal self', they way persons wants to think about themselves. Distance causes identity diffusion. Self-esteem is dynamic, people try to find a way to reach their ideal self (Ericson, 1968, Rogers, 1951). Most of the self-esteem tests will compare the self with others describes the self-esteem (Rosenberg, 1968, Harter. 1985). This self-esteem scientists did not mention the way students think others will think about them. If words act upon children to shape thinking (Vygotsky in Wertsch,1985) it might also form their self-esteem. The way one thinks about oneself will be seen in the behaviour (Holland e.a.1998). This is like a 'self-fulfilling prophecy' (Merton, 1968). If for example the self-esteem is negative, this can be a wrong definition influencing the behaviour to actualize this definition. Teachers play an important role in the self-esteem shaping process. If teachers use the right words and adopt a professional pedagogic attitude, in which they challenge children to activate their thinking, they can change the self-esteem of children. When students individually feel accepted by their teacher and the teachers show high expectations of the children's cognitive, social and moral initiatives, they experience less negative emotions and they become conscious about their actions (Berne 1961). Maslov (1970) calls this self-realization after fulfilling basic social needs and ego-needs. Reflection is necessary to become conscious of new meanings in order

to be able to connect new ideas with already existing inner means, and develop new meanings.

The question is: Can teachers change inactivity, or non-constructive into constructive initiatives? Is it possible that they can turn a negative self-esteem into a positive self-esteem by a positive basic communication towards children, a professional pedagogic attitude and scaffolding to support activities in the child's zone of the proximal development? What are the risk factors in development of self-esteem and initiatives?

**Method**

The research's aim is to discover if there is a relation between self-esteem and initiatives of children and how teachers can influence this development. What are the risk factors in the self-esteem development process?

*Research group*

50 schools in Buleleng area,

150 classes(class 4,5 and 6 primary education),

3622 children

Different groups:

• Schools in the touristic area and mountainvillages

• Parents with different educational background

• Children visited pre-school of no pre-school

• Language in schools: bahasa Bali, bahasa Indonesia or a combination Bali/Indonesia

• Language of the children: restricted/ elaborated

*Research*

Students from Undiksha and from Windesheim worked together and visit the schools to gather the data in January and June 2008.

• Child questionnaire about situation self-esteem and behaviour

• Teacher questionnaire

• Head of the school questionaire

• Observation by the students

• Parent questionnaire (2 in each school)

The data has been worked out in excel and SPPS, and the data has been analysed statistic: compare means, find significant differences of different groups and find correlations.

**Results, conclusion and discussion**

The results of the research showed that there is a relationship between self-esteem and initiatives. Teachers who used a professional pedagogic attitude with a positive basic communication and acted from an adult position, or choose from an adult position their reaction(Berne, 1961), can influence the self-esteem of children in a positive way. Children from these teachers showed more constructive initiatives. Self-esteem is a dynamic system, so it is possible to influence this (Ericson, 1968). However there are some risk factors in development of self-esteem and initiatives. Children of low educated parents, live in mountain villages, who did not visit pre-school and maintain the restricted code, have a lower self-esteem and show less constructive initiatives.

The reliability of the self-esteem tests are high, but one of the self-esteem tests is new developed and translated and there is no triangulation possible because the parallel test measures something else (self-esteem compare with others).

Students did the observation; there was a inter-judge measurement which shows a correlation between the measurements. Cultural aspects are not yet not enough worked out in this research.

**Implication for the schools**

Schools have a powerful job to do, especially the village schools. Teachers can integrate the support of children in personality growth with the contents of education. If teachers see every learning process as a small crisis in the proximal development zone (Wertsch, 1985), they can reduce negative emotions by a positive basic communication.

Schools can work in different ways on influencing the self-esteem and initiatives of children:

1. Maintain a professional pedagogic attitude
- Basic communication
- 'adult' attitude in Transactional analysis, (Berne, 1961)
- working in the zone of the proximal developmental
2. Developing pre-school programs
3. Stimulating more parent contacts

If teachers realize the huge role in scaffolding the development process of self-esteem they will change their professional pedagogic attitude, especially in the rural areas. This attitude will reduce in-constructive behavior of the children, so probably less children will become drop-outs or maintain criminal behavior. Teachers can reduce the risk factors of the development of the self-esteem by supporting the development of pre-school facilities, because they know the impact of this programs on the development of young children. If teachers and parents become partners in education the parents are more able to support the development of the children.

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# POLICIES FOR THE INTRODUCING NEW KNOWLEDGE TO HEALTH EDUCATORS IN UKRAINE

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ABSTRACT

*The aim of this paper is to raise the problems related to the process of introducing new knowledge through educational policies in initial and in-service teacher training in health education in Ukraine. Fifteen year experience of introducing learning programs focused on health education across Ukraine in regional and international context will be presented. During this period different Health Education programs supported by bilateral and multilateral international developmental organizations were successfully implemented across the country. It is important to indicate that since 2005 the new obligate subject "Health Basics" was provide in school curriculum in Ukraine. It formed new tasks. One of the main recent tasks is introducing new knowledge through training the teachers of health education. Challenges, obstacles and solutions of Health Policy analyzed retrospectively. Analysis of experience in implementation of health education as a priority component of education policy in Ukraine gives grounds to assert that there is a sustainable tendency for pursuit of new models of the academic activity organization, the use of different forms of teachers' training, reassessment of requirements for general cultural and professional level of teachers.*

## 1. Introduction

On present health of Ukrainian nation is in crisis and the health care in our country can't meet the requirements of the population. Since independence Ukraine has been in the midst of an unprecedented demographic decline combined with a health crisis. A recent overview of research findings confirms that education may exert an independent effect on medium to longer-term health outcomes, and can play an important, albeit circumscribed, role in reducing health inequalities (World Bank, 2009). The aim of learning process is to form active healthy lifestyle, to increase the competence and moral maturity for making decision and for solving problems.

Teachers' training in the sphere of promoting healthy life style among youth is a part of a continual process of professional development of specialists in order to make their professional level correspond to the international standards, demands of the time, individual personal and professional needs. In modern conditions the problem of teachers' training in the sphere of promoting healthy life style among youth has gained special significance.

Pedagogical science in any country has to include a multi-facetted system of teachers' training in the sphere of promoting healthy life style among youth. Because this system

was created and developed in cultural and political contexts of different countries, the practice of education is also heterogeneous. They may both correspond and contradict to the generally acknowledged professional understanding of the best practice. Even in terms of one country there may be observed regional differences in approaches to promotion of healthy life style among youth and teachers' training for the indicated activity.

The research questions in this paper were:

- *What is the picture of health education in Ukraine today?*

- *How has it progressed since independence?*

- *What policies can be used for the introducing new knowledge to health educators in Ukraine?*

Improving the system of teachers' training for promoting healthy life style among youth requires taking into consideration the main world tendencies in the change of objectives, contents and forms of pedagogical training, scientific development, the state social order and regional specificities. Here appears a need of thorough analysis experience accumulated in Ukraine of the introducing new knowledge to health educators for implementation the health basics courses in the academic activity.

## 2. The theoretical background.

Contemporary general theoretic level of the problem research is determined by a number of works dedicated to the problems of education and health (Tatarnikova (1997), Tones (1990), Bedworth (2001), Kolbanov (2005).

Works by national scientists are dedicated to the problem of health and healthy life style in Ukraine (Amosov M., Apanasenko G., Bulych E., Muravov I.). Training teachers of valeology and health basics in Ukraine is the topic of works by Vorontsova P., V. Ponomarenko, S. Strashko, Shyyan O. ( 1997, 2005). Development of a teaching strategy for secondary school pupils, based upon the comparative analysis of norms, values teachers and pupils in the Netherlands and Ukraine, is highlighted by J. van der Geugten, Brinkman F., Jager T. (2006, 2008).

In the opinion of international experts, the last decade has brought a new vision of the role of the health basics education, which encompasses its past, present and future (Strasbourg, 1998). At the current stage, health education has to fulfill the following **two new tasks**:

Firstly, to increase the level of awareness among the citizens, experts in the sphere of healthy life style and politicians (the representatives of authorities) concerning the role and impact of social, economic and environmental factors on the state of health as well as non-uniformity of health-improving resources distribution;

Secondly, is to form the ability of taking responsibility. It includes the use of health education for giving knowledge and forming life habits for providing the ability of taking decisions concerning personal health and health of the family and community they live in (Tones, 1990).

Thus, the requirements for professional teachers' training in the sphere of health education are constantly augmenting, while the problem of special teachers' training for promoting the rules of safe behavior among youth preventing the negative influences on their health, has gained special significance. In opinion of L. G. Tatarnikova (1997), the training of a contemporary teacher must begin with valeological education. Valeology is the science about health. Properly, acquiring valeological knowledge a teacher is forming his/ her own attitude and philosophy of uniqueness of every child's life; after all it is the educator who is able to awake a schoolchild to a sense of personal meaning and self-reliance.

Meanwhile, in the opinion of the Russian expert V. V. Kolbanov, reluctance and inability to pass the limit of one's previous narrow professional spheres has led to controversial perception of essence of the new science's, which in its turn became one of the reasons of the crisis incipiency in valeology. Among the symptoms of the crisis, indicated by the scientist, we have paid attention to the following: ambiguity of ideas about the terms of reference and competence of a doctor-valeologist and an educator-valeologist; the absence of a uniform system of scientific staff training (2005). The same problems we identify in the training process teachers of Health Basics in Ukraine now.

Apparently, the experience of teachers' training organization for implementation of courses motivating youth for healthy life style and integrating them into the system of education, which was accumulated by European countries, is valuable for generalization and creative use in the Ukrainian system of education in general and at the regional level in particular (J. van der Geugten, Brinkman F. & Jager T. (2006). Investigating the conceptions of boys and girls in The Netherlands and Ukraine gives the opportunity to

compare them between those countries, and to learn from each other's culture and way of thinking. Those aspects have to be taken into account by the development of educational means about Health (particularly in sexual health) (Van der Geugten, 2008). For overcoming the crisis it is necessary to conduct thorough analysis of its essence and develop the strategy and tactics of coping with it taking into consideration the accumulated practical regional experience of teachers' training for the indicated activity.

## 3. Research methods

The method of theoretical analysis references and official documents has been used to determine the authors' opinion about the basic research problems. It has allowed circling the research approaches, tasks, the ways of their solving.

## 4. Historical background

The social transformation, have been taking place in Ukraine over the recent decade, has provided conditions for activity performed under freedom secured country. New period of education development started from the time when Ukraine become an independent country. Since then important steps toward connecting the worldwide standards and national traditions were made.

The curriculum for new obligate subject "Valeology" has been designed as a first step in the introduction of health education into the classroom. The curricular, based on the experience of different countries were adopted and used in Ukraine. At that time we only began to provide Health Education lessons in our schools but there wasn't teachers who were prepared for working at this discipline. Since 1994, trainings for new teachers in valeology specialization has started in-service teacher training institutes (Shyyan, 2005).

In this period the process of implementing new knowledge about health promotion was supported through state and regional education policies. Since 1995 our country has been taking part in the international project "The European network of schools for health". The project "The pupil's health" was initiated in Lviv in 1999. One of the main tasks of the projects is to reach higher level of motivation to healthy life style. All

schools will be required to fulfil the minimum criteria at some point in their progress towards becoming a healthier school.

After 2000 unexpectedly changes in school curriculum had happened in Ukraine. New obligate subject "Care" appeared instead of valeology. So it decreased status of the previous subject to optional (Shyyan, 2005). Preparing teachers for teaching "Care" was organize in classic way which offer initial and/or in-service teacher education institutes.

Last decade the problem related death and disease in Ukraine is driven by a rise in risky behaviors such as smoking and alcohol abuse, particularly among the young. Interventions require a multy - pronged approach of promoting healthy lifestyles and changes in behaviors through education. Recent education policy decision was implementation to school curriculum since 2005 the new obligate subject "Health Basics" that based on life skills approach to child and adolescent healthy development. It formed the new tasks for in-service teacher training institutes for the introducing new knowledge and approaches to health educators.

Interesting question for Author is analyzing 15 years experience of *the introducing new knowledge to health educators for* implementation new subjects for health promotion among youth *in Ukraine.*

## 5. Valeology – first step – new subject –new knowledge

One of the first the curriculum guide *for the introducing new knowledge to health educators in Ukraine* was presented within the networking program of Soros Foundation for in-service teacher education. The curriculum has been designed to provide a flexible framework for classroom-based prevention efforts of students age 10-14 years old. By prevention, we mean a proactive process which empowers students to meet the challenges of life events and transitions by creating and reinforcing conditions that promote healthy behaviors and lifestyles. Because cultural differences will most definitely occur, changes to fit into the student's cultural framework are also encouraged. There were implemented short-term courses "The Valeology Basics" and "The Culture of Health" (36 - 72 teaching hours) aimed at strengthening valeological competence of teachers of different disciplines (Shyyan, O., Shyyan R., 1997)

Teachers are encouraged to revise, adapt, and integrate the curriculum to meet their needs. The educators had to master not only solid amount of new information but also interactive methodologies of promoting pedagogical cooperation, to learn methodological techniques for developing skills of interpersonal communication, the use of which is directed at enhancing the efficiency of the process of teaching students the basics of healthy life style. Moreover, the use of indicated techniques during seminars promoted ruining professional and communicative barriers between teachers of different subjects and motivated them to cooperation.

The author's experience as a trainer of the above-mentioned courses is the evidence of big interest to them on the part of the teachers of not only natural sciences but all others subjects. However, it is necessary to mention that even realizing the importance of promoting HLS among youth the vast majority of the audience having an opportunity of choosing the subject of teaching at school gave preference to the primary major acquired at the higher education establishment.

Retrospective analysis of personal practice as of the organizer of different forms of teachers' training for promoting HLS among youth testifies that this aim is mainly reached by means of organization of cascade training courses with innovative strategies.

## 6. Today's practices of implementation new knowledge through Health Basics with new Life skills development approach

As it was indicated in 2005 the new obligate subject "Health Basics" was implemented in school curriculum in Ukraine. Because this curriculum is based on developing life skills and the research of child development, it promotes lessons and activities that will enhance a child's growth. The curriculum model is built around the theme of responsibility for self, both individual and civic. Responsibility for self and others is an important component in developing a sense of community. The curriculum promotes discussions on how children develop as well as emphasizes generally accepted values such as setting goals, making decisions, and learning how to say no when confronted with negative peer pressure.

Because of the role teachers have in imparting knowledge and because students spend so much time with them, teachers can be important models. This curriculum has been designed as a first step in the introduction of health education into the classroom. The teacher's role is often different when teaching health education versus other academic subjects, because behavioral change is the ultimate objective of health education. Health basics education as a priority component of forming the mental outlook of a young person at the contemporary stage presumes generation of views, ideas and concepts when acquired and mastered knowledge grow into personal convictions and inner behavior regulators. In this respect, the teachers' training must be oriented on formation of mental outlook and methodological positions allowing them to master professional creativity. In these conditions it is necessary to train an educator not only as a teacher of a separate discipline at school but also as the promoters of healthy life style of all participants of educational and pedagogical process. And this correspondingly requires the search of new models of the academic activity organization, the use of different forms of teachers training, revision of requirements to general cultural and professional level of specialists.

So, one of the main tasks stays the same as it was in 1994 - to train the teachers for health education. One more task was implementing new life skills approach to child and adolescent healthy development. But, the teachers of new subject that need our help and adequate field support for implementing new subject, new knowledge, new approach couldn't receive it on request because of too large amount of them. For solving this problem in every district of Lviv region was appointment coordinators from local educational administrations who were responsible for implementation of Health Promotion as a priority component of education policy and engaged teachers-consultants for giving adequate field support on request. The success of such program is often linked to appropriate teacher training.

Our work experience with numerous schools and authorities leads us to the conclusion that there are certain fundamental principles which need to be embodied in a program of training consultant in Health Education. These principles include:

- selecting the teachers for training who are open minded and enthusiastic;
- giving teachers ownership or control of the concept of Healthy Life Style ;
- building on and using the experience of other teachers;
- providing time for discussion, exchange of ideas  and planning;
- using active methods of teaching;

- developing life skills;
- encouraging and supporting participants to implement new knowledge;
- support other colleagues;
- giving adequate field support on request.

As the implementation of new subject is prolonged process from 2005 till 2009 (begun in 5grade and year by year had to occupy grades till nine) it was organized in the same time period long-term courses for consultants. Consultant had to research the topics and provide additional information to the teachers, help in implementing new approach based on developing child and adolescent.   In those conditions it was necessary to find effective training model. Long term (5 years) courses consist from sessions - trainings in the ITTI and learning practice in school with field support between stages.

- *First year – implementation subject **Health Basic** in the **5** grade on the base of life skills approach to child and adolescent healthy development (training) and learning practice of implementation new knowledge.*

- *Second year – Analysis of learning practice of implementation **Health Basic** ( 5grade); implementation subject **Health Basic** in the **6** grade on the base of life skills approach to child and adolescent healthy development (training) and learning practice of implementation new knowledge.*

- *Third year – Analysis of learning practice of implementation **Health Basic** ( 5, 6 grades); implementation subject **Health Basic** in the **7** grade on the base of life skills approach to child and adolescent healthy development (training) and learning practice of implementation new knowledge and  field support teachers of other subject in their school for promoting healthy life style of pupils.*

- *Fourth year – Analysis of learning practice of implementation **Health Basic** (5,6,7 grades); implementation subject **Health Basic** in the **8** grade on the base of life skills approach to child and adolescent healthy development (training) and learning practice of implementation new knowledge and  field support teachers of other subject of promoting healthy life style of all participants of educational and pedagogical process.*

- *Fifth year – Presentation own experience of implementation subject in 5-8 grades on the base of life skills approach to child and adolescent healthy development. Master class fof teachers of their region.*

Consultants and teachers who successfully finished long term courses are number of attitudes and competencies recognized by themselves as playing an important part in the Health Educational process:

- Enthusiasm and interest throughout the process helps to maintain a high level of motivation.
- The ability to implementing new knowledge.
- The ability to analyze learning situations in order to do the best for each pupil.
- The ability to develop the right atmosphere which will enable pupils to learn.
- The ability to take an overview of, and perceive more accurately, the entire process of education.
- The ability to develop approaches to teaching that are effective and challenging to students
- The ability to work in teams with other colleagues rather than in isolation.
- The ability to knowledge creativity.
- The ability to creating a health supportive School environmental.

The learning process also has to be managed in a creative fashion. An approach which relies solely on didactic methods of teaching is not appropriate; the teacher is required to act as a facilitator and fellow learner. In this way valuable learning experiences can be extracted from all situations, which in turn helps to develop strategies for future work and builds confidence in pupils.

**Conclusion**

Retrospective analysis of experience in implementation of health education as a priority component of education policy in Lviv region gives grounds to assert that there is a sustainable tendency for pursuit of new models of the academic activity organization, the use of different forms of teachers' training, reassessment of requirements for general cultural and professional level of specialists. Analyzing educational practices of today's institutions, which offer in-service teacher education for implementation new subject, testifies that this aim is mainly reached by means of organization training courses for consultants with effective innovative strategies, such as developing life skills approach.

Consultants and teachers underpin that among specific sets of skills for health educators are required creativity. They have indicated that the skills and competencies relating to Health Education activity are enhanced by participation in training programs. **Policies** appointment **coordinators** from local educational administrations who were responsible for implementation of Health Promotion and engaged teachers-**consultants** for giving adequate field support on request as education policy **for the Introducing New Knowledge to Health Educators was effective.**

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# APPLYING THE S – IVAC METHODOLOGY IN SCHOOLS TO EXPLORE STUDENTS' CREATIVITY TO SOLVE SEXUAL HEALTH PROBLEMS

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ABSTRACT

*A research to evaluate the development of participatory and action-oriented sexuality education projects in schools (7$^{Th}$ to 12$^{th}$ grades) (n=16), with the use of ICT will be described with the following objectives: i) to discuss the creativity of students' visions regarding how the world and their lives could be, and how society and the environment could be improved in relationship to their particular sexual concerns; and ii) to characterize the type of actions carried out to solve their sexual problems. Participant observation, group interviews and materials put online by students were selected as research techniques for the triangulation of data. The principal results showed that these students thought creatively to formulate visions and develop, individually or collectively, reflexive actions which lead to positive changes in their lifestyles and/or living conditions which improve their sexuality.*

Key Words: Sexuality education; action-oriented knowledge; visions; actions; action competence.

## 1. Introduction

**The Portuguese Context of Sexuality Education in the school community**

The approach to sexuality education adopted in Portugal has been focused on the sexual health aspects associated with the acquisition of health results that are generally seen as positive (e.g. respect for oneself and for others, self-esteem, compensating human relationships, pleasurable sexual relationships and a desired maternity/paternity), and the avoidance of negative results (e.g. unwanted pregnancy, sexually transmitted diseases/ HIV infections, sexual coercion). The current Portuguese legislative framework advocates the compulsory inclusion of sexuality education in primary, preparatory and secondary schools, within a programme aimed at health promotion and human sexuality, in which suitable information will be provided on human sexuality, the reproductive system and the physiology of reproduction, AIDS and other sexually transmitted diseases, contraceptive methods and family planning, interpersonal relationships, the sharing of responsibilities and gender equity. This global student training area should be integrated in the Class Project. The dominant curricular model proclaimed is transdisciplinary which could be developed through integration in

curricular subjects and in the interdisciplinary form in the Project and Civic Training Areas (non-subject areas). The normative framework reinforces the role of the family in sexuality education in the school community, the role of teachers in the development of school projects and in the development of co-partnerships, and the role of students as genuine actors and active participants in the selection of problems and in the resolution of individual and collective problems related to sexual and reproductive health.

In August 2009, the Assembly of the Portuguese Republic published the final law regarding sexuality education in the school community (Lei n.º 60/2009 de 6 de Agosto), which established how to apply compulsory sexuality education in the school community in the next school year (2009/2010). The Government demanded the integration of sexuality education in the ambit of Health Education in the non-subject curricular area in primary and preparatory schools (from six to fourteen years of age) and in the subject and non-subject curricular areas in secondary schools (from fifteen to seventeen years of age) in a pre-determined way (article 3), and with curricular content guidelines (article 4) that will be defined by the Portuguese Government in the near future. A minimum of six hours to develop sexuality education from the $1^{st}$ to $6^{th}$ grades (from six to eleven years of age) and a minimum of twelve hours from the $7^{th}$ to $12^{th}$ grades, distributed in a balanced way between the three periods of the school year (article 5) was defined.

This law also stated that sexuality education will be compulsory in the Educative Project of the School, as planned by the General Council, after Student Association, Parent Association and teachers had been heard (article 6), and in the Class Project where the contents and themes which will be developed by the class as well as the carrying out of initiatives and visits, and the external organizations, technicians and experts involved in the Project will be defined (article 7). The necessary training of the teacher coordinator of health and sexuality education, the teacher responsible for the Health and Sexuality Education Class Project and other teachers involved was also established by the Ministry of Education (article 8). Simultaneously, according to article 10, until the beginning of the school year 2010-2011, a Support and Information Office for Students in the ambit of health and sexuality education will function at least one morning or afternoon per week with professionals trained in these areas. This Office should articulate its activities with the local Health Centre or other State organizations, namely The Portuguese Youth Institute, and should guarantee an Internet space that provides student information and rapid answers to their questions and doubts. This

Office should be organized with student participation, guarantee student confidentiality, be integrated in the educative projects involving students in the establishment of its aims and, with the collaboration of the Health Centre, to provide students with adequate access to contraceptive methods.

Parents, students and the representatives of the local community should have an active role in the development of these projects and should be informed about all curricular and non-curricular activities carried out in the sexuality education area (article 11). The Ministry of Health guarantees the necessary conditions for the Health Units to cooperate with schools, and their establishment of protocols with recognized Non-Governmental Organizations specialized in sexuality education in order to develop specific projects in a format that will be defined by the Government (article 9). The Ministry of Education should also guarantee the evaluation of these school projects and the elaboration of report evaluations (article 13).

The above-mentioned law was preceded by a very participative public debate between some organized social groups. At that time, a lot of contradictory opinions emerged in the public opinion, for example through the radio:

> The Executive-Director of The Planned Parenthood Association (…) considers that "it is important to facilitate as much as possible, access to contraceptive methods for youths who are sexually active". On the other hand (…) the President of the [National] Parents' Confederation (…) [defends that parents] "understand that the availability of condoms must be carried out using a different logic. Until the age of 14, all problems related with sexual education must deeply involve families (…) [and] only from the age of 16, could schools guide students to Health Centres (…) [because condoms] must not be available in schools, as if they were any other type of urgent consumer goods" (…). The Coordinator of the National Commission Against HIV – AIDS said; "the presence of condoms is at least providing the possibility to minimize the risks. We know that a large proportion of children have sexual relationships before the age of 15 (…) and we have a high unacceptable level of adolescent pregnancy (…) [and] the distribution of condoms is not an incentive to sexuality or promiscuity, but a guarantee that a way to prevent [sexually transmitted] infections exists". (TSF, 2009-05-18)
>
> The President of The Portuguese Episcopal Conference (…) considers that this is a sensitive subject that was legislated in a precipitated way. (…) [He] defends Sexual Education, but with more closed rules because, in his opinion, the law only invites youths to carry out determined experiences: "What matters is the humanization of sexuality, which is integrated not only in informative education, which can act as an invitation to [sexual] proposals, but in a more global education". (TSF, 2009-05-14).

This public debate continues until now. The cornerstones of this discussion are essentially: the roles of the family and the school in youth sexuality education; the availability or not of contraceptive methods, namely condoms, contraceptive pills and the day after pill in schools; the ethical referential for sexuality education in the school community of the Non-Governmental Organisations of which schools could adopt as

co-partners in their educative projects; and the lack or deficient scientific, pedagogic and ethical preparation of teachers and other school staff. Part of this discussion of not accepting sexuality education as previewed in the national policies is probably connected with the lack of knowledge related to the recent reforms (Lei de Bases do Sistema Educativo, Lei nº 49/2005, de 30 de Agosto), namely the constitution and the role of the School Board (artigo 48º, nº4), or a perceived vulnerability of the local community to implement this recent and new management model in a participatory and democratic way.

**Action oriented knowledge, creativity, communication and participation**

Current health problems are a great challenge for the educational environment. If the solution possibilities for these problems are being developed, a fundamental rupture with the present ways of thinking in health is required. In the educational world, this means knowing if the questions regarding what constitutes the central learning contents should have a more central position than the questions of a methodological nature. An important consequence is that health education must deal with an interdisciplinary context oriented at the problems. Natural Sciences can describe the extension of the health problem; the Humanities can be planned within the work, considering the desirable changes in the future society and Social Sciences can be used in connection with the elucidation of the entire spectrum of action possibilities (collective and individual) that can be found in a democratic society (Jensen, 1994; 1995; 2000).

Action oriented teaching, within the democratic perspective, involves working in a broad field of knowledge, which includes knowledge, not only regarding the consequences of health problems, but also, of their causes, their visions regarding the future and the knowledge regarding the strategies in order to find solutions. In other words, action oriented knowledge is a complex interdisciplinary understanding built on a shared process of critical dialogue, reflection, development of visions, planning and action included in the teaching and learning process (Jensen, 2000; Simovska & Jensen, 2003; Vilaça & Jensen, 2009). The S – IVAC methodology (Selection of the Problem – Investigation, Vision, Action & Change) has been developed as a practical instrument that can be used in schools in order to structure health promoting activities and make student participation easier, with the objective of constructing their own action-oriented

knowledge and to promote the development of actions in order to increase action competence. This instrument assumes the perspectives above referred to that can be dealt with in a project or teaching methodology within health and sexuality education (Jensen, 1997; Simovska & Jensen, 2003; Vilaça, 2006; 2007; 2008). Therefore, with this model, it is possible to clarify what type of insights teachers and teaching materials should attempt to provide. Given that knowledge between people integrates scientific, social and historical elements, and that students attain these insights better, if they are allowed to gain experience on their own with the questions when working on projects, the role of teachers consists of, to a great extent, being a consulter to the students' action-oriented projects, rather than only overwhelming them with heavy scientific facts.

An interdisciplinary perspective can be referred to as a precondition in the development of action competence. The health education approach, here delimitated, implies that it cannot be treated merely within the subject of Natural Sciences. If only the scientific aspects are applied, the focus will be to describe – and illustrate – the effects that serious problems present and as a result the teaching outcomes will be the concern of students and their lack of power to solve the problem. If that lack of power is to be transformed or qualified into the real ability to act, classes must place the action perspective in the centre and involve the social perspectives in the discussion of the solutions for their health problems (Jensen, 1995; Simovska & Jensen, 2003). Based on the experience of a great number of study groups – within the Health Promoting Schools project and other connections regarding the environmental education area – the eight perspectives mentioned below can be dealt with in the projects within the area of health (figure 1).

| 1. Which subject should be worked on? |
| 2. Which problem within the subject in question should we work with? |
| 3. What are the causes of this problem? |
| 4. Why did it become a problem? |
| 5. What alternatives can one imagine? |
| 6. What action plans exist to obtain these alternatives? |
| 7. What barriers will be brought to light through these actions? |
| 8. What actions will be started? |

Figure 1. The perspectives within the health education projects (Jensen, 1994, p. 83)

These perspectives do not necessarily represent steps that should be worked on following a certain order, but issues that must be dealt with during the learning process. Dealing with these perspectives means creating some important preconditions in order

to develop action competence in health (and sexuality) education (Jensen, 1994). Jensen (2000) argues that the main objective of health (and sexuality) education should be the development of students' ability to act and change, therefore, it is possible to conclude that knowledge and insights should be, in essence, action-oriented. This starting point has great consequences on the type of knowledge that will be the focus of the planning, implementation and evaluation of the teaching and learning process (Vilaça, 2006).

This type of knowledge, especially when it is the only knowledge dimension that students possess, does not promote actions and, consequently, does not promote student empowerment and action competence. It is necessary to insist on the inclusion of causal analysis and in the ways to produce changes within health and sexuality education (Jensen, 2000).

The above-mentioned theoretical framework was applied in a participatory and action-oriented sexuality education project, using information and communication technology (ICT). The results of this Project will be described with the following objectives: i) to discuss the creativity of students' visions regarding how, in general, the world and their lives could be and how society and the environment could be improved in relation to their particular sexual concerns; and ii) to characterize the type of actions carried out to solve their sexual problems.

## 2. Methodology

### 2.1. Sample

Eight hundred and seventeen students from the 7th to the 12th grades, of sixteen schools of the Braga District in the North of Portugal, were involved in this sexuality education project and constituted the online population of this research. Each school year in preparatory education had approximately the same number of students in the project (27,2%, 27,3% and 26,2% from the 7th, 8th and 9th grades respectively). The same does not occur in secondary education (10,0% and 9,3% in the 10th and 11th grades respectively). In all school years, female participation was predominant, except in the 7th grade.

In order to allow an in-depth comprehension of the implementation of the project, six schools involving three hundred and fifty students of this project were selected from the

initial population, in order to investigate how sexuality education methodology was implemented in the Project Area in secondary education (10$^{th}$ to 12$^{th}$ grades) and in the Project Area and/or Civic Training in preparatory education (7$^{th}$ to 9$^{th}$ grades).

## 2.2. Methods and techniques of collecting and analysing data

In the research techniques, participatory observation, semi-structured group interviews, materials of the project put online by students, online class diaries and e-forum discussions were included. The students, with the teachers' collaboration, agreed on the investigation method focussed on them. A triangulation of those techniques and the inferences or conclusions between the researcher and the participants were carried out.

This study was developed in two phases. During the first school year, approximately during five months, the students created the online infrastructure to participate in the project's website, debated the concept of sexuality and sexuality education and selected the themes/problems that they would like to see discussed. In the second phase, which occurred in the following school year, the students developed one or two themes/problems that they would like to see discussed in the ambit of the project's methodology.

In the treatment of data that will be later presented and discussed, the entire school was used as a unit of analysis.

## 3. Results and discussion

*Creative visions as a prerequisite for the desire and ability to initiate changes*

Students from the fifteen schools that carried out action-oriented sexuality education projects developed ideas, dreams and perceptions regarding their future lives and the society in which they will grow up in relationship to the following problems chosen by the students in order to carry out their projects: the prevention of adolescent pregnancy and contraceptive methods (73,3% of the 15 schools); prevention of sexually transmitted infections (60,0%); the first sexual relationship (46,7%); sexual behaviour (40,0%); dating (40,0%); dialogue with parents concerning adolescent sexuality (40,0%); puberty/ awakening of sexual maturity (33,3%); homosexuality (20,0%);

interpersonal relationships and friendships (13,3%); the Youth Consultation at the Health Centre (13,3%); the morning-after pill (13,3%); human fertility (6,7%), abortion (6,7%); love, intimacy and communication between romantic partners (6,7%); paedophilia (6,7%) and other paraphilias (6,7%); adult sexuality (6,7%); and sexual dysfunctions (6,7%).

The students worked on a broad and positive dimension of sexual problems in the following visions which they developed in their action-oriented projects.

The visions developed 'to improve the dialogue with parents regarding sexuality' were, in the students' voices the following: "we should have more courage and initiative to talk with our parents"; "we must start talking with our parents about contraceptives and unwanted pregnancies"; "we need to open one's heart with parents in order not to feel so down"; "parents should have a more open mentality so that the initiative of talking about these themes would come from them"; "society should accept each person's sexual options". These visions were presented as a consequence of their desire to change the causes of the problems identified in themselves (e.g., "why do we feel ashamed to expose such [sexual] issues, even to our parents?"; "why do we fear that our parents will censor us?"); in their parents (e.g., "why do many [parents] act aggressively and even violently?"; "why do they think they are acting in the best way by not saying anything?; "they should talk with us, because parents are older and they received an education different from ours,  they had a more closed education regarding this issue, therefore, do not understand us") and in society (e.g., "because we live in a preconceived society and there are still many taboos, society reveals itself as very modern and receptive regarding sexuality, but we all feel that in fact it isn't").

The visions developed 'to educate older colleagues regarding sexuality' included: to promote debates; carry out discussions; distribute informative leaflets in pharmacies, streets and at school; parents talk more at ease with their children regarding the theme; to promote meetings with the people in charge of the students education regarding the theme; and there should be more information in the mass media. These visions were aimed at the causes of the problems identified in their own students (e.g., "shame people feel when they approach this theme"; "shame in asking and talking about certain things with parents, due to their reactions"; "lack of communication with parents and older friends") and in society (e.g., "why didn't they have the same information in some schools and at home?"; "why is there lack of sexual education information at school?", "why weren't there debates regarding this [sexual] themes?; "why is there so much

sexual censorship?"). In the visions developed to educate older colleagues, the main concern was to teach the older ones to improve their own living conditions and wellbeing and, only in second place, collaborate in the promotion of the older colleagues' sexual and reproductive health.

The students' visions developed 'to educate themselves and their colleagues of the same age so as to solve the problem regarding the lack of knowledge about how to obtain and use contraceptives were: increase their knowledge regarding the use of contraceptives and their effectiveness; improve personal and social abilities to prevent an undesired/unintended pregnancy; find alternatives to vaginal sex; improve access to condoms and the pill; and improve the dialogue about these issues with parents and teachers. Their intention was to act in order to eliminate the causes of the problems identified in themselves and in their colleagues of the same age (e.g., "why don't they inform themselves, most of the times they don't even know what is family planning"; "they are irresponsible for not using contraceptives"; "they do not know how to use contraceptives"; "when it is the first time, many people don't know which are the methods and how to use a contraceptive"; "they do not know the methods well and do not know how to use them"; "with the anxiety of practicing sex they forget everything and also the contraceptives"; "they think that by using condoms they will feel less pleasure"; "they think they do not run risks") and the social causes of the problem (e.g., "girls are pressured and in order not to lose their boyfriends they have sexual relationships"; "they quite often go to discos, drink and then do not know what they do and boys take advantage of them"; "due to the influence of bad company, because they feel inferior to their older colleagues that have already had sexual relationships"; "the freedom that most of our parents give us makes us commit many mistakes").

The visions developed 'to educate themselves and their colleagues of the same age in the resolution of problems in interpersonal relationships included: "knowing how to make decisions without being influenced"; "knowing how to chose friends, resisting negative habits which friends teach without losing their friendship"; and "manage a counsellor to help solve the problems among friends". They were thinking of how to eliminate the causes of the individual problems, e.g.: "it is difficult to say no to the negative habits, it is difficult to say no because we feel threatened by these classmates"; "we do not refuse vices because we are afraid of losing a friend and we are pressured and mocked at").

These projects created a bridge between education and sexual health because what the students wish is aimed at interpersonal communication, affection, pleasure, health and fertilization and the sexuality education practices at school work on such positive and broad visions of sexuality. These practices are aimed at not only their sexual lifestyles, but also their living conditions, in a perspective of wellbeing and absence of illness.

**Action & Change**

The students as change catalysers of their parents' conceptions and practices regarding youth sexuality occurred with two types of actions: interviews and roundtables with students or students and specialists invited by students (figure 2).



Figure 2. Actions should always be part of teaching: Roundtable for parents coordinated by students and specialists

In the roundtables, the students of the secondary schools explained to their parents the day-to-day problems which they identified as being real problems in their age related to sexuality, the reasons why they had considered them as priority problems to help them to solve their lack of ease to talk with parents about sexuality, why it was important for

them to talk comfortably with parents about sexuality, why they didn't talk comfortably with parents regarding these issues and which are the consequences both in the short and long run for them and for society if such problems are not solved. They also explained what they would like to see happen in the future, plan the action within these visions and present some attitudes and behaviours to youths and parents in order to be discussed and after assumed by all as a contract to be followed in the future. When specialists were invited, they were asked by students to intervene in this debate adding more information regarding youth sexuality. In the preparatory schools, in these roundtables, the students only presented the project to the parents and prepared with them an afternoon tea and asked the specialists to talk about adolescent sexuality. In all school levels, the debate between students, parents and specialists was well participated by all, always generating new visions for the future.

Peer education from the same school level, from a lower or higher school level, was carried out in action-oriented projects with different characteristics: education of colleagues orienting the sessions regarding the topics of sexual health as 'monitor teachers'; conception and presentation of posters, stickers and news items for newspapers; writing, rehearsal and presentation of plays or films and change catalysers in the colleagues through conducted interviews.

All the actions in which the students acted collectively as change catalysers of their parents, in peer education (of older colleagues or colleagues of the same age) or in their own education, worked on the dimensions of a Health Promoting School because: (1) the dimensions of sexual health worked on by these students showed a broad and positive holistic vision of health and were created from their personal experiences and from their ideas (re) constructed in a bottom-up and broad learning contextual organisation; (2) the students were active partners in the dialogue with their parents, teachers and invited specialists in all the situations and phases of these action-oriented projects; (3) their actions revealed learning results categorised in a critical level of literacy of health education with the application of knowledge acquired in the four action-oriented areas defined by Jensen, revealing positive evidences in the several constituent elements regarding the operationalization of the concept of action competence: insight and knowledge, commitment, visions and action experiences.

## 4. Conclusions and implications

In these participatory and action-oriented sexuality education projects, the students thought creatively to find solutions for changing their lifestyles and life conditions. They manifested the desire to increase their competences to talk with their partner and parents about sexuality, resist the pressures of others and gain access to the pill, the day-after pill and the condom. They also manifested the desire to change the location of the Youth Consultation Office in the Health Centre and change the habit of drinking alcohol in discos. Their visions, as in the previous action-oriented knowledge investigated, continued to work on a positive and broad concept of sexuality; in all of the schools the students place great emphasis on the concept of wellbeing and quality of life, even when the concern focus was to avoid negative health conditions such as an unintended/undesired pregnancy and pressure from friends to acquire unhealthy behaviours.

These teachers and students assumed, as a starting point for their work, that the sexual health problems were structurally anchored in our society and in our way of living and recognised that sexual health is influenced both by lifestyles (attitudes, values and behaviours) and living conditions (social and physical environments and cultural and economic networks that affect people's lives). On one hand, they experienced that living conditions and society affect our immediate action possibilities and, on the other hand, they became aware that they can act to help change the social network. According to this, their projects contributed to their empowerment and development of action competence, just as it is established by the European Network of Health Promoting Schools, and more recently by the Schools for Health in Europe.

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# IF IT'S ENGLISH IT'S JUST – FOR KINDA JUST HANGING OUT : LOOKING AT SECOND LANGUAGE LEARNING FROM THE STUDENT PERSPECTIVE

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ABSTRACT

*As part of a longitudinal study, a group of American and Finnish Students were interviewed upon their completion of high school education in bilingual schools in their respective countries. This paper taps into the students' responses upon their completion of senior high school looking at them from the perspective of sociocultural theory. In light of the research results, a politically neutral linguistic environment, which the Finnish subjects had, was seen to be more favorable for learning. The Finnish subjects were learning L2, English, in a neutral zone where their own attitudes and motivation dictated their learning. The role of L2 as a means of international communication in Finland, as opposed to a means of exercising linguistic power, provided a neutral atmosphere for learning English. In both American and Finnish groups, the learning of other languages was facilitated when the learner had a good foundation in their L1, and the learning of L1 and L2 were in balance. Learning was also fostered when the learners drew positive experiences from their surroundings and were provided with opportunities to engage in activities where L2 was used.*

Keywords: second language learning, bilingual education, EFL, ESL

## Theoretical Background

Sociocultural theory, which is based on the work of Vygotsky, was hardly mentioned in applied linguistics or in second language acquisition textbooks before the early 1990s. But in a little more than a decade, sociocultural theory (SCT) has become a major influence in the field of applied linguistics emerging from relative anonymity to a major SLA theory. This shift does not mean that the cognitive accounts or traditional (psycho)linguistic approaches would not have made – and continue making – important contributions to SLA research. The fairly recent, and relatively speaking, sudden emergence of SCT in applied linguistics simply reflects the need to account better for the sociocultural contexts and phenomena in SLA. (Lantolf 1996 & 2005, van Lier, 2004, Swain & Deters, 2007)

Situated learning models make use of the participation metaphor to complement the traditional acquisition metaphor. According to the participation metaphor, learning equals becoming a member a of the surrounding community, which in turn involves the process of developing an ability to communicate using the kind of language and

behavior that are considered acceptable by the community (van Lier 2004, Swain & Deters 2007). Two models that incorporate the participation metaphor are language socialization and the community of practice framework (Zuengler & Miller 2006). Both of them emphasize the social milieu and the social situatedness of learning. Learning is conceived as becoming an active full participant in a particular community, which in turn necessarily involve constructing identities in relation to these communities.

According to sociocultural approach L2 learners participate in specific local contexts in which certain practises offer possibilities for them to learn English (Norton & Toohey 2001, Zuengler & Miller 2006). In 1991 Lave and Wenger proposed the notion of community of practise by which they refer to social contexts, which are complex and overlapping. Learning according to them equals how communities provide positions for participants' engagement in community practices. Hence researchers need to pay attention to how communities and their practices are structured to understand how the community either facilitates or constrains the learners' efforts to access the linguistic resources. (Norton & Toohey 2001, Zuengler & Miller 2006).


**Objectives and design of the study**


The main objective of this study was to ascertain what the students thought the critical aspects of their English studies had been. What emerged from the interviews that had been carried out prior to the study at hand was the importance of the social milieu. This moved the researcher away from the cognitive SLA models (see for example Cummins 1984a & b, 1994, Ellis 1994, Bachman 1991a & b, Bialystok 1994a & b, O'Malley & Uhl Chamot 1990) and studies on motivational and attitudinal factors and the use of strategies (see for example Gardner 1985, Gardner & al 2004, Oxford 19901 & b)  in the direction of sociocultural theory.

This study focuses on the situated experiences of the students and the social practices in their communities, while still being mindful of the fact that the informants have different cognitive, motivational, attitudinal and personal make-ups, and the fact that they come from different backgrounds. An attempt is made to tap into the conversations of bilingual students who have acquired sufficient English to handle language and cultural issues that are integral to their development. Thus, the study is mostly concerned with how the informants have experienced learning L2; the kind of

conversations that they have participated in and, ultimately, what could be learned from their personal experiences. To this end, the interviews were broadly based on the following questions:

What is the relationship between L1 and L2 like?

What kind of language identity emerged during the years in bilingual education?

How aware is the learner of his or her use of L1 and L2?

What is the learner's motivation like toward knowing L1 and L2?

**Method**

The interviews of eight American and eight Finnish bilingual students have been analyzed in the light of sociocultural theory and its propositions. Despite the fact that the questions in the semi-structured interview had been developed in line with the cognitive models, while analyzing the responses it became evident that sociocultural theory offered a coherent framework for the interpretation of the attained results, and was readily applicable to the context in which the students had been learning.

**Results**

The way in which the interviewees' responses are presented follows loosely the order of the questions already outlined. The responses analyzed in this paper reflect the subjects' attitudes toward, and engagement in, the surrounding communities. Rather than taking a macro perspective on the bilingual learner, a micro perspective was taken instead. This was done in order to gain a better understanding of the variations in the learning curves and to complete the profiles of the bilingual learners who were first studied in 1994-95. This study was conducted in the students' final year of high school.

In this study I will attempt to situate the learning experiences of the subjects in terms of language identity, relationships between L1 and L2 and awareness of language. Even though language development as such has not been studied, it has implicitly been a part of this study. Hence, the students' responses are authentic, giving the reader an indication of their L2 levels after 12 years of school.

**The case of Petteri and Ville**

When asked about their preferences for using either Finnish or English, most of the Finnish students mentioned that they speak Finnish with their family and friends and prefer their L1. Reasons given were along the lines of:

> it's my native language
> Because I use it more than English.

What is interesting in the cases of Ville and Petteri, who have both been successful language learners, is their attitude toward L1 and L2. Like most of the Finnish subjects, Ville uses Finnish most often outside school, but when he was asked which language he relates to most closely, he commented:

> They are about the same. I communicate with them both. Just Finnish I use more face-to-face, while English I use more in emailing and the internet, stuff like that.

Petteri

> Basically Finnish. But my mom is the best language speaker in our family and sometimes I talk in English or Swedish with her.

And he continues:
> Well, I think I've become to think more in English by myself when I'm at home. I'm trying to think in English and in Swedish as much as possible because it helps me to become familiar with the language in everyday life instead of in school and in these subjects we discuss in school.

Petteri's final comment where he mentions everyday life is an interesting deviation from the rest of the responses offered by the Finnish subjects. He clearly strives to engage in the kinds of discussions that English-speaking people engage in. It is not enough for him to learn low-frequency academic words to do well in school assignments: in order to participate in the kinds of discussions he is clearly intent on, he needs semiotic artifacts that are more colloquial in nature. Being outside of an authentic L2 community, he resorts to talking to himself. Later on he reveals how he also thinks to himself.

> I'm just thinking what I should do next and what I'm going to do later on during the day and everything – just thinking in this language.

Whether this is what is meant by "inner speech" and "thinking to oneself" or "languaging" remains open to debate because it is suggested that through languaging – the use of speaking and writing – an individual mediates cognitively complex activities, and as a result of these activities the individual develops both cognitively and

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affectively. The debatable aspect here is not so much the informant's desire to acculturate, but rather whether everyday speech can be regarded as a "complex activity". I claim that this is the case because, for an L2 speaker, the most demanding aspects are often those phrases used in everyday spoken language. Further into the interview, it becomes evident that Petteri is sensitive to his L1 sociocultural context, the Finnish community, and the possible reactions toward someone talking or even thinking in a foreign language that is different from the mainstream language. When asked whether his thinking to himself or talking to himself is a quiet process he responds:

> No, I sometimes do it out loud as well. I sometimes wake up, "Oh, my God, I'm talking to myself" – but if no one hears it, it's okay.

Ville has found a way to engage in the activities of international English communities on the web. This comes up when the interviewer asks him questions about his attitude to L1 and L2.

Ville:

> I don't think about it that much. When I'm writing (in English) I think about how to say something and how to say it in a better way and stuff like that. In speaking, I usually don't think about anything. It just comes naturally.

When the interviewer asks Ville whether he functions the same way in L1, he responds:
> No, in Finnish I just never come up with a better alternative to say something, but in English I come up with a better sentence that has nicer vocabulary and stuff like that – stuff that usually results in extra points.

But even though Ville does not pay much attention to the way he speaks English, he does pay attention to the way other people speak it:

> A little bit… Well, some mistakes which I could maybe correct. But in a longer conversation I try to avoid that because it gets boring if I'm all the time correcting someone's mistakes.

Interviewer: Do you do it quietly to yourself or out loud?
> *I rather point them out or ignore. I don't think to myself.*

Interviewer: Does it work for you to ignore mistakes?
> *I just sort of turn it off, like click...*

Interviewer: Does the same thing happen in writing?
> *Yeah, usually yes, because I deal with Brazilians and with people from Kuala Lumpur. They make a lot of mistakes so you have to learn to ignore them.*

Petteri seems to behave in a similar manner as far as errors are concerned:

> …I've always been the annoying one who points out all the mistakes. Especially my little brother is all fed up with me, always correcting everything. Well, I try to learn from other people as much as possible because especially when I listen to music, there's – are – very many words that I've learned when I've checked them afterwards and then I've learned

them and I can use them. And I pay attention to other people when they talk or the texts that I read.

When there is no other way to engage in the activities of the L2 community, the internet and television serve as substitutes for an authentic L2 environment. The fact that the subjects have lacked an authentic L2 environment (notwithstanding the one provided in class) has not prevented them from engaging in L2 activities: both Ville and Petteri have established alternative ways of gaining access to the social networks of their communities. Petteri's "community" takes the form of his mother, as well as an imaginary one with whom he mediates using English that one needs *"in everyday life instead of in school and in these subjects you discuss in school"*. Ville's interest in programming and the internet has led him physically further afield than Petteri. His L2 community is an international one consisting of real people from all over the world.


**Gerardo revisited**

Gerardo also belongs to the Above Average group and uses mostly Spanish at home: There are, however, certain situations where he would rather speak English even outside school:

> Most of the time when we have regular conversations we speak Spanish if we're on the street and so on, you know. But if it's English it's just – for kinda just hanging out.

When Gerardo was asked which language he relates to most closely, he responds:
> Spanish. Because that's the language I learned since birth and, you know, it's just like, it feels more familiar. English I still use, kind of like – there's really not much difference between them – it's just that Spanish, I feel more comfortable speaking it.

What strikes one as odd in Gerardo's case, and which does not become apparent from the scripted interview responses, is that he does not have an accent; his intonation, diction and pace do not differ from those of his monolingual English-speaking peers. When he answers the questions about language usage, he hesitates and searches for words or a way to express what he means by – *for kinda just hanging out.* The researcher's interpretation of Gerardo's behavior and choice of language, namely English, on the street is that first, he has a desire to engage and secondly, he has acquired the necessary tools to do so already. English is not an issue for him, but it is an obstacle for many of his peers, which becomes apparent later on. Finally, when asked

whether his preference for using either Spanish or English has changed over the years, he states:

> No, not really, except when you get to that point when you can speak fluently another language, then that's the point when you kinda just – sometimes you feel that you just wanna speak one language or the other.

When Gerardo talks about whether he feels different when speaking Spanish as opposed to English, he says:

> Well, it depends because when you use different languages. To me it feels kinda like different because if I use Spanish, I'm, I don't know, I just say different things and feel a little different about different opinions. If you talk in English, you kinda get that, you kinda switch a little bit your personality to fit into the type of vocabulary that you have.

To get Gerardo to elaborate on the way in which he feels different, the interviewer asks him how the English-speaking community treats him and what their attitude toward him is:

> I don't understand the question but what you mean is that if they treat you differently because if you already speak the language than if you're just learning it. It's just that people don't really judge you on whether you know it (language) or not, pretty much it's just the person you are but sometimes you know, you can tell, I don't know. It's just something in people's minds that tells you, if you're, like, one of them, kinda like you were raised like them. Then you know, you feel more comfortable. Like if I come here and I got a friend from Korea that came for an exchange. You know, it's like, we can't talk about the same stuff like that I would talk with somebody who is from Puerto Rico. You know, I talk about different things and I ask them different questions. You know, like curiosity, you ask them like "How is it over there?" It's pretty much like being friends but to an extent kinda, not like judging them. You would behave friendly but different.

The comments that Gerardo makes will be echoed in many of the American subjects' responses. His wordy explanation reflects, without academic jargon, the position that the current SCT research into SLA takes on the role played by community. Subsequently, both Marisol and Gladys reflect on their observations about their identities.

**The cases of Elena, Gladys and Marisol – average American subjects**

When asked about positive or negative experiences that had had an effect on their identity regarding their L2 learning, all of the American female subjects mentioned situations in which they had felt insecure or nervous because of English. This came as a surprise to the interviewer because many of the subjects had lived most of their life in the US, having constant exposure to English, and all but one spoke English very

fluently. Nevertheless, the feeling of not being accepted or not being a part of the community had affected their L2 learning. The Finns, on the other hand, despite being deprived of an English-speaking community, did not report similar negative experiences. Most of them simply mentioned how their personality changes when they use L2: the talkative ones become less talkative and outgoing when they have to speak English.

Elena became more determined to learn English because of her classroom experiences:

> I remember, I used to cry a lot, especially in the class. 'Cause I remember one time when we were in math class, I just saw the teacher moving his mouth like ba-ba-ba-ba and I didn't know what he was saying, so I just started crying. So, the students around me, they just laugh at me because they didn't know why I was crying. So, seeing them made me like sad, at the same time mad, like I had to learn English so they don't have to do this anymore. I have to like defend myself. That's basically it.

When Elena reflects on whether she behaves differently when speaking L1 compared to L2, she comments:

> When I speak English I behave like more, like behave like professional, well, not professional, like giving you a good point of view, a good impression. When I speak Spanish, it's just like speaking, like, I don't know. I just talk like nothing.

To "just talk like nothing" occurs when you know you are accepted and consequently have no need to monitor what you are saying. Elena is, again, a typical example of a fluent English speaker who still feels insecure about her language skills and unnecessarily puts pressure on herself when she has to speak English, which in turn affects her production of L2.

Elena:

> Right now I'm very nervous because I'm speaking English and since I don't speak it that much. And when I speak Spanish, it's just like I'm happy and I'm talking it just like that, like nothing. It just comes and right now I have to think before I talk.

Later she mentions how she should pay more attention to pronunciation:

> Like my pronunciation, that's basically it. When I get nervous, I speak very fast and not even, not even I can understand myself.

Gladys starts by talking about how she was pressured by her monolingual English peers in elementary school:

> There were like all these intelligent people like trying to make us feel bad – like – I would get out of the class but Ms A would say "Oh don't worry, you're gonna learn"… And I would stay after school. Books like this big (draws in the air), you know.

On the other hand, later on in the interview Gladys continues on the same topic and reveals how the monolingual Spanish community sometimes places equal pressure on her:

> … like a person from Puerto Rico knows only Spanish. And they treat you (Gladys herself) wrong because you're know Spanish and English… Because they go like, you're better than me because you know Spanish and English and I'm never gonna learn English, you know. It feels bad at first but if you get into it, you learn.

What is puzzling in this response is the last comment "if you get into it, you learn". What she means by 'you learn' here is unclear. Learning the ways to engage and participate in communication? Learning more about the Spanish-speaking community in order to be a part of it? It seems that Gladys is a typical bilingual student caught between two communities who both have their own artifacts (history, stories, jargon, meditational tools) and learning them is the key to becoming a fully-fledged member of the community. The participation metaphor comes alive when the American subjects talk about their experiences: it is not so much about knowing enough words or having the right grammar or accent, it is more about knowing the conversational conventions which are typical of the culture one wishes to become a part of (McDermott, 1993:295). Marisol begins to respond to the question about whether she feels that she behaves the same way in an L1 and L2 environment in a soft, quiet voice:

> When I speak English, really polite. Like – with – this and that.

And continues at an increasing volume, almost shouting in the end:

> In Spanish I'm polite, too, but there's a difference, yeah. Because in Spanish I speak loud, loud, loud and in English – my voice is kinda loud, you know – in English I'm like, "Would you excuse me" (whispers), in Spanish "il companiso" (reverts to her loud voice) which means excuse me, you know.

Marisol expresses anger at the fact that both she and her mother are treated differently. She goes on at length about this, stressing the fact that it happens although she knows English.

> … and sometimes when I go to important places – (changes her voice) this is a little girl, she won't understand – but, you know, they'll be talking behind my back and I'm like "Hello, I speak English, I understand what you're saying" and then turn around and they call me, you know "How are you?" and you know, they were talking behind my back, and now they're calling me really nice. I've had situations when it's happened really bad, like that, you know. They think that only because I'm Mexican, I don't speak English. I know some people don't but I do. Last time they were talking about my mom, you know, and my mom says "Oh my God, they're talking about me. How can they. I understand. You know, she doesn't understand that much English but she understands. Yeah, that happens you know. It really don't matter, I ignore it, you know.

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Marisol's response illustrates how difficult it is for the American subjects to gain access to the social networks of their English-speaking communities. The experiences that many of them have had affect their willingness to engage. The fact that Marisol is a fluent speaker of English and yet has to keep proving it to native English speakers, frustrates her. She is also sensitive enough to notice things in her L1 environment, but which she may sometimes misinterpret. Yet these observations and experiences clearly place constraints on her full participation in the community and pose an obstacle to her L2 learning. Despite the fact that Marisol has had positive, encouraging school experiences in her ESL classes overall, they are not sufficient to make her feel at ease when interacting in L2 situations outside school.

**Kaisa, Pedro and Fausto – subjects with different learning profiles**

When examining the backgrounds of Kaisa, Pedro and Fausto, some commonalities can be detected. In the 1994-95 study, the three subjects were all in the Below Average student category. Fausto had no interest in reading and was never read to when he was little. Kaisa and Pedro, however, had some books at home and were sometimes read to as children. In the final study, they all indicate that they read little in both L1 and L2. All three also consider that their reading and writing skills in English are not very good. Based on their grades, however, Kaisa has developed tremendously, especially in writing, which she comments on in her language biography. Pedro and Fausto both still struggle with English, despite the fact that they are exposed to the language at school and use it at home as well. The crucial element in Pedro's and Fausto's cases is the lack of involvement in L2 community activities.

The average length of an interview was 35 minutes, but in the cases of Kaisa, Fausto and Pedro the interviews lasted less than 15 minutes, which in itself indicates that they were either unwilling to talk about their L2 experiences or that they simply had little to say. Of course, it may also point to the fact that they were reluctant to talk to an adult, which is something I will discuss in the conclusions to the final study. As they talked less than the other subjects, the researcher resorted to other data that was collected. Kaisa's language biography reveals that her writing has improved tremendously, which is something she herself comments on. Both Pedro and Fausto, on the other hand, write

very little, opting for bullet points rather than prose. They were also the only ones who did not write a composition when asked to do so.

Both Pedro's and Fausto's families use two languages at home. Fausto uses English with his brothers, and Pedro with his mother. Pedro says that he identifies more closely with the Spanish language, but when he is asked which language he prefers to use, he says:

> I use both of them. It doesn't matter…
> It's hard to explain it (the difference between English and Spanish). You know, if they ask you a question you answer the same, it's just another language.

But when questioned on how the English-speaking community treats him, he feels that there is a difference:

> They would treat you bad if you were from other places and they would just treat you, not like the other people from their own group.

The profile that emerges from Fausto's and Pedro's interviews is different from the rest of the American subjects in the sense that they have very little to say about the surrounding L1 community, either positively or negatively. It soon becomes apparent that they have few friends there and consequently participate very little in its activities. They have not become accepted members of the L1 community, which in their cases is also due to that fact that they have consciously avoided opportunities to connect. Fausto writes in his language biography (a bullet point):

> When (he was young) I will go to the store I just will point at the thing that I wanted.

In another bullet point illustrating his behavior today, he writes:

> Most of the time I was at school I will take Spanish because I was afred to say it wrong.

And the final comment that he makes in writing about his language learning development:

> then a friend of toll me to just talk and that if I said a word wrong that he will just corrected my.

Fausto's last comment is touching, exemplifying the significance of moving from an exclusively Spanish community to a mixed or English-dominant one. The concept of *legitimate peripheral participation* (Lave & Wenger 1991), which endeavors to describe the changes of engagement in particular social practices that entail learning, is crystallized in Fausto's example. His comment signals a desire to develop: to move from limited participation to fuller participation where L2 is involved.

Kaisa does not have very much contact with L2 speakers, although she mentions that her aunt lives in the US and she has two children her age, who do not speak Finnish at all. She mentions in her biography that this initially inspired her to study English, but she does not indicate whether she has had any contact with them over the years. Kaisa was interested in English until she had to start writing it, which posed the biggest hurdle for her as far as her L2 development was concerned. As she points out:

> … but when we started to write I started to have serious trouble. I couldn't write anything. It took almost 6 grades for me to learn it. Now, when I look at my 7th grade English notebooks I have to laugh. I couldn't write as simple as cousin. The only thing I learned in junior high (she means elementary school) was to understand English. I know that if I hadn't been in such a class (bilingual class) I would be as lousy in english as in other foreign languages (Swedish, French).

Although Pedro and Fausto have studied in an English-speaking environment and taken most of their high school classes in English, neither their willingness to speak in English nor their writing have improved to the extent that Kaisa's have. Her writing, as can be seen from the extract taken from her biography, is indeed quite good today. It's almost error-free and has a clear structure, whereas the male informants' compositions are less structured and shorter. Kaisa, surprisingly, did not use any Finnish (not even individual words) during the interview, although in the end she admitted how talking in English was a great effort for her.

When asked about how they would like to improve their English, all three responded that they would like to develop their writing skills. In addition, Pedro mentions how he would also like to polish his speaking skills.

Fausto

> *Writing - writing, just write, words and read them and get them on my mind.*

Pedro

> *Yeah, you could write more and get somebody to help you or give you something to write on. Speak it or write it.*

Kaisa

> *Yes, in writing, yes.*
> *To write words right.*

Fausto's comment about how he desires to get words into his head by just writing and reading makes no mention of other people. Pedro, on the other hand, makes an implicit reference to interlocutors when he says "speak it". Kaisa, who has no interaction with English speakers, feels that the best way for her to develop is to write.

**Conclusion**

On the basis of the interviews, it can be stated that those subjects previously categorized as successful in a previous study (Vuorinen 1999, 2009) remained successful in the final study. In the American sample, Pedro and Fausto, who were characterized as less successful (Below Average in Study 2), had still not achieved a level in L2 which they would have felt comfortable with. On the other hand, Kaisa, a Finnish subject labeled less successful in Study 2, had progressed and attained a good level of confidence in both reading and writing in L2. It is open to question whether Pedro and Fausto excluded themselves from the surrounding English community to such an extent that Kaisa ultimately had more exposure to English although she lived in a Finnish environment. As I taught in the same school where Kaisa was a student, I saw how fortunate she was to have a supportive class environment. She had not been forced to undergo a change of school, losing friends in the process, nor was she under any pressure to prove herself to new teachers or peers. I would claim that she benefitted from both the compassionate peers that she had had since elementary school, as well as the consistent support of her L2 teachers.

The linguistic background of the successful American subject, Gerardo, is monolingual: both his parents communicate with him in Spanish only, as do all the members of his immediate family (grandparents and other close family members). Yet, he uses L2 in and outside school fluently. Viridiana, an American female subject interviewed in a previous study, has a similar linguistic background to Gerardo's, the difference being that her mother speaks hardly any English at all. In both these cases, a strong L1 and subsequently a strong Hispanic cultural heritage fostered in their homes has helped them to build a strong L1 base. This is contrary to what happened in the homes of Pedro and Fausto, where both English and Spanish were used between family members. What is remarkable in the findings is that Gerardo and Viridiana have succeeded in engaging in activities in L2 as well as in L1, although Gerardo is aware of how his personality changes when he uses the two languages. The extract from the interview where he explains how he feels "in English" and "in Spanish" was an eye-opener for the researcher and a perfect example of how sociocultural theory and situated learning works in practice, namely how the notion of *legitimate peripheral participation* suggested by Lave and Wenger (1991) is realized.

> Well, it depends because when you use different languages. To me it feels kinda like different because if I use Spanish, I'm, I don't know, I just say different things and feel a little different about different opinions. If you talk in English, you kinda get that, you kinda switch a little bit your personality to fit into the type of vocabulary that you have.

What Gerardo's response exemplifies is the way in which the physical and social L2 environment has been a source of mental development. The mediational means, in Gerardo's words "the type of vocabulary that you have", have allowed him to become a full participant in both L1 and L2 contexts. According to Lave and Wenger (1991, p. 135), legitimate peripheral participation allows us to see what has traditionally been regarded as the failure to learn in a different light. Sometimes what indeed happens (even if it has not necessarily been the goal) is that members learn to take on a less empowered role in a community of practice because of the kinds of participation made available to them. Toohey (2001, Zuengler & Miller 2006) considers whether it might be helpful to view some learners as having been marginalized into positions in schools or other communities of practice which perpetuate their peripheral participation, rather than to consign their poor success in L2 learning merely to their failure to learn. Pedro and Fausto seem to fit this characterization of marginalization, having acquired no voice as yet in their communities.

Full membership of the L1, and sometimes even the L2 community, and participation in its activities has not been possible for the American subjects. Their engagement has been hampered by their negative experiences. Gerardo's and, previously, Viridiana's strong L1 (Spanish) identities seemed to help them acquire a similar position in their L2 communities.

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# TEACHER LEARNING IN MULTILINGUAL CLASSROOMS: EXPERIENCES OF NEWLY QUALIFIED TEACHERS (NQTS)

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ABSTRACT
*This paper draws on a five year project about newly qualified primary school teachers (NQTs) teaching in multilingual classrooms in a city with a high percentage of English language learners in central England. Earlier papers reported on aspects of the first two and four years of the project (Hall & Cajkler, 2008; Cajkler & Hall, 2009). The presentation explores how NQTs build knowledge about languages and culture and how they extend their professional learning in their induction year. Learning to teach in multilingual classrooms in training and induction is explored, with recommendations for teacher education and induction programmes are offered.*

Key words: new teacher development, linguistic diversity

## Introduction

According to Gogolin (2002a: 123), 35% of under-35s in Europe have an 'immigrant background'. Her analysis (2002b) of a Hamburg primary school demonstrates how diverse the linguistic and cultural tapestry can be. Within the school, 50% of the children were monolingual German, while 15 other nationalities were represented and 20 languages. Similar diversity has been described in other parts of the world (Baker & Eversley, 2000; Hélot & Young, 2002; Lucas et al. 2008; Commins & Miramontes, 2005). Lucas et al (2008: 361) report that the percentage of pupils aged 5-17 in the USA speaking a language other than English had risen from 7.9% in 1979 to 18.7% by 2003. Teachers in city areas in the United Kingdom work with pupils who use numerous languages for a variety of purposes (Creese & Martin, 2006). The Department for Children, Schools and Families (DCSF) in 2009 reported that 15.1% of the primary school population in England has English as an additional language (EAL).

On the other hand, the teaching profession remains largely the domain of white middle class university graduates (Ward & Ward, 2003). Conteh (2007) cites the Multiverse website estimate of 4% of teachers in England being bilingual. Lucas et al (2008: 361) claim that most teachers are monolingual and have had limited professional development for the teaching of English language learners. DCSF statistics (2009) do

not identify patterns of bilingualism among teachers but record that 94% of teachers declare themselves white (British/Irish/European). The national figure masks regional variation, with the North-East of England having 99% of teachers white and London 82%.

It is often claimed that teacher education programmes give insufficient attention to the fact that classrooms have pupils from a variety of backgrounds (Nieto, 2000: 182) and we and others have also discussed the challenges facing training providers (Hall & Cajkler, 2008; Cajkler & Hall, 2009; Murakami, 2008). Cummins argues that one-size-fits-all teaching approaches 'are unable to accommodate the diversity of language and cultures' (2006: 57) typical of many urban classrooms but 'dual language initiatives can serve to normalize linguistic diversity within the school' (2006: 63). He calls for a multiliteracies approach that acknowledges and builds on pupils' first languages and cultures. We have observed such multi-literacy strategies widely and successfully used in our context. They offer opportunities for both identity investment and cognitive engagement, involving routine incorporation of home languages into the life of classrooms; an example would be the creation of bilingual story texts by groups of multilingual learners (2006: 62).

Hélot & Young (2006: 73) argue that the home language is still seen as an impediment to the learning of the school language because in France schools are a 'monolingual habitus'. They stress the importance of including parents in awareness-raising activities so that 'parents' linguistic and cultural knowledge heritage become a source of learning in the eyes of all the children, as well as in the eyes of the teachers' (2006:82).

In England, all pupils are mainstreamed so that they learn from access to the curriculum in the regular classroom, with an assumption that interactive work and discussion with peers will be enough (Franson, 2007: 1106). Pupils engaged in formative challenging activities with their peers in the curriculum experience a rich linguistic and cognitive environment.

Although there is a necessity for a common language in the classroom (English), there may be a danger in the UK context and elsewhere of not recognising the importance and usefulness of the first language in a child's educational and linguistic development.

In this paper we seek to identify teacher learning about linguistic and cultural diversity. One might be tempted to believe that the situation is one of difficulty and challenge, with little success. However, teachers invest time in training (TDA, 2009) and in the development of resources, as evidenced by local authority resource centres, websites,

sharing enterprises such as Collaborative.org.uk as well as the numerous organizations devoted to the development of good practice in language across the curriculum e.g. NALDIC, Multiverse etc. It would be easy to indulge in a bleak assessment of current practice but we believe there is much good practice to be explored.


**What should teacher education offer?**


Wiley (2008: 238) argues that teacher preparation needs to include study of "culturally and linguistically responsive schooling" but identifies a number of failings, notably failure to prepare new teachers for language assessment, for use of the first language in the classroom, to help all pupils respect language diversity. Nieto argues that preparation for diversity has to "become part of the normal experience for all prospective teachers" (2000: 183). In France, Hélot & Young (2002: 102) claim that teacher educators need to 'include issues concerning all languages (minority, immigrant, regional and others as well as the majority language) in a non-exclusive way, to propose ways of valuing the linguistic competencies of all children ….. and consequently to value the bilingualism of children from migrant backgrounds.'

So, given a free hand, what would teacher education programmes responsive to linguistic diversity include? In 2002, a Teacher Training Agency seminar in England identified specific areas which trainee teachers should address in order to meet the standards for qualifying to teach and to work effectively with pupils learning EAL. They were fourteen in total (see Bourne & Flewitt, 2002) and included being familiar with:

- models of bilingualism and second language acquisition;
- good practice in inducting new arrivals into school;
- how to become familiar with their pupils' social, cultural, linguistic, religious and ethnic background and traditions;
- strategies for supporting the learning and literacy of developing bilinguals through speaking and listening, the use of first languages, visual aids and practical activities;
- the benefits of bilingualism and the importance of first language to personal identity and development of English;

- the idea that bilingual pupils who have achieved fluency in spoken English may need support in developing written academic English;

- current models of assessing second language learning and pupils from diverse backgrounds.

In the USA, Ward & Ward (2003) argue that teacher education programmes must develop cross-cultural competencies, grounded in 'awareness, understanding, acceptance and appreciation of diversity among students' (2003: 534). The principal strategy would be learning and using a second language. Garcia (2008: 393) also calls for teacher education to focus on the development of "multilingual awareness' with language at the centre, even arguing that all teachers could be required to be bilingual. Nieto (2000: 185) is even more forceful:

> Teacher education programmes can wax eloquent about the value of cultural diversity and the benefits of knowing a second language, but if they do not provide their students with the opportunity to learn another language or to become multicultural in outlook, they lose a vital opportunity to put their beliefs into practice.

Most programmes in England, over-burdened by the challenge of including and assessing 33 nationally mandated standards (TDA, 2008a) as well as Masters-level assignments, would have to be extended by months to accommodate second language learning. The first impulse might be to rule this out but with growing linguistic diversity in the classroom this is a critically important issue for teacher education.

Lucas et al (2008) argue for linguistically responsive teaching and greater understanding how second languages are acquired. Teachers would need six essential understandings:

1. Conversational fluency and academic language proficiency develop at markedly different rates (drawing on Cummins' distinction between Basic Interpersonal Communication Skills, BICS, and Cognitive Academic Language Proficiency, CALP, 2008)

2. Learners need comprehensive input (Krashen, 1982) and opportunities for output (Swain, 1995).

3. Active participation (social interaction) fosters development of both conversational and academic English

4. Proficiency in the first language needs to be promoted and supported as this transfers to the learning of a second language, citing Thomas & Collier, 2002; as a result, teachers must be familiar with pupils' first language ability (literacy and academic language)

5. A low-anxiety, welcoming classroom is essential
6. To be proficient, learners need to focus on formal elements of language not just communicative elements, but this focus on form must be made during meaningful activities, not through de-contextualised grammar tasks.

Some of these are already covered in teacher education programmes e.g. the need to offer a welcoming environment and the value of social interaction. In-service programmes developed in England by the government department (DfES, 2006) draw on Cummins' understanding that conversational fluency is not necessarily an indicator of pupils' ability to use language for academic purposes. On the other hand, the extent to which teacher education programmes help trainees to use first languages may need further exploration. While recognising that NQTs have expressed concerns about training (Cajkler & Hall, 2009), particularly about inducting new arrivals and early stage learners, it could be argued that too many expectations are invested in initial teacher education.  Galton (2007: 38) claims that learning to teach depends on engaging in discourse with more knowledgeable colleagues, with the most significant gains made when working in teaching practice. Galton cites Watkins (2003: 14) who calls this type of learning 'building knowledge as part of doing things with others'. So, a key part of new teacher development occurs in their first year as they assume responsibility for groups of learners and work with others.

Part of our project focused on identifying evidence for understanding of how a second language is learned and the development of multilingual awareness and a multicultural outlook, argued for above in linguistically and culturally responsive approaches (e.g. Wiley, 2008; Hélot & Young, 2002). The research was conducted as NQTs approached the end of their first year in the job.

**Data collection and analysis**

The city in which the study was conducted recruited approximately 600 newly qualified teachers for its primary schools from 2004 to 2008, averaging 120 per annum. 226 NQTs (40 to 50 per year, graduating from 34 training programmes) participated in surveys and 26 were interviewed. Qualitative data from interviews were reviewed by two researchers using constant comparison about three themes:

- developments in practice
- evidence of building expertise by collaborating with colleagues
- learning about languages and cultures.

For this paper, we explored the third theme, linguistic and cultural understanding developed as NQTs taught in multilingual classrooms.

**Participants' languages, training and confidence: survey results**

77 (34%) of the 226 survey respondents declared themselves to be proficient speakers of at least one other language apart from English claiming proficiency in 27 languages (Table 1). 149 listed no other languages.

Table 1: Languages in which NQTs are proficient

| Asian Language Speakers | | | | African Language Speakers | | | European Language Speakers | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Gujerati | 32 | Bengali | 1 | Ndebele | 2 | | French | 6 | Greek | 1 |
| Urdu | 24 | Paathwaari | 1 | Zulu | 2 | | German | 3 | Portuguese | 1 |
| Punjabi | 21 | Mirpuri | 1 | Swahili | 2 | | Spanish | 3 | British | 3 |
| Hindi | 14 | Japanese | 1 | Xhosa | 1 | | Italian | 2 | Sign | |
| Kutchi | 6 | Chinese | 1 | Afrikans | 1 | | Irish | 1 | Language | |
| Pushto | 2 | Malay | 1 | Shona | 1 | | Hungarian | 1 | | |

How these multilingual talents are used is not known and there are relatively few studies of bilingual teachers (e.g. Creese, 2004).

In the annual surveys, NQTs were asked to grade how good their training was to prepare them to:

- teach pupils from minority ethic backgrounds
- work with children with EAL
- to develop further their knowledge and skills in teaching EAL pupils

In addition, they were asked to grade the quality of their placements in schools to experience diversity and results suggested rising levels of satisfaction in all four categories. In 2005, only 34% believed their preparation to teach pupils with EAL had been good/excellent but in 2009, the percentage was 66%:

Table 2: Quality of training: percentages of good/excellent evaluations

| Good or excellent …. | Preparation to teach pupils with EAL |
|---|---|
| 2005 (n.44) | 34 |
| 2006 (n.41) | 49 |
| 2007 (n.54) | 41 |
| 2008 (n.42) | 55 |
| 2009 (n.44) | 66 |
| Total (n.226) | 48 |

The recent results are in contrast to national evaluations from the Training and Development Agency (TDA, 2008b), which found only 38% declaring their preparation to be good/excellent.

For confidence to teach English language learners two general scales were calculated, the first for confidence to teach EAL in general, including the following:

- knowledge of key principles relating to teaching EAL pupils
- ability to distinguish between pupils with EAL needs and pupils with special educational needs
- ability to use strategies to support the learning of EAL pupils
- ability to differentiate classroom tasks specifically for EAL learners
- ability to adapt materials/resources appropriate for EAL learners
- ability to integrate newly-arrived EAL pupils.

Conceptually, all of the questions were strongly related so the reliability test score (Alpha .899) was understandably high. The mean level of confidence over the 5 years of the study was 2.48, not yet good on a 1 to 4 (poor to excellent) scale, similar to a scale calculated for satisfaction with training (in Table 3).

Table 3: NQT satisfaction and confidence to teach ratings

| | Satisfaction with training | Confidence to teach EAL learners (approaches, materials etc) |
|---|---|---|
| 2005 | 2.19 | 2.16 |
| 2006 | 2.59 | 2.49 |
| 2007 | 2.38 | 2.48 |
| 2008 | 2.65 | 2.67 |
| 2009 | 2.65 | 2.59 |
| | 2.49 | 2.48 |

A third scale assessed confidence to meet EAL learner needs with regard to:

- pronunciation teaching

- grammar

- supporting vocabulary learning

- teaching speaking and listening

- teaching reading and writing

- assessing competence in English.

This confidence level when scaled was lower than that for teaching in general, 2.28 (as opposed to 2.48), with variation from year to year.

Table 4: confidence to teach aspects of language

|  | Confidence to teach aspects of language (e.g. grammar) |
| --- | --- |
| 2005 | 2.02 |
| 2006 | 2.41 |
| 2007 | 2.22 |
| 2008 | 2.43 |
| 2009 | 2.37 |
| Overall | 2.28 |

These figures are of concern particularly in relation to teaching reading, writing and assessing pupils (reported in Hall & Cajkler, 2008; Cajkler & Hall, 2009), where confidence, albeit improved on 2005, remained obdurately low (only just over 30% of NQTs feeling confident).

Opinions from the 26 interviewees about the value of training differed quite markedly, but with most acknowledging some benefit but identifying gaps. At least five claimed that hardly anything had been covered:

> But, at the university, I wasn't actually given, hardly any training at all, it must have been, one lecture, two lectures and they just told, told us, you know, you will come into where EAL will be an issue…..

The following NQT had experienced good features but wanted more:

> .... definitely some good points, and I mean they gave us, they've shown us resources, and we had, we did do quite a bit on EAL, with umm, showing us strategies ..... I think the main weakness was I didn't really have any, like, severe EAL children in my placements.

A range of pedagogic gains and weaknesses in training and in the induction year were identified. An additional survey question in 2007 and 2009 asked for a comparison of the relative contributions of training and induction to NQT development. The 2009 group indicated a greater level of satisfaction with training than induction while reverse

was the case in 2007.  In general, however, trainees acknowledged that training was a starting point to building their knowledge and use of pedagogic skills, and further developments during the induction year were clearly articulated by the majority of NQTs (19 from 26).


**Linguistic and cultural awareness**


Against this background, interviews were subjected to a process of coding and data reduction to isolate evidence of gains in linguistic and cultural understanding.  The following were isolated (number of interviewees in brackets):

- diversity of languages in the classroom and gains in language awareness (16)
- cultural understanding  (12)
- being bilingual (12)
- language sharing (7)
- importance of the first language (7)
- understanding how languages are learned (5)
- bilingual support (7).

All respondents acknowledged gains of some kind, but occasionally these were articulated somewhat imprecisely, for example:

> There is a child in a class ... mind you, verbally he's good but it's his writing and I think his own culture is coming in to how he has been taught to form the letters ... and it's all very mixed up and it doesn't flow and it's hard to read at times and it's because his own culture is influencing the way he forms the letters.
> First of all, I couldn't understand their writing because it was back to front.

Nor were all NQTs able to clearly explain the linguistic diversity they encountered:

> I've never heard them speak it, umm, yeah, .. speak it fluently, ..his mother's tongue is Greek but I think she must have spoken English as a first language to him, so high level of writing, reading....
> I mean I know some .....  not her first language, and I don't know her other language;  is very hard to learn, ........ umm, Kurdish I think, .. we've got two from Africa, I forget what their other language is, ........ they're very close to one another, and I've never heard them speak it ..

On the other hand, many gains were noted in cultural understanding, learning with and from children as well as from colleagues. Seven of the respondents focused on learning about Islam with their pupils, for example:

> There's a lot of things I didn't realise about the Islamic tradition. Children listen, value what they hear and want to talk about their own traditions afterwards. I think I am learning every day with different children.
>
> Yes, I worked in a school which was mainly Muslim and with most children speaking a second language. I am now a lot more knowledgeable about many religions, languages and the cultural differences.

There was also evidence of culture sharing, with pupils sharing experiences with their peers:

> Even though I know a lot of cultures, some of the African cultures I didn't know about. So we sometimes talk about things like that a lot in class. If there's wedding going on and this child's Muslim and ....the wedding itself, although the vows are the same the traditions are so different depending on the cultural background they come from.......

## Linguistic Diversity and Language Awareness

Development of language awareness was articulated, sometimes in 'aspirational' statements about multilingual diversity in the classroom:

> …… we've got a vast amount of languages and so that's something I want to learn more about personally, the culture and the linguistics behind the languages...

> So many children in this class have English as an additional language, it just becomes, in our school it just becomes the norm, rather than the exception .......

NQTs found themselves learning about the languages and cultures of their pupils, for example:

> I've learnt a lot more about where specific languages come from. Kutchi, I wasn't sure whereabouts that came from and the children in my class were telling me that because a lot of them speak Kutchi and then my knowledge of the cultural backgrounds has increased because I've learned a lot about Islam and Hindu religion as well.

Interest in language diversity led to greater understanding about pupils and their languages:

> I know who speaks English at home and who doesn't, .. so I do know more about their kind of linguistic backgrounds … just because with the amount of time that you have with them...

And, some NQTs appeared to be engaged in language learning themselves (as would be recommended by Nieto, 2000 or Garcia, 2008), including both monolingual and bilingual teachers, including two new learners of Polish

> I tried to learn some Polish words, which was really hard, .......
>
> Umm, it has, umm, linguistically, umm, I'm not sure I've picked enough Polish up, I'm quite aware, actually what I have learned this year, the accents ............... I still have developed this year.

Mention of not yet having picked up enough Polish perhaps suggests a continuing effort. Growing language awareness influenced what appeared to be language sharing or reciprocal teaching of some kind, discussed by seven of the interviewees:

> We had a lot of fun because he could teach me Turkish whilst I was teaching him English, so he felt just as important. It was good for me to make mistakes because he'd laugh at me. .............he's done things like taught the other kids bits of Portuguese and things
> Children have been looking at saying, hello, good afternoon in different languages, as we've been taking the register, so not just Polish, you've got Greek going on, you've got Hindi, you know, other, other languages.

Sharing and exchange of language by bilingual teachers and bilingual learners also took place:

> The other boy I support he speaks Gujerati and so do I.......... There are certain words I still forget but I get the children to help me. They quite like that as well.

**Drawing on the first language**

NQTs in general acknowledged the value of pupils' first language and there did not seem to be any fear or doubt about using first languages in the classroom. In fact, they clearly articulated claims about the necessity to use first language (perhaps resulting both from training and from multi-literacy approaches used in the city):

> I was taught that for EAL you have to use the first language … along with the second language for them really to succeed because otherwise they stop with the first language, they haven't got all the skills there when they learn their second language, their skills aren't there.
> My main thing is to get them speaking, first in their own language because if they can't even speak in their L1 I can't see how they're going to start speaking in English. ……..
> I would say the children with EAL … have some of the best language skills in the class. In terms of their grasp of their first language and so have potential to have some of the best skills in English as well.

Using the first language as an initial scaffold, then 'weening off' was also mentioned by two respondents, but with no additional explanation for this strategy:

> So then it was kind of weening them off, so that was building their confidence up there, we've had umm, we've got Polish, for the Polish children we've got .... books……
> I did use French just to help here but stopped a month after her arrival here…..I told her to write in French because I wanted to see what her ability was but soon stopped as well……..

All bilingual teachers saw being bilingual as an advantage in supporting pupils in the classroom and beyond, for example, the following wanted to embark on the kind of practice recommended by Hélot & Young (2002):

Next year, I want to start doing things with parents, using Gujerati.  A lot of parents don't feel confident to help their children because they can't speak English and I want to develop that.

The following teacher can use several languages and seems to imply she had picked up a little Somali as well

At parents' evening I don't really have any problem because of being able to speak the languages…it's only Somali that I don't know very much of, but I haven't really come across an issue where I've needed an interpreter.

Teacher experience of bilingualism was helpful to understanding of children's experience:

I've learnt here – what I've been lucky to have is my bilingual language.  From my own experience and courses I've been on I don't think it's used enough…..
I always think back to my childhood. I was an EAL child even though I was born here.  My parents wanted me to keep my own language, so they only spoke to me in Gujerati. When I went to school, it was really hard.  I remember it being really hard but then I caught up really quickly.
I've learnt from that.... it's not a disadvantage if you don't know another language but it's an advantage to use what's in your class – that's what I've learnt… make the kids feel it's an asset to have 2 languages celebrating the fact that they have that in them.

Being bilingual, however, was not always a solution to communication difficulties, for example the occasional weakness of translation was acknowledged by two bilingual teachers:

I used to sit next to him myself, because I could speak his language. Science: I found it difficult to get through to him because of the amount of vocabulary; there's a scientific concept behind it so that's quite a hurdle whereas in maths in subtraction there's a word that I can use to translate that.
I think that science is particularly difficult because of the amount that I have to put into it, but I got KS1 big books 'Body & Plants' and it was easy just to show him.

The use of paraprofessional support is increasing and there is a need for further research into their practice and contributions but the value of bilingual support staff was regularly mentioned.  :

I think definitely having bilingual people in the classroom is very helpful.
What we did with her she worked with a TA who spoke Gujerati with her, based on numbers, letter sounds and talking about books with her. She was also paired with another able child who spoke Gujerati and translated for her.  This other child was amazing and that was very good. It made the other children realise Hey, I've got another language and maybe I can use it sometime.
....... people around the school are very, very good, especially the people that speak the home languages of the children, so I can always speak to them if you need something clarifying.

Finally, we reviewed how much NQTs knew about language learning. Some awareness of how language develops was shown but this would not match the expectations of

Bourne & Flewitt (2002) or Lucas et al. (2008) discussed above. The first comment below sits well within a mainstreaming policy and belief in the power of input and exposure to the curriculum:

> ……. in the back of my mind is always they ought to be learning the language automatically. As long as they got enough access to it …… I'm quite big on the power of them just absorbing.

Uncertainty about approaches to use was expressed:

> My learners were past the initial language acquisition stage and needed to refine their language skills but I didn't really know how to do this best. I tried to use some of the materials I collected on the course I attended but most of it was aimed at learners that were new to the language.

In other cases, awareness (with the exception of appreciation for the value of the first language) appeared to be quite limited. Some understanding of the BICS/CALP (Cummins, 2008) divide was suggested although not directly mentioned:

> But their everyday English is such that they can get by but you begin to probe and they don't have the vocabulary and all of those things that you expect and so it's not just the new arrivals, …..
> You know, they get this surface fluency (inaudible) and they can cope day to day, but when it comes to you know, the curriculum……….
> Many of them speak the language perfectly well but getting their written language up to scratch is a real challenge and one I've never really had much help with.

The final point here echoed findings from the questionnaire survey which revealed lack of confidence when teaching literacy, notably writing skills to learners of EAL. Nevertheless, the interviews evidenced growing awareness, with significant interest and learning about linguistic diversity.

**Discussion and Conclusion**

We found evidence in the induction year that teacher confidence grows in multilingual classrooms as a result of interaction with pupils and colleagues in an atmosphere of mutual support. Some remained uncertain but most respondents acknowledged the necessity and value of experience and noted many learning gains from which multilingual and multicultural awareness grew, as did confidence to work with EAL pupils. There was extensive learning about language and culture, language sharing and even learning of new languages, sometimes from children who were asked to teach their language to their peers (for example Portuguese), echoing the aspirations of Hélot &

Young (2002). Routine classroom events e.g. registration/greetings, were often bilingual.

There were some suggestions that some strategies had been suggested or experienced in the training year e.g. use of pupils' first languages, but time for development was limited. NQTs described using scaffolding and interactive strategies to support learners with frequent and creative use of the first language. Such approaches developed as a result of working with supportive colleagues (teachers and teaching assistants) and learning from children. Bilingual teaching assistants are being used increasingly (at least two mentioned the contributions of Polish TAs; others mentioned Shona, Somali and Gujerati) though we need more research on how TAs contribute and the extent to which pupils depend on them.

Use of the first language in the classroom and respect for language diversity appeared to be common practice among our respondents (echoing Wiley, 2008). Nevertheless, in line with commentators above, responses suggest that teacher education (given the time) might usefully include more focus on:

- how to assess language
- approaches to using the first language, e.g. developing further the use of multi-literacy texts as recommended by Cummins (2006), including language sharing activities which value pupils' linguistic competencies (Hélot & Young, 2002)
- understanding how languages are learned (a weakness at present)
- working with bilingual teams to promote and support learning.

These may already be features of training programmes but some of our survey respondents suggested that coverage was uneven (Hall & Cajkler, 2008), with some significant gaps and many previous studies have stressed the limited time available.

There are also messages from this research for city and school authorities. If our sample is representative it would mean that approximately 200 bilingual teachers had entered service in the city primary schools since 2005. What are their experiences and how have they developed their practice? How are they using their languages? There are schemes to attract new teachers to work in socially deprived areas and be paid additional money for continuing service there. In parallel, how can we attract and deploy multilingual teachers into the profession and to work in particular contexts?

Perhaps there is an argument to be made for multilingual service being rewarded. In the meantime, multilingual practice in our schools should be further researched so that

teacher educators can continue to prepare trainees in informed and informative ways for the diversity of the mainstream.

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# TEACHERS' CREATIVE APPROACH TO CIVIC EDUCATION. THE ANALYSIS OF SELECTED ASPECTS OF POLISH TEACHERS WORK

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ABSTRACT
*This paper will focus on teachers' creative approach to civic education. The research shows that despite binding core curriculum only one in five teachers is convinced there is the consensus on contents of civic education in Poland. The teachers differ considerably in their opinions on what should be taught.*
*As for educational practice there are also different models. Some teachers follow core curriculum strictly while others enrich their lessons with additional creative elements.*
*The aim of this paper is to present the results of research on Polish civic education teachers and identify the factors which facilitate creative approach to teaching.*

Key words: civic education, creative teacher, open climate of school discussion, facts based teaching, teachers' professional self-evaluation

According to Alvin Toffler, one of the most important tasks that our civilization is facing is the reconstruction of organizational and functional structures of modern societies. Only creation of wider democracy will allow for response to the demands of modernity and will protect our civilization against catastrophe. Toffler argues that everyone should participate in the debate on changes of the system. What is needed is: awakening of the human imagination necessary to reconstruct political structures and release the highest possible number of new ideas and concepts. Due to this challenge, creative civic education, which enables all the students to see dilemma of our times in a wider perspective and prepare them to solve different problems, which we encounter today and which they will face in the future, seems to be crucial.

Improvement of democracy functioning is the subject of interest of writers and visionaries, but it is also one of the most important goals of a school. Education through preparation of people with ability to analyze, free of stereotypes, equipped with skills to lead a debate, define goals and select means which will cause that the goals might be achieved, contributes to increase in the quality of the democratic society. To educate creative citizens, there should be possibility to discuss at school, to present different opinions and viewpoints, choose right arguments and analyze arguments of the other participants of the debate.

A school, as an institution which is governed by defined set of rules and a role of students in this institution, regardless of quality and work methods of a teacher, may support education of the young people to live in a society or it may hinder such civic socialization. A teacher due to direct relationship with the students has a special role to play; his/her engagement, style of teaching and method of teamwork organization, his/her broadmindedness and innovation decide to a great degree about the educational results. According to A. Brzezinska, creative school requires teachers' team running, individual programmes and creative teachers. The definition of the *teachers' team running* refers to the image of a school class not understood as a formal structure but as an action environment co-created by a teacher and students, but mostly the teacher should understand the concept of team functioning, work style and relationships within the team. *Individual program* might be treated as a scenario, then the imagination of a teacher is not limited but it can also be a direction for a teacher and the students. Such an individually designed program motivates teacher himself/herself, strengthens engagement, increases immunity to barriers but also carries the risk of too strong attachment to the creation and aversion to other programs created according to some other rules. The program once created should be constantly corrected and completed because our knowledge and rules to operate it keep changing.

*Creative Teacher* is not only a person open to suggestions of students, able to encourage them to raise problems and solve them individually, but also a person accepting himself / herself, his/her weaknesses, treating his/her professional role as one of the fields of life activity related to the remaining fields, perceiving himself/ herself dynamically in a category of changes. In a triad „teachers' team running– individual program – creative teacher", according to A. Brzezinska, the most important, key role is played by the *creative teacher* because without him/her even the best subject program or concept of team action may not bring effects. Such a *teacher* is particularly important in teaching the subject the aim of which is to prepare young people to maintain social continuity and carry out necessary changes - civic education.

What are the teachers of civic education like? To answer that question I used the results of the Polish part of the international research carried out by *The International Association for Evaluation of Educational Achievement* , in which I participated as a member of the Polish research team. The main goal of the project *Civic Education Study* was to find out about the level of knowledge and civic attitudes of fourteen and seventeen year olds from countries of different traditions, organization of educational

system and educational programmes. Research was carried out at the beginning of the twenty first century in three groups: students, teachers and school heads. Teachers of three selected subjects crucial for civic education were poled. Individual countries could choose those subjects from a proposed pool, considering educational nature characteristic for themselves. In Poland, teachers of knowledge *about society, history and Polish language* were interviewed. Teachers of fourteen – year - olds were studied in all countries. Study of teachers of seventeen-year-olds was not obligatory. The Polish team, in order to have a more complete comparative material, not only carried out the research in a group of seventeen year olds but also for teachers and school heads.

In this presentation, I will use part of the study concerning teachers. 574 teachers of the subjects related to civic education working with fourteen year olds and 435 teachers teaching seventeen year olds attending high schools, technical colleges and vocational schools were interviewed.

The questionnaire for the teachers consisted of four parts. The first one included the questions concerning job seniority and education of teachers. The questions concerned seniority, university education, participation in courses and seminars developing professional skills related to civic education. The second part concerned the opinion on civic education and teaching democracy at schools. The questions focused on the status of civic education in schools and its content, what young people were learning about civic education at schools where the examined teacher was working, what was the object of special emphasis and what, in teacher's opinion, was to be taught to teenagers to make them become good citizens of a democratic country. The third part of the questionnaire concerned teaching civic education from a practical point of view of an examined teacher. The questions were asked how the teacher was preparing the classes during which he dealt with the problems related to civic education, which sources and materials he used and how he was prepared to teach principles of democracy and civic society. The fourth part of the questionnaire included questions concerning teaching methods used by the interviewed. Some of the examined matters, I will present below.

In this presentation, I will try to find answers to the following questions:

1. Do teachers have a creative approach to the subject? How do they perceive goals of the civic education? Can they extend the scope of the civic education (civic rights and obligations, Constitution, political system) by important current issues?

2. Do they feel well prepared to teach? How do they evaluate their professional qualifications? Do they feel comfortable teaching controversial and difficult social problems?

3. Are they willing to discuss with their students? Do they encourage them to discussion and open presentation of their viewpoints, even if they are in opposition to the opinions of the majority of the class and a teacher? Are they ready to negotiate with the students what and how they will teach civic education?

It is worth emphasizing at the beginning that the majority of teachers put great emphasis on civic education and the role of the school in this field. They show significant educational optimism at the same time.

92% of the teachers of fourteen – year - olds and 97% of teachers of seventeen- year-olds treat civic education as extremely important for the development of the society. Teachers argue that the school contributes to the development of students' attitude and their opinions on civic problems. 93% of teachers of fourteen- year- olds and 92% of teachers of seventeen- year-olds shared that opinion (respectively 43% and 34% were strong supporters of this idea), only 7% of teachers of fourteen- year- olds and 8% of teachers of seventeen- year- olds thought that their work had not influence on the development of attitudes and opinions of students on civic problems.

Teachers argue that in the Polish society there is no consensus on the content of civic education.  Only 22% of teachers of fourteen-year- olds and 24% of teachers of seventeen- year- olds stated that there was a common agreement on the subject of what should be taught to young people regarding civic education. 78% of teachers of fourteen-year- olds and 76% of teachers of seventeen- year- olds do not see agreement on the content which was to be provided to the young people on civic education at school. However, only 15% and 14% respectively state that due to conflicts and difference of opinions in the society it is impossible to reach agreement on civic education curriculum.

Due to lack of social consensus on the above matter, a teacher decides to a great extent about what he/she will be teaching. What should be his/her guidelines in selection of problems for civic education?  73 teachers of fourteen- year-olds and more than 4/5 of teachers of seventeen- year- olds argue that the teacher should be guided by the standards and requirements included in the official curriculum, however, 27% of teachers of fourteen- year- olds and 1/5 of teachers of seventeen- year-olds do not think that education shall be based on the civic education curriculum and the teachers shall

decide on its content. Some surprise was caused by the common willingness of teachers to establish lesson content for civic education with the students. 4/5 of the teachers of both age groups were ready to negotiate the problems discussed during lessons with young people and only 1/5 of the researched refused or completely rejected such possibility. Almost all respondents examined believed that school could teach what was important in civic education and prepare young people to live in a democratic society.

To answer the question whether teacher's present unified position concerning goals and significance of civic education; analysis of the main components was carried out. It allowed for selection of three factors expressing **three dimensions of approach towards civic education.**

First factor (explains 18, 5% of variation) expressing **optimism and openness** towards students consists of the following variables:

- civic education is important for civic and political development of students .......................................................................................................................0.822

- civic education has great significance for our country..........................................0.808

 - school is irrelevant for the development of students' attitudes and opinions on civic problems.................................................................................................................0.539

- a teacher should negotiate with students what is to be studied in civic education ……...................................................................................................................0.314


Second factor (explains 15.9% of variation) expresses **helplessness and confusion** of teachers and consists of the following variables:

- because of conflicts and different opinions in society they cannot be agreement on what should be taught in civic education...................................................................0.741

- changes have been so rapid in recent years that teachers often do not know what to teach in civic education.............................................................................................0.693

- what is important in civic education, cannot be taught at school..................................................................................................................0.658

Third factor (explains 13.8% of variation) which expresses **feeling of self – confidence and criticism against authorities** consists of the following variables:

- teachers should teach according to curriculum standards/requirements in the area of civic education..........................................................................................................0.692

 - educational authorities pay little attention to civic education: ...........................................................................................................................0.667

- there is a broad consensus in our society as to what is worth learning in civic education.......................................................................................................0.618

The results provided above: percentage share, responses to questions on aims and importance of civic education and the content of factors found in the analysis of main components allow stating that the majority of teachers believe in sense of their work. Teachers who are optimistic and open are characterized by democratic approach and openness towards the students. They are ready to work on topics to be discussed during classes with them. However, there is also a group of teachers who are helpless, confused and uncertain, whose approach to civic education at school causes unrest. Those teachers constitute slightly smaller group but their approach is characterized by highly developed pessimism towards possibility of preparing young people to live in a democratic society. They argue that due to conflicts and differences of public opinion, it is impossible to reach agreement on civic education and the fast social changes cause that a teacher does not know what to teach. In those opinions, helplessness of teachers towards professional tasks is visible. They pessimistically believe that what is important in civic education cannot be learnt at school. It might be assumed that teachers with that approach have no creative skills, cannot raise problems openly and bravely face challenges of education.

The group of teachers with third dimension approach feeling self-confidence and criticism constitutes the opposition to the one above. Those teachers are certain about what they do and they have no doubts about that. They assume that it is obvious what should be taught as part of civic education because in our society there is a common consent on that subject. Moreover, a teacher has standards and curriculum and he should respect them. For those teachers, professional certainty is accompanied by criticism towards the authorities related to little interest and no appreciation of teachers' effort by the educational decision makers who do not pay proper attention to civic education. Such approach does not support creativity. The group of teachers characterized above is mainly sensitive to following routines and patterns of actions.

Among the dimensions of teachers' approaches to civic education, with no doubt educational creativity is supported by individual approaches to their work and a subject they teach. Teachers – open optimists, ready to discuss problems with their students, have greater chances of educational success.

Creative approach is possible only for those teachers who can freely move within the field which they teach. Lack of sufficient substantive competences might be an important obstacle to educational creativity. A teacher who is uncertain about the matters he/she teaches is more willing to follow patterns and convey only the content of a textbook. Which fields the teachers are competent in and which fields lack their competences?

Every teacher obtained a list of problems and had to indicate how well prepared he was to teach topics listed in the question using the scale: *not prepared, not prepared enough, prepared, well prepared.* Further categories of responses have numerical values assigned from 1 to 4 (1-not prepared, 4- well prepared).

TABLE No. 1 Assessment of preparation to teach selected topics of civic education. Averages obtained by the teachers of fourteen and seventeen year olds

| How well is a teacher prepared to teach that topic? | Average of the teachers of fourteen-year- olds | Average of the teachers of seventeen- year-olds |
|---|---|---|
| Important events in the nation's history | 3.25 | 3,23 |
| Human and civil rights | 3.01 | 2.97 |
| Ecological matters | 3.00 | 2.70 |
| Citizen rights and obligations | 2.98 | 2.99 |
| Civic virtues | 2.92 | 2.87 |
| National Constitution, political institutions | 2.85 | 2.85 |
| Equal opportunities for women and men | 2.82 | 2.75 |
| Media | 2.81 | 2.83 |
| Election and electoral systems | 2.76 | 2.78 |
| International organizations | 2.69 | 2.83 |
| Cultural differences and  minorities | 2.68 | 2.80 |
| Different political systems | 2.65 | 2.65 |
| Different concepts of democracy | 2.63 | 2.76 |
| Social Welfare | 2.60 | 2.51 |
| International problems and relations | 2.59 | 2.83 |
| Dangers of propaganda and manipulation | 2.58 | 2.78 |
| Trade  Unions | 2.52 | 2.52 |
| The judicial system | 2.51 | 2.55 |
| Migrations of people | 2.41 | 2.63 |
| Economic issues | 2.35 | 2.59 |

* ranking according to category: averages of the teachers of fourteen year olds

Teachers of fourteen- year- olds feel the best prepared to teach important events from history, human rights and ecology. They think that they are well prepared to teach about civic virtues and political obligations, constitution, political institutions, equal opportunities and the media. They are less prepared, in their own opinion, to teach other

matters related to civic education and least prepared to teach about the judicial system, people migrations and in particular economic matters.

The teachers of older group of students were more critical about their work preparation than their colleagues teaching fourteen- year- olds. They only felt well prepared to teach about important events of the country history; they did not think they were competent enough in other categories. They gave themselves highest credit for preparation on civic rights and obligations, human rights, civic virtues, constitution and political institutions, as well as international matters and institutions.

It seems alarming that in general teachers feel not prepared enough to teach about problems such as: dangers related to propaganda and manipulation, people migrations, as well as elections and electoral systems, economic issues, cultural differences and minorities. In teaching the topics mentioned above what is important is teacher's creativity, his/her openness to discussion, leaving the textbook content behind. A teacher who is not sure about his/her substantive knowledge is not capable of such openness.

Let's look at the teacher's work from students' point of view. Are teachers really open to discussion? Do they still use the encyclopaedia based education? What do students think about it? How do students evaluate teachers' openness, their ability to moderate a debate, go beyond the content of textbooks? Confirmative factor analysis led to exploration of two dimensions: *open climate for discussion* and emphasis on *facts based teaching.* In the table below, you can see students' evaluation of the teachers' working methods.

Table 2. Answers: often in a group of 14- and 17- year -olds (in %)*

| In your school | Fourteen- year- olds students | Seventeen- year- olds students |
|---|---|---|
| Teachers require students to memorize dates and definitions. | 54 | 62 |
| Students work on the material from the textbook. | 47 | 51 |
| Teachers put great emphasis on learning facts and dates when presenting history and political events. | 45 | 49 |
| Students are encouraged to make up their own minds about issues? | 40 | 37 |
| Memorizing dates and facts is the best way to get a good mark. | 40 | 46 |

| | | |
|---|---|---|
| Teachers respect our opinions and encourage us to express them. | 38 | 31 |
| Teachers present several sides of an issue when explaining it in class | 31 | 24 |
| Teachers give lectures and students take notes. | 26 | 45 |
| Teachers encourage us to discuss political and social issue about which people have different opinions. | 24 | 14 |

*statements such as: *teaching facts* were marked in black.
*statements such as: *open climate for discussion* were marked in blue.

It is evident from students' responses that teachers are still attached to traditional, encyclopaedic education. Traditional education based on schemes is still prevailing in education (including civic education) than discussion, openness, creative approach to problems. It seems alarming that the older students get, the more often they indicate formal and fact memorizing based character of civic education at school. The percentage of positive responses to all questions concerning education based on dates and facts increases and the opinion that school is a place of exchange of opinions and arguments is in decline. Why does that happen? Maybe teaching just for the exam or to memorize significant part of the material in higher grades cause the tendency for encyclopaedic teaching at the expense of open discussion. Maybe the older group of students is more critical and pays more attention to deficiency of debates. Regardless of the reasons for such phenomenon it might be stated that deficiencies of creative thinking about education and application of creative method to make students active are more visible in case of teachers at the higher levels of education.

What conclusion can be drawn from such studies for people, educational institutions and teachers who want to continuously develop their professional skills?

1. In substantive (subject oriented) preparation of teachers, special attention shall be paid to education going beyond the traditional canon of knowledge on civic education and more attention should be paid to new, controversial matters which evoke emotions.

2. Teachers, in particular of such subjects, which require facing challenges of modernity, which are characterized by more and more new issues, should have access to training in the form of post-graduate studies, as well as workshops, conferences and symposiums. Themes, content and form of work during studies

should be established in cooperation with teachers and should respond to their needs.

3. Methodological and professional training should be changed at the level of university education; more and more subjects strengthening independence of teachers and allowing them for creative actions as well as improving their self-assessment and readiness to face challenges should be implemented.

4. More focus should be put on teacher trainings and they should be strictly related to university classes; analysis using the acquired theory; more and more examples of good practice should be shown; in-service teachers experience should be used for classes for the students.

5. It is worth considering of support groups for teachers and peer evaluation.

It is important that students from the first days of their education, while learning different subjects could experience that the profession of a teacher or educator is a creative profession. Students need creative and non-conventional and routine based higher education and institutions of professional development.

# EDUCATIONAL LEADERSHIP AND MANAGEMENT

# FACTORS, WHICH HAVE INFLUENCE ON COMPETITION IN ACQUIREMENT OF BASIC EDUCATION IN LATVIA

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ABSTRACT
*The competition stimulates development of organizations and quality of service, competition promotes introduction of new ideas, new search of original ways in realization of these ideas, thereby recruit more clients.*
*There are four factors, what forms competitive advantage: efficiency, quality, innovations, fulfilment of clients' desires.*
*In the performed research there were analysed the factors which influences competition what influence the children and their parents when they choose the school for basic education.*

Rapid changes in economic environment in Latvia and the world have demonstrated that knowledge is a key of competitive advantage and success, therefore, one of the indications of the end of the 20th century and the beginning of the 21st century is awareness of intellectual capital and knowledge as critical resources in the organization. Education is a priority of the country and society. Dynamic changes in modern society relies increasingly diverse and sophisticated requirements for teachers, schools and the education system as a whole to provide quality education opportunities.

Education should not only have high quality and accessible for us all, but it also promoted the economic development of the country. Balanced, sustainable and competitive development of the country can provide a quality education and the professionals involved in concerted action.

The competitiveness of the man in the 21st century quarantees not only ensures his acquired knowledge, but also the ability to creatively think and act. Consequently, must be improved the management of the education system, using innovative techniques and new forms of work organization, to provide comprehensive and competitive education.

 In recent years, Latvia's educational system has been and is still undergoing major changes. Time for change is difficult, because nobody clearly cannot say who and how must be changed in the Latvian educational system.

Latvia's educational system is subject to ongoing processes in the country, the administrative territorial reform, which includes the counties and parishes uniting the education system in structural reform, which includes the school network optimization and reorganization of the education management structure.

Increasingly, in the Latvian education system there are used the terms from other important public processes. One of these is an economic concept - competition. Parents in Latvia have the right to choose the school where the child receives an education, taking into account the child's wishes. With every year the number of pupils is declining. It has become a reason for schools to implement the basic education program to compete among themselves to attract more students. The competition also provides a growing the network of private schools, which effectively offer additional services to students and their parents' comfort and preferences of free time, students' time in the school and at home, extra security measures.

Competition may be a general and specific, objective or subjective. Scientists R. A. Pitts and G.C.Snow define competitiveness as an advantage, as the organization features, which contribute to further development, overcoming competitors retaliate. (Berzina, 2002).

Competition in education, as well as the economy is one of the processes contributing to the quality of work and organizational development. The term "competition" in the literature is offered several explanations:

Competition - [*German* Konkurentz <*lat*. Concurrentia 'collision'] contention for superiority, advantages (one process, one field). In *economics*, the fight for better achievements in the economic life of an area (between the manufacturers, service providers, etc.). Competition is the natural goods and services supply regulator, which represents the optimum market price which is acceptable to both producers and consumers. (Dictionary of foreign words, 1999)

Competition - contention which quarantees the development of the market economy development and efficient use of public resources. (Kumerdanka, 2007)

Also Pedagogy terms glossary can be found an explanation of the word "competition".

Competition - a contention in which an individual or group seeks to achieve its goals, surpassing any other individuals or groups who seek to pursue their own (or the same) goals. (Pedagoģijas terminu skaidrojošā vārdnīca, 2000)

Consequently, competition has a strength, which leads to any organization or individual to act so as to provide a service, the product would be better, higher quality, thus also gaining consumer recognition, and ensuring competition in the external environment.

Assessing the competitiveness of the economy is used in today's competitive theories founder Michael Potter (Harvard University, Professor) five forces model.
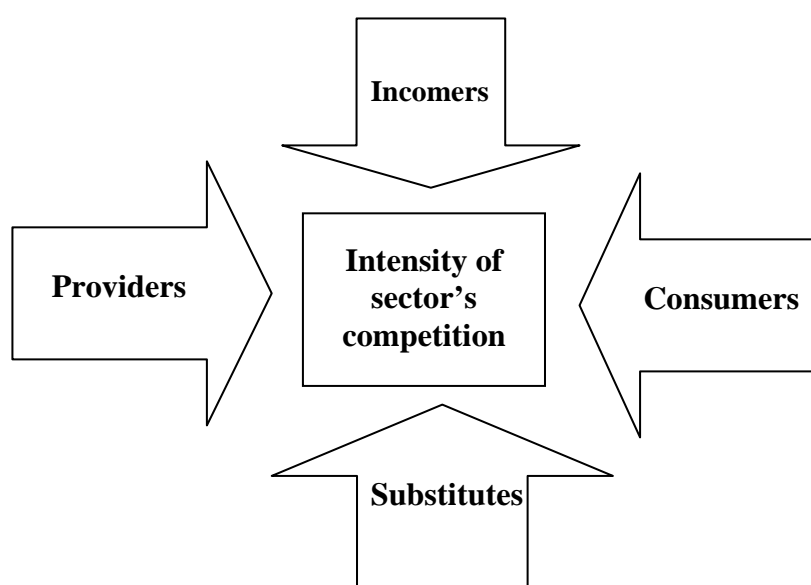


Fig. No1. M.Potter's five forces model

Professor M. Potter emphasizes that competitiveness can be increased, by two means. One of them is a lower cost, it is understood by cheaper to work organization and work shorter deadlines than the competition, while the other specializations. (Mārketinga pamati,2002).

Building competitive advantage is based on four factors:

- Efficiency
- Quality
- Innovations
- Customer expectations

**Efficiency** - effectuality of selected products, which makes the short time to achieve the best possible results with minimal resources and power, and time spent. (Pedagoģijas terminu skaidrojošā vārdnīca, 2000)

Education **quality** is an important condition for successful national development and competitiveness. Quality can be viewed in absolute terms, for example, the reached level, benchmark. Quality as a relative concept may be a measurement, conditions,

interpretation. The financial aspects of quality appear in competing situation, as qualitatively the same results can be achieved by consuming a variety of financial resources (the number of student and teacher ratio, expenditure per pupil/ education program) (Eglītis, 2002)

UNESKO International Commission's report for „The Education of the twenty-first century" stressed that the educational policy the problem of school education quality should be addressed from three standpoints: (Ļihačova, 2003)

• Teacher quality improvement activities (initial education, continuing education, lifelong learning and other measures);

• Working out and perfect the Education programs (at the same time developing the teaching methods, teaching materials, books, aids, computer use, etc.);

• The school management, which can achieve a qualitative improvement in school education.

Quality of education systems based on three foundation-stones (Ļihačova, 2003).

• The quality of investment (in education funding, facilities, personnel, textbooks and teaching materials);

• Process quality (education program, teaching quality, class size, time spent at school);

• The "outcome" or the quality of students' achievements.

A number of Latvian school leaders (Bērziņa I., I. Ļihačova) updates the Finnish experience in the educational system in which the concept of *quality*, focusing on customer needs and preferences. (Bērziņa, 2002)The process is depicted in Figure Nº 2.

Learning environment

1. Government

2. Information and analysis

4. Collective development

5. Learning – Teaching process

6. Contributing measures

3. Strategy

Evaluating and development

8. Orientation to consumer

7. Results

9. Influence on society
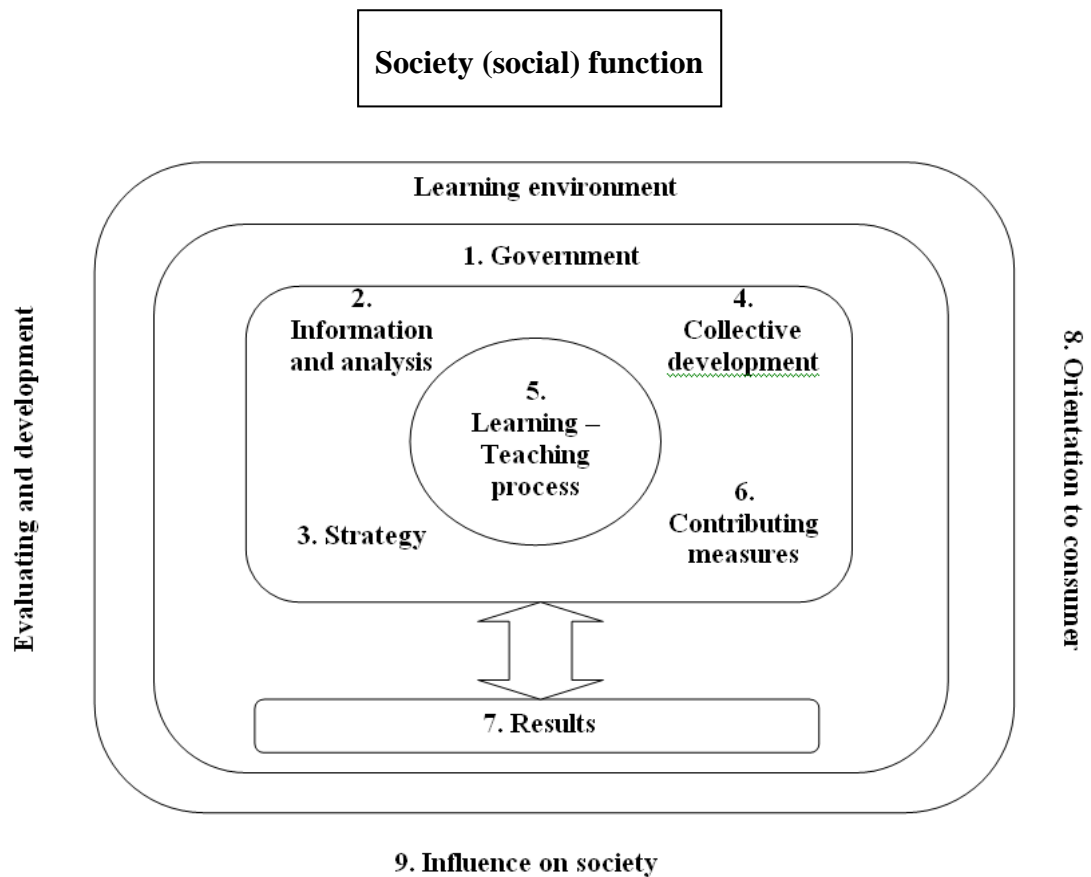
Fig. No 2. Educational Quality Assessment Criteria

In Latvia the school quality is still measured by using quantitative indicators: student achievement at different levels of contests and competitions, school achievements in national tests, but these do not give the opportunity to comprehensively assess and determine the level of quality of school work, because schools as intelligent organization's quality substantially affect educational attainment process quality.

Currently, the education system being introduced in the funding model "money follows the student" for more financial resources to schools with larger student numbers. Consequently, the school is interested in attracting more students as possible. To this end, the school should be able to compete in another middle school. More importantly is the management of schools to identify which areas need to be working, did not diminish the competitiveness.

In 1997, Oregon State (USA) established a committee to address the problem of educational quality (Quality Education Commission). It was the answer to three questions:

  • What is quality education?

• How much does it cost?

• What to expect for the money spent to acquire?

Experiment was tried in a lot of different schemes, which showed student performance and school costs. This process was called the educational quality modeling (Quality Education Model).

Consequently, the Committee recommended:

• To put emphasis on students' reading literacy at primary level;

• Continuously develop and improve the professional skills of teachers;

• Training for them to build real-life needs.

Also, **innovation** is the competitive capability factor. Economic Sciences innovations are defined as innovative. Innovation - the process by which new scientific, technical, social, cultural or other areas of the ideas, design and technology are being implemented and requested by the market competitive products or services. Innovation is the end result of novations, product and process quality and efficiency improvements, as well as innovations in work organization.

 (http:/www.em.gov.lv/em/images/modules/items/item_file_11154_3.doc)

Competition as one of the school's external environment elements affects the different aspects of the educational process - the general aspects of basic education, general education program design and implementation of student mobilization, efficient use of resources, the physical environment is concerned, the entire school board as a whole.

Each school wishes to operate more successfully than others. But to truly be competitive and gain an advantage, the school must exceed the competitors in efficiency, quality, innovation, or innovative or community as an educational service recipient satisfaction. Figure $N^{\underline{o}}$ 3. (Raituma, 2007).
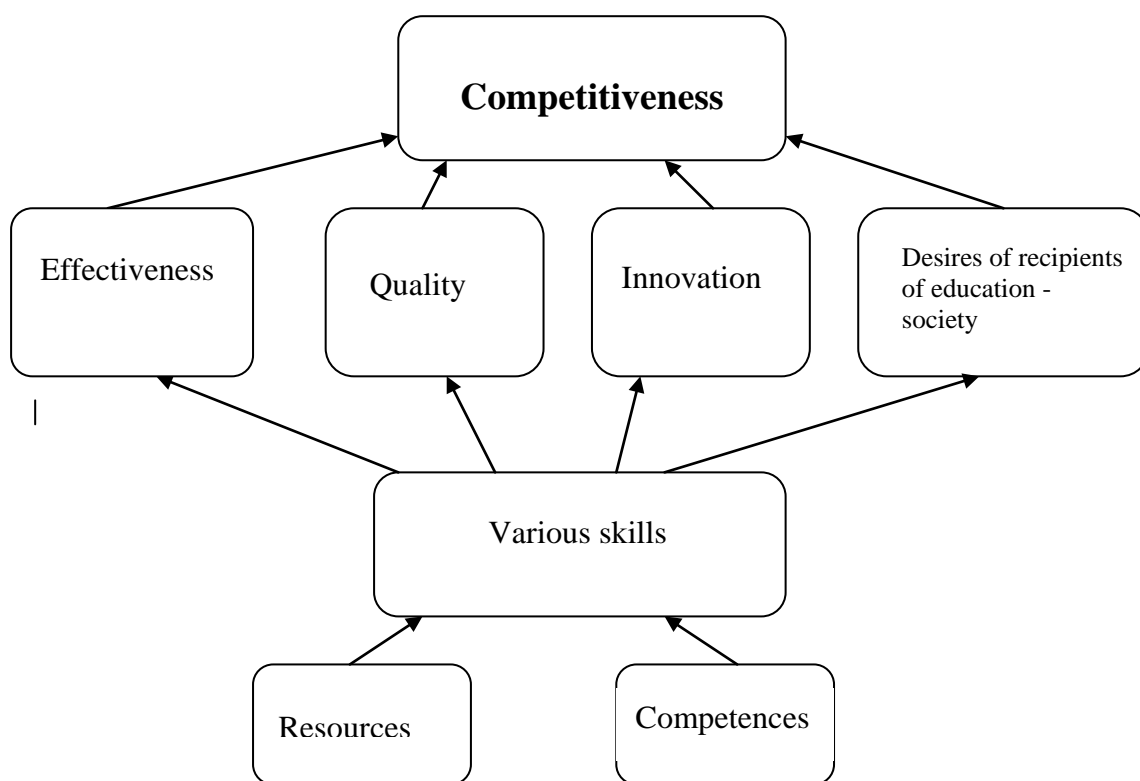
Fig. No3. Formation of competitiveness at school.

Every school as the intellectual organization for ensuring sustainable competition must take into account the **client's wishes**. So a prerequisite for the successful development of the school is contentment of pupils' and their parents' wishes.

Good relations with clients is one of the cornerstones of the organization because, as experience shows, that to acquire a new client is much more expensive than continuing to work with already existing, because every organization should take, how to ensure the clients' satisfaction. According to U.S. professor Class Fornell research, clients' satisfaction increases the probability of continuation of long-term relationships, reduce chances of competitors to entice clients, reduce new clients' acquisition costs and improves the organization's image. (Fornell, 1992).

As the findings show (look table N°1), when parents choose a school for their child, essential to know whether the school will provide parents the opportunity to receive comprehensive information about the child's educational achievements, as well as what will be the attitude of teachers towards students. Therefore, competitive school teachers must take a systematic work of pupils and their parents about the educational process with all related issues and organizing various meetings and the publication of information to the school website. Latvia increasingly popular in ensuring the flow of information between the school and the family obtained the e-class features, which

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allow parents using the Internet at any time to become acquainted with the child's learning achievements and get the latest information on school events.

The Competition aims to achieve a high quality to satisfy clients, make for development. Today's educational system directs greater attention to the pupil, teacher, self-evaluation of the work of school's managers. The subjectivism of self-evaluation helps to notice and develop the sides of work, which need improvement. Self-evaluation gives the opportunity to find one's approach for solving the problems connecting with competition, giving the opportunity to find a working method, what ensure the effective implementation of modern educational policy.

School self-evaluation process and results help to answer the following questions:

> • What are achievements and growth of the students?
>
> • How high is the quality of teaching and learning?
>
> • How well the school is managed?
>
> • What are the strengths of the school?
>
> • What could be made better at the school?

If the school is able to answer these questions, then it is on track to maintaining an effective quality system. School's self-evaluation is in the centre of this system.

Today, leaders of organizations no longer sufficient to deal only with the traditional human resource management - they need to focus on the intellectual capital management. Some theorists of management even warn: "In today's business world you must be able either to drive intellectual capital, or to die!"(Roos, 1997).

At the work of educational institutions its leader has great importance, the management team of Education leadership is dominated by three key terms: administration, management, leadership (Celma, 2006).

Understanding the meaning of the factors, what affected competition, school leaders create the circumstances through a planned work which promotes the school's internal and external promotion of the competition. The school management more efficient and innovative work is able to provide quality educational process, which requires a society which is the main "product" consumer. At the same time, innovations should not become an end in itself, since it is often associated with the financial resources available.

During the study, which aimed to clarify the factors influencing the choice of school from students', parents' and teachers' assessment, were surveyed over 362 students' parents, 620 students and 198 teachers from 11 educational institutions. The study

shows the results of pupils, their parents and educators view on the factors they take into account in choosing a school in which to receive education or work. Results summarized in table 1 show that the most important criteria in choosing a school for all respondents is the attitude of teachers towards students (68%) and the safety of school (68%). Students, unlike the rest of the respondents are important factors in providing food services (65%) and base school sports (64%). In turn, teachers as an important factor are social guarantees (68%).

As the most important factors in choosing a school, pupils and the parents name class sizes (18%, 22%) and extra-curricular activity diversity (20%, 22%). Teachers' choice which school to choose to work in schools has little effect on participation in projects (17%), and students' achievements in competitions (22%).

A noteworthy fact that the parents of school choice is a key factor in transportation guaranty for the pupils get to school, which will not materially for students and teachers. If parents and teachers it is important that school teachers are creative (60%), then the students it seems minor (33%). Also, the school choice for students, unlike their parents and teachers less important factor is the discipline in school!

| Criteria of influence on competition | students % | parents % | teachers % |
|---|---|---|---|
| School's distance from their place of residence | 26 | 43,5 | 39 |
| Municipal transportation guaranty from their place of residence to the school | 46 | 62 | 41,5 |
| Schools offer educational programs and their diversity | 30 | 45 | 34,5 |
| Interest educational offer | 20 | 31 | 37,5 |
| The diversity and quality of measure of out of lessons | 21 | 22 | 27 |
| School's prestige in society | 34 | 39 | 52 |
| Teachers' attitudes to students | 64,5 | 72,5 | 65,5 |
| Creative pedagogues | 33 | 56,5 | 60,5 |
| The opportunity to receive comprehensive information about the pupil's educational achievements | 49 | 61,5 | 39,5 |
| Safety at school | 62 | 76 | 66,5 |
| School's technical support | 48 | 45 | 58,5 |
| Discipline at school | 31 | 59 | 61 |
| Pupils' achievements in various competitions | 30,5 | 22,5 | 22 |
| School's participating in projects | 20 | 18,5 | 16,5 |
| Class's sizes | 18 | 21,5 | 32,5 |
| The possibility to receive a medical consultation at school | 41,5 | 36 | 35,5 |
| Security of educational process with appropriate premises, training rooms | 60 | 52 | 61,5 |
| Possibility of the use of school library | 29 | 27 | 43,5 |
| School's sports base | 63,5 | 38 | 46 |

| | | | |
|---|---|---|---|
| Guaranty of feeding service | 65 | 57 | 53 |
| Possible support for further education of teachers | | | 53,5 |
| Moral evaluation of teachers' work | | | 49,5 |
| Security of social guarantees | | | 68 |

The above results of the study make it possible to identify factors that may substantially affect a school's ability to compete in the external environment as well as to be decisive for the further development of the school.

**Conclusions**

1. Balanced, sustainable and competitive development of the country can provide a quality education and the professionals involved in concerted action.

2. Competition have the power to require the school to act in such a way that would be the best service and quality, thus also resulting in the consumer - the society recognition, and ensuring competition in the external environment.

3. Competitive education teachers inform students and their parents about all of the educational process-related issues and organizing various meetings and the publication of information to the school website.

4. More efficient and innovative work of the school management is able to provide quality educational process, which requires a society which is the main consumer of "product".

5. The most important criteria in choosing a school for all respondents are the attitude of teachers to the students and security.

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# SCIENCE AND MATHEMATICS EDUCATION

# THE EFFECT OF CONTROVERSIAL ISSUES DISCUSSIONS ON ENHANCING STUDENT TEACHERS' CRITICAL THINKING ABILITIES

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ABSTRACT

*The researcher carried out five-week class sessions by incorporating classroom discussions, through tackling a number of controversial topics such as the use of embryonic stem cells, gene therapy, the cloning of cells and organisms, and genetic modifications of humans. The class discussions took place as an integral part of a general biology course. The participants in this study consisted of 40 student teachers enrolled in the course during the second semester of the academic year 2008/2009 at the College of Educational Sciences, Department of Curricula and Instruction at the Hashemite University, in Jordan. The Watson Glaser Critical Thinking Appraisal (WGCTA) instrument, that measures students' critical thinking ability, was administered to the student teachers at the beginning and at the end of the discussion sessions. The findings of the study revealed that the discussions have succeeded in promoting student teachers' critical thinking abilities. In light of the findings, the researcher came to the conclusion that critical thinking, as an organized and functional cognitive process, is a learned skill that is developed through proper instruction and practice.*

Key words: Critical Thinking, controversial Issues, Discussion, Biology, Jordan

Critical thinking is a crucial topic in modern education, and the ability to think critically is generally regarded as a major goal of academic instruction. Teaching critical thinking is often endorsed as a means to help students develop their abilities and thinking skills in the pursuit of relevant and reliable knowledge about the world in which they live. All educators are interested in teaching critical thinking to their students and many academic departments hope that its professors and instructors will become informed about the strategy of teaching critical thinking skills. MacKnight (2000) states that "critical thinking is a common objective of various disciplines and a goal that most faculty can aspire to."

In the very extensive literature on critical thinking, several definitions are available. Ennis (1985) defined critical thinking as "reasonable reflective thinking that is focused on deciding what to believe and do." Cattrell (2005) states that critical thinking is a cognitive activity associated with using mental processes such as attention, categorization, selection, and judgment. According to Nosich (2005) critical thinking involves three parts: First, it involves asking question, trying to answer those questions by reasoning them out, and believing the results of the reasoning. Critical thinking is the practice of processing information in a skillful, accurate, and rigorous manner, in

such a way that it leads to the most reliable, logical, and trustworthy conclusions, upon which one can make responsible decisions about one's life.

Generally,, instructors perform an excellent job in transmitting the subject matter to their students, but they often fail to teach them how to think effectively. Clement and Lochhead (1979) indicate that instead of teaching students how to think, they are usually taught what to think. In other words, teaching includes transmitting to students two different things: the subject matter or discipline content of the course ("what to think"), and the correct way to understand and evaluate this subject matter ("how to think"). This second ability is termed critical thinking.

In view of the fact that currently the information content of each discipline has become enormous, it is imperative that students have to spend time, not learning more information, but learning methods to acquire, understand, and evaluate the great amount of information. Students need to develop their critical thinking skills in order make critical choices they will be forced to make as a result of the information explosion and the rapid technological changes. Effective teaching today must provide more than facts and concepts, it must furnish students with the skills that can help them become better thinkers capable of analyzing a wide range of issues they might confront them in their daily lives (Chiras, 1992). In fact, there is a pressing need to promote critical thinking, as a learned higher-education skill, among students. Thus, instructors are encouraged to make critical thinking part of their course curriculum and emphasize it in all classroom. For that reason, teaching strategies and classroom techniques should be purposeful toward the promotion of critical thinking in the classroom.

The discussion method is one such strategy that is believed to foster critical thinking. Hansen and Salemi (1990) claimed that in-class discussion is a vital learning strategy because it forces students to confront multiple alternative viewpoints. A number of research studies investigated the effectiveness of using the discussion method as a powerful teaching strategy that a teacher can use to facilitate critical thinking in students. According to MacKnight (2000), "faculty members can play a key role in fostering critical thinking among students using Web communication tools. Greenlaw and DeLoach (2003) introduced electronic discussion, through using an electronic medium such as electronic mail or Web-based discussion lists, as a method of developing critical thinking skills in undergraduate economics students. Goodin and Stein (2009) investigated the use of deliberative discussion method to enhance nursing students' critical thinking abilities.

Controversial issues discussion, in particular, is a reflective dialogue among students, or between the teacher and students, about an issue on which there is disagreement. According to Stradling (1985), issues that generate conflicting explanations and solutions based on alternative value systems, are considered controversial. Typically this type of discussion is an interactive venture that allows for the presentation of supportive evidence, and expression of differing points of view. A number of studies have been carried out that promote the educational value of dealing with controversial issues in the curriculum and subject areas (Stradling, 1985; Solomon, 1992). Further, discussing controversial issues in the classroom is one way college instructors can enhance students' abilities to think critically about the world around them (Payne and Gainey, 2003). Therefore, student teachers who participate in controversial issues discussions may have the opportunity to enhance their critical thinking.

Evidently, recent developments in biological research embody a challenge for both teachers and students, where a number of controversial issues notably embryonic stem cell, cloning, gene therapy have raised moral, ethical, and social concerns by the community.From the perspective of biology teaching, addressing current biological research offers students challenging and exciting opportunities to share their viewpoints and enable them to make informal decisions about those controversial issues. In order to provide a classroom context in which controversial issues might be presented to biology students, Van Rooy (2000) carried out a study that illustrates the development and implementation of a lesson dealing with the teaching of organ transplantation as a controversial issue.

Based on this assumption, this study intended to enhance student teachers' critical thinking skills through involving them in discussing biological controversial issues, on which they take a stand. The biological issues chosen were considered good contexts for promoting critical thinking.

**Purpose Statement**

The aim of this study was to investigate the effect of using classroom controversial issues discussions, as a pedagogical technique, on enhancing student teachers' critical

thinking abilities. The primary research question was: What effect do the classroom controversial issues discussions have on student teachers' critical thinking abilities?

**Method**

Subjects. The participants in this study consisted of 40 student teachers enrolled in the course during the second semester of the academic year 2008/2009 at the College of Educational Sciences, Department of Curricula and Instruction at the Hashemite University in Jordan.

**Procedure**

In this study, the biological issues discussed were embryonic stem cells, gene therapy, genetic modification, and cloning (See Appendix A). Based on conversations with a number of colleagues, these issues embody good contexts for promoting critical thinking. In order ensure that the student teachers were adequately prepared to handle the controversial issues during a discussion session, they were provided with the informational resources, through assigned readings and references, and were asked to read about these topics prior to the discussion. The instructor tried to create strong incentives structure for students to participate through asking them questions that were more likely to lead them to create arguments. Particular care was taken by the instructor to avoid responding to questions, but rather students were prompted to freely express their opinion towards the particular issues. Moreover, they were encouraged to be open-minded and consider all sides, through accepting other students' viewpoints. In an attempt to ensure that the discussed issues were reinforced, the discussion was usually concluded with an activity in the form of a written class assignment, where students were asked to write down few lines in order to organize their thoughts and to present logically persuasive line of reasoning.The Watson Glaser Critical Thinking Appraisal (WGCTA) instrument was utilized to measure student teachers' critical thinking skills (Watson & Glaser, 1994). The items include problems, statements, arguments, and interpretations of data similar to those that are encountered on a daily basis. The instrument items were modified and cut down to 60 items, divided into five

sub-skills, 12 items each. The subscales are labeled as: Inference, Recognition of Assumptions, Deduction, Interpretation, and Evaluation of Arguments. The instrument was validated by a panel of five experts in the field who approved the appropriateness Jordanian of the items to the Jordanian culture. Hammouri and Weher (1998) established the internal consistency of the instrument through applying Cronbach's Alpha for each of the the five subscale and for the test as a whole. The values were as follows: Inference (0.615), Recognition of Assumptions (0.617), Deduction (0.606), Interpretation (0.537), Evaluation of Arguments (0.647), and for the whole test (0.7815). These values indicate acceptable degrees of reliability that are suitable for the purpose of the study. Face validity was attained by five raters and experts in the field, who indicated that the instrument appears to be valid.

**Data Collection**

The Watson Glaser Critical Thinking Appraisal (WGCTA) instrument was administered to the student teachers at the beginning and again at the end of the discussion sessions Student teachers' responses were recorded and the mean scores of the items in each of the sub-skills were computed and compared.

**Results**

The Watson Glaser Critical Thinking Critical Appraisal (WGCTA) was utilized to indicate students' critical thinking skills. The student teachers reflected on their own views by individually choosing the alternative which they think is correct for the 12 items designed in each of the five sub-skills: Inference, Recognition of Assumptions, Deduction, Interpretation, and Evaluation of Arguments. Table 1 presents the means and standard deviations of the student teachers pre- and post-tests responses for the whole test and for each of the five sub-skills.

Table 1
The mean scores of the student teachers' pre- and posttests responses,
as related to each critical thinking sub-skills and the whole test

| Critical Thinking Sub-skills | Pre-Mean | (SD) | Post Mean | (SD) |
|---|---|---|---|---|
| Whole Test | 18.50 | 8.50 | 19.96 | 7.18 |
| Inference | 09.83 | 8.53 | 11.91 | 7.95 |
| Recognition of Assumptions | 23.08 | 5.12 | 23.25 | 4.35 |
| Deduction | 20.91 | 9.42 | 21.58 | 5.91 |
| Interpretation | 18.33 | 6.91 | 20.00 | 6.41 |
| Evaluation of Arguments | 20.33 | 6.11 | 23.08 | 4.71 |

To determine whether there are significant differences between student teachers critical thinking skills before and after the discussion sessions, further data analysis was carried out by performing a t-test for paired samples. A significant differences at the ($\alpha = 0.05$) level was obtained for the Test as a whole which suggest the discussion sessions had to some extent impacted the student teachers' critical thinking abilities skills. Furthermore, a significant differences at the ($\alpha = 0.05$) level was obtained for both the "Inference" and "Evaluation of Arguments" sub-skills. Conversely, no significant difference at the ($\alpha = 0.05$) level was detected in the other sub-skills which suggest that no improvement occurred. (See Table 2) The two critical thinking sub-skills that appeared to feature more highly in this sample are Inference and Evaluation of Arguments. The above results support contention that the discussion method has impacted the student teachers' critical thinking skills.

Table 2

t-test results for the differences in means between student teachers'
pre- and posttests responses, as related to each critical thinking sub-skills

| Critical Thinking Sub-skill | Pre-Mean p* | Post Mean | t- ratio |
|---|---|---|---|
| Total | 18.50 0.041 | 19.96 | 2.091 |
| Inference | 09.83 0.041 | 11.91 | 1.214 |
| Recognition of Assumptions | 23.08 0.914 | 23.25 | 0.110 |
| Deduction | 20.91 0.748 | 21.58 | 0.330 |
| Interpretation | 18.33 0.299 | 20.00 | 1.090 |
| Evaluation of Arguments | 20.33 0.026 | 23.08 | 2.578 |

* (α = 0.05)

## Discussion and Implication

This study revealed that involving students in discussing controversial issues in the classroom has to some extent enhanced their abilities to think critically. The results are in line with the study carried by Payne and Gainey (2003). The two critical thinking sub-skills that appeared to feature more highly are Inference and Evaluation of Arguments. Evidently, students' participation in the discussions have fostered abilities to make inferences and to evaluate arguments. Students' participation in controversial issues discussions over a short period of time may not produce an immediate gain in students' critical thinking abilities. Consequently, investigation into students' participation in controversial issues discussions over a long period of time may give educators a better idea of its full impact on critical thinking.

Critical thinking, as an organized and functional cognitive process, is a learned skill that is developed through proper instruction and practice. Conducting discussions of controversial issues, as a learning activity to promote students' critical thinking, is an art that requires skill and practice. Teachers must pay careful attention to the preparation

for discussions, and to creating a classroom climate where students are allowed to discuss controversial issues in an open supportive classroom environment which is conducive to the free expression of ideas. In this study, engaging students in controversial issues discussion method offered them the opportunity to express themselves, and gain insights from sharing information with their peers. Furthermore, participating in controversial issues discussions offered students the opportunity to develop their communication skills, such as listening carefully, responding empathetically, speaking persuasively, in addition to promoting tolerance of the diverse viewpoints regarding any single issue.

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# WHAT OTHER PEOPLE THINK AND WHY IT MATTERS? AN INVESTIGATION OF KEY INFLUENCES ON MATHEMATICAL IDENTITY

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ABSTRACT
*This paper examines aspects of the findings from a study of mathematical identity among pre-service teachers. The participants were drawn from two colleges of education, one in Dublin (Republic of Ireland) and one in Belfast (Northern Ireland) and all were pre-service primary school teachers in the third year of their Bachelor of Education programme, having chosen to specialize in mathematics. Data was gathered using a questionnaire (with, mainly, open-ended questions) followed by focus groups, involving the same participants, on each campus.*

Key words: Identity, student teacher, mathematics

The aim of the SCoTENS funded project is to explore the mathematical identities of primary school student teachers. *Mathematical identity* is an overarching idea used to describe the multi-faceted relationship that an individual has with mathematics, including knowledge and experiences, perceptions of oneself and others. Narrative has been an emerging tool in recent years in to access complex multi-layer identities it is used here as a tool to access mathematical identity. It is anticipated that, by analysing the resulting data, some insight will be gained into the formation of mathematical identity amongst such a select well-motivated group. Moreover, by providing an opportunity for students to tell a story about their own relationship with mathematics, identity will be articulated and themes will come to the fore that give insight into their thinking.

One such key theme arising from an initial study of the findings is the role played by key figures such as family, peers and teachers in the mathematical life of the students. Through self-reflection on how influential particular teachers were in their own formation, it was envisaged that the students would engage in a meta-analysis of the impact of their own behaviours on their pupils. An analysis of the role played by other significant figures can provide insight into societal mathematical engagement and reveal the influences on those choosing to continue to study the subject to a higher level. An understanding of this can help the students to identify key formative critical factors for

their own pupils, in particular the importance of peer pressure both inside and outside the classroom.

These findings will have resonance with those seeking to attract more adherents to mathematics, as the role played by the attitudes of society to what is traditionally thought of as a difficult and challenging subject is uncovered. The impact of societal dispositions on participants, as expressed and experienced through family and peers, illuminates the power that attitudes have to shape decisions about future study of mathematics.

**Introduction**

As the international view of teaching has shifted from didactic to constructivist with its image of learner as participatory, so research on teacher education has moved from a focus on the transfer of a body of knowledge to a more dynamic view of the classroom, with teachers being facilitators of learners' knowledge construction. In this view of teaching, teacher beliefs and attitudes play an important role in shaping classroom practice (Bolhuis and Voeten 2004) and there is a substantial body of evidence examining this supposed link between teachers' attitudes to and beliefs about mathematics and teaching, and classroom practice (Ernest 1988, Bishop and Nickson 1983, Fang 1996, Macnab and Payne 2003, Dunphy 2007, Horgan and O'Loughlin 2007).

In particular, the experiences that a student has during their own formative years in the classroom as a pupil have been shown to have a major impact on their behaviour as a teacher (Ernest 1989, Ball 1988, Hill 2000). It seems to be the case that student teachers revert to models of teaching that they themselves have experienced rather than try the often new and unfamiliar models that they study during their teacher education programmes (Borko et al. 1992).

It is thus important, at the beginning of any teacher education programme, to explore the previous experiences of the student teachers in their learning of mathematics, as these will be the major influence for many students on their teaching style. Often, when teacher education courses are designed, little consideration is given to the "baggage" with which students are already burdened and it is perhaps for this reason that student

teachers are more likely to teach mathematics in ways in which they themselves were taught (Ball 1988, Meredith 1993).

The fact that this "baggage" carried by student teachers is multi-dimensional, in that it includes cognitive, affective and indeed meta-affective domains, makes it elude accurate identification. One way of attempting to unpack this "baggage" is through the consideration of mathematical identity, an overarching phrase used to describe the multi-faceted relationship that an individual has with mathematics, including knowledge and experiences, perceptions of oneself and others (Wenger 1998).

One emerging tool in recent years to help access identity has been that of narrative (Clandinin & Connelly 2000, Kaasila 2007). It is hoped that by allowing students to tell a story about their own relationship with mathematics, identity will emerge and themes will come to the fore that give insight into their thinking. In this study, the researchers intend to investigate the identity of two groups of student teachers self-selected to study mathematics in some depth as part of their undergraduate programme. It is hoped that by analysing their narratives some insight will be gained into the formation of mathematical identity amongst such a select well-motivated group.

One such key theme arising from an initial study of the findings is the role played by key figures such as family, peers and teachers in the mathematical formation of the students. Through self-reflection on how influential particular teachers were in their own formation, it was envisaged that the students would engage in a meta-analysis of the impact of their own behaviours on their pupils. An analysis of the role played by other significant figures can provide insight into societal mathematical engagement and reveal the influences on those choosing to continue to study the subject to a higher level. An understanding of this can help the students to identify key formative critical factors for their own pupils, in particular the importance of peer pressure both inside and outside the classroom.

These findings will have resonance with those seeking to attract more adherents to mathematics, as the role played by the attitudes of society to what is traditionally thought of as a difficult and challenging subject is uncovered. The impact of societal dispositions on participants, as expressed and experienced through family and peers, illuminates the power that attitudes have to shape decisions about future study of mathematics.

**Methodology**

The study was carried out in February 2009 involving participants from two colleges of education, one in Dublin (Republic of Ireland) and one in Belfast (Northern Ireland). All participants were pre-service primary school teachers in the third year of their B.Ed. programme, having chosen to specialize in mathematics. Data was gathered using a questionnaire (with, mainly, open-ended questions) followed by focus groups, involving the same participants on each campus, five in Dublin (but only four of whom participated in the focus group) and four in Belfast. Moreover their mathematical sophistication was significantly higher than is typical amongst pre-service primary school teachers in Ireland. These two factors afforded the opportunity to explore two mathematically motivated sub-populations in some detail, although, in this paper, no attempt will be made to distinguish between the characteristics of the two groups. Here the focus will be on the influence that key figures had in creating the student teachers' mathematical identity.

On the questionnaire, participants were first prompted into revealing their mathematical identity by being asked: 'Think about your total experience of mathematics. Tell us about the dominant features that come to mind.' After completion of this initial section participants were then asked to think carefully about <u>all stages</u> of their mathematical journey from primary school (or earlier) to university mathematics and given a number of prompts to encourage deeper reflection one of which was: 'Influential people'. (see Appendix 1). In quoted responses form the questionnaire students are identified by letters.

In the subsequent focus groups participants were asked to respond to a number of questions including 'Tell me what other people think of you when you tell them you are studying maths'. (see Appendix 2) Students in the focus groups have been given false names to identify them below.

**Results**

A number of key themes emerged from the findings and this paper addresses the theme of influential people. Perhaps unsurprisingly, teachers were seen to be critical in

influencing the mathematical identity of the students. Family also played a key role and the views and attitudes of peers appeared to be significant.

**Teachers**

The students reflected on the significant role played by teachers in influencing their own attitude to the subject:

> My A-level maths teacher was a great influence on me as she made her lessons practical, with a point in mind and she was always there to help. I have gained a positive attitude to maths as all maths teachers I have had experience with have been positive and encouraging. (Student D).
> My fifth year teacher showed me a different side to maths a side where learning off by heart was not necessary and you could take your time and work things out. (Student I).

Some students identified the impact that teachers had in setting their attitudes at an early stage:

> My junior certificate teacher was very influential (Isobel)
> I feel that the maths teacher that you have within school especially primary school greatly determines how I feel/felt about maths…. I felt that she had a great love for maths which I would like to transfer to my teaching kids. (Student G).

It is apparent here that in engaging in the reflection on previous experiences, Student G is already thinking about what impact this will have on her own teaching.

When pressed to articulate why particular teachers had been so influential students expressed views more about the contagious love and enthusiasm for the subject rather than any particular teaching style or technique:

> Observing their enthusiasm and enjoyment for maths like my own, has encouraged and influenced me greatly in wanting to also share my own interests in it with other people. (Student B).
> I have gained a positive attitude to maths as all maths teachers I have had experience with have been positive and encouraging. (Student D).
> My secondary school teacher was quite a big influence for me, but I think it's more to do with them having the interest… in maths, and them wanting to sort of make you interested in it as well (Ann).

However some did identify particular approaches to teaching that were memorable:

> That's what I loved about her, that she helped you at the stage that you were at, instead of just coming out and giving you the answer (Isobel).
> It's if they can get, if they can put across the understanding, that's when they become a good teacher, I think. (Sinead).

Not all had experienced positive teaching throughout their careers:

> She was very, very old-fashioned and was not very friendly towards people and put an awful lot of people off maths. (Sinead).

One student separated the ability to teach from the enjoyment of the subject and commented:

> Admittedly he wasn't the best maths teachers in the world, but his love of maths was clear and obvious to the class. Perhaps it was his love that rubbed off on me, I'm not sure, but one thing I know is that he always had high expectations for me. He always pushed me to do my best and I felt compelled to live up to these expectations (Student F).

Lucy in the following quotation identifies characteristics of what she classifies as poor teaching in her background and consciously chooses to change her style of teaching so as to avoid inflicting her own experience on her pupils:

> In secondary school especially, it was all very blackboard and copy. There was no practical element to it whatsoever. I would never dream of going in and teaching a maths lesson and not having practical things to do. (Lucy).

Attention was drawn to the role that teachers played in determining whether or not the students continued the study of mathematics to a higher level:

> The reasons for choosing maths and for choosing to teach it also has been to the teachers and tutors that have taught me. (Student B).
> My father was consistent in helping us with maths problems and showed a great love for the subject himself (Student I).

*Family*

The role that family played in shaping the views of the students was also reflected in the comments of a number of students, although some had the good fortune to have family members who were also maths teachers!

> The people who possibly influenced me were my mother and my aunt, who is a mathematics teacher. (Student A).
> My mother is a Maths teacher and so is my uncle so I suppose Maths always was viewed in a positive light in my household (Student E).
> My father was consistent in helping us with maths problems and showed a great love for the subject himself (Student I).
> Seeing him (Dad) work with numbers and you know, that encouraged me to want to work with numbers. (Eliza).

A number of students suggested that it was the fact that their parents were not interested or not good at maths that actually made the parents push their own children harder in that subject as if to somehow make up for their own lack of interest or ability

> My mum hates maths is terrible at it and she's had very bad experience at school, but then that encouraged her to push me into maths because she has had a block when it came to maths. Her fear of maths… she used that to encourage me to be good at maths because you know, she couldn't help me. (Eliza).

My mum and dad are awful at maths, and it was just a kind of a thing that you were kind of looked upon as being different doing maths. (Isobel).

Seeing him (Dad) work with numbers and you know, that encouraged me to want to work with numbers. (Eliza).

However some parents had more pragmatics reasons for encouraging their children to pursue the study of mathematics.

Both my parents were quite encouraging, pushing me to do/be good at maths, you know, because they see that it's useful to everyone in everyday life in some form, you know. (Caroline).

*Peers*

The students were asked about how they were viewed as maths specialists by their peers. Undoubtedly students were aware of the negative views often associated with mathematics

Or you sometimes get 'How can you do maths?' … like it's the worst thing ever. I think maths has a stigma. You get used to it. But at the start, you're like, 'What's wrong with my subject? I like it.' (Caroline).

However there was almost a sense of pride or achievement in studying a subject that many view as very difficult.

Influential people would have included people around me in college. As people saw this subject as difficult, I saw it as a greater challenge. (Student G).

They sort of take a step back, 'Oh, you're doing maths. Oh, you must be really smart.' (Sarah).

I think if you say to somebody that you're doing maths in college, it's looked higher upon than if you'd said you're studying English.

And another reason(for keeping it on) because it's so much approved by other people that you're doing it as well, I suppose. (Sinead).

A few principals have said it to me that it looks very impressive, to have maths (Lucy).

As well as being impressed by the difficulty of the subject there is also a stereotypical view of mathematics expressed by peers that the students were aware of.

But first impressions from people you don't know is usually, 'Oh no.' (Ann).

People more are, are more impressed when you say that you do maths, but they're also more critical in a way of your social abilities, I think. Like 'you big nerd. You're doing maths'. And it's so normal to be doing maths, it seems to me. And I don't think it affects any of our social abilities at all, yet they would presume and label you as having lower social abilities or they're not great to go out with because you do maths (Rebecca).

While this peer pressure may have been important to them at an earlier stage it seems that at this higher stage of study the prestige and enjoyment of studying maths more than compensate for the slur on social abilities.

They (opinions) used to (matter). But not any more. (Lucy).

**Conclusion**

The students surveyed have all chosen to study mathematics at a higher level as part of a bachelor of education programme and the journey undertaken to reach that point of decision is a complex and personal one. However an analysis of the findings from this group suggests that common themes emerge most particularly but perhaps unsurprisingly the importance of other people in shaping identity in relation to mathematics. The role of the teacher was highlighted as being highly influential although less in the details of the teaching and more in the attitudes and enthusiasm displayed for the subject. As the students reflected on the importance of their own teachers they explicitly made links between these reflections and their own classroom practice as future teachers. Family also played a part in influencing the study of mathematics although there was less agreement for the motivation in parents encouraging the study of mathematics. Some were inspired by parents who demonstrated a great love of the subject or who used mathematics in their own careers, others by parents whose abhorrence of or weakness in mathematics caused them to encourage their children all the more. Others took a more pragmatic view of the usefulness of mathematics to future careers echoing the commonly held that maths is an important and difficult subject and those who study it worthy of praise. This is alongside the view of those who study mathematics as socially inadequate. The students at this sate of their career did not seem to be overly concerned about this negative stereotyping but were aware that it was more of an issue at earlier stages.

It is clear that the act of recollecting influential people has been one which has allowed the student to think about their own teaching at a different level and will have direct consequences for the recollections of future generations about the role played by these teachers to be.

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# INVENTIVE THINKING: SCIENCE EXPERIMENTS WITH LANGUAGE ARTS

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ABSTRACT

*The workshop's focus was on strengthening educators' skills in metacognition, problem-solving and decision-making through an inquiry approach to learning science. The materials were nonfiction and fiction trade books.*

Key words: Science, Language Arts, Elementary Education, Middle Grades Education, the Mass Media, and Ethics

Working in teams, participants discussed the process they used to make decisions. The context was trade books from elementary and middle grades classrooms, involving both fiction and nonfiction books. The presenters delivered book talks on the trade books then posed questions that called on participants' creative and scientific minds such as the following:

1. How do you make a decision?

2. Do you make an ethical decision (e.g., on stem cell research) through a different method than a procedural decision (e.g., how to plant a garden)?

3. What are the barriers to your making the best decision?

4. What do you imagine are the barriers to your students reaching the best decisions?

5. How do you distinguish rational and irrational thoughts?

6. How can inquiry be used in science to help students formulate their own understandings and draw their own conclusions (as opposed to participating in one-sided lecture type science classes)?

7. What aspects of our culture limit our thinking? Advance it?

8. How can literature and trade books help to advance the understandings of students at all levels? How can we help our teacher candidates understand the value of using these books as an integral part of science teaching?

9. What can we as teacher educators do to strengthen our students' thinking and receptivity to multiple ways of knowing?

10. What programs can we support to improve thinking in our schools and colleges?

The central goals of this workshop were to enhance educators' abilities in problem-solving, decision-making, and metacognition, as life skills and science skills.

**The Workshop Procedure with Book Talks and Group Discussion**

*CHARLOTTE'S WEB* (written for elementary school)

*Book Talk*

*This is the story of a little girl named Fern who loved a little pig named Wilbur--and of Wilbur's dear friend Charlotte A. Cavatina, a beautiful, large grey spider who lived with Wilbur in the barn. Wilbur is devastated when he learns of the destiny that befalls all those of porcine persuasion.  With the help of Templeton, the rat who never did anything for anybody unless there was something in it for him, Charlotte spins a web that reads "Some Pig," convincing the farmer and surrounding community that Wilbur is no ordinary animal and should be saved (White, 1952).*

Groups consider this dramatic scenario from the book: Wilbur is a young pig living on the Zuckermann's farm in the 1950s.  His human friend Fern comes to the barn everyday to see him.  One day an old sheep from the farm comes to the trough to tell Wilbur that Zuckermann & his brother, Fern's father, will kill him for Christmas dinner. Wilbur becomes hysterical, but his friend Charlotte the spider promises to save him. Fern is appalled.

This scene acts as prompt for questions to 4th graders:

1. If you were Fern, what kinds of things could you do to solve this problem?
2. How do you make a decision, what process do you follow?  (This question is designed to strengthen metacognitive skills.)

**BUD, NOT BUDDY**

*Book talk:*

*This popular book is the winner of multiple awards, including the Coretta Scott King Award.*

*It's 1936. Buddy is a 10-year-old African-American child who's run away from an orphanage—and a dreadful foster family.  Walking on foot at night, he's leaving Flint, Michigan in the northern United States for Grand Rapids, Michigan in search of a stranger whom he's convinced is his father.  On a road in rural Michigan, he's*

*discovered by a kindhearted African-American man, Mr. Lewis, who doesn't want Buddy to be hurt by racist whites. But Buddy fears Mr. Lewis is a vampire (Curtis, 1999).*

Bud Caldwell's usual method of problem-solving is to consider "Bud Caldwell's 80+ rules for having a funner life and making a better liar out of yourself." Now Bud has to think beyond his own rules.

Groups helped Buddy make a life-or-death decision:

1. Should he accept Mr. Lewis's offer of a ride to Grand Rapids?
2. What evidence does Buddy need to determine whether Mr. Lewis is a vampire?
3. How does anyone distinguish between rational and irrational thought? (This question is designed to strengthen metacognitive skills.)

*HATCHET* (written for 7th grade & up)

*Book Talk:*

*Thirteen-year-old Brian Robeson is on his way to visit his father when the small plane in which he is flying crashes. Suddenly, Brian finds himself alone in the Canadian wilderness with nothing but his clothing and a hatchet. Brian has spent his whole life in the suburbs, but he uses half-remembered ideas from science class and life observation to survive alone in a wilderness (Paulsen, 1998).*

Groups worked on how to survive in the wilderness with a few objects at hand.

Questions for groups to answer:

1. What aspects of our culture limit our thinking? Advance it?
2. What do you imagine are the barriers to your students reaching the best decisions?

*THE MAGIC PAINTBRUSH* (written for elementary school)

*Book Talk:*

*Steve, who is eight years old and lives in an impoverished section of Chinatown, happens upon a magic paintbrush that paints anything that he tells it to paint. This leads, of course, to all sorts of unexpected trouble, but first to real pleasure. His family, his grandfather and a friend with whom he lives, eat good food and exact revenge on a stingy landlord (Yep, 2000).*

One excellent use of this book in an elementary class would be to have students paint the kinds of things they would like to become real. But the book also lends itself to ethical considerations, which groups discuss:

1. What sorts of things should they paint to assist others?

2. What sorts of things should be forbidden to paint? Why? As the character of grandfather states, "If we don't use [the magic paintbrush] correctly, we're out of luck and out of magic. We need to use the paintbrush carefully (Yep, p.23)."

3. Additionally, viewing the story from a scientific perspective, we educators may ask if there is anything such as magic. How do we know? The scientific method is useful here.

4. What other thought processes, methods or systems do we follow to decide whether magic can exist?

5. What role does belief hold in making this decision?

6. Can we be impartial and unbiased in determining whether magic exists?

**Summary Group Task**

Educators enjoy giving advice and discussing their own best teaching strategies. At this point, participants explained to each other the interdisciplinary techniques and trade books they would use to teach this lesson. Groups jigsawed with one group answering this question: What other strategies would you employ to teach this lesson? Consider language arts, science, and even other content areas if you wish. The second group answered the question: What book(s) would you use to teach this integrated lesson?

**Synthesis and Evaluation**

Whether working with public school students or an audience of teacher educators, workshop leaders conclude these procedures with questions that call for synthesis and evaluation. In order to accomplish this goal, the workshop leaders asked questions such as these to jigsaw groups or to the entire audience:

1. How can inquiry be used in science to help students formulate their own understandings and draw their own conclusions (as opposed to participating in one-sided lecture type science classes)?
2. What aspects of our culture limit our thinking? Advance it?
3. How can literature and trade books help to advance the understandings of students at all levels? How can we help our teacher candidates understand the value of using these books as an integral part of science teaching?
4. What can we as teacher educators do to strengthen our students' thinking and receptivity to multiple ways of knowing?
5. What programs can we support to improve thinking in our schools and colleges?

Ideally the responses to the questions throughout this workshop would be captured on an electronic discussion board, live chat, or on an email note that is distributed to participants. Thus, participants could continue to share effective instructional strategies and materials after the conference ended. This workshop demonstrated a few engaging methods for teaching science within a language arts curriculum. This workshop is most useful as a springboard to other collaborative projects involving interdisciplinary teaching, thinking skills, and well-loved books.

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# CURRICULA IN TEACHER EDUCATION

# IT TAKES TWO TO TANGO! ENCOURAGING STUDENT TEACHERS TO DIRECT THEIR OWN LEARNING.

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ABSTRACT
*This paper presents the findings of a project that was conducted among first-year student teachers and their teacher educators in order to explore the self-directedness of students' learning. Data was collected with the use of a questionnaire for students, observations of mentor meetings and group interviews with teacher educators.*
*The questionnaire data revealed that students themselves perceive that their learning is rather self-directed but this was not confirmed by the data collected through the observations and the group interviews.*

Key words:  Teacher education, first-year students, self-directed learning

## Introduction

Acknowledging that learning is a lifelong endeavour implies that graduates possess attitudes and skills necessary for lifelong learning throughout their career. This assumes that more than in the past higher education has to deal with the issue of developing the self-directed learning skills and attitudes of their students. This shift towards more self-directedness is going on in all kinds of professional education, and hence, in Dutch teacher education as well.

Though self-directed learning (sdl) is quite popular, there are some problems attached to implementing sdl. Firstly, the concept became rather blurred since in many education programs sdl is restricted to the acquisition of self-regulated meta-cognitive skills, leaving unattended, for example, the issue of how to encourage students to set their own learning goals. Secondly, sdl does assume that students change their attitudes toward learning. Instead of being the consumers of what others (lecturers and professors) have invented, they have to become more active learners who are able to steer their own learning. This shift in students' behaviour can only be achieved if lecturers and professors are able and willing to change their teaching style accordingly. It goes without saying this assumes a rather complex innovation that affects the entire teacher education curriculum.

This paper examines how first-year student teachers who attend a teacher education program for primary teachers perceive their own ability for self-directed learning. In addition, attention is paid to their teachers' teaching style and their attitudes towards sdl.

**Theoretical backgrounds**

As mentioned above the notion of sdl is somewhat blurred, meaning that different authors have defined it in slightly different ways. First, there is the distinction between *self-directed learning* and *self-regulated learning.* The latter refers usually to the skills and attitudes that are necessary to steer one's learning process and encompass meta cognitive skills, learning strategies and motivational aspects (Paris & Winograd, 2001). Self-directed learning comprises self-regulated learning but also includes the conscious development of learning goals and considerations about resources that can be used for achieving one's learning goals.

Second, there are different opinions about the phases that can be observed in a self-directed learning process. Authors differ in their level of granularity concerning the process. Zimmerman (2002), for example, distinguishes the self-directed learning process into three phases: forethought, performance or volitional control, and self-reflection, respectively, while Taks (2003) proposes a four-stage process: orientation, planning, execution and evaluation, respectively. Likewise, there are some different opinions too about the main constituting steering activities in each phase of the self-direction learning process. Though authors differ in the number of phases they propose for defining the stages of the self-directed learning process and apply different labels for defining the key activities in each phase as well, from a more general level there seems to exist substantial agreement.

It goes without saying that individuals differ in their level of self-directed learning. Previous research indicated that factors like sex, prior education and motivation are linked to the level of self-directed learning (Raemdonck, 2006).In addition, characteristics such as proactive personality, a sense of locus of control and a sense of ownership concerning one's own learning seem to be linked to an individual's level of self-directed learning. Zimmerman (2002) distinguishes between first-year students and more mature students and he is quite reserved about the potentials of these students to direct their own learning process. In general, according to Zimmerman, novice students

can be characterised as incapable of steering their learning in the orientation and planning phase. They do not formulate specific learning goals, do not monitor their own learning and their assessment of learning consists merely of comparing their own outcomes to their fellow students instead of being critical toward their own achievements. These comments make clear that the development of self-directed learning does not happen automatically; rather it requires sufficient attention for encouraging students' self-directed learning step-by-step. Or as Janssen-Noordman & Van Merriënboer (2002) proposed: it is necessary to consider self-directed learning as a complex competence that can be developed further but only will flourish when sufficient attention is dedicated to its development.

**Research questions and methodology**

This paper investigates the implementation of self-directed learning in the teacher education curriculum of the Dutch Reformed Teacher Education Institute, located in Zwolle. The aim of the study is to establish insights into how the teaching staff and student teachers demonstrate teaching/learning behaviour that is consistent with the notions of self-directed learning.

The following research questions were addressed in the study:

To what extent apply student teachers self-directed learning activities?

To what extent apply teacher educators teaching activities that encourage self-directed learning?

What are the beliefs of teacher educators concerning their students' self-directed learning?

The first-year students of the program and their teacher educators participated in the study. The study focused on how teacher educators supported students (via individual mentoring meetings) in preparing them for their internship. The reason for selecting this part of the curriculum was that these mentoring meetings offer more possibilities for self-directed learning and teaching than the traditional first-year courses.

The entire study consisted of three research activities: 1) a survey for student teachers, 2) observations of mentor meetings between a teacher educator and students and 3) focus group interviews with teacher educators.

The survey measured student teachers' perceptions concerning their own self-directed learning. The scales for measuring aspects of self-directed learning were mainly adopted from the work of Taks (2003) who developed scales for measuring self-directed learning of student teachers in the Amsterdam area. It was found appropriate to use Tak's scales since these proved to be fairly reliable and were geared to the context of student teachers.

Answer categories ranged from 1 (I did it myself) to 5 (It was only my teacher educator who did this). In addition, to these scales one scale was added to measure student teachers' motivation for their study (answer categories ranged from 1 = totally disagree to 5 = totally agree) and also some items to rate respondents' backgrounds were included as well. In total 81 first-year students (13 male and 68 female students) filled in this questionnaire (response rate 89%)

In order to get more insight in the activities that teacher educators conduct to encourage their students' self-directed learning observations of mentoring meetings were carried out. During these meetings a teacher educator discusses with a first-year student the progress of his/her study. Observations were videotaped and teacher educators' activities were scored using the same seven clusters of self-directed learning activities as included in the student teachers' questionnaire. In addition, the scoring scheme contained three categories that allowed assessing the level of self-directedness of each activity (these three categories were teacher steering, mutual steering, student steering). In total 10 observations of 10 different teacher educators were conducted.

Table 1. The seven self-directed learning scales included in student teachers' questionnaire

| Self-directed learning scales | Description | Number of items |
|---|---|---|
| Orientation | Preparing the learning process | 15 |
| Planning | Designing a learning process on the basis of the information from the orientation phase, resulting into a plan of action | 6 |
| Process monitoring | Monitoring during the learning process to see how this runs according to the intended planning | 6 |
| Testing/diagnosing | Check whether the learning results correspond to the intended goals, determining gaps between results and goals and investigating its possible causes | 7 |

| | | |
|---|---|---|
| Modification | Changing the plan of action based on the information retrieved from the testing/diagnosing phase | 4 |
| Evaluation | Assessing whether the learning outcomes match the previous learning goals and evaluation the extend to how the course of the learning process correspond to the initial ideas at the start of the learning process | 9 |
| Reflection | Considering the learning outcomes, its related learning activities and the learning experiences in general in order to define intentions for future learning processes | 7 |

Semi-structured focus group interviews were scheduled to collect data on teacher educators' beliefs about their students' self-directed learning. In total four topics were discussed during these interviews: 1) how to define self-directed learning, 2) encouraging your first-year students to act more self-directed, 3) experiences, positively or negatively, with how first-year students take up their own learning, 4) what roles do teacher educators and students need to perform to encourage self-directed learning. In total three focus group interviews with a total of 14 teacher educators were carried out.

**Findings**

Here the findings are discussed on an aggregated level. More detailed information is included in the thesis report (Bolks, 2009). First the findings of the questionnaire will be presented, followed by the findings of the observations and the focus group interviews, respectively.

Table 2 presents the main findings of the questionnaire. In total 4 items were eliminated since these lowered the reliability of the scales. It was found not appropriate to further eliminate items to increase the reliability of the scales. Reliabilities vary between acceptable to fairly acceptable. As the mean scores indicate (means vary from 2.10 to 2.39) students perceive they are quite self-directed concerning the orientation, planning, testing/diagnosis, reflection, and process monitoring. They are less self-directed when modification (mean 2.69) and evaluation (mean 2.81) of their learning processes is at stake. The mean score of 3.72 of the motivation scale indicates that, on average, students are quite motivated to attend the teacher education program.

Further analyses were carried out to examine differences between students on their scores on the seven self-directed learning scales. T-tests were performed to examine differences between male and female students. Results indicate that female students assess their activities concerning modification of the learning process as fairly more self-directed (mean female students 2.49, mean male students 3.74, $t= 2.86$, p .01) and the same applies to the scores of both groups on the evaluation scale (mean female students 2.70, mean male students 3.35, $t= 2.01$, p .05).

Table 2. Reliabilities, number of items, means and standard deviations of the scales

| Scale | Cronbach's alpha | Number of items | M | SD |
|---|---|---|---|---|
| orientation | .69 | 11 | 2.10 | 0.58 |
| planning | .69 | 6 | 2.20 | 1.05 |
| process monitoring | .66 | 4 | 2.39 | 1.30 |
| testing/diagnosing | .65 | 7 | 2.27 | 0.94 |
| modification | .64 | 3 | 2.69 | 1.51 |
| evaluation | .78 | 8 | 2.81 | 1.09 |
| reflection | .74 | 7 | 2.35 | 0.90 |
| motivation | .78 | 10 | 3.72 | 0.60 |

The Kruskal-Wallis Test was performed to analyse how students' prior education is linked to their scores on the self-directed learning scales. Findings revealed that prior education did not result into statistically significant different scores on the seven self-directed learning scales.

Correlations were computed to examine possible links between motivation on the one hand and self-directed learning on the other. Findings showed there exist hardly any relationship. There was only a modest correlation between planning and motivation ($r= -.20$, p. 04, two-tailed) that indicates that an increase in motivation increases the planning skills accordingly.

Table 3 presents the condensed findings of the ten observations of the mentoring meetings.It appears that teacher educators differ significantly in the number of activities they perform during mentoring meetings. Some activities are hardly performed by teacher educators, like activities related to process monitoring, testing and diagnosing

and modification of the learning process. Teacher educators tend to focus on activities that are linked to the orientation, planning, evaluation and reflection of the learning process.

As indicated in the description of the applied methodology, each action performed by a teacher educator was also scored on the level of self-directedness, ranging from teacher steering, mutual steering to student steering. Figure 1 presents an overview of the findings concerning this aspect of self-directed learning. On the vertical axe the number of performed activities per individual teacher educator is displayed.

As Figure 1 shows teacher educators differ in the extent of mutual steering of the learning process. Some teacher educators (number 8, 9, 10) use relatively more often a style that can be characterised as teacher steering, while others (number 2, 3, 4, 5, 6, 7) posses a style that allows much more mutual steering. Activities performed by teacher educators that allowed their students to take full control of their learning during mentoring meetings were hardly observed. During three observations teacher educators did not perform any activity that encouraged their students to take the full responsibility for their own learning.

Table 3. Number of activities performed by the ten observed teacher educators during mentoring meetings

|       | OR  |      | PL | |     | PM | |     | TD | |     | MO | |     | EV  | |     | RE | %    |
|-------|-----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
|       | +   | %    | +  | %    | +   | %    | +   | %    | +   | %    | +   | %    | +   |      |
| 1     | 27  | 23,2 | 34 | 29,3 | 1   | 0,9  | 0   | 0    | 0   | 0    | 51  | 44   | 3   | 2,6  |
| 2     | 41  | 45,1 | 25 | 27,4 | 2   | 2,2  | 0   | 0    | 0   | 0    | 9   | 9,9  | 14  | 15,4 |
| 3     | 28  | 50,9 | 3  | 5,5  | 0   | 0    | 5   | 9,1  | 0   | 0    | 13  | 23,6 | 6   | 10,9 |
| 4     | 28  | 35   | 0  | 0    | 2   | 2,5  | 3   | 3,8  | 0   | 0    | 15  | 18,7 | 32  | 40   |
| 5     | 42  | 57,5 | 4  | 5,5  | 7   | 9,6  | 0   | 0    | 0   | 0    | 18  | 24,7 | 2   | 2,7  |
| 6     | 22  | 50   | 0  | 5,5  | 2   | 4,5  | 0   | 0    | 0   | 0    | 17  | 38,7 | 3   | 6,8  |
| 7     | 21  | 32,3 | 5  | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 15  | 23,1 | 24  | 36,9 |
| 8     | 53  | 58,2 | 13 | 14,3 | 3   | 3,3  | 0   | 0    | 0   | 0    | 22  | 24,2 | 0   | 0    |
| 9     | 23  | 34,3 | 3  | 4,5  | 0   | 0    | 0   | 0    | 0   | 0    | 31  | 46,3 | 10  | 14,9 |
| 10    | 33  | 39,8 | 1  | 1,2  | 2   | 2,4  | 0   | 0    | 0   | 0    | 21  | 25,3 | 26  | 31,3 |
| Total | 318 |      | 88 |      | 19  |      | 8   |      | 0   |      | 212 |      | 120 |      |

OR = orientation, PL = planning, PM = process monitoring,  TD = testing and diagnosing, MO = modification, EV = evaluation, RE = reflection

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Figure 1 shows teacher educators differ in the extent of mutual steering of the learning process. Some teacher educators (number 8, 9, 10) use relatively more often a style that can be characterised as teacher steering, while others (number 2, 3, 4, 5, 6, 7) posses a style that allows much more mutual steering. Activities performed by teacher educators that allowed their students to take full control of their learning during mentoring meetings were hardly observed. During three observations teacher educators did not perform any activity that encouraged their students to take the full responsibility for their own learning.

The findings of the three focus group interviews revealed that the participating teacher educators expect that their students are active, motivated, and responsible and possess sufficient knowledge about their own behaviours which can be enhanced by offering students possibilities for reflecting. Allowing students to become more self-directed in their learning presupposes the presence of structure and clarity on the study program. Or as one participant expressed:

> Students need structure before they are able to orientate on their own learning processes. They often come to me and panic because they do not have the entire overview of the program. Then they think they fall behind which is usually not the case.

These problems are partly caused by the poor design of the electronic learning environment which makes it quite difficult to get a good overview of the entire program.

Participants acknowledged that they need (more) knowledge on the issue of self-directed learning and how to encourage this so they can better support their own students. They expect their students to take responsibility for their own learning, to take initiatives, being aware of their own learning, are able to learn from examples and reflective with regard to their own learning behaviours and learning outcomes. Sometimes participants wondered whether they offered their students sufficient 'space' to really take full control of their own learning.
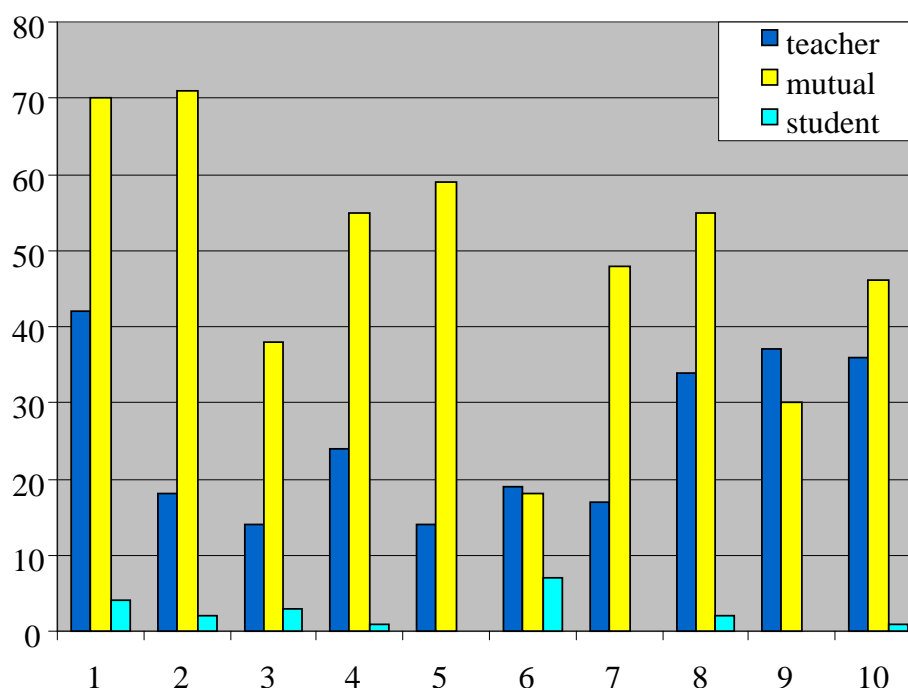
Figure 1. The steering that was performed by the ten observed teacher educators

Teacher educators that participated in the group interviews were aware of the fact that the ideal of self-directed learning sometimes contrasts strongly with their daily teaching practices. They recognize that during the course of the first year their students become more responsible and increasingly becoming more motivated, involved and enthusiastic. On the other hand aspects such as having an overview, being able to plan learning activities, applying structure in the own learning process, and taking initiative are far less developed. This is partly caused by the study program that does not really allow first-year students to set their own goals and to choose their own learning activities.


**Conclusions and discussion**


This paper examines the level of self-directed learning among first-year student teachers who attend a teacher education program for primary teachers. It was found appropriate not to restrict the data collection to a questionnaire for students themselves but also to take into account their teacher educators' behaviour and perceptions on this matter.
 Findings revealed that, on average, students themselves consider their own learning as quite self-directed. This contrasts however strongly with the data collected among

teacher educators. The findings of the observations indicate that the steering of the learning process appears to be much more a matter of mutual steering and that students hardly fully direct their own learning. This is also reflected by the findings of the focus group interviews that showed that teacher educators do see progress in the level of their students' self-directed learning but at the same time essential aspects of self-directed learning remain quite under-developed during the first year of the study program.

There are several likely explanations for the strong contrast between the perceptions of students and their teacher educators. First, it is likely that most first-year students only have limited insights into the characteristics of their own learning process and because of this they likely overestimated their level of self-directed learning. Second, there is the possibility that the contrast is partly caused by the applied methodology. The questionnaire invited students to reflect on their own self-directed learning over the past weeks, while the observations were focussed on one event. And for many students the mentoring meetings are not just meetings to discuss freely their own learning activities and learning outcomes since many of them experience these meetings also as a form of assessment. These mixed perceptions on the nature of the mentoring meetings may have affect students' behaviour by not taking the initiative but to leave the initiative much more in the hands of their mentor.

Teacher educators differed strongly in how they performed during the mentoring meetings. But in general, some activities that encourage self-directed learning were performed quite often, while others were hardly performed at all. Apparently, there are no agreements upon what to do and how to conduct these meetings. The opportunities for students to demonstrate some self-directedness during these meeting vary therefore quite significantly.

This study was a modest attempt to gain some insights into students' self-directed learning. It goes without saying there are several methodology issues that need to be addressed. Firstly, the reliability of the scales was acceptable but not entirely convincing. Though existing scales were used that were previously applied in research among student teachers in other Dutch contexts the present findings indicate that additional work needs to be done to increase the reliabilities of the scales.

Secondly, as findings indicated it is questionable to what extent a questionnaire is a sound instrument to collect data on students' perceptions of their own learning. Though questionnaires with self-perceptions items seem to be applied quite often for collecting data on aspects of student learning (see for example Taks, 2003; Vermunt, 1999) but it

is however questionable to what extent this results into sound data on these topics. The use of additional instruments for data collection, as applied in this study, definitely has advantages. Additional in-depth interviews with students will definitely be recommendable to gain more insights into the backgrounds of their scale scores.

Thirdly, this study focused on examining the quantity of aspects of self-directed learning and not on the quality of the learning. Therefore, the findings do not shed light on how teacher educators encouraged their students to become more self-directed, the applied methodology was restricted to counting the number of performed activities.

As this study demonstrates it is recommendable to continue the research into self-directed learning in order to allow well-informed decisions on curriculum redesign. Teacher educators will not change their teaching behaviour overnight and students do not automatically direct their own learning. Curriculum redesign needs to take into account the attitudes of students and teacher educators since it takes two to tango!

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# USING EDUCATIONAL DRAMA FOR KNOWLEDGE CREATIVITY

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ABSTRACT
*The paper deals with possibilities of educational drama in knowledge creativity for in-service teacher education. The focus is especially on these instances: teachers as inquirers and reflective practitioners and teachers as collaborators. The process drama structure concerning the position of innovative teacher in staff relations is described and on this platform general issues on teacher professional knowledge are explored (isolation versus collegial support, factors promoting a teacher's prestige, attitudes to excellence in profession etc.) Comments upon the differences between using this drama in pre-service and in-service teacher education are included based on experiences in using this drama with various groups of teachers.*

Key words: educational drama – creativity – professional knowledge - teachers as learners - collegiality

## Introduction

In this text we will focus primarily on the use of drama as a context for learning – not however, as is more common, as a context for learning children. We are concerned with the use of drama in education and training of teachers, who are not specialists in the field of drama, but who are or will be teachers in various subjects such as physics, chemistry, foreign languages etc. Drama can help them to expand their repertoire of teaching methods, but can also provide them with something more – **the possibility to examine their own profession through drama activities, the conditions in which they are carried out, the relations that they will have among the teaching staff and which will support their efforts and satisfaction in their profession or conversely negatively affect them.** We would like therefore to focus specifically on drama as a means which can help teachers create knowledge relating directly to their profession and professionalism. Drama, therefore, provides a specific means for exploiting and developing the creative ability of those who participate in the given activities.

The core of this text is a description of how a specific drama oriented to the theme of collegial relations and the position of teachers, which is somewhat specific, can be constructed into the process of creating professional knowledge and professional development. This emerges out of our experiences in two areas: me as a teacher of student teachers at the university and in the system of further education of teachers

outside of the universities, but also me as a drama teacher, In these two areas, two worlds meet and mutually influence one another – the academic world and the world or art, fantasy, imagination and joint creation. I will try to show that this meeting is to the benefit of the professional confidence of the teacher, but is also a stimulus for their interests in various aspects of their profession, further analysis of their own professional activities.

## I. The framework for the theme: teachers as learners and creative individuals

In the past decades more attention has been paid to teachers as learners and reconceptualizers (Edwards, Cooper, 1996). Salient and essentials features of developmental theory of adult learning are described and analyzed: these features include exploration and deduction rather then direction, transmission or prescription; problem posing and knowledge creation as explanatory ventures; praxis (i.e. unity of reflection and action); continuous negotiation involving many small decisions about content and process; sharing individual and group responsibility for learning with „no member attempting to control the learning of another"; dialogue, equality, openness, trust and caring, mutual respect; and learners being in control (Allman, Mackie, 1981, p. 41). We believe that learning through drama naturally respects these features. We will look at this assertion through several starting viewpoints – on the curricular position, drama framework, creativity in relation to drama and the cooperative context for learning and creativity. This starting point is connected jointly with a fundamental question: **What possibilities can be brought to the teachers through the use of drama in their path to be learners?**

### The curricular position

If the teachers work in the framework of drama, it also offers them a specific curricular position. I mention in this context conception of **curricular code** (Bernstein, 1967) or curricular position: according to Miller and Seller (1985) there are three curricular positions: **transmission** – a one-way transfer of knowledge, skills, and values from the teacher to the students, **transaction** – places stress on solving problems through a

process of dialogue between the student and the teacher and **transformation.** Transformation is a position which is an overall holistic and humanistic and takes into account the students overall cognitive, esthetic, moral and spiritual needs. There is also the similar approach of Heathcote (1984). In the first position we will consider the **transmission**, in the second **inquiry**, and in the third position the **drama framework**. From a general framework in these three curricular positions the teacher contributes and participates, the children work together with the participating teacher so well that they are able to, in a process of explaining the world to one another. The classroom in this case works as a laboratory, in which the "laboratory of workers" – the teacher and students – take over control on the ongoing processes and knowledge – in the true sense of the word – their own.

The curricular positions mentioned are also relevant for curriculum in which the teachers learn. The drama framework then creates a "laboratory" where the teachers learn together – in a mutual explaining of the world (and the world of their profession) to one another.

**Drama context**

The basic sources of possibilities in teacher learning and creativity development are anchored in two principles, on which the drama framework is founded: one is **dramaticality** and the second **theatricality**. Both principles are connected in **role playing** (Valenta, 2008).

*Dramaticality* means that the persons find themselves in a situation in which "have to act". And this is usually because they find themselves in a situation of disagreement, conflict, variety of motives or possibilities etc. *Theatricality* means that the dramatic problem is not solved through real intervention , but will be dealt with in the fictional framework. The participants transform into a fictional character, which they play in the space designated for the play. The fiction creates a framework so that in the "laboratory of the classroom" we can bring to life any problem (real or unreal) and in the distance caused by playing a role, it can be analyzed and a solution can be looked for.

The drama is based on several significant characteristics (Jennings (1990):

1. Paradox of the drama: where distance is establish through role, scene or text, enabling a greater depth to be explored.

2. The transformative potential of the drama, which enables a transformation of experience and thereby enables a shift in experience of self and other.

3. The symbolic nature of the drama: working with a symbolic scene that has meaning at several levels for the individual's and the group's life as a whole.

4. The dramatic metaphor: the metaphor that is embodied, projected and enacted enables profound change to take place.

5. The non-interpretative drama: offering no interpretation of the drama as this blocks the continuing process of understanding which is multilayered and multidimensional.

If we proceed from these characteristics we can consider drama to be a valuable means in the education of the teachers, which helps the teachers to understand themselves in their profession, their relationships in the schools, and the essence of their profession including the problem areas. Dramatic act help them to explore the feelings of an experience and thus decrease any anxiety they have towards that experience, thereby increasing their control over it.


**Drama and creativity**


According to Sternberg (2001) there are three types of intelligence: analytical intelligence, creative intelligence and practical intelligence. The drama framework works with all the dimensions of intelligence. We, however, will focus specifically on the dimension of creative intelligence. Drama is on one hand based on the creativity of the participant, but also effectively supports creativity. If we create a fictive situation or a sequence of these situations, that is the entire dramatic structure, then we use the entire repertoire of our creative abilities – and if we use them, according to the theory of creativity then we further develop these abilities. Drama is a space for forming the entire complex of creative abilities: sensitivity, re-definition, fluency, originality, flexibility, and originality. Teachers, who have work with dramatic situations (and in these dramatic situations) included in their education, learn a feel for these situations and problems, which is necessary to hide in a given situation (sensitivity), they learn to look into a problem and behave with various points-of-view (flexibility), in the creation of metaphors associated with situations they form re-definition (transformation), they learn the uniqueness in classifying certain phenomenon and the formation of components of the situation (originality), they learn to create situations so that they

work in the case of an audience (elaboration), and in improvised scenes they train their fluency.

Trainings of creativity usually concentrate on certain sensory-rational acts, social creativity, important for the teaching profession is however often creativity of a situational behavior (Watson, 2007). This is why it is useful to have perceptibility, as well as a part of kinetic creativity for the development of creative social abilities. Drama provides this space and with it a greater attention to kinetic expression in the behavior of the teacher. We must however stress that the situations take place in a safe environment of the play, where it is easier to work with removing the barriers to creativity.

In the teacher's training and education we can use a number of exercises which develop this type of another type of creative ability (for example giving subtitles to the tableaux). We  draw attention however primarily to the potential of the so-called process drama (story drama), which uses these creative abilities and form them in a complex as they are structured as a collection of situations. The participants of the drama not only pass through these situations, but also create them, decided on the direction of the entire drama etc. This deal with the formation of abilities which are both artistic and social.


**Cooperative context for learning and creativity**

Among the features which characterize teaching of adults, I have mentioned features that are directly connected to learning in a group – for example sharing individual and group responsibility for learning with „no member attempting to control the learning of another" ,  dialogue, equality, openness, trust and caring, mutual respect.  Drama offers a cooperative context for joint learning: theatre action is mutual action. The process of drama offers a combination of work in small groups and entire group work, which is characterized as positive social dependence (Deutsch, 1949). It is precisely the cooperative organization of social relationships in a fictive situation which creates the safe conditions for learning by the participants.

The cooperative context for learning (for adults as well) has been research for a long time (Johnson, Johnson, 1989). The effects are shown in three basic areas, which we consider to be important both for the learning and knowledge creation among teachers:

a greater effort to succeed, more favorable relations for learning among students, stronger psychological health.

The joint creation of the teachers is focused on the analysis of professional problems and has a large significance for a number of reasons.

a) The teachers, who for a majority of their time work on their professional tasks in an isolated manner, have the possibility of a joint meeting about problems that everyone is facing and also have a chance to identify several phenomena as a joint problem. According to Little (1987, 492) teachers professional encounters with one another assume greater importance when placed against future demands on schools and on the teaching profession.

b) They meet with these problems in the framework of the drama – that means in fiction, which is for them a safe environment for entering into to even the most acute conflict situations. The understanding that conflict naturally belongs in an environment, in which people move about with various needs and objectives, is the first step in making a conflict that is outside of fiction, that is, in the real life of the teachers community can begin to be solved.

c) The cooperative context, in which the drama functions, creates an optimal learning environment – for manifesting and forming the creative abilities together with interpersonal and cooperative skills.


## II. Drama in the courses of the teacher's initial education and in-service training

We consider courses focused on the personality and social development of the teacher to be an important part of the curriculum of teacher preparation. From the 1990's, this has been incorporated both in the initial teacher training as well as the in-service training of the teachers. From this same time, we have registered in our school conditions a relatively strong influence of drama education. Even if this does not have in the curriculum of elementary and secondary schools the same position as other types of art education (music education, fine arts), it was considered to be – thanks to the stress on holistic learning – as a stimulus which has changed significantly the form of teaching. The interest in drama education can be seen even among teachers who do not teach this subject and do not want to teach it. Very often they state the reasons for their interest in the fact that they want to enrich the repertoire of their teaching methods, or simply want "to do something for themselves". The courses of personality and social

development both at the faculties preparing teachers as well as centers for further education are taught by teachers of drama – and therefore it is natural that drama is incorporated into these classes. The teachers then learn through exercises and drama games, sometimes also through drama structures. These are dramas focusing, for example, on the theme of bullying in schools, social exclusion, etc.


**Initial teacher education**


The courses of pedagogical preparation at the faculty where we educate teachers for secondary schools are organized in problem areas. The core of these areas concerns the teaching competencies for planning, implementing and evaluating teaching. One large area deals with the teacher's professionalism and changes in the conception of the profession. The teachers are distinctly mentioned as colleagues and co-workers with one another in the school environment. This is primarily due to the fact that for several years we have a two-level curriculum – a national and a school curriculum. The formation of the schools educational programs were completely in the competency of the schools, however it counted on the joint work of the teachers on these school documents. It is not, obviously, just for the formation of the documents where the teachers should connect their joint activities: it is generally even in the conception of the teacher as a "complex teacher", given the requirements of society, the changes in the student population and the family background of the children (Fullan, 2007). This all leads to the need to change the conception of the entire school to a learning organization (Senge, 1990) and teachers as learners in the environment of the professional community. How then should teacher students prepare for this aspect of their profession?

We consider it to be important to develop such a form of teacher preparation in which the sharp boundary between academic learning and professional activities is broken down. One of the means of the efforts is the incorporation of the so-called quasi-professional activities, that is, simulations, which model that which the students will most likely face in practice at work. In course we use short, simple simulation games or – for reasons which were described in the theoretical starting-point, the drama structures.

One of the powerful impulses for their stronger position in courses was the reaction of students to the drama, which we "borrowed" from Heathcote. This concerns a drama in

which, through the story of a newly discovered primitive tribe on the territory of Her Majesty the Queen, tries to show the teachers of the schools how strong is the curricular position of transmission in them, despite the fact that in the discussions they pleaded for a position of inquiry even transformation. We used this drama in the course even before we began to explain the constructivist position, the characteristics of social constructivism, or before we assigned further texts for understanding this educational paradigm. During the final exams and evaluations of the course it was seen that the theme of constructivism was not only understood by the students, but was at the same time the part of the course in which they expressed as the most convincing and motivating for further education.

In the pedagogical courses in the teacher preparation there is always some time constraint (and the Philosophical Faculty of Charles University there are three semester courses) and drama is –despite all its useful effects – also time consuming. Ultimately, it would not be possible to prepare a drama for every thematic area. The example of the drama of the primitive tribe clearly showed that drama works best among teachers in situations where it opens new and sometimes surprising perspectives for them. We offered another drama of the problems of life in the school community where the core was formed not by the relationships between teachers and students, but rather among the teachers themselves. We decided on this for three basic reasons:

The results of studies into the praxis of current schools concerning the cooperation of teachers show that the need for collegial existence and cooperation is expressed quite clearly. At the same time it is evident that teachers require support in this area – the formation of conditions for cooperation, training social skills for cooperation with colleagues etc. (Kasíková, 2003).

A majority of students do not connect their perception of the profession too much with this part of their profession. As a part of finding out their perceptions of their future profession (a part of which was drawings, creative writing, the analysis of literary texts of the profession and other techniques) was also a short questionnaire with the question: *What will I do as a teacher?* We tried two variations of this question – with the formation of answers and the choice of response. The response of the type: *I will plan the teaching jointly with other teachers, evaluate it, I will together with them try to solve disciplinary problems etc.* were very rare.

- The perception of collegiality of future teachers cannot rely on their own experience. Whereas the perception of the part of the profession which is

associated with teaching is to a large extent formed by their viewpoint from the position of a former student, the world of relationships between teachers has for the most part remained hidden, behind the scenes. This minimal previous experience is however also an advantage: during teaching at the universities we do not have to face stereotypes about "what is correct", which is often the case in perceptions about teaching.

- In the next part of the text we will describe the entire drama structure designed to study life in the school community "behind the scenes" of teaching, the collegial and non-collegial relationships of the teachers. Before this, we consider it to be important to state beforehand several pieces of information which explain more the focus and form of this story.

- The story concerns the issue of prestige of the teaching profession. Even if teachers place relative high on the ladder of prestige of professions (in the most recent years around 7-8th place), their own perception of this prestige does not match this, they see their profession as undervalued in society. As a framework for this story we have chosen the competition the "Zlatý Ámos" (the Golden Ámos – named after Komenský), a competition of the favorite teacher, which has become a tradition in the Czech Republic for a number of years (in this school year it will be the 16th year). It is organized to support the positive picture of teachers (currently teachers, especially in the media, do not enjoy an overly positive picture), to support the popularization of the teaching profession. It is organized by the non-government organization Domino, but the competition is held under the auspices of the Ministry of Education and other representatives of the country. It is structured in a poll among children from a regional round to the semifinals, where at most six finalists advance. The final is public.

- We have chosen the framework of this competition because in our opinion it allows to not only ask *Who will be chosen as the favorite teacher?* but – for our purposes – especially asking *what is the position of these teachers in the teaching community.*

- The drama is structure in a common manner– that is, the situation is divided into phases: starting point (lure) – building belief – into action – development - reflection (Neelands, Goode, 1990) with using drama conventions (in the text marked with italics)

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**An outline of the drama Zlatý Ámos**

Theme: Relations of collegiality and non-collegiality in the teaching staff

Position of an excellent and innovative teacher in the teaching staff

Prestige of the teaching profession

1. Pedagogical meeting. *Meeting and teacher in role* – the director to the school announces at the end of the meeting that the school will divide extra finances among the teachers. The director asks the teachers to prepare a plan for their financial needs. The director at the end of the meeting mentions that Eva, a teacher at the school, has been selected by the 7th grade student for the Zlatý Ámos (the teacher is at the time of the meeting on a school week abroad). The students in the 7th grade collected enough signatures necessary for the application to the Zlatý Ámos competition. The director is surprised that the proposal came from the students in the 7th grade. (The 7th grade is a class in which "there is always something"; some problems must always be dealt with.) The director finishes the meeting.

2. Picture of the 7th grade in the mind of the director : *circular teacher in role*

   (What is always going on in the 7th grade that the teachers discuss it and deal with problems associated with it?) Scenes are formed into the common shape: circular teacher in role (director) joins the scenes and improvises with each group before moving on. The director´s words at the end about Eva as right person for the Zlatý Ámos, if she was able to manage teaching this class".

3. 7th grade and their evaluation of the teachers

Painting teachers caricatures and presentation in roles of students in the 7th grade

4. *Building character.* What is E. Miller like as a teacher?

5. In the teacher's staff room the day after the meeting. The actors in the role of the teachers. Collective improvisation. The director announces that a majority of the finances which were mentioned at yesterdays meeting will be provided to Eva, because she deserves this money and definitely will use if for the benefit of the children in the school.

6. In the teacher's study (for example the gym, or physics study etc.) after Eva returns from abroad

*Circulating teacher in role* (Eva).

7. *Hot seating* for Eva. She is questioned especially about her position in the staff. Information important for the game: Eva gets along well with the children, but has problematic relationships with a majority of the teachers at the school.

8. The committee preparing the competition of the Zlatý Ámos. The members of the committee decide to collect information from the children about how the final should look, which is entertaining but is also truly about good teachers

Interviews in pairs (staff members, pupils).

 A meeting of the members of the staff.

9. At the school where E. Miller teaches, there occurred something even before the finals of the Zlatý Ámos competition which aroused a negative attitude of almost all the teachers against her.

Scenes "what occurred" , in the overall group select the most likely reasons why the negative attitudes emerged

 10. The staff of the competition received two anonymous letters which stated that Eva definitely did not deserve the title of the Zlatý Ámos.

 Quickly prepare these short anonymous letters, reading in expressive form

 11.Live radio broadcast of the Zlatý Ámos. Roles: moderator, students, members of the staff, the director, teachers, Eva (*a teacher in the role*).

 12. Scale of attitudes YES – NO

    Should E. Miller step aside from the competition?

    Would you want to compete for the Zlatý Ámos?

The dramatic structure of the Zlatý Ámos is included in the thematic area of the Teaching profession and teaching staff, teachers as co-workers. This is a theme that is included in half of the pedagogical courses for teacher preparation. There is always time to connect with themes that the participants of the drama (in reflection of the games or in their behavior during the games) consider as essential, or which is considered as important by the teacher of the course (for example if  Jan Ámos (Komenský) would at the current time still be a "Golden" teacher.)


**In- service teacher training**


 I have already mentioned the in-service training of the teacher, which is designed for teachers who want to use drama methods in teaching, whether it is a special subject of

drama or in the framework of the teaching of literature of foreign languages. Our text is however designed in general at incorporating drama in in-service courses, focused more generally on reflection of one's own profession or in courses oriented on the theme of collegial relations and cooperation, team work in schools. A disadvantage of these courses is that most of them are short. The use of drama is however possible, but is limited by time which can be devoted more thoroughly to the elaboration of some problems which arises as a part of the entire process. What is optimal – with regard to the fact that the theme of changes in the profession, professionalism and collegial relations are complex – is to organized an educational cycle, or incorporate a theme into blocks for training teachers (for example in summer schools).

**Comparison of the use of drama in initial education and in courses of staff development**

I described the drama of the Zlatý Ámos only in an outline, which changes according to the participants of the game. I will try now to sketch a certain comparison which is founded on the experience with this dramatic structure in both educational environments – in initial teacher education (6 groups) and during in-service teacher education (6 groups)

- The first note concerns the willingness of the participants to enter into the role of the drama. The given structure is based on roles which are close to the experiences of the participants – students, teachers, directors, moderators etc. It is therefore relatively easy building belief in both groups, even if the students of teaching do not yet thoroughly know the reality of life in the teaching staff.
- When evaluating the courses in further education we realized that groups that are formed by teachers of various teaching staffs behave more freely in the roles during the drama. This relates to our findings from the research of social skills of teachers, where the teachers express interest in the training of social skills but outside of the teaching staff (Kasíková, Dubec, 2009).
- That, which we expected while incorporating drama into the various groups, for the most part was fulfilled. In situation from the school life of the teacher in practice, they chose more probable (realistic) variations, the students of teaching also chose realistic ones, yet less probable (especially in the culmination of

situations where the entire teaching staff turned against the main character in the story). Information, relating to the profession was however used by both groups relatively equally (for example in work in the schools education programs, inspection etc.)

- In the reflection of themes at the end of the drama, which led to the personal attitude of "to be excellent among those who were not labeled as excellent", teachers from both groups differed. More students of teaching rather than teachers in practice were closer to YES in answering the question "Would you like to compete for the Zlatý Ámos?" The argumentation of the teachers in practice was interesting: it is worth being excellent, but the making public of this excellence is on one hand an obligation of a certain type and on the other hand they admit that it is realistic that it could lead to a worsening of staff relationships.

- The teachers in practice positively appreciated not only the possibility to act out situations from their professional life, but also the phase in which the game was prepared. They considered the phase of reflection as important, and the possibility to debate with colleagues in general about problems relating to the theme (which is in the general operation of the school rare).

- Both groups positively evaluated the activity form of education, the possibility to test out their imagination, the possibility to improvise: the teachers in practice also stressed more the possibility, which experts in drama (B.Way, G.Bolton and others) bring up as one of the important functions of drama – "acting out". In this drama it was primarily in situations where the teachers were able to torment and caricature the educators in the role of students.

- Students of teaching held a longer reflection on the theme of the hidden aspects of the teaching profession, the problems of collegial relations. Both groups expressed the need to further train in the problem of solving interpersonal conflicts. That means drama functions as a space for opening further, more specific themes associated with the profession.

**Conclusion**

Drama – despite the fact that it still does not have a sure position in the curriculum of elementary and secondary schools, and in teacher preparation – has a strong educational potential. The participants in the drama not only learn to act and take into account the results of their behavior in the same environment of fiction, but receive through drama a key mission: of the power of a curriculum which is based on inquiry and transformation, which is knowledge centered and student centered. They discover the possibilities of the cooperative context in which one can optimally solve even the most acute conflicts, without which the school environment often does not exist. The drama provides the actors with a specific outline: they creatively reform it on the basis of their own experiences, imagination, and fantasy together with the others. This experience is a support for their creative abilities which they can profit from in their practice with students as well as outside their professional life.

Teachers and future teachers, who during our courses reflected on their own learning through drama, understood the mission of the drama. They created drama about their (future) profession, they created a world of fictive relations, but at the same time in their actions and reflections showed that "they could" to form collegial relations in the real world as well. If one evaluates drama in general, it is evaluated through the question of "How it contributed to understanding what it means to be a human?" We dare to claim that drama oriented to the teaching profession leads to understanding the interconnectedness of the professional side of our "I" and the side that is generally human.

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# CHALLENGE IN LEARNING: SUCCESS AND TRANSFERABILITY OF A WIDENING ACCESS MODEL

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ABSTRACT

*Creativity, empowerment and active learning are the essential bedrock of an education system that supports the aims of the Lisbon Agenda in raising aspiration and attainment and making lifelong learning attractive to all. Founded on the idea that the school curriculum can be delivered via practical co-operative activities that allow young people freedom to manage their own learning, this paper will address the way in which the 'Challenge in Learning' model, developed by the University of Strathclyde, can provide an adaptable 'toolkit' for educators across Europe to support these aims.*

Keywords: Lisbon, Europe, Lifelong Learning, aspiration, co-operative

'Challenge in Learning' is the name given to the educational ethos that lies behind a range of intervention programmes developed and delivered by the Innovative Routes to Learning (IRL) team at the University of Strathclyde in Glasgow.

The ethos is built on the idea that the curriculum can be delivered through a series of 'Challenges'; group-based educational activities focused on a curricular area or topic, which provide relevant contexts to young people and involve a large degree of active and cooperative learning.

Programmes have been designed to tackle a variety of issues faced by education and have been delivered to a total of more than 20,000 pupils in Scotland between the ages of 3 and 18, since 1999. Their aim is not radical: to engage young people with education and achieve beyond expectation. However, their realization is often problematic, particularly with respect to the specific target group who comprise the majority of participants.

The concept of 'Challenge in Learning' originated in 1998. In the West of Scotland as in many parts of the UK and Europe, it was recognized that there were significant numbers of pupils in the early stages of their secondary school education, particularly those attending schools where the catchment area was typified by serious socio-economic problems, who lacked motivation, were failing to apply themselves industriously in school and who consequently under-achieved in national examinations. Such failure to secure high level passes in examinations at the end of the fourth year of

secondary education meant that these young people were unlikely to remain in school past the minimum age of requirement or to gain the higher level qualifications that would allow them to access Further or Higher Education. In many cases the problem was not only one of academic performance. Pupils also lacked an awareness of the educational opportunities available to them post-school, assuming that their socio-economic circumstances automatically made FE or HE an impossible target.

Ironically this perception was widespread at a time when the Scottish Further and Higher Education sectors were expanding and were dedicated to implementing a more focused widening access strategy. Indeed, widening access was integral to the University of Strathclyde's Strategic Plan and as a direct consequence the original IRL programme, The Summer Academy@Strathclyde (S@S), was borne in 1999, designed as a response to the Scottish Widening Access Agenda. It was recognized by the university that, despite the success of one or two limited schemes, there had been no major H.E. initiative in Scotland in the area of summer programmes for lower secondary pupils and the university wanted to contribute to resolving the issue of equity of access by bringing pupils who required additional support and motivation onto the university campus, to engage with a sequence of activities that would develop their ability to learn and their prospects of accessing further and higher education as well as developing their knowledge of specific subject areas. The result was a two week 'Challenge Curriculum'.

The programme primarily sought to address the issue of student motivation to learn. To this end, the original Challenge Curriculum was and still is based on academic subjects but provides contexts that are more relevant to young people and involve more active and cooperative learning. Closely linked to the Challenge ethos is the idea of 'stealth learning'. Young people often work on the relevant skill set that underpins the Challenge design without overtly realising it. Knowledge of a curricular area is used as the means for young people to achieve their goal, rather than being the goal itself.

Since the S@S began 10 years ago, IRL have subsequently developed over 50 educational challenges, some of them cross-curricular, some aimed more specifically at one school subject. Challenges range in length from 1½ hours to 2½ days and are based on a variety of engaging themes including health, law, business, fashion, the environment, fair-trade, events management, engineering, media and modern languages. All challenges feature common elements of team-work, confidence-building, critical thinking, innovation and both group and individual responsibility.

Challenges give young people a chance to participate actively in the learning process. As part of a team, individuals can contribute their own strengths within a cross-curricular context. For example, to achieve the learning outcomes of a modern language challenge, individuals within the team are required to contribute not only language skills but also their abilities in art, presentation, drama and even media. The purpose is to engage young people sufficiently so that they are being given the tools to learn, rather than being taught. Challenge learning is not traditionally academic, therefore young people do not become de-motivated by association with previous 'failure' in a subject area. Through contribution to a learning outcome that requires non-subject specific skills, confidence can be raised in an area of perceived weakness.

An analysis of Challenge in Learning demonstrates its relevance to the 'four capacities' of Scotland's Curriculum for Excellence (CforE): individual and group responsibility; challenging but achievable activities; providing the right context for development; active and co-operative learning; confidence and resilience in facing new and challenging situations to name a few. The CforE's 'four capacities' ask that we create citizens of the future who are equipped and also, essentially, empowered. We have to find a way to ensure that young people are motivated to learn both within the secondary school and beyond and one of the most fundamental contributers to the Challenge model's ability to provide this motivation is in the method of delivery. All programmes are delivered by a team of carefully trained student mentors, chosen from a variety of subject areas of study to offer a width of knowledge and experience regarding study and student life.

On a personal level, mentors are selected because they are highly motivated, confident and empathetic individuals with a real interest in motivating young people and a belief in the challenge ethos. Like the participants, they come from a wide range of backgrounds and socio-economic circumstances. Evaluative feedback from pupils, parents and teachers repeatedly indicates that these role models provide a unique opportunity for young people to connect with learning and with the university. Often, mentors have taken indirect routes into tertiary education and provide critical contact points between young people and the worlds of FE and HE. As the majority are undergraduates, the mentoring team do not tend to vary hugely in age and although youth is not a pre-requisite for the position of mentor, the advantage in having role models not too distant in age from participants is vital in encouraging young people to

identify with them as recognizable as similar types of people to themselves: 'real' people who are succeeding at the next educational level and who are, too, still able to empathise with the pressures of academic attainment. This is an extremely powerful tool in widening access and increasing the desire among young people to become lifelong learners. It is simple and yet its power cannot be overstated.

For the student mentors themselves, the experience is a value-add to their experience of the undergraduate process and frequently influences career routes. A number of students each year make the decision to continue into teaching within the Faculty of Education as a result of their mentoring experience and many more find that the experience offers an opportunity to develop their autonomy as individuals who are about to enter the workforce. As with the participants, confidence levels often improve, along with the ability to manage time and situations more strategically.

Since 1999, quantitative data has been collected that provides evidence to support the claim that the 'Challenge in Learning' model achieves its aims. The measurable outcomes of using the challenge framework have been consistent year on year in attesting increased motivation and better than expected Standard Grade results in the fourth year for participants in the S@S intervention.

Initial figures that record retention demonstrate pupil engagement with the programme from the outset. Bearing in mind that pupils attend voluntarily and that three out of the four two week cohorts that run each summer do so during vacation time, the fact that young people come back everyday shows that the programme has been successfully pitched, from their perspective.

| Year | Enrolled | Graduated | % |
|------|----------|-----------|------|
| 1999 | 629 | 582 | 93 |
| 2004 | 811 | 781 | 96.3 |
| 2005 | 957 | 943 | 98.5 |
| 2006 | 966 | 951 | 98.4 |
| 2007 | 1004 | 975 | 97.1 |

Evaluation of the impact of S@S on results is made via feedback forms which are sent to participants following the completion of their standard grades in S4, and their Higher grades in S5 and again in S6. Success is measured on the basis that participants achieve consistently better than expected Standard Grades in S4. To date we have statistics to 2007, all of which compare favourably with the national average and more particularly with the average for Glasgow schools:

| Cohort/Year | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|---|---|
| SG Performance | 58 | 73 | 67 | 71 | 71 | 75 | 70 | 73 |
| SG better than expected | 59 | 59 | 69 | 70 | 77 | 74 | 65 | 68 |
| S@S improved SG result | 50 | 49 | 61 | 56 | 61 | 66 | 68 | 67 |
| S@S improved attitude to school | 72 | 74 | 78 | 77 | 77 | 79 | 79 | 78 |
| S@S influenced stay on at school | 52 | 52 | 61 | 50 | 52 | 57 | 58 | 58 |
| S@S raised aspiration to FE/HE | 66 | 73 | 70 | 66 | 71 | 68 | 73 | 75 |

The National Average for Standard Grade performance remains at around 33%, well below S@S results, whilst the particularly relevant statistics for Glasgow schools shows an average of only 10% in contrast with our average of around 70%.

The success of the Summer Academy@Strathclyde (S@S) has been commended by the Scottish Parliament three times (2005, 2007 & 2008), proving its value as a transferable model and Bill Butler MSP has offered to host a reception at the Scottish Parliament in late 2009 to allow MSPs and educationalists from across Europe a chance to learn more about the S@S model. The issues it seeks to address in the West of Scotland, of deprivation, social exclusion and lack of support for entry into higher education, are prevalent across Europe. To improve human capital and compete in a global marketplace, these issues must be addressed by the education systems in all countries. A greater articulation between secondary and tertiary education is essential along with promotion of social inclusion, self-efficacy and creativity.

Exerpt from the Official Report, 26th October 2005:

> the Parliament congratulates Strathclyde University on its innovative Summer Academy, now in its seventh year; recognises the role which it plays in the promotion of the benefits available to young people who wish to continue their studies into further and higher education; notes that the academy now attracts up to 900 school students annually from upwards of 130 secondary schools in west central Scotland, as well as welcoming students from Spain and Sweden; celebrates the scheme as a significant way both to widen access to further and higher education and to promote social inclusion; hopes that it may provide a model for other academic institutions both in Scotland and Europe, and commends the university staff and student mentors for the part they have played in the creation of a Scottish success story as over 6,000 young people have to date graduated from the Summer Academy @ Strathclyde.

Our high profile success on an annual basis has contributed to the image of the University Of Strathclyde as a purveyor of excellence in innovative models of education.

Testing of the transferability of the 'Challenge in Learning' model began only two years after S@S was delivered for the first time, when teachers, recognising the positive impact of the S@S on pupils, began to request that IRL tackle additional educational

issues faced by young people. Consequently, the model has been transferred in the UK to improve confidence and motivation during stages of transition, for Children At Risk and to engage groups in particular subject areas or curricular support areas such as study skills.

The Summer Academy model has also been transferred more widely, having been replicated and adapted in a number of European Institutions in various contexts, most faithfully at 'Campus Itaca', run by The University of Autonoma de Barcelona (UAB). Recently securing sponsorship for a further 4 years from the Banco de Santander, Campus Itaca has entered its 5th year. The programme runs for 8 weeks each summer, and uses the Strathclyde model to deliver a variety of challenges to students from the Barcelona area. Links are maintained with the Summer Academy via an exchange programme of 8 visiting 16 year old pupils from each university during July.

In Aveiro in Portugal, the model has been adapted to attract science students to the university since 2005 with a focus on 11-14 year olds. At the University of Dortmund, an engineering-focused version of the S@S has been developed and at the University of Twente an existing intervention has been modified in response to the Summer Academy, to increase participation of ethnic minority groups in HE.

All of these HEIs made contact through membership of the ECIU (European Consortium of Innovative Universities) and recognized a shared desire to make a real difference to widening access to Lifelong Learning at their own institutions. In exchanging ideas, and in the case of UAB and Strathclyde, exchanging pupils, the foundations for a wider partnership were laid. That partnership has become ENTICE (European Network Transforming Intra-University Collaboration for Equity of Access). The consortium now comprises a network of 14 partners from 10 EU countries who intend to work together to adapt the 'Challenge Curriculum' model in support of the Lisbon Strategy, which aims to increase the attractiveness and equity of access to Higher Education. In addition to the 5 ECIU partners, ENTICE includes The Universities of Porto, Liverpool, Pirkanmaa, Hogeschool-Universiteit Brussel, The Lodz Academies of Management and of Humanities, The Technological Educational Institute of Crete, the European University of Cyprus and the Universite de Politecnica de Barcelona.

Each partner is involved because they believe in the model and wish to test and benefit from its delivery at their institution and from the research that will be carried out into widening participation interventions across all ten countries. Each has something to

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contribute and something to gain from the sharing of best practice. University of Liverpool, for example, has a wealth of experience in developing and implementing extremely successful widening access programmes out of the Centre for Lifelong Learning, which have been formally recognized. However, as practitioners, they have had little opportunity to produce the research which would enable them to share this good practice. Other partner institutions, on the other hand, such as the Academy of Humanities in Lodz, Poland and Hogeschool-Universiteit Brussel are in the early stages of developing widening access strategies and require the support of those more experienced, whilst the European University of Cyprus brings a rich existing research network which can be exploted to disseminate the ENTICE findings as the model is adapted, delivered and evaluated in each institution over the next three years. The Finnish HEI, the Pirkanmaa University of Applied Sciences, brings the expertise exploited by Finland to actually achieve the European target in reducing the number of early school leavers.

One of the most exciting aspects of the ENTICE consortium is the variety of test groups. Each institution is facing a specific issue – often shared by several partners – such as poor uptake of HE amongst young people from ethnic minority backgrounds, or more subject specific deficits such as poor uptake of maths and sciences or modern languages amongst student groups. The Challenge in Learning model will be developed with sensitivity to the specific requirements of each group and the aims of each institution so that a range of pupils requiring additional support will form a representative test group that will offer relevant results to other HEIs across Europe, facing similar issues.

Challenges will be adapted and developed based on the 8 Key Competences highlighted by the European Commission's Lifelong Learning Programme as integral to the successful education of young people across Europe. The value of the materials produced will be ensured by the cooperation and knowledge transfer shared across a consortium comprising HEIs with a range of specialisms in ICT, business and entrepreneurship, science and multimedia. Challenges dealing directly with language learning and cultural diversity will also be developed and tested. As part of the sustainability plan, the pupil exchange programme already existing between Glasgow and Barcelona will be formalised and extended throughout the consortium to include exchanges between 6 additional pairings will offer groups of young people across Europe opportunities to experience new cultures and improve language skills, fostering

active citizenship. Specific test groups, for example, young people from immigrant communities in Twente, Tampere, Lodz and Brussels will make contact with other groups during exchanges, supporting increased inter-racial understanding.

The ENTICE model has the potential to provide a teaching and learning model with proven transferability, for use by every further and higher education institution in Europe, and the hope is that it will be used to significantly impact on teaching and learning and the potential target markets of HEIs. The strategy can be adapted for use in all countries, with due regard for cultural diversity, varying socio-economic contexts and age/stage of students. There will be persuasive evidence that subjects are amenable to successful modification and adaptation for specific user groups, and proof that the experience of tackling a challenge-based curriculum can impact positively on motivation, self-confidence, self-esteem, attitudes to schooling, success in examinations and aspirations to enter and succeed in higher education. The European focus on creating jobs, boosting growth and increasing prosperity must be supported by the creation of empowered, effective contributers to society; young, motivated and skilled people who believe in themselves through participation in an education system that offers relevant and purposeful outcomes.

For Europe "to be the world leader in terms of the quality of its education and training systems, the Lisbon Strategy really asks that we create an education system that supports economic growth. The recent Lisbon benchmark report demonstrated that although some targets in improving science and mathematics education are being met, we are falling short of the target reduction in numbers of teenagers leaving school without higher qualifications, and the Strategy's broad aim, to "make Europe, by 2010, the most competitive and the most dynamic knowledge-based economy in the world" will only be achievable if we move toward a system in which young people see education as relevant and engaging. They have to want to learn and feel empowered by education rather than de-motivated. They have to see education post-16 as relevant because it offers transferable skills and knowledge to those who want to become scientists and lawyers and also mechanics and electrical engineers. 'Challenge in Learning' has the potential to support this strategic aim by raising aspirations and improving confidence through teamwork and collaboration, increasing productivity and motivation to learn and succeed, thereby contributing to Lisbon benchmarks.

Higher education will not accept change without detailed evidence of its effect. The test group for ENTICE will number in excess of 30,700 young people, providing

quantitative evidence of conclusive quality. We aim to capitalise on this impetus so that other institutes across Europe will embrace the strategy and derive educational benefits. The project will also offer a model for academic staff development which stimulates collaborative action, promotes interaction and transfer of staff and will be truly sustainable in nature. For the student mentors who will be trained to deliver challenges in all institutions, the model will illustrate the benefits to be gained from collaborative action.

Success of the ENTICE partnership and testing of the Challenge in Learning model will be evaluated referring to similar Key Performance Indicators used to evaluate the S@S: increased motivation, increased aspiration to enter FE and HE and improved attitude to school and the results that we expect to see in the evaluation of a challenge delivery schedule running during the summer months of 2010 and 2011 should reflect the 70% average reported year on year for S@S. In addition, specific KPI will assess the impact institution to institution depending on the purpose of implementing the challenges, e.g. increased uptake of languages or science subjects.

The ENTICE model will facilitate the development of innovative practices in higher education and their transfer between regions and countries, fostering interchange, cooperation and mobility of ideas and people between the partner institutions and more widely to other institutions and stakeholders. The innovative aspects of ENTICE include a radical approach to bridging the gap between different levels of education; the application of an established model in different cultural environments; the offer of trans-cultural research and the sharing of research data and strategy, the facilitation of knowledge transfer and sharing of good practice between partners, and the fostering of peer learning through partnership.

The aim of ENTICE is to reinforce the role of universities in making "higher education available to all" by promoting greater equity in education systems through high quality provision for the disadvantaged, supporting social cohesion and contributing to the debate on equity of access, shaping future education policies at a European level. As the S@S has the strong support of the Scottish Parliament, the ENTICE model will benefit from direct access to European contacts at policy-maker level and aims to make a positive contribution to the achievement of European policy objectives, improving the attractiveness of higher education through delivery of an engaging and motivational programme across Europe. By improving equity of access to higher education, ENTICE will encourage socially cohesive communities in Europe, (Lisbon Agenda/Bologna

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Process/Bergen Communiqué) and by making learning attractive, fostering a culture of learning for all and raising awareness of the benefits of learning, the project will actively promote the attractiveness of lifelong learning and increase participation.

Young people will have an opportunity to apply learning in new and innovative contexts, contributing in practical, creative and non-traditionally academic ways to learning outcomes. Research will identify critical success factor and lessons learned from delivery at each institution and from other examples of intervention across Europe. Findings will be widely disseminated as examples of existing European best practice, informing the development of transferable materials which will be available for use in universities wishing to establish their own intervention programmes, contributing to the European Commission's Lifelong Learning Programme.

For Strathclyde, the focus continues to be the development and delivery of challenge programmes for young people, however, our ultimate long term aim is to work more closely with trainee teachers, teachers and school managers to support the incorporation of challenges into the existing curriculum. This presents a challenge for teachers, who are under pressure to deliver a tightly structured curriculum within a results-focused system. Many are struggling with the logistics and practicality of bringing a more flexible form of learning into the classroom within an already packed curriculum and are understandably concerned that 'deviating' will affect learning outcomes and consequently results.

Our aim is to show teachers how the incorporation of challenges can support the curriculum. By delivering 'Challenge in Learning' CPD programmes, which we have done in the West of Scotland, in London and here at Queens College in Palma, we are able to demonstrate the real value in transforming a lesson into a challenge and that the creativity inspired by challenge learning often surpasses the prescribed learning outcomes for some individuals who may find another way into a topic that must be covered.

The CPD programme is not prescriptive. It takes a challenge, asks teachers to participate, and then analyses the structure and content of what they have just done. From this basis, teachers proceed in groups to develop their own challenge so that at the end of the event they leave with real learning materials. Similarly, IRL deliver a module to B.Ed. Primary students, which provides them with the structures for creating challenges for use in their own teaching, the intention being that as they progress, the principles will be incorporated naturally into the curriculum within the classes they

teach. In such a way, challenges can become a part of the curriculum quite naturally and the value of adapting courses is evident immediately as young people are switched on to learning.

Finally, the value of a campus-based 'Challenge in Learning' programme as a vehicle for attracting young people to the host university cannot be underestimated and our own statistical analysis of the Strathclyde model has been taken further to represent the impact the experience has on the aspirations of young people to attend the University Of Strathclyde. Traceable through UCAS data, figures available to date show that the direct psychological experience of Strathclyde makes it the obvious choice for participants when they reach the stage of applying to university:

| Year | No of Apps To Strathclyde | No who became students @ Strathclyde |
|------|---------------------------|--------------------------------------|
| 2002 | 190 | 64 |
| 2003 | 264 | 90 |
| 2004 | 243 | 87 |

Retention, particularly amongst disadvantaged groups, must be handled in a way which is relevant to target students, and the confidence building and motivation provided by the Summer Academy allows students to take some ownership of the University which in turn lowers the barriers. In the future we aim to work more specifically with pupils in the senior secondary to combat the shock and disaffection which can often result in being unprepared for the challenges of student life. A community of learners from a variety of backgrounds would be set up to provide ongoing support during a difficult transition, and consequently it is anticipated that this additional support would boost retention and completion rates within university courses. In the meantime, although confidence and retention are less measurable in the UK than UCAS statistics, countless success stories support the claim that the improvement in self esteem experienced by the majority of our 'graduates' leads to improved performance in school. Recent parents evaluations have gone so far as to state that the experience has actually improved family life as a result of an improved attitude. These are weighty claims, however they are sustained and relevant. Quite simply the model works, *particularly* for the students who do not come from a culture of HE and founded on this success story, the ENTICE partners look forward to our own challenge: the process of development, delivery and evaluation of an educational model that offers tangible results.

# I DON'T KNOW IF I BELIEVE I HAVE THE EXPERIENCE TO BE AT THAT MASTERS LEVEL YET' – HOW CAN WE DEVELOP PRACTICE BY MAKING TEACHING A MASTER'S LEVEL PROFESSION?

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## About the Research

The School of Education at the University of Aberdeen, Scotland, UK is engaged in a national research and development initiative, Scottish Teachers for a New Era (STNE), jointly funded by the Scottish Government, the Hunter Foundation and the University of Aberdeen. This initiative, 'investigating and developing a new model for teacher education' (http://www.abdn.ac.uk/stne/) incorporating the four years of the undergraduate BEd (Hons) degree plus the first two years of the teacher's career, is linked to the 'Teachers for a New Era' (TNE) initiative in the United States, funded by the Carnegie Corporation.

Part of the STNE research strategy has been to consider aspects of teacher professional learning and development and how, as part of this professional learning, we might best engage teachers in Action Research or systematic critical enquiry at different stages of their careers. This paper discusses the development of a Framework For Enhanced Professional Practice as well as presenting findings from two pilot projects in which teachers engaged in Action Research into selected aspects of their practice.

The first group of teachers, comprised twelve primary school teachers, all of whom were in their second year of teaching. They were voluntarily participating in a pilot project as part of the STNE initiative, which trialed the use of Action Research as a form of professional learning with early-career teachers. For teachers who wished to do so, the inquiry could be undertaken as a University module on a fee-free basis and teachers, who successfully completed this module, would gain 30 Scottish Masters credit points. The second group of eight teachers were undertaking a 'STNE Teacher Action Scholarship', which was also a credit bearing, University module. The views of both groups are presented and discussed below.

To collect data, survey research was undertaken involving semi-structured interviews. Interviewees were asked to discuss their views on, amongst other things, teachers engaging in professional learning involving formal, award bearing study. The first group of teachers were interviewed twice, once near the start of the school year (2008-2009), and again in the final month. All twelve of these teachers were interviewed in December 2008 and nine were interviewed again in June 2009. Each of the second group, who undertook a 'STNE Action Research Scholarship', were interviewed once, in June 2009.  All the interviews were recorded and transcribed. This data was classified using qualitative data analysis software (Nvivo 8) and then analysed.

**The Scottish Context**

The publication of 'A Teaching Profession for the 21$^{st}$ Century (known as the  McCrone Report, Scottish Executive, 2001) has been seen as a key point in the evolution of Scottish education. This report recognised the importance of continuing professional development (CPD), both as a professional entitlement and responsibility, and accelerated progress towards the development of a national CPD framework, to underpin and support practice-based lifelong learning.  An integral part of this CPD framework was the introduction of a Masters level qualification to enable teachers to meet the requirements for the Standard for Chartered Teachers.

An emphasis upon practice-based teacher professional learning is also evident in the recently developed 'Curriculum for Excellence'(CfE) in Scotland, which will begin to be implemented in all schools throughout school year 2009-2010, with new National Qualifications being implemented in secondary schools from 2014. Priorities include an increased emphasis upon teacher autonomy and responsibility for determining pedagogical approaches, local decision making and promoting an evidence based approach to teaching and learning (http://www.scotland.gov.uk/Publications/2004 /11/20178/45862). All of these will have an impact on the models of professional learning and development introduced to support the implementation of CfE. Funding to support professional learning and development for teachers is devolved to local government under the Government's concordat arrangements.

**The Context in England and Wales**

On 07 March 2008, the Secretary of State for Children, Schools and Families gave details of a new, national Masters in Teaching and Learning Degree and announced the intention of the UK government to develop teaching as a Masters level qualified profession in England and Wales. The (normally) three year, part time Masters in Teaching and Learning, which will begin in January 2010, will be government funded and all newly qualified teachers in England and Wales will be eligible to register on the Programme. Funding will cover not only fees but also the cost of teachers spending time out of the classroom. Participants will be supported by a trained, in-school coach who will be an experienced teacher. Of significance is not only the level of study but also that the new degree is practice-based and is focused upon the development of teaching skills.

From the information that is currently available, it appears that study on the Masters degree will be flexible and adaptable, taking account of both the needs and interests of the individual teacher and the School's priorities. There will be three phases to the degree Programme. In phase one, participating teachers will develop enquiry skills. Phase two encompasses the development of subject content and pedagogical knowledge and working with others in and beyond the classroom. Phase three focuses upon deepening knowledge in a specialist area. There is no indication that teachers will engage in Action Research or enquiry into a selected aspect of practice, although this may be part of phase 1.

Such policies and initiatives reflect debates in literature and research not only about the suitability and value of pre-service Masters level study, but also about Masters-level academic credit as a feature of in-service teacher professional learning and its contribution to the development of practice.

**STNE Years 5, 6 and beyond: A Framework for Enhanced Professional Practice**

Simultaneously, the STNE initiative has been developing, in dialogue with partners (Education Authorities, Head Teachers and teachers), a continuum of professional learning for early career-teachers which links undergraduate study with the first two years of in-service teaching and beyond. This has involved the development of a

Framework for Enhanced Professional Practice. The rationale for the Framework, is to enable participating early career teachers to become increasingly and more consistently effective in the learning experiences they provide for children and young people in their classrooms and to enable these teachers to continue to develop an open and questioning mindset through an enquiry and workplace practice-based approach. The associated programme aims to extend the knowledge, skills and understanding of early career teachers and support them in developing professionally; to further develop and build on the characteristics of high quality teaching, i.e. a high level of understanding of effective classroom practice, highly skilled professional expertise and high quality engagement with children and young people; and to draw on what is known about the conditions for effective professional learning and  development for teachers, i.e. support and professional challenge from peers, critical friend and mentor, expert input and opportunities to improve teaching through learning from and with others. Participants who wish can complete the accredited version and be awarded a Masters in Enhanced Professional Practice.  Through the design, delivery content and assessment of the accredited and non-accredited programmes, early career teachers will be supported in their workplace practice-based professional learning, continue to develop as a lifelong learner, work towards improving outcomes for all children and young people, be supported to identify next steps in their professional learning and development and learn collaboratively with and from others in and beyond the school environment.

The development of the Framework was informed by literature and research on teacher workplace learning, action research/critical enquiry and models of teacher professional learning and development. This literature and research is briefly discussed in the following section.

## Review of Literature

Teacher Workplace Learning

It has been argued that in developing approaches to teacher professional learning, research should combine insights gained from literature concerned with workplace learning with that of teacher development (Hodkinson and Hodkinson, 2005). Two key ideas about how teachers learn are, it is argued, often under-recognised. Learning, to varied extents, is an integral aspect of workplace practices. Furthermore workplace

learning is predominantly a social and cultural process where individual learning is seen as a part of a larger phenomenon. The stance taken by Hodkinson and Hodkinson (2005) is to re-emphasise individual learning (which they see as being in danger of being forgotten about) but without losing a focus upon a wider social and cultural perspective. A challenge, therefore, is to integrate individual teacher learning and study with their work and workplace context, avoiding the problem of additionality, where teacher learning does not relate to professional practice, becomes additional to a teacher's work and, consequently, where formal study is involved, unlikely to be completed successfully. Arthur et al (2006) explored the reasons why 'many more teachers begin studying for masters' level awards than complete them' (p206). They found that personal commitment, workplace culture and the Higher Education Institution (HEI) organization all had an impact. In order to have a realistic chance of success, teachers had to be aware of both the potential rewards of postgraduate study and of the demands. Some schools 'relish enquiry into practice and enable teachers to explore and extend their studies through research in the workplace' (page 215). Others showed little interest or even undermined the work the teacher was undertaking. The authors suggest that 'a school that can build classroom-based research into its development plans and support those engaged in it through organizing collaborative enquiry and in-school mentoring and prioritizing the time needed to collect data, is likely to encourage completion' (page 215). Positive expectations and support from Local Authority personnel could also be beneficial. For HEIs the nature of assessment was identified as an important issue. Suggested adaptations included scheduling assessment throughout the period of study and reviewing assessment deadlines to take account of school calendars, providing easier access and more formative feedback, broadening the range of types of assessment and providing sensitive support. In collaboration with others, the University of Cumbria 2007 undertook a pilot research project to track the progress and effect of PGDE Masters level provision in England from Sept 2007 to July 2008 and to 'investigate the perceived value-added that study at Masters level brings.' (Jackson and Eady 2007, conference presentation). They interviewed student teachers at the start of their postgraduate year. Jackson and Eady (2007) are of the opinion that 'Masters is not a time consuming and remote intellectual adjunct to the practice of the professional teacher. It is an enrichment of practice, interwoven into the way in which a teacher views his or her professional identity. As such it becomes of benefit to the child or young person who, in turn, learns the

significance of critical enquiry and thought and is enriched by it' (Jackson and Eady, 2007 conference presentation).

## Action Research/Critical Enquiry

Advocates who argue for Action Research as an approach to research and knowledge generation (Carr and Kemmis 1983, Greenwood and Levin 1999, McNiff 2002, Kemmis 2007, McNiff and Whitehead 2006, 2009), typically describe Action Research as cyclical, scientific, systematic inquiry by practitioners, into self-selected aspects of practice. The Action Research process involves experimentation with new ways of doing things, leading to new knowledge, improvements to practice, solutions to problems and more just or satisfactory situations or outcomes. The cyclical and critically analytical process of Action Research was first described by Kurt Lewin (Lewin, 1948). This approach to learning and the development of practice is also reflected in recently articulated models of teacher professionalism which involve 'principles of mutual exchange, reciprocity and working together but also (on) shared inquiry into patterns of practice' (Sachs, 2000, page 89). Cochran-Smith's and Lytle's (2001) work on conceptions of teacher professional development, promotes Teacher Action Research or the development of 'an inquiry stance on teaching that is critical and transformative', labeled 'inquiry as stance' (Cochran-Smith and Lytle, 2001, pages 49 and 50). The metaphor of stance is used '…to capture the ways we stand, the ways we see, and the lenses we see through as educators' (Cochran-Smith and Lytle, 2001, page 50). Inquiry as stance differs from Action Research in that it refers to a time-bound project through which knowledge is generated and practice is theorized and analysed. Cochran-Smith and Lytle see the process of knowledge production by teachers generating 'local knowledge' (Cochran-Smith and Lytle, 2001, page 51). In the processes of knowledge production and systematic enquiry, Cochran-Smith and Lytle see teachers using questions as lenses or tools with which to see and interrogate practice. Examples of such questions might be, who am I as a teacher?, what am I trying to achieve and what assumptions am I making?, what sense are my pupils making of my teaching/their learning activities?, how do (selected) frameworks and ideas relate to and inform my own thinking and practice? how do my efforts as an individual relate to those of others and to wider concerns and agendas for change?

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For Johnston (1994), teachers' enthusiasm for Action Research or systematic enquiry, does not translate into incorporating the process into their practice without some external intervention. In offering explanations for this, Johnston suggests that Action Research 'does not fit with the processes that reflective, inquiring teachers use' (Johnston, 1994, page 43). Alternatives to more structured forms of Action Research suggested by Johnston include broadening their knowledge through reflection and inquiry, the inquiring teacher movement and the teacher as researcher approach' (Johnston, 1994, page 46) or through narrative enquiry involving 'formal or informal groups or networks in which teachers exchange stories of teaching to understand their own professional knowledge and its origin' (Johnston, 1994, page 46). As Johnston acknowledges that Action Research or systematic enquiry into practice is often rewarding and worthwhile, one assumes that alternatives are just that and not replacements. This raises the question, of the part that Action Research or systematic enquiry can or should play in teacher professional learning.

**Models of Teacher Professional Learning and Development**

If we are to facilitate the continuing professional development of teachers throughout their careers then it is important that we have an understanding of the process by which teachers grow, the specific challenges they may face at different stages of their career and the factors and types of support that help to promote their development. Referencing Huberman (1989, 1995), Sikes et al (1992) and Fessler and Christensen (1992), Day and Sachs (2003) identify five broad career phases through which, they suggest, teachers pass. These are:

- the launching of a career or the early career phase which can be an easy or a painful beginning
- a period of stabilization and consolidation
- a phase of experimentation which brings new challenges and concerns
- the reaching of a professional plateau where striving stops and which can be either a time of enjoyment and professional effectiveness or of stagnation.
- the final phase which is often characterised by the increasing pursuit of outside interests and contraction of professional activity and interest.

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Feiman-Nemser (2004), proposes a continuous framework for a curriculum for teacher learning. She identifies a three–phase framework of teacher professional learning and development, pre-service preparation, teacher induction and continuing professional development. Feiman-Nemser (2004) also highlights what she sees as critical elements in developing 'a continuum of serious and sustained professional learning opportunities for teachers..' (page 1049). These elements include using 'serious talk as a medium of professional development' (page 1042), '..rich descriptions of practice, attention to evidence, examination of alternative interpretations and possibilities' (page 1043), '..coherent and connected learning opportunities' (page 1048), which link pre-service teacher education, induction and continuing professional development. This framework depends upon '…a partnership of schools, unions and universities. Each has a critical role to play and none can do the job alone' (page 1050). Teachers '..must be introduced early on to the skills of inquiry and given many opportunities to develop the habits of critical colleagueship' (page 1049).

Reflecting the need for teacher-centred, active and continuous professional learning, McCormack et al (2006), having reviewed a wide-body of research are of the view that '..it is important that our early career teachers are supported and encouraged to become active learners to strengthen their knowledge and experiences to create classrooms and schools where quality teacher occurs and their professional learning is fostered and on-going. (McCormack et al, 2006). Devising 'programmes' of effective professional learning experiences has become increasingly complex. There is a need to recognise and address the fact that teachers are individuals who bring different experiences, learn in different ways and engage in systematic enquiry of their practice at different levels. As Darling-Hammond states 'well prepared, capable teachers have the largest impact on student learning. They need to be treasured and supported.' (Darling-Hammond cited in McCormack et al, 2006, page 96)

In the remainder of this paper, the findings from the empirical research into the views and experiences of teachers engaging in Action Research or critical enquiry are presented and discussed.

**Perspectives and Experiences of Award Bearing Teacher Professional Learning and Teacher Action Research or Enquiry**

The Early-Career Teachers

All of the teachers in their second year of teaching saw undertaking professional learning or 'CPD' as being important, describing it as 'important' (T1, T6, T8, T11, T12), 'very important' (T2, T3, T4, T5, T9, T10) or 'essential' (T7). When asked whether or not gaining academic credit for professional learning undertaken was important, 5 of the teachers (T1, T5, T8, T9, T11), said it was not important to them or was not of interest to them. Another 6, (T2, T3, T4, T6, T7, T10), said that they were or might be interested. One teacher said 'I haven't really thought about it so obviously it's not [laughs] that important' (T12). Reasons why it was not important included, no desire for a further qualification (T1), the time was not right ('just now I feel I just getting by', T11), studying was not seen as conducive to improving practice (T1) which was the teacher's 'prime motive' (T8), the age of the teacher (T9), the need for a break from studying (T11) and the belief that study at Masters level in the early years of teaching was not appropriate,

> …in year two, I'm not at a stage in my career where I can honestly say that I believe that I have, I mean I can reflect upon what I do, but I mean for the likes of the masters, I would like to have a couple of years under my belt to know that I've reflected and I've already been through a couple of years of that process….I don't know if I believe I have the experience to really be at that master's level yet. …… in a way I don't really believe any of the second year teachers are at that level really. (T 5).

Reasons why award-bearing professional learning was valued included, the desire or need to learn ('you have got keep your brain going, you've got to keep working at it, it's not something…I don't find teaching, never thought of teaching as a career you go into just to stop learning', T2), interest in gaining a Masters-level qualification (T2), because it is a form of recognition (T6), as an aid to career progress (T4, T7), and because the teacher's perspective on practice will change ('…you'll start viewing things in a slightly different way….' T7). Some of the teachers who expressed interest in academic study, also, however, expressed some doubt or hesitancy,

> I'm not certain on whether I want to do that or not yet (T10).

> I think it would be something I would be looking at, but I don't know because obviously I don't know where, well I'll be in a year.. (T3).

> …it's possibly not that important just at the moment but it's kind of opened a door for me to think about (T1).

Furthermore, reflecting the views of teachers T1 and T8 whose priority was to develop practice, two teachers who said they were interested in credit-bearing professional learning, stated that gaining credit was not their primary motive for engaging in study,

> I'm doing it because I would like to, you know, take on something that I can then use in the classroom or whatever, I'm not doing it for the gain of credit. (T10).

> ..it is just a bonus really because I think I would do it anyway (T6).

One teacher, who had previously said that gaining academic credit was not important to her, had, by the end of the year, changed her views and appreciated the benefit it may have in terms of her employability (T8)

Each of the nine 'year 2' teachers were supportive of teachers engaging in Action Research or systematic inquiry as part of their professional learning,

> It has lot of value to add. Doing a project more formally allows you to think back and reflect. It also allows others to reflect upon and use it (T4).

> It's a great idea. This has allowed people to focus on…..whatever they feel they need to work on…..Beginning the seed of inquiry is a good idea…. (T3).

> I think [Action Research] should be just part of the way that I work. I will continue developing and this is a really good way of doing it'(T2).

Some of the teachers wished to qualify their views or to suggest conditions under which teachers might undertake Action Research or systematic enquiry. For Teacher 2, flexibility was important and that the individual teacher should select the area of enquiry. Teacher 8 made detailed, qualifying statements. She felt that the more confident one became as a teacher, '… the more something will just have appeared to me that I would really like to look into' rather than having to seek it out. She strongly advised that 'year 2' teachers should not engage in Action Research before Christmas, especially if the teacher is in a different school or teaching at a different stage. Teacher 8 also felt it important to make it clear that Action Research is about practice and that 'although its linked to university and there will be accreditation or whatever at the end of it, that this is really what you're doing in your day-to-day practice'. Linking teacher learning and pupil learning, she also highlighted the need for teacher readiness,

> The same as we would be in a classroom, you wouldn't give a project to somebody you knew just couldn't possible cope with that at that time. But if you know that a child is very able and can… I mean I give the children here something I would never give time to someone else, it's the same situation with action research really (T8).

Each of the 'year 2' teachers who did Action Research spoke of benefits to themselves and/or their pupils. One felt she had developed a more flexible approach to what she taught and was responding to children's interests; as a consequence she was aiming to give pupils more ownership of their learning in future (T3). One teacher, whose Action Research involved using formative assessment techniques to motivate a group of learners with social and emotional difficulties, was of the opinion that what had been implemented, had made 'a very big difference' to 'children who have extremely low self esteem'. It had enabled their learning and had provided the learners with '..tools to see what the gains of learning were..' (T6). Teacher 9, whose Action Research involved developing the use of active learning strategies, believed that it had resulted in growth in the children's learning which was evident in the standard, presentation and content of their work in language and mathematics. Teacher 8, whose Action Research involved the use of games consoles as learning tools, spoke of increased motivation and learning. One teacher was planning to make reference to doing Action Research in a forthcoming interview,

> Now I know I can work it into that interview and say I've been doing some action research and you know, these are the results and I want to work further on this and it's going to be a very big selling point. (T6).

**The Teacher Action Research Scholars**

The Teacher Action Research Scholars (TARS), the second group of teachers interviewed, also had mixed responses when asked if gaining academic credit for undertaking the scholarship was important to them. Five of the TARS said that it was not important and two said that it was, with comments made ranging from 'totally insignificant' (TARS 3) to 'probably fairly significant' (TARS 2) to 'really important' (TARS 5). Reasons given why these teachers chose to undertake an Action Research Scholarship included, previous study with the University (TARS 8); because of the support that was available and the structure it provided (TARS 5; TARS 6; 'I don't know if I'd have completed the project without the scholarship' TARS 8); a suggestion from someone else (TARS 2; TARS 4; TARS 7); because of existing connections between the school and the university (TARS 2); the financial support that was provided (TARS 3; TARS 7); in order to work and network with others (TARS 4); to legitimate the work the teacher was proposing to undertake (TARS 5) and the opportunity to look at practice more objectively (TARS 1).

The eight 'TARS' were all supportive of the idea of early-career teachers engaging in Action Research or systematic enquiry into practice,

> Yes because it makes you reflect more. … I think it links with everything Curriculum for Excellence is all about and if they [beginner teachers] have that understanding from the very beginning, it comes as less of a shock to you later on. It just becomes part of their normal every day practice (TARS 2).

> We have a different style of student now. I mean I've noticed those differences. They're enquiring, they don't necessarily agree with the way that its being done already(TARS 1).

Like the 'year 2' teachers, some of the TARS suggested conditions under which early-career teachers might engage in Action Research or systemic enquiry,

> I don't think its something that comes readily… it does require a certain amount of postgraduate experiences or understanding… (TARS 1).

> I think it is important that the youngsters come in with ideas and are given the opportunity to try them out with the understanding that somebody else in the department who thinks that this is a crazy idea….can sort of put some checks and balances on them (TARS 4).

> It can be quite overwhelming. I think maybe bits and pieces of it could be introduced and then maybe introduce more and more as time was going on, so that they could build it up you know. It's like a took kit that you build up when you're learning to teach, a tool kit that you build up for inquiry and research (TARS 2).

Some of the Teacher Action Research scholars also spoke of the benefits of engaging in Action Research. One said that it had given her new teaching intervention an impetus (TAR 4). Another had helped her to secure funding (TAR 7). One said undertaking the scholarship had 'Given me confidence to 'know how I can evaluate' and also provided a '..deeper layer to my understanding of how to run a department effectively..' (TAR 2). . Another said that 'my thinking now is… offer a much broader experience to a broader variety of children with different approaches' (TARS 1).'

**Discussion**

A significant factor in determining how likely the participants in these projects were to complete their research project was the nature of their employment. Year Two teachers were employed in part-time or fixed term or supply teaching posts and as a result were less settled within their school environment, less sure of the routines and rhythm of the school year and still in the process of developing and understanding their professional identity. These teachers also experienced variable levels of support within the school

resulting in some Year Two teachers being less confident about their achievements. TARS on the other hand were experienced teachers in permanent teaching posts and had already established themselves as part of the school community.  While both groups of teachers were 'volunteers' the TARS group volunteered from a more secure base.  The Year Two teachers, fresh from their Induction year, in a new school environment were in effect starting out in their first 'real' teaching post.  The continued development of their learning from initial teacher education into the Induction year and into the early years of teaching had been fractured.  Feiman-Nemser (2004) talks about the importance of being given many opportunities to develop critical colleagueship.  It is difficult to do this when you are not established and settled in the school environment and are not part of a networked community that can help foster these habits.

A particular feature of the TARS responses was the extent to which other colleagues in the school/department were interested and supportive of the Action Research they were undertaking.  The support and engagement was variable, partly linked to some participants being reluctant to admit they were engaged in a 'project' and partly linked to the practical applications of the project.  By this we mean whether or not other teachers could use and adapt the learning and methodology in their own teaching.  In cases where this was successful, the impact of the Action Research was much more significant with changes being made more widely in the school/department.  Clearly, there is a need to provide opportunities for teachers to share their own learning more widely if it is to impact on the wider growth of the school community.

Teachers were broadly supportive of engaging in Action Research or critical enquiry. There is, however, strong evidence to support the idea that the focus of the Action Research intervention/project should be explicitly connected to the ongoing work and activities of the class.  This was particularly important for Year Two teachers who would have perhaps benefitted more from the process if they had focused their research on their own developing practice, needs and interests rather than undertaking a specific project.  TARS on the other hand indicate the importance of the project as a means of refreshing and challenging their practice and re-focusing their approaches to teaching and learning while accepting that Action Research and systematic critical enquiry should be focused on practice and grow from the work in the classroom.  There is also a sense that throughout a teacher's career different forms of approaches to Action Research are necessary to address the different challenges teachers face at different stages of their career.  The continuum of teacher professional learning and development

need to take account of this and build in progression in the nature and expectations of Action Research projects.

Teachers' views on whether or not work of this nature should be recognised in some way, eg through the awarding of Masters level credits are variable and, in some cases, change over time. Lack of understanding about what postgraduate study means and the value of such study to the individual teacher and the school would seem to be an important issue that universities need to address. There is a need to clarify and exemplify what workplace and practice-based postgraduate study is and how it links directly to improving practice and increasing pupil gains. The impact of postgraduate study needs to be viewed in the wider context of the school and not just on the individual teacher involved. What impact has this Action Research had on the pupils, the teacher and the wider school community? If we can begin to address these questions and make more explicit the contribution Action Research, critical enquiry and postgraduate study have on the growth and development of the school then postgraduate study may become an integral part of the professional learning continuum for teachers. Notwithstanding these points, the teachers in this study were supportive of a move providing a more coherent Masters level programme to enhance professional practice, incorporating opportunities for teachers to engage in critical enquiry and Action Research.

**Conclusion**

In addressing the issues identified in this study the delivery of the Framework for Enhanced Professional Practice and associated Masters level programmes need to ensure that the activities the participants are engaged in are truly focussed on enhancing professional practice and situated in the classroom and school environment. If the framework is to be seen as an integral part of the professional learning experience of teachers and schools then there is a need to continue to strengthen and develop the partnerships between teacher(s), school and universities.

Postgraduate study and Action Research or critical enquiry into professional practice need to become the norm and not an optional extra for some teachers; needs to be valued by the educational community. As the title of this paper suggests, some teachers

are currently uncertain about their commitment to and readiness for, award-bearing, Masters level professional learning.

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# TEACHER PROFESSIONAL STANDARDS: HOW CAN WE HELP TEACHERS TO ATTAIN THOSE STANDARDS?

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ABSTRACT

*The paradigm shift in learning requires corresponding paradigm shift in teaching and teachers' role. Almost every approach to school reform requires teachers to refocus their roles, responsibilities and opportunities. The success of efforts to increase and reach high standards largely depends on the success of teachers and their ability to acquire the content knowledge and instructional practices necessary to teach high academic standards. This paper will suggest the various creative approaches that can be adopted by educational leaders and teacher leaders in schools on how to help teachers attaining a higher level of professionalism and upholding the Teacher Professional Standards.*

Key Words: Teacher Education, Teacher Professional Standards, Competence,  In-service (INSET), Teacher Education Reforms.

## Introduction

The global village has accepted the principle that education is a fundamental human right.  Enjoyment of such right does not only imply being given *access* to schools and being trained for life-long learning via either formal or non-formal means, but more importantly, being provided *quality* education.  For many children, youth and adults today, access to learning opportunities is no longer a luxury; however, getting quality education remains to be elusive even in developed countries.  Quality standards change brought by new social and political contexts, shifting national development goals, emerging needs and demands, technological advances, and various forms of metamorphoses.  For education, these transformations open up unlimited possibilities and responses that are relevant, constructive, creative and challenging.  To stay relevant, the schools and other similar education providers must therefore keep constantly attuned to developments and changes.  Teaching and learning must also widen its focus to include developing the individual's capacities for higher learning, civic life and work.  These capacities are best captured in Delor's four pillars of education, namely *learning to do, learning to work, learning to be* and *learning to live together,* which all forms of learning programs and teaching practices must include (Rosas 2004).

Increasingly, professional teaching standards are seen as having an important role to play in generating improvements in the quality of teaching and learning. There is increasingly recognition in many countries across the globe of the need to enhance teacher professionalism. To that end, major initiatives concerned with the quality – not just the quantity – of teachers are under way in many regions. This generally means ensuring that all teachers are fully qualified and that they are kept as up-to-date as possible in terms of knowledge and skills. Every country is making an effort to enhance the professionalism of teachers, particularly through the promotion of "continuous professional development" (CPD) at all levels. However, there is still a long way to go in terms of creating and sustaining a comprehensive and systematic approach to training and ongoing development.

Teachers are vital. Although most countries have teacher training colleges and universities that produce qualified teachers, several countries face problems associated with unqualified teaching personnel – especially in remote areas. A number of studies have found little difference between the effectiveness of trained and untrained teachers. There appear to be two main categories of teacher supply, namely university graduates for secondary schools, and non-university graduates for primary schools. In Malaysia, we are training teachers for both primary and secondary schools. Several initiatives have been taken to increase the supply of qualified quality teachers.

Teaching Codes of Ethics and other guidelines are designed to support teachers in executing their duties in most countries. Excessive workloads are still a common problem for teachers in the South-East Asian region. Overcrowded classrooms are a universal feature in big cities and major towns. In certain parts of the region, multi-level teaching is still being practised. Remuneration for teachers is still very low. Despite these economic factors and conditions, teachers continue to demonstrate a great commitment and dedication to teaching.

**Teacher education reforms**

Reforms in Teacher Education have to deal with all aspects of the training and education of pre service and in service teacher training as well as the continuing education of all teachers. The principles behind any teacher education reforms in any country should be as follows. Nations and societies must pay special attention to the

raising of standards of student achievement and teacher performance. There must be serious rethinking of teacher preparation and professional development for preservice and in-service teacher preparation programmes. Teachers should be encouraged to acquire higher qualifications and to master up-to-date professional knowledge and should be rewarded for the knowledge and skills. Teacher education reform should foster new paradigms and understanding of human potentialities, endowed gifts and talents for and uniqueness and there should be a culture of teaching for success and confidence building of learners and for failure and diffidence because of the educational experiences. There should be high quality teachers in every classroom and educational experts in every institution. The reform in teacher education must have as its overarching principle agenda that teacher educators and teachers are the champions of life-wide and life long education in their own communities. Teacher education reform should create opportunities for teacher educators to understand the direct and indirect purposes of the knowledge and skills and attitudes in teacher education and schooling to the world of work.

**The present teacher education programs in Malaysia**

**Preservice Teacher Education Programs**

Preservice teacher education programs will be focussing on providing post graduate diploma programs for graduate teachers and a 2 + 2 years twinning degree programs between Teacher Training Colleges and local universities. All Faculties of Education in the local universities will be concentrating on providing a 4 year full-time undergraduate degree programs in teacher education. These strategies are to achieve the Ministry of Education's target of implementing the all secondary schools to be taught by graduate teachers and at least 50% of all primary schools will be taught by graduate teachers by the year 2010.

**INSET Programs**

The Ministry of Education Malaysia has been allocated with the large amount of money to conduct inservice courses for teachers all over Malaysia and education personnels at

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the various State Education Departments, District Education Offices and Professional Divisions in the Ministry itself. The main objectives for conducting these courses are to enhance the aspect of access, equity, quality and the competencies and the effectiveness of managing educational institutions.

There are a number of teacher education reforms have been planned to be implemented in the near future:

(i) The Ministry of Education is determined to train and supply adequate graduate teachers to fulfil the target of achieving 100% graduate teachers to teach in secondary schools and 50% graduate teachers to teach in primary schools by the year 2010. This is in line with aims of enhancing the quality of education. The implementation strategies that are being used to achieve this target are through:

   a. Twinning Programs between local Teacher Training Colleges and universities for untrained teachers.

   b. Twinning Programs between local Teacher Training Colleges and the Open University of Malaysia.

   c. Post Graduate Teaching Diploma Programs for primary teacher education.

   d. School-based Teacher Education for primary school teachers.

(ii) The excess number of teachers in certain subjects will be directed to undergo conversion courses to enable them to teach Mathematics, Science and English Language.

(iii) The professional levels of teachers should be high. Continuing Profesional Development (CPD) programs will be seriously planned and implemented at all Teacher Training Colleges and Teachers' Centres. Programs for up-skilling and multi-skilling will be continuously developed and implemented. The Malaysian Trainers Development Projects (MTDP) for the Training of Trainers of English Language will be explanded for Mathematics and Science subjects.

**Issues in the Implementation of INSET Programs**

There are a number of issues and problems being faced by the implementers of in-service training (INSET) programs for this year:

(i) Teachers Leaving the Classes to Attend INSET Programs

As there seemed to be an increase in a number of courses being conducted by the respective providers of INSET programs, teachers are expected to leave their classes unattended during their absence to undergo the INSET programs. This has created a shortage of teachers that had brought implications to classroom teaching and learning which created dissatisfaction among parents. It has been suggested that INSET programs should only be conducted during week-ends. Many teachers are interested in attending the courses, follow-up courses, or becoming facilitators, but they are tied with extra work in schools. Therefore, support from all parties, especially the school administrators, is needed to ensure that these teachers are not being overload with other additional non-related academic work.

(ii) Trainers Leaving the Schools

There are a number of teachers who are trainers in their respective disciplines had been declined by their principals/headteachers to enable them to conduct courses outside their schools. Their services are not being considered in their end of the year appraisal. This had distrupted the implementation of certain courses. The principals and headteachers should be given the briefing on the importance of INSET programs and their cooperation is greatly needed.

(iii) Shortfall in the Number of Course Participants

Many providers of INSET programs had been complaining about the shortfalls in the number of participants for their courses. It is obvious that many principals/headteachers do not nominate or send/allow their teachers to attend INSET programs. In order to encourage more teachers to attend INSET programs, it has been suggested that INSET programs should be a gateway to higher education. An alarming percentage (30%) of teachers who were offered places in the Special First Degree program have turned down the offer due to financial constraints. Teachers have to have a half pay leave during their studies as stipulated in the General Order.

**Towards a new paradigm of teacher education**

Based on the above descriptions, it has been noted that education reform processes tend to maintain the classical scheme of incorporating teachers when the proposal has already been defined, counting on teachers only as potential trainees and implementors, thus disregarding the importance of teachers' knowledge, experience and active participation in the reform process. The common approach of adapting teachers to reform proposal, rather than adapting the reform proposal to teachers, is still dorminant. Fortunately, there are also positive trends and innovative experiences emerging in various countries. In general, however, such initiatives are recent and still limited in size, and more often linked to *in-service* rather than to *pre-service* Teacher Education. Delineating a strategy for teacher education efforts

- **Closing the gap between educational objectives and teacher competencies.** Achieving education for all and improving the quality of education implies a substantial improvement in the professional status and quality of teachers.

- **Teachers as learners.** Teachers need to continuously improve themselves in order for them to be able to face their new expected roles.

- **Teacher education as a continuum.** Pre- and in-service Teacher Education must be viewed as part of one single process, thus revindicating the concept and principles of *continuing education* for the teaching profession.

- **Reviewing cost-effectiveness criteria applied to teacher education.** The relationship between teacher knowledge (and Teacher Education) and student learning outcomes is not a mechanical one. Many of the factors that intervene in student learning are beyond the control of teachers and exceed their professional knowledge or competence. All this implies reviewing narrow cost-effectivenesss criteria applied to Teacher Education.

- **Technical and technological solutions are not the priority.** It is necessary to create the political, cultural, information-and knowledge- related conditions that are essential to promote changes in societal perceptions and attitudes towards teachers and their work.

- **School autonomy implies teacher autonomy.** It is important to bear in mind that *school autonomy* can take place without *teacher autonomy. Teacher autonomy* implies, essentially, *professional autonomy,* and this requires specific

measures. Promoting greater school autonomy without creating the conditions for greater professional autonomy for teachers may contribute to strenthen, rather than to alleviate, inefficiency, inequity and poor quality in education systems.

- **An integral approach to teacher professional development.** It is not possible to isolate Teacher Education from the remaining factors that influence teacher performance and development. Professional quality is inseparable from quality of life (UNESCO 1991)

## Educational change and teacher education

The changes in educational environment often happen in terms of rapid development of technology, demand for accountability to the public, developments in curriculum, diversity in student quality and diversity to teacher quality. In a continuously expanding modern world, the role of the school is changing and teachers need to expand their knowledge domain and develop a variety of new competence to keep pace in their teaching. Teachers need to develop various competence to satisfy the diverse expectations from students, partners, education authorities, the community and the public. In recent years, the school values emphasized in schoiol management have been changed. There are changes in teachers' personal values. All these changes in school values and personal values have aroused the school's concern about the need for staff development. The recent school management reforms and teacher profesionalization movements have brought about a fundamental change in the role of teachers. The role of a teacher is changing. The new role includes being an education professional, learner of new knowledge and technology, education partner, reform initiator, decision maker and realizer of school ideals. Staff development can assist teachers in changing their roles.

As mentioned above, the Ministry of Education in **Malaysia** is planning a number of education reforms to be implemented. These will definitely trigger teacher education reforms. At the centre of the education change,especially at the centre of the educational process is the teacher, who as the human purveyor of knowledge, patiently guides and directs future generations of learners as they wander through the maze of new ideas, new trends, new directions for living. The quality of education depends on the quality of

the teachers. Hence, the quality of teachers will not be improved unless the quality of their education is improved.

An increasingly open society with an expanding technology and a rapid increase in knowledge requires a different school where teachers do not just instruct. Instead they are enablers, facilitators, problem solvers, catalysers or organizers of learning. The role of teachers becomes more complex and change in the role focus minimizes prevailing "role-model" orientation of today's teachers who surrender their individual developmental needs and interests to the dictates of their academic supervisors. The present structure of teacher education cannot accommodate these changes in the teacher's role and the new skills, new attitudes and new knowledge required of teachers in the contemporary milieu. Therefore, we should have a teacher education program which integrates pre-service, in-service and continuing education as required components of the career pattern of all treachers. The concept of integration in teacher education is based on the view that teaching is a life-long career and that for teachers the pursuit of learning and professional growth should be continous, with reflection, analysis and practice as essential parts of the process. Teacher education is a career long endeavour. It does not therefore end with initial certification. It follows that pre-service can never be an adequate preparyion for a full-time teaching career. It must be supplemented by on-going professional development and continuing in-service education for all teachers.

In education, the persistence of the same old problems is famous. Successive waves of school reforms, though not nearly as effectual as they are often portrayed, have failed to fully realize the improvements they promised, and many staff development programs have developed teachers' cynicism more than their expertise. Studies of attempted change in educational organizations and systems have shown that the intentions of policy-makers and planners are seldom achieved in practice in school and college classrooms. Bringing about successful educational change is a long-term and socially complex process, where the implementation stage is particularly problematic – requiring scope for practitioners to work out their individual meanings of what changes involve for their own thinking, beliefs and actions. The typical pattern *when reform fails has been to blame teachers rather than designers;* it now appears, however that the designers' assumptions are often at the core of the chronic failure of change efforts.

 "Thirty years ago most people thought that change would mean more of the same, only better. They expected and welcome this incremental change. Today we know that in

many areas of life we cannot guarantee more of the same…and cannot even predict with confidence what will be happening in our own lives" (Handy 1990). Now, I would like to pose a few questions. How can we help teachers to cope with the difference challenges in educational reforms. What sort of teacher education reforms that we can suggest? How should they be implemented? To ensure that our teachers are able to manage all educational reforms successfully, what should a strong teacher education program look like?

**Teacher Professional Standards**

Developing and implementing standards of professional practice to reflect a new model of teacher professionalism is emerging as a priority in a number of countries across the globe. Professional teaching standards help to make teachers' knowledge and capabilities more explicit, as well as provide a powerful mechanism for defining and communicating what constitutes good teaching. They can also provide a useful framework for ongoing professional learning.

Quality of teachers is reflected in their quality of teaching. To ensure quality in teaching, standards for what teachers should know and be able to do should be developed. The standards are used as the criteria for licensing or certification, recruitment, and career planning and development. These are also used by the teacher pre-service and in-service training institutions as the bases for their curriculum development and improvement.

Need for Teacher Standard

Teacher standard is needed with respect to the following matters:

1. *Regarding quality assurance.* It is recognizable that for the seek of quality assurance school teachers must be qualified and registered and their examination and qualification are nationally accredited. With respect to this it needs teacher professional standard.

2. *Regarding quality improvement.* It is also recognizable that regarding quality improvement of education efforts there are some action that need to undertake such as strengthening leadership and management, and commitment of all staff to continuous improvement; measuring the effectiveness of teaching, and continuing professional development.

3. *For vertical relationship.* By setting teacher standard it could support effective strategic leadership so that it creates conducive environments for the students' learning.

4. *For horizontal relationship.* In the community of quality teachers, meaning only teachers with the minimum certain qualification and competencies are being its member, the effective communication and collaboration are needed to support the effective student learning. This could happen when the community of teachers meet the standards in terms of qualification and competencies.


**Teacher Professional Standard Development**

Teacher professional standard could be used as a set of criteria of minimum competences that every teacher should perform in undertaking his/her job. Beare (2001) identifies the minimum competence of teacher that corresponds to five common areas or components in which they are expected to be competent. The five dimensions are curriculum, pedagogy, assessment, contribution to the life of the school, and contribution to the profession.

1. *Curriculum.* The teacher is expected to have content knowledge about the courses he/she is teaching (subject specialization) and he/she is expected to keep herself to up to date in it.

2. *Pedagogy.* The teacher must know how to teach, must know about classroom management, about modes of student learning and the teaching method which are appropriate to those modes, and about appropriate teaching technologies. The teacher is expected to have mastered range of teaching strategies.

3. *Assessment.* The teacher is expected to know how to evaluate student work, how to assess students' progress, how to report that progress constructively to students and to parents, how to keep cumulative records of progress in learning, and how to benchmark that progress.

4. *Contribution to the life of the school.* As a member of the staff of a learning institution, each teacher is expected to contribute constructively to the wider life of the school, both formally by accepting responsibility for certain school-wide functions, and also informally by being concerned about the school's tone and

culture, the well-being of its students, its reputation and community standing, and especially its relations to parents and the wider community.

5.  *Contribution to the profession*.  Each teacher is expected to be actively engaged with the teaching profession by participating in professional development, by being active in professional activities, by contributing to the development of the profession's knowledge and its craft base, and being available to and assisting the growth of professional colleagues. The teacher is expected to think and behave like a professional.

The core of teacher professional standards outlines what every teacher needs to know and able to do.  It is formulated based on some abilities that the teachers need to perform in the following areas: assessment, communication, continuous improvement, critical thinking, diversity, ethics, human development and learning, knowledge of subject matter, learning environments, planning, role of the teacher and technology.

**Ten Basic Principles in Developing Teacher Professional Standards**

In the process of developing teacher professional standard there are 10 basic principles that all teachers must know and able to do, regardless of the specific content areas. These standards are related to (i) knowledge of subject matter, (ii) knowledge of human development and learning, (iii) adapting instruction for individual needs, (iv) multiple instructional strategies, (v) classroom motivation and management skills, (vi) communication skills, (vii) instructional planning skills, (viii) assessment of student learning, (ix) professional commitment and responsibility, and (x) partnerships.

**Beginning, Advanced, Generic And Specific Standards**

Standards have been developed at a number of levels to reflect the degreee of expertise and experience that teachers tend to acquire during the course of their careers. **Beginning standards** provide a professional scaffold for pre-service teacher preparation as well as a measure for gauging the readiness of graduating teachers for a future career in teaching.  These standards are sometimes linked to guidelines for initial teacher education courses. **Advanced standards** focus on higher-order capabilities that are demonstrated by more accomplished teachers.  These teachers are deemed to have

acquired significantly increased expertise, and are regarded as particularly effective or successful practitioners. Hence, standards in this category strive to capture the substantive knowledge and specialised skills that teachers apply in a range of contexts to produce exemplary professional practice. **Generic standards** tend to reflect common principles and practices associated with good teaching and are often directed towards educators from different levels of schooling and types of learning environment. In contrast, **Specific standards** can be developed for educators who teach in particular learning areas or who focus on students in a particular phase of development (Cumming & Jasman 2003).

**Suggestion on how to help teachers to them attain that standards**

In response to all the theoretical backgrounds and the changes and challenges that had been described in the previous sections, we are now ready to share a few suggestions on how we can help teachers to cope with the changes and challenges posed by the current and the future education reforms. We are suggesting a few teacher education reforms as follows:

*Induction Programs for Beginning Teachers*

At this stage, there is no proper program to train and orientate beginning teachers (Newly Qualified Teachers) who have been just posted and appointed as novice teachers in primary and secondary schools throughout Malaysia. The present practice is to allow beginning teachers to work on their own in their respective classrooms without giving any sort of help to them. They are left by themselves to `*swim or sink'* . Beginning teachers encounter different professional problems while carring out their duties in the classrooms. So it is high time that the Ministry of Education to conduct induction programs specially design for beginning teachers and these should in a duration of three years before they will be confirmed in their service. The program should be in the form of `*modular'* which contain the knowledge and skills that should acquired by all beginning teachers continuously coached by specialised mentors through the Mentoring System which all schools should implement. In-service training should begins in schools. It is here that learning and teaching take place, curricula and techniques are developed and needs and deficiencies revealed. Every school should regard the

continued training of its teachers as an essential part of its task, for which all members of staff share responsibility.

*In-House Training*

In order to make all educational institutions as *learning organizations*, all educational institutions are made compulsory to conduct in-house training by using their own specialists. In-house training will definitely reduce costs but also will give a lot of benefits directly and indirectly to the staff. In-house training will improve job knowledge and skills of teachers, higher productivity through better job performance and more efficient use of human resources, better quality work environment, etc.

*Mentoring System*

Mentoring has its professional origins in the world of business and over the past two decades it has evolved to become a prominent feature of many professions including teaching. Mentoring has played a key role across a range of teacher education programs, in particular induction. Through this system every teacher in the school will be given a mentor at the working place who will get continuing professional development programs to enable them to perform their jobs professionally. Actually, mentoring is a nurturing process in which a more skilled or more experienced person, serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled or less experienced person for the purpose of promoting the latter's professional and/or personal development. Mentoring functions are carried out within the context of an ongoing, caring relationship between the mentor and protégé. In order to ensure that all teachers will be getting proper coaching continuously and will enable them to become expert teachers within a short duration of time period, then all schools should be made compulsory to adopt the mentoring system urgently. All trained teachers, subject heads and excellent teachers will be trained to become professional mentors in schools. This system will definitely will enhance the professional quality of teachers.

*Short Courses Organized by Teacher Training Colleges, Teachers' Centres and Faculties of Education*

At present, only Teacher Training Colleges are conducting short courses for primary school teachers thoughout the year to enhance their teaching qualities in teaching

certain subjects. It is high time for all universities in Malaysia to conduct short courses for graduate teachers.

*Research and Publications on Teacher Education*

All teachers should be encouraged to conduct action research on all aspects pertaining to teacher education and classroom teaching and learning. Research findings should be published in teacher education periodicals so that teachers can share each others' experiences and knowledge. Teachers should be encourage to become writers as they have a lot of experiences for others to share.

*Training of Trainers*

In order to ensure that all INSET programs are of quality, all school principals, teacher educators, subject heads, expert and excellent teachers, senior assistants and the relevant coordinators, senior assistants, Head teachers, school inspectorates should be trained in designing and implementing INSET programs which include the Training of Trainers components. They will eventually will be appointed as mentors in schools and can be asked to train other teachers.

*Governance of The Integrated Teacher Education Program*

Various agencies are involved in teacher education. It seems logical that all of them participate in varying degrees in the governance of the integrated teacher education program. This includes the Ministry of Education, which implement major policies on education as well as sets standards for teacher education including certification and learning of teachers; Teacher Education Colleges who are primarily involved in the professional preparation of teachers; other agencies will include State Education Departments, District Education Offices, School Inspectorates, Polytechnics, Teachers' Centres and all Faculties of Education.

*Attachment Programs*

From time to time, teachers should be given the opportunity to be involved in *attachment programs* in local institutions or overseas. For example, all coordinators of teachers' centres should be given to undergo attachment programs in all relevant teachers centres overseas. This will enable them to get new ideas and to learn the various techniques and systems being used by the teachers' centres where they have

been posted to. All teacher educators from Teacher Training Colleges and Faculties of Education should be given the same opportunities to be involved in the attachment programs so that they too can get new inputs for the own specializations of teaching areas.

*Monitoring and Evaluation of Teacher Education Programs*

We can indeed plan and implement various teacher education programs to enhance the level of professionalism of teachers. But we also need to monitor and evaluate the effectiveness of these programs so that decisions can be made to ensure their worth and cost effectiveness for conducting those programs.

*Meeting Sessions among Teachers*

The Ministry of Education, the State Education Departments and District Education Offices should organize meeting sessions for subject teachers to meet in order to discuss all problems with regards to the teaching and learning methods/pedagogical skills in the respective subject areas. Teachers will learn from each other through these frequent meetings. They may be in the forms of seminars, workshops, INSET courses or conferences.

> The rapid turnover of knowledge necessitate teachers to move away from the confines of their classroom and the culture of privatism, knock down boundaries, build bridges and develop a culture of collaboration and cooperation. There is a need for interactive professionalism. (Fullan & Hargreaves 1993).

*On-Line Programs on Teacher Education*

With the development of ICT, it is now possible for teacher education training programs can be conducted through on-line by using web-sites, home-pages and so on. Virtual Teacher Education is an example.

**Conclusion**

It has been accepted for quite a while that school leaders can and should play a role in teachers' professional development. It has been argued that effective school leaders move beyond task-oriented and administrative leadership. They invest in instructional and educational leadership. Their main focus is to create a working context that encourages teachers to scrutinise and reflect upon their own teaching behaviour. Their

commitment to create favourable workplace conditions is seen as a guarantee that schools will be/stay able to react adequately to new societal and educational challenges through the development of teachers. After all, school leaders are experiencing a growing pressure to deliver high quality education. And there exists consensus that teachers should be encouraged and supported within the school context to develop professionally in order to deliver this.

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# IDENTIFYING TEACHER QUALITY: STRUCTURING ELEMENTS OF TEACHER QUALITY

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ABSTRACT

*This paper presents the search for a categorizing framework that can be used to identify and discuss teacher quality. Both policy documents on national and European levels and academic literature show a remarkable variation in categories that are used to describe teacher education. As part of a larger study where the voice of teachers is used en strengthened on the topic of teacher education, there was the need to find a categorizing framework that can be used to analyze responses from teachers on the most important qualities that teachers need.*

*The search for a categorizing framework combines a study of academic literature on categories for teacher quality and the use of international focus groups for the development of categories for teacher qualities. Both the outcomes from the literature survey and the results from the focus groups show the complexity of defining a coherent framework for teacher qualities. Two main approaches can be identified: one by using an analytical framework with mutual exclusive categories, based on Bloom's categories, and one based on a task analysis of the work of teachers, focusing on specific roles or identities. In both approaches, both the literature and the focus groups emphasize the importance of personal qualities of teachers.*

*Based on the outcomes a coherent framework for teacher qualities is presented, where both approaches are combined. This framework that might help in creating a shared language for discussing teacher quality among different stakeholders and different countries*

## 1.     Focus and content of this paper

The quality of teachers is considered as one of the most important factors influencing the learning of pupils and the quality of schools. Therefore, national governments put much effort in the development of policies to ensure and improve the quality of teachers. However, for policies and measures on the improvement of teacher quality, some definition of the concept of teacher quality is necessary.

Also teachers themselves need to be concerned with their professional quality. Reflective professionals reflect on the quality of their work and on the competences that they need for their work. As teaching is not an isolated individual activity, the reflection on the quality of teaching within a school and the competences that a team of teachers need should be a collective activity. There again, there is need for a shared frame of reference while discussing teacher quality, in order to avoid misunderstandings and to create shared meanings.

However, often discussions on teacher qualities are characterized by conceptual confusion. Snoek et al (2009) have shown that in formal national and European documents on teacher quality there is little convergence in the way that teacher qualities are identified. Categories differ considerable between countries and also European documents do not contribute to the creation of a shared language.

Not only between countries, but also between stakeholders differences exist. The perspectives of policy makers, school leaders, pupils, parents and teachers on teacher quality will not be the same.

As in most discussions on teacher quality, the floor is dominated by policy makers, teacher educators or researchers or, more generally, by non-teachers talking about teachers (Nóvoa, 2007). Therefore it is worthwhile to ask teachers about their conceptions on teacher quality.

However, also with teachers, their conceptions on teacher quality will differ. This creates a methodological problem for research on teachers' conceptions on their professional quality as the question arises what categories can be used for categorizing teachers' responses. This paper addresses this methodological problem.

The context of this paper is a Comenius funded project that started in 2006 and ended in 2009. The Identifying Teacher Quality project (ITQ) is a three year international project that involves 21 institutions from 12 European countries. The aim of the project is to support teachers in Europe to strengthen their professional quality by developing a toolbox with tools that enables teachers (and other stakeholders) to recognize, to reflect upon and to evaluate teacher quality. The use of these reflection tools stimulates teachers to increase their ownership towards professional quality and standards. As quality is a personal and contextual construct, personal involvement in defining professional quality through active and collaborative reflection can stimulate ownership and therefore empower teachers to be involved in professional development and change.

The project outputs contain a number of products like a website, the toolbox in several languages and a number of research and evaluation reports. A specific part of the project involves research on what teachers in Europe identify as essential teacher qualities.

This paper describes the process of categorizing identified teacher qualitiesaccording to teachers in Europe by first giving an overview of the way teacher quality is categorized in literature. In the third paragraph the methodology and use of focus groups is elaborated. After presenting the outcomes of the focus groups, the focus group results

and the outcomes of the literature are combined in a final frame work that can be used to analyze teachers' perceptions of professional quality. In the final discussion, comments are made with respect to the methodology of focus groups with the context of this study and on the final categorization frame work.

Since terminology is an issue when working on an international level this study focuses on using the word 'qualities'. By using this generic term we avoid the use of terms like 'competence' or 'standard'. These words have many different translations and meanings in the different countries of Europe which would leave too much space for interpretation and misunderstanding. Both terms evoke quite strong emotional responses as 'competences' in some countries are sometimes seen as holistic qualities combining knowledge, skills and attitudes, while in other countries 'competences' are mainly interpreted as technical skills and are considered to lead to a reduction of the rich task of teachers. 'Standards' are in some countries connected with a technical process of standardization that does no justice to the ever changing context in which a teacher has to work

## 2.    Teacher Quality in academic literature

Within the academic literature on teacher quality, teacher quality is described in various and very diverse ways. It can be described from the perspective of tasks or assignments (teacher creates a safe learning environment), roles or professional roles (teacher as educator/teacher as transmitter of knowledge), in terms of generic professional qualities (competences) or maybe in holistic terms (e.g. attitudes/personality) or in terms of metaphors. To give an example of this last type of descriptions, Palmer (as cited in Arnon & Reichel (2007) refers to philosophical metaphors:

> The teacher as midwife (Socrates); as artist in the use of knowledge (Plato); as the conductor of dialogue (Bergman); as purveyor of culture (Cicero); as liberator (Freire); as one who focuses on teaching discipline (Breiter); as role model (Aristotle); as empiricist (Locke); as trainer (Watson); as educator in accordance with nature (Rousseau); as essentialist (Frankel); as mediator (Freuerstein); as child-centered (Neill); and as post-modernist (Foucault).

The picture painted by Palmer does not provide an analytical list of teacher qualities, but it shows the complexity of describing the ideal teacher.

A closer study of academic literature on teacher quality shows that two different approaches can be distinguished in categorizing teacher quality: one using the traditional taxonomy of Bloom, separating knowledge, skills and attitudes and one using specific roles of teachers.

In the first approach, knowledge skills and attitudes are elaborated and specified with respect to the teaching profession. However in many descriptions of teacher quality, personality aspects are added.

Arnon and Reichel (2007, pg. 445) state that most of the research regarding the perception of the good teacher has pointed to two important components of the ideal teacher: 1) professional knowledge, both of the subject taught and of didactic knowledge and 2) an appropriate personality. They state that:

> In other studies, especially those examining pupils' evaluation of their teachers, it has been concluded that personality is the most important quality of a good teacher. According to Blishen (1969), for example, the qualities of the desired teacher among pupils were understanding and patience, the ability to pay attention to the pupil, modesty and politeness, informality and simplicity, participation in pupils' activities, the ability to develop good relations with the parents, getting to lessons on time, recognizing the importance and the value of the student, being warm and personal and understanding that students are not always ready to study.

The emphasis on personality has two aspects:

1. personality traits as personal qualities/character strengths - qualities that belong to a person (personalities/attitude/identity/beliefs) – qualities that cannot be taught;
2. personality as part of a professional role, qualities that can be taught.

In an extensive survey of academic literature on teacher quality, Van Gennip and Vrieze (2008) come to an overarching trinity of qualities:

1. (content) knowledge and matching didactics;
2. the pedagogical-didactical interventions that are needed;
3. the teachers' personality.

The first component (content) knowledge is a comprehensive concept that can be divided and specified. Jansma (2006) distinguishes three types of related knowledge: theoretical knowledge, methodological knowledge and practical, situated (context) knowledge. The (content) knowledge includes Shulman's concept of Pedagogical Content Knowledge (Shulman, 1986). Pedagogical Content Knowledge is different from scientific theoretical knowledge since it combines scientific theoretical knowledge with practical, situated (context) knowledge. The second component that Van Gennip

and Vrieze identify is the pedagogical-didactical interventions (instruments and repertoire) that a teacher must be able to master. The third component is the teachers' personality (including aspects like motivation, attitudes, expectations, cognition).

In this same line of reasoning, the Association for Teacher Education in Europe (2006) pleads for a 'balanced view on the quality of teachers': "Teacher quality is an overall concept that comprises not only knowledge and skills, but also personal qualities (respect, care, courage, empathy, etc.) and personal values, attitudes, identity, beliefs, etc."

This first approach in categorizing teacher quality can be seen as an extension of Bloom's model, where personal qualities are added. This generic categorization uses mutual exclusive categories, although exact definitions of the concepts of attitude and personal qualities are lacking.

The second approach in categorizing teacher quality uses a distinction in professional roles. This approach is closely related to the concept of teacher identity (see e.g. Beijaard et al, 2004), the perceptions that teachers and the outside environment (parents, society, politicians) have about the roles of teachers, and about the qualities involved.

Arnon and Reichel (2007) describe two dominant images of the desired teacher since the 1970s:

1. Teachers as developers, shapers, tutors for each of their students;
2. Teachers as transmitters of knowledge in their fields.

Verloop and Lowyck (2003, pg. 194 and 232) elaborate these two categories in four professional roles or professional identities:

1. the teacher as someone that has a lot of knowledge
2. the teacher as an adult, balanced personality
3. the teacher as ruler of specific  skills – based on evidence/empirical research –
4. the teacher as practician

Søreide (2006) continues on the idea of identities (as roles) as categorization and describes four identity constructions (the caring and kind teacher, the creative and innovative teacher, the professional teacher and the typical teacher). In these categories, Søreide combines professional roles with skills and personality. He argues that the negotiation between multiple identities is a necessary part of the construction of teacher identity.

So far we have identified two approaches in describing teacher quality, one analytical approach, identifying abstract and general categories of quality (knowledge, skills,

attitudes, personality traits) and one approach focusing on specific roles of teachers, connecting them to identities. In both approaches to categorize essential qualities of teachers, there seems to be a general consensus that personality is an essential element of being a teacher. In both models the personality of the teacher is stressed, either explicitly as one of the qualities, or implicitly by using the term 'identity', which has a much deeper personal impact than someone who has certain knowledge or masters specific skills. Blume (1971) writes how "teachers teach as they were taught, not as they were taught to teach." This indicates that teachers teach from their personality and personal experiences.

## 3.    Methodology

The input for this study consisted of responses from participants that used one of the reflection tools developed within the ITQ project. The participants were asked one open question: "what do you identify as being essential teacher qualities?" With this survey teachers were invited to identify a maximum of 10 essential qualities, without ranking.

In this phase of the study, the preliminary results from a first group of 68 participants were used as input to define the categorizing framework, which could be used to categorize the full set of responses (from 343 participants).

The responses from the 68 participants provided us with approximately 680 teacher qualities that had been identified by educational professionals from nine European countries (Belgium/Flanders, Czech Republic, England, Greece, The Netherlands, Poland, Portugal, Slovenia and Sweden).

To come to categories for teacher quality, three steps were taken:

1. Reduction of qualities

The full set of 680 qualities was reduced to 120 qualities. There were doubles in formulation and qualities that differed in formulation but that were semantically identical ('to care', 'to be caring' and 'to care for children'). Finally, qualities that were considered as doubles with respect to the content, but that differed in formulation ('be smiling' and 'humor') were taken out.

During the data reduction process 3 steps were taken:

1.   validation formulation/semantically (reducing doubles done by researcher)
2.   content validation (reducing doubles done by researcher)

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3. validation check with independent expert in the work field

2. Categorization of the identified teacher qualities by focus groups, which led to the production of 10 categorization frameworks.

3. Development of a category framework based on the results of the focus groups and the findings from the literature.

*Using focus groups to design categorization*

Focus groups, as seen in Cohen, Manion and Morrison (2000, pg. 376) are useful for 'developing themes'. The use of focus groups can be of added value to the existing data. Morgan (1997) states that "the hallmark of focus groups is their explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group." In combination with other methods, focus groups can provide preliminary research on specific issues in a larger project or follow up research to clarify findings from another method.

*Focus group composition*

Given the international source of data, the decision was made to work with international focus groups. Two sessions with focus groups were arranged and expert professionals were given the assignment to cluster the 120 different qualities and subsequently name these clusters.

The focus groups were composed by convenient sampling. The first focus group session took place in Sweden, Uppsala. The groups were formed by the ITQ project members, each group representing different European countries. The Uppsala focus groups were composed of teacher educators.

The second focus group session took place in Belgium, Brussels. It was carried out as an ITQ project contribution at the ATEE conference where conference members could participate in a workshop. The workshop gave them an overall idea of the ITQ project and the participants were used as international focus groups. The Brussels focus groups consisted of teacher educators.

4. Results of focus group work. Each focus group produced a different framework for categorizing the same 120 teacher qualities:

| Focus Group 1 | Focus Group 2 |
|---|---|
| <ul><li>Knowledge</li><li>General professional qualities</li><li>Managing learning</li><li>Interpersonal & social</li><li>Personal values & attitudes</li></ul> | <ul><li>Pedagogical & Didactics</li><li>Reflection</li><li>Knowledge & academic attitude</li><li>Organizational</li><li>Citizenship</li><li>Values</li><li>Personal attributes</li><li>Originality</li></ul> |
| **Focus Group 3** | **Focus Group 4** |
| <ul><li>Professional knowledge</li><li>Skills</li><li>Abilities</li><li>Traits (social skills)</li><li>Personality</li><li>Ethical behavior</li><li>Attitudes & values</li></ul> | <ul><li>Overarching qualities</li><li>Social qualities</li><li>Knowledge base</li><li>Learning qualities</li><li>Reflective qualities</li><li>Personal qualities</li></ul> |
| **Focus Group 5** | **Focus Group 6** |
| <ul><li>Attitudes:<ul><li>Personal</li><li>Interpersonal</li></ul></li><li>Skills:<ul><li>Didactics & Pedagogical</li><li>Management</li></ul></li><li>Knowledge</li><li>Professionalism</li></ul> | <ul><li>Teaching strategies</li><li>Social skills</li><li>Teaching skills:<ul><li>Formal</li><li>Personal</li></ul></li><li>Cognitive skills</li><li>Creativity</li><li>Personal attitudes</li></ul> |
| **Focus Group 7** | **Focus Group 8** |
| <ul><li>Knowledge</li><li>Personal qualities</li><li>Interpersonal qualities</li><li>Meta cognitive</li><li>Teaching qualities<ul><li>promoting learning</li><li>classroom management</li></ul></li><li>Deontological</li></ul> | <ul><li>Personal attributes</li><li>Generic teaching skills</li><li>Extended professional roles</li><li>Professional knowledge</li></ul> |
| **Focus Group 9** | **Focus Group 10** |
| <ul><li>General professional expectations</li><li>Role model</li><li>Expertise / Knowledge</li><li>Self development</li><li>Active involvement in the wider educational community</li><li>Effective educational strategies</li><li>Ethics and beliefs</li><li>Inclusion</li><li>Personal traits</li><li>Interpersonal traits</li></ul> | <ul><li>Skills</li><li>Stakeholder interaction</li><li>Pupil interaction</li><li>Personal qualities</li><li>Didactics</li><li>Professional knowledge</li><li>Subject knowledge</li><li>Inspire</li><li>Awareness</li></ul> |

Looking at the outcomes of the focus groups, it can be concluded that only focus group 5 uses one of the approaches more or less systematically, resulting in more or less mutual exclusive categories. Focus group 2 uses a wide variety of concepts that do not directly fit into one of the two approaches.

All other focus groups mix categories from Bloom (extended with personal qualities (in all focus groups), abilities (FG3), ethics & beliefs (FG3, FG9), deontological (FG7)) with specific teacher roles (managing learning (FG1), teacher as a social person (FG4), teacher as a reflective professional (FG4, extended professional role (FG8), active involvement in the wider society (FG9, FG10), role model (FG9)).

Focus group 6 limits the categories mostly to the level of skills.

In some focus groups content elements that are not  directly related to one of the two approaches appear (inclusion (FG9), citizenship (FG2))

Also, specific personal qualities are mentioned separately (like awareness (FG10), inspire (FG10), originality (FG2)).

All focus groups (except focus group 5, which uses the term (personal and interpersonal) attitudes) include the concept of personal qualities (using different words: personality, values, attributes, traits. This can be understood as the 680 teacher qualities that were the input for the focus groups, contained many qualities that fitted in this category.

## 5.     Conclusion: defining a category framework for teacher quality

The outcomes from the literature survey and the results from the focus groups show the complexity of defining a coherent framework for teacher qualities. Two main approaches can be identified: one by using an analytical framework with mutual exclusive categories, based on Bloom's categories, and one based on a task analysis of the work of teachers, focusing on specific roles or identities.

The literature shows examples of both approaches, based on inductive analyses of the profession. In deductive processes, where groups are asked to categorize a given set of qualities that teachers identify as essential for their work, categorizing frameworks are blurred and the two approaches are mixed, leading to categories that are overlapping and not mutual exclusive. The use of a Bloom-type of category framework in analyzing and defining the teaching profession, is appealing, as it uses mutual exclusive

categories. However, the use of generic categories like knowledge, skills, attitudes and personal qualities does not really specify the teaching profession, as these categories are very broad and vague. One solution might be to combine the two approaches by maintaining the more or less mutual exclusive categories in a Bloom-type of category framework and at the same time introducing subcategories that are based on specific roles of teachers (e.g. the teacher as an academic, as a professional, as a manager of classroom activities, as a reflective professional, etc.).

In all categorizing frameworks, (both resulting from the deductive analyses in the literature and from the inductive work of the focus groups), personal qualities stand out as a major category for teacher quality. Defining subcategories for the category of personal qualities is complicated. The input of the 680 qualities that teachers mentioned shows that there is a wide variety of qualities that fit into this category. One solution is to use existing taxonomies with respect to personal qualities, like the Big Five Theory (John & Srivastava, 1999). Given these considerations a possible category framework for defining the essential qualities of teachers is presented in the table below.

| Main category | Subcategory | Sub-subcategory |
|---|---|---|
| Knowledge | 1. Academic knowledge<br>2. Professional knowledge | <br>2.1 Content knowledge<br>2.2 Didactic knowledge<br>2.3 Pedagogic knowledge |
| Skills | 1. Teaching skills<br>2. Pedagogic skills<br>3. Management skills<br>4. Organizational skills<br>5. Reflective skills<br>6. Communicative skills<br>7. Social skills | |
| Attitude | 1. Beliefs<br>2. Motivation<br>3. Citizenship<br>4. Professionalism | |
| Personality | 1. Emotional stability<br>2. Extraversion<br>3. Openness<br>4. Agreeableness<br>5. Conscientiousness | |

Such a category frame work might help in creating a shared language for discussing teacher quality among different stakeholders and different countries.

This framework will be used in the next step of the study to analyze the full set of 343 teacher responses identifying the most important qualities of teachers.

## 6.   Discussion

The category framework presented above will be used for a comparative study, analyzing the responses from a larger group of 343 teachers and student teachers that were invited to identify the 10 most important teacher qualities. The outcomes of this comparative study amongst these respondents from 9 different countries (Portugal, Czech Republic, Belgium, Poland, Slovenia, The Netherlands, Greece, Sweden and England) will be presented in another paper (Timmering, 2009).

*Discussion on the methodology*

A dilemma in the methodology that we used is the fact that the data that we used to define our category framework came from participants of the pilots within the framework of the ITQ project. These participants had just finished a tool testing session and the answers given were (probably) influenced by this session. This can create a bias in the qualities that were mentioned. It could be that participants would have identified different essential qualities the very next day. Also, the professional position could have been of influence on the answers given. It is likely that teachers in primary education identify different qualities than teachers in secondary education since the pupils/students need different qualities. However, as the results of the focus group had many similarities to the categories presented in the literature, we believe that the category framework that is presented in paragraph 5 covers the most important teacher qualities.

Several questions arise from the focus group work that could be interesting for further research;

1. Do professionals categorize in the same way as their national documents/standards are formulated? In other words, do the professionals answer and think in the way that they are used too because of the familiarity with their official documents?
2. To what extent does the focus group's interaction influence the way the focus groups categorize?
3. To what extent does the cultural-historical context of the participants influence the way the focus groups did their work with clustering and categorizing?
4. Would focus group members place the same qualities in the same category the next day? How consistent is the work that was done?

5. Would focus groups consisting of teachers categorize any different than the focus groups we used, which were consisted of teacher educators?

Another dilemma in the methodology used is the extent in which the methodology relies on language. Participants in the pilots have identified teacher qualities and translated them to English. As for most of the participants in the focus groups English is a foreign language, they had to translate the qualities to their own language and cultural frame of reference. There was not enough time to discuss the exact meaning of every single quality from each cultural-historical context nor was there always a shared understanding. Since there was no moderator in the focus groups it could very well be that focus group members just decided to give in to the group instead of arguing their point. Time therefore seemed to be the second dilemma. It is advisable to have a moderator present not only to guard the process but also to observe and guard the interaction. As it turns out, one of the focus groups did not work as a group. This specific focus group worked in sub-groups and divided the work load. They therefore were not responsible for the categorization as a group.

*Discussion on categorization*

The focus groups and literature show similarities and differences in the categories that are used for identifying teacher quality. Although there is still not a uniform language in describing teacher qualities, the input we used for our final categorizing framework shows many common elements. At the same time, the fact that this study was needed shows that a common language is missing. This is also shown in a study of national formal documents on teacher quality in nine European countries and of 6 European policy documents on the quality of teachers and teacher education (Snoek et al, 2009):

> a shared frame of reference for teacher quality can create a common language that can facilitate effective exchange of policy practices between member states, mobility of teachers and cooperation between schools and teacher education institutes. However the study shows that Europe is still a long way from such a shared frame of reference and a common language.

The framework we presented might contribute to creating a universal language on teacher quality.

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# Teacher Education and Information Technology

# VIDEO NARRATIVES. CREATIVITY AND GROWTH IN TEACHER EDUCATION

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ABSTRACT

*Portfolios are widely used as instruments in initial teacher education in order to assess teacher competences. Video footages provides the opportunity to capture the richness ad complexity of work practices. This means that not only a larger variety of teacher competences can be demonstrated, but also the context in which competences are shown. In order to prevent 'ticking the boxes' method of assessment, video narratives are introduced, integrating a more holistic view on teaching. A case study is presented of the post-graduate teacher education programme of the University of Amsterdam. The results show that the video narrative could be a valuable, valid component of a video portfolio in initial teacher education.*

Keywords: video, narrative, teacher education, portfolio

## Introduction

In the Netherlands, uniform standards for the teaching profession are being implemented, since the Dutch Parliament three years ago accepted the proposal of the Dutch Association for Professional Quality of Teachers (Stichting Beroepskwaliteit Leraren; SBL). The standard for teachers in secondary and vocational education includes seven clusters of teacher competences. In teacher education portfolios are commonly used to support student-teachers' assessment of these competences. A teaching portfolio presents work samples that a student teacher has collected over time across various contexts and which are accompanied by reflections (Wolf & Dietz, 1998). Portfolios can be used for the assessment of both teaching processes and teaching products generated by these processes, such as work samples, lesson plans, and feedback from students and colleagues, as they provide a rich picture of a teachers' performance and learning. Video has become increasingly popular in professional learning because of its unique ability to capture the richness and complexity of practices. Moreover, the rich picture of teaching reality provided by a video portfolio tends to make the assessment of teacher competences highly valid.

The standard of seven clusters of teacher competences provides a strong framework for learning and assessment in teacher education. A video portfolio can be built around this framework. However, using a framework of competences also includes a danger to

perceive the teaching profession in terms of isolated competences, separated from context and time. Video narratives could provide student teachers with an opportunity to impose order on otherwise disconnected events, and to create continuity between pas, present, and future. In this paper, we will present a case study on the use of video narratives in teacher education as a way to assess the teacher competences of student teachers. This case study provides insights into how video narratives can be used in student-teachers' portfolio, including the possibilities and complexities of the competency assessment.

**Teacher Competences in the Netherlands**

At the request of the Dutch Minister of Education, Culture and Science teacher competences with their requirements were developed by a large representation of the professional group of teachers. SBL, the Association for the Professional Quality of Teachers, as a representative of the Dutch teachers' unions and of the professional associations, supervised and gave advice to this professional group of teachers during the process. The competence requirements were decided on and accepted by the government. They have been operational from August 2006, which means that educational staff - teachers, assisting staff members, school managers - must not only be qualified, but also competent. Schools are obliged to take competent staff into their employment and subsequently enable them to keep up their competences at a high level and to further improve them. Teacher training colleges use these competences as a guideline to their educational programme.

In Figure 1, the seven clusters of teacher competences are presented. Looking first at the aspects of teacher competence indicated in the row labels down the left of Figure 1, the first competence area, interpersonal competences, means that the teacher must create a pleasant living- and working climate in groups. An interpersonally competent teacher gives proof of good leadership, encourages students' autonomy, creates a friendly and cooperative atmosphere, and stimulates and achieves open communication. The second competence area, the pedagogical competences, refers to teacher responsibility to help students become independent and responsible persons, who have a pretty good idea of their ambitions and possibilities. An essential difference is that the latter is focused on the development of the personality of students. The third category of competences refers

to subject knowledge and methodological competences: a teacher must help student acquire the content of a certain subject or profession. A competent teacher creates a powerful learning environment, through, for example, establishing the link with realistic and relevant applications of knowledge in a profession and in society. The fourth category of competences in professional situations with students, organizational competences, means that the teacher takes care of all organizational tasks pertaining to the educational practice and to the students' learning process within the school and at the workplace. The other three competence areas refer to three different professional situations: competences for collaboration with colleagues (5), competences for collaboration with the work environment (parents, colleagues of work placements, other schools and institutions (6), and competences for reflection and development (7). The latter means that teachers must permanently work on their personal and professional development.

| | | Professional situations | | | |
|---|---|---|---|---|---|
| | | With students | With colleagues | With work environment | With own professional development |
| Professional roles | Interpersonal | 1 | | | |
| | Pedagogical | 2 | | | |
| | Subject knowledge & methodological | 3 | 5 | 6 | 7 |
| | Organizational | 4 | | | |

Figure 1. Teacher competences

The new standard has been utilised in sometimes radically changed curricula of Dutch teacher education institutes. Teacher competences are important as a guide for both student teachers and teacher educators. Student teachers have to have the opportunity to know what kind of competences they are supposed to acquire, and how these can be learned and will be assessed. Teacher educators have to be able to assess these competences and to fit their teaching. The notion of competence-based learning is founded on the principles of life-long learning, which means that assessment in initial teacher education should not only be limited to performance here-and-now but also

focus on growth and even potential for growth (development during the course as a predictive factor for growth after).

Critics of competence-based teacher education propose there is the risk that assessment in relation to standards based on lists of competences leads to reductionist views of the teaching profession (Delandshere & Petrovsky, 1998; Korthagen, 2004). Detailed specification of behavioural aspects of the competences selected, they argue, could easily result in 'ticking the boxes' methods of assessment, and consequently even of teaching and learning, which does not do justice to the complex nature of the act of teaching. Being a teacher requires the integration of multiple kinds of knowledge and skills and in order to truly measure the teaching capacities of a novice teacher, the assessment instrument employed should be holistic and performance- based. It is widely accepted that this requirement can be met by teacher portfolios since they ''allow a comprehensive and holistic examination of abilities'' and ''provide opportunities for robust documentation of practice'' (Darling-Hammond & Snyder, 2000, pp. 536-537).

**Portfolio in Teacher Education**

In the 1980s, teaching portfolios have been introduced in teacher education with the purpose to let student teachers think more carefully about their teaching and subject matter (cf., for example, Bartell, Kayne, & Morin, 1998; Darling-Hammond & Snyder, 2000). Zeichner and Wray (2001) present four claims about the benefits of portfolios for learning in teacher education, that have been made over the years. Portfolios are said to encourage student teachers to think more deeply about their practice (see also Tillema & Smith, 2007) and to promote confidence about this practice. Constructing a portfolio has a direct impact on teaching and working with portfolios fosters 'good habits of mind': they ''support the teacher as a continuous learner who reflects on practice'' (Darling-Hammond & Snyder, 2000, p. 529). Woodward and Nanlohy (2004a, 2004b), moreover, claim the use of portfolios promotes learning among both students and teachers.

Portfolios are not only considered suitable tools for learning but also for assessment. It was argued that they would provide ''evidence of a teacher's knowledge and skills based on multiple sources of evidence collected over time and in authentic settings'' (Wolf, 1991, cited in Delandshere & Arens, 2003, p. 58). The documents the student

teachers enrolled in the course collect in these portfolios include written statements of theories of teaching, samples of lesson plans, observations, and reflections on lessons taught during their teaching practice. Although the documents cover a wide range, sometimes discrepancies surface between the 'quality' of the prospective teacher's behaviour in actual classroom situations and the 'quality' of their portfolio. In other words, in some instances students come up with an excellent portfolio although their performance during their teacher practice has been evaluated by school and university supervisors as rather weak (cf. Darling-Hammond & Snyder, 2000), and vice versa (cf. Burroughs, 2001; Uhlenbeck, 2002).

These cases raise questions regarding the validity of portfolios as instruments for assessment in initial teacher education. For assessors to confidently grant novice teachers their teaching license their portfolios should provide evidence that they are able to move ''from intellectual understanding to enactment in practice'' (Kennedy, 1999, cited in Darling-Hammond & Snyder, 2000, p. 525). The portfolio should convince the assessor that the student teacher involved does not only know and understand ''the theory'' but also acts accordingly, or, at the very least, is aware of discrepancies between what has been taught during the course and his or her actual ''practice''. To achieve this portfolios should not only allow student teachers to highlight particular competences they have acquired but also require them to show their grasp of these competences in real-life situations. This leads us to a crucial question: what type of evidence is needed to safely say that an aspiring teacher has not only grasped essential notions and concepts from the teacher education course, but is also able to implement them in real world classroom situations (cf. Delandshere & Arens, 2003)?

Delandshere and Arens (2003 p. 62) analyze portfolios from three teacher education programmes in the USA. They found that all portfolios consist of ''a collection of declarative written statements., written descriptions., and graphic and other artefacts, [which remain] for the most part unexplained.''. These findings highlight one of the problems with the evidence in portfolio assessment: most of the data portfolios consist of (e.g. statements of beliefs, lesson plans, mentor observations, reflections on teaching experiences, etc) are meta-data that are once removed from the primary data: from the act of teaching in actual classroom situations. They give information about student teachers' views on classroom events, about their beliefs, but in order to fulfill the criterium that the assessment is performance-based, they should also contain primary

data: direct evidence of a student teacher's work in the classroom as a check on the adequacy of their reflection base.

**Video narratives**

Video footage provides the opportunity to capture the richness and complexity of work practices. This means that not only a larger variety of teacher competences can be demonstrated, but also the context in which competences are shown. Moreover, this rich material provides a good trigger for learning other competences, such as reflection and critical thinking. Video integrated in a web-based learning environment is a technology which can support this kind of meaningful learning of teacher competences – in addition to practical benefits such as accessibility of practices, flexibility in updating information, and incorporating video into multimedia resources (Fill & Ottewil, 2006). There is much recent empirical work on the use of video for learning of both student teachers (e.g., Lee & Wu, 2006; Moreno & Valdez, 2007; Rosaen, Lundeberg, Cooper, Fritzen, & Terpstra, 2009; Santagata, 2009; Santagata, Zannoni, & Stigler, 2007; Stockero, 2008; Tan & Towndrow, 2009; Wu & Kao, 2008) and (experienced) teachers (Borko, Jacobs, Eiteljorg, & Pittman, 2008; Pryor & Bitter, 2008; Rich & Hannafin, 2009; Sherin & Van Es, 2009) claiming that the use of video triggers (student) teachers to provide more elaborated peer feedback, discuss in an more in-depth and analytical manner, reflect in a more varied way and more critical, focus their reflections more on their pupils than on themselves, and perform in a better way. In these cases, video has been integrated in a web-based learning environment with multiple multimedia sources, both textual and graphical. Such environments are increasingly used as teacher portfolios, including work samples, lesson plans, feedback from students and colleagues, reflections, etc, both for learning and assessment.

In view of these claims and the potential video portfolio it is surprising that to date very few systematic, empirical studies have been conducted on the video portfolios for assessment in teacher education (Darling-Hammond & Snyder, 2000; Korthagen, 2004; Zeichner & Wray, 2001). Assessment procedures should reflect the richness and the complexity of a teaching video portfolio.

In order to integrate this more holistic view on teaching with the advantages of video student teachers of the teacher education programme of the University of Amsterdam

have to publish a video narrative as evidence of their growth across time and multiple teaching events. This narrative activity provides student teachers with an opportunity to impose order on otherwise disconnected events, and to create continuity between past, present, and future. The task gives students the opportunity to explicitly address four core competences connected to the professional roles of teachers (interpersonal, pedagogical, methodological and organizational competences). To add the extra layer of reflection they would be asked to comment on the separate video episodes through text frames.

## Methods

At the University of Amsterdam aspiring teachers at graduate level follow a one year teacher education programme which qualifies them for teaching in one subject at all levels of secondary education. They are placed as interns in schools while simultaneously completing coursework in methodology, pedagogy, curriculum development and assessment. Student teachers are required to present a video portfolio halfway and at the end of the course. The evidence presented in the first portfolio determines whether or not the student teacher involved is allowed to continue with the second half of the programme. The contents of the portfolio at the end of the programme is used to decide if the student is ready to receive an initial teaching license. Each half year (August and February) about 120 student teacher are enrolled in the teacher education programme.

## Data

In total, 40 teacher educators and 98 student teachers of the post-graduate teacher education programme of the University of Amsterdam participated in this study. The data include:

- 7 open interviews (of about 30 minutes each) with a teacher educator (7 in total);

- 7 think-aloud sessions (of about 45 minutes each) with 2 or 3 teacher educators (18 in total) with a particular video narrative as stimulus;

- 4 plenary evaluation sessions (of about 20 minutes each) with 4 to 6 teacher educators (18 in total);

- A 72-items online questionnaire with 35 teacher educators as part of a general evaluation of the video portfolio,

- A 80-items online questionnaire with 78 student teachers (cohort 2008) as part of the regular programme evaluation, and

- The video narratives as part of the video portfolio of 20 student teachers (cohort 2009).

**Analyses**

All qualitative data have been transcribed into written protocols. The individual interviews and plenary sessions were transcribed literally. For each teacher educator, the think-aloud sessions were summarized with help of a scheme. In this scheme, assessment activities (orientation, weighing the evidence, formulate and decide on the assessment score, off-task activities) were coded as well as critical factors influencing the assessment, the assessment strategy used, and the agreement between the assessors. Moreover, the process of assessment has been summarized. The video narratives of 20 video portfolios were summarized into three main categories: relationships between teacher competences, links between past, present en future, and the cohesion between events.

These four data sources (written protocols of the individual interviews and plenary evaluation session, and the structured summaries of the think-aloud sessions and the video narratives from the video portfolios) were combined with descriptive statistics from the analyses of the questionnaire data, and were all analysed through a process of content analysis, which involved reading and rereading the transcripts following a grounded-theory approach to inductively derive main themes (Strauss & Corbin, 1998). These themes were renamed and categorized into the three headings: 1) the relationships between the teacher competences that are related to the professional role of a teacher, 2) the connection between events and sources, and 3) the continuity between past, present and future.

Three researchers performed this content analysis and negotiated the resulting descriptions until agreement was reached about the most relevant themes and details (cf., Marble, 1997). The resulting descriptions are included in the results section. To guard against any preset interpretations in mind, we provided a thick description (Geertz, 1979) of the participants' perceptions and activities, which ultimately revealed how we grounded and confirmed our assertions completely within the data.

**Case Study: Video Narratives in Teacher Education**

Video Porfolio

All portfolios are stored in an electronic learning environment that has been developed by a conglomerate of Dutch universities in collaboration with the Digital University (DiViDU). It contains a fixed set of assignments, designed by the university-based teacher educators. These assignments comprise written documents (research reports, lesson plans, personal development plans, feedback from peers and supervisors, etc.) and video documents (reflection assignments, the narrative task, etc.) clips are crucial elements in the student-teachers' portfolio. The documents are assessed by two teacher educators with reference to the national standard: the prospective teacher needs to provide evidence of mastery (at least at a basic level) with respect to every competence on the list.

At the end of the first semester, student teachers are asked to collect video clips, reflect on these, and ask for feedback from their peers and teacher educator. They also store their lesson plans. In their reflection, student teachers should relate their teaching to teacher competences, take the perspective of a pupil in their lesson and reflect on what they learned from the feedback.

During the second semester, two main tasks include a video narrative. The first task refers to the demonstration of the subject-knowledge and methodological competence. Student teachers are asked to demonstrate how they teach a difficult part of their subject. They should use a video narrative with at least three video clips, clarifying texts with argumentations and justifications, and sources such as lesson plans, lesson materials, and product of their pupils. The second task, at the end of the semester, is the main task for student teachers to prove that they are ready to receive an initial teaching

license. They are asked to build a video narrative with at least four video clips, clarifying texts and sources including work and development plans and a completed rubric of the seven clusters of teacher competences. A screenshot of this task at the main page DiViDU is presented in Figure 2.



Figure 2. Screenshot of the video portfolio

Each tab at the top of the page –which refers the four main tasks in the second semester- highlights its own screen. In Figure 2, a screenshot is presented of the task Practice 2 (Praktijk 2). The task itself is written on the right side, together with some questions for reflections. Under the tab View responses (Bekijk reacties) student teachers can read feedback from their peers and teacher educators. The left side of the screen contains the video narrative. Under the tab My storyboard (Mijn verhaallijn), pictures, video clips, and text can be collected and created. When activated, the clips, pictures or text are shown on the left side above. In Figure 2, clip 3 (which is named "Uitleg vakdemo") is activated and paused after 6 seconds (the clip takes 1 minute and 12 seconds). Under the tab My references (Mijn bronnen) student teachers might add supportive materials, such as lesson plans, reports from students or colleagues in school, etc. Under the tab Institute references (Bronnen opleiding) materials from teacher educators are published, such as the criteria for assessment of the video portfolio.

The assessment of the video portfolio both half-way and at the end is done by two independent and trained assessors, of whom one is the mentor of the particular student teacher. Criteria for assessment are mentioned in a list, together with the products which are needed to proof the teacher competences. Each of these product is scored as 0 = not

available, 1 = insufficient, 2 = sufficient, 3 = good. A crucial element in the assessment is the coherence between video clips and student reflections.

**Relationship between Teacher Competences**

Most teacher educators feel in inconsistency between their assessment of the video narratives and their experiences with and perceptions of the students teachers during the training programme. The reason for this seems to be a limited focus of the student teacher in their video narratives on a particular teacher competence in a specific (classroom) context. In their video narratives, student teachers generally do not connect the various competences in a particular event, whereas teacher educators collect their perceptions from video narratives as well as from live observation of classes, reflective dialogues with their student-teacher, and talks with their colleagues in school and in the training institute. This could mean that the video narrative as it is now triggers a too much reductionist view on teaching. Connecting video clips and reflections in the form a narrative do not seem to change this.

Teacher competences that were –although seen as separate competences- mostly connected are the interpersonal and the methodological competences. Student teachers experience these two types of competences as closely linked which means that teaching not only requires expert knowledge in terms of subject matter, but also the ability to socially engage pupils in a lesson. Furthermore, both student teachers and teacher educator find it difficult how to separate the interpersonal competences and the pedagogical competences in a video narrative. Teaching behaviour can be seen as proof for both types of competences, and the interpretation whether it refers to pedagogical or interpersonal competences depends on how student teachers reflect on it.

**Connection between Events and Sources**

Not only the various teacher competences have been connected in a limited way; various events during their teacher education programme are not connected either. The context of the video narratives is most of the times strictly connected to the particular video clip in which a teacher competence is shown. Student teachers reflect on the

particular classroom situations without any reference to previous similar events and behaviours which could cause or is related with the particular event.

In addition, the video narratives generally are very short (the minimum of 4 clips) and not well linked to others sources as educational materials, empirical literature, theories, or material on the Web. Sometimes, the video narrative even includes video clips only without any reflection, justification or argumentation. For many teacher educators, the connections between events, competences as shown in the video narratives, sources, materials and reflections should be the focus of a video narrative: It is the 'fullness' of the narrative that provides the best evidence that student teachers are ready to receive their initial teaching license.

## Continuity between Past, Present and Future

In general, student-teachers' entries in the video narrative meet the requirements that had been set for the assignment. The video footage show the development across multiple teaching evens, and reflections in the text frames are generally consistent with what can be seen in the videos they select. There is a clear evidence of change in the classroom performance, and student teachers generally have clearly extended their behavioural repertoire in order to adapt their behaviour to the needs of the pupils and the context.

However, student teachers also report that they find it very difficult to write a video narrative on their own development, albeit it on only one teacher competence. Although the task for completing the video narratives includes some clues how to setup a video narrative, the structure seems to be too poor. Student teachers need more criteria how to write an video narrative on their development, and they should be aware at the start of training programme that this is important task that they have to do. Now, they were late with videotaping their teaching. In the student-teachers' evidence, the teacher educators recognize this lack of connection between past, present and future, although they also recognize that the video narrative could be an accurate way to facilitate this.

**Discussion and Conclusion**

The results of the case study were mixed. Most students succeeded in meeting the criteria we had set for the video-narrative assignment; but many students came up with only a few video episodes, with a few reflections in the text frames, with disconnected video clips and text frames, or a minimum insight into their development during the programme. Almost none of the student teachers connected present to the future. It would be inaccurate to maintain that the student teachers who did not provided enough proof in their video narrative, that they are not ready to receive their teaching license. It could be that they simply are less competent in completing the video-narrative assignment.

Based on the results of this case study, we proposed two changes in the design of the video narrative. First, student teachers should be provided with models of good narratives to give them a clear idea of what is expected (e.g., a data base of successful narratives). Second, an opportunity should be built in for peers (and supervisors) to scaffold the video narrative by providing feedback on draft versions of the narrative.

To recap, the results of this case study show that video narratives could be a valuable, valid component of a video portfolio in initial teacher education. It is meaningful for the student teacher, it relates to real (classroom) practice, and it demands disciplinary thinking and reflection. However, assessment in teacher education is a complex issue. There is probably not one instrument that meet all demands. Small scale, in-depth analyses of student-teachers' video portfolio could contribute to insights into valid assessment procedures in teacher education.

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# HOW COULD A SUCCESSFUL STUDENT TEACHER IN DISTANCE EDUCATION BE DESCRIBED?

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ABSTRACT
*Teacher education at distance started for the first time 2003 at Dalarna University in small scale. Today it is the major part. From this point of view it seems important to ask: How could a successful student teacher in distance education be described? The result is based on a case study. Data were collected from earlier research reports, registers and interviews with university teachers with experiences from educating teachers at distance. The most important parameters appeared to be high motivation, stable situation in life, good study discipline, earlier university studies and good relations to their fellow students and the university teachers.*

Key words: Student teacher distance education

At Dalarna University started 2004 thirty-four students their teacher education at distance. Today this is the major part. The spring term 2009 they were around 200. A lot of the students live nearby the university, which was not the case in the beginning. This new situation will probably influence the quality of the education as well as the conditions for the teachers and the students. The aim of this paper is to elaborate the question: How could a successful student teacher in distance education be described?

The result is based on a case study (Cohen & Manion, 1994; Merriam, 1994) and the result could accordingly not be claimed to be valid in general.

During the last few years are there been written some research reports about the teacher education at distance at Dalarna University (Lundgren & Svärdhagen, 2003; Lundgren & Svärdhagen, 2004; Oom Gartman, Lundgren & Svärdhagen, 2005; Reneland, 2005; Andersson & Lundgren, 2008; Hanefors, 2008). The results and experiences from these reports are summarized and analysed in relation to the research questions in this paper. Information was also collected from registers about students with their main subjects in literature, Swedish, social sciences or culture and milieu. The students started their distance teacher education in the spring term 2004, 2005 and 2008 were chosen (table 1). The results were studied after one semester, two years and in the end of the education.

Table 1. Number of students admitted and sample.

| Year of start | Students admitted | Numbers of sampled |
|---|---|---|
| Spring term 2004 | 34 | 17 |
| Spring term 2005 | 42 | 42 |
| Spring term 2008 | 106 | 32 |
| **Total** | **182** | **91** |

A tape-recording of a group interview was made with five experienced university teachers at Dalarna University concerning their view about distance education of student teachers.

**Theory**

Distance education is defined in this case as a type of teacher education where university teachers and students are geographically separated (Machenzie & Christensen Referred to in Willén 1982) and using Information and Communication Technology (ICT) (Chaib & Carlsson 2001), with a great flexibility concerning room, but less flexibility concerning time.

Aspects likely to affect students' suitability for teacher education at a distance have been identified from our previous experience with distance learning. For example it is likely that distance students are affected by how familiar they are with computers and those younger generations have generally more experience to using computers and IT, and may therefore prefer distance learning, even if they live near a university. They may prefer a greater degree than older people, with little experience of computers, to sit in front of a computer. For example, Haverila et al (2008:8) found that:

> /…/ the more experienced students [Note our remark: in e-learning] perceived themselves
> to have more positive attitude towards e-learning, and also that their learning style is more
> suitable to e-learning /…/ and they perceived themselves to be more active learners and
> self-starters.

Research indicate that age, social background, motivation, educational background and former work experiences have an influence on a successful result in all forms of studies (see, for example, Andersson & Lundgren, 2008). These aspects are partly influencing each other. Age and working life experiences are normally linked to each other, the

older the more working experience and "there is a connection between the situation in life and motivation" (University teacher).

Distance education has often been considered to make the student isolated (Östlund, 2008 referring to Peters, 2003). However, the rapid development of ICT has created better communication possibilities and pedagogical development for the distance education. Many students appreciate distance education (Östlund, 2008 referring to Poole, 2000; Petrides, 2002; Northrup, 2002), something that also is demonstrated by the increasing number of students applying for distance education. Distance students in Sweden have tripled from 1997 to 2007, from 29 400 to 89 000 (Östlund, 2008). Reneland-Forsman (2009) found that e-learning creates a good opportunity for a deepened communication and that the older students contribute to a developed thinking as a result of their earlier work experiences. She underlines that the way of communicating should not be in focus; instead it is important to stress the learning process. Furthermore, there is research pointing out that distance students are as well satisfied and that they achieve just as good results as campus students (Johansson et al, 2000; Allen et al, 2000; Zhao et al, 2005).

However, there are also investigations revealing that students are not satisfied with distance education, for example the possibility to get in contact with the teachers and the get feed-back (Östlund, 2008 referring to Johansson et al, 2000). Other research findings show that distance students are as less successful than campus students. They tend to terminate their education before they get their university degree (Östlund, 2008 referring to Rovai & Barnum, 2003; Westerberg & Mårald, 2006). A common reason is lack of time. Another cause is that the students underestimate the demands that university studies requires (Östlund, 2008 referring to Tresman, 2002).

Sara Dulaney Gilbert's (2001) book: How to be a successful on line student, gives also some guidance to understand what distance education is about. She says that distance students have to ask himself/herself questions like: It's faster, cheaper, and easier and you do not have to deal with other people. If you answer yes to these questions then distance learning is nothing for you, because distance education neither is faster, cheaper, easier, nor less socially involved. However, this is good reasons:

> *Fit learning into your schedule of family and job demands*
> *Keep education consistent despite a move or major change*
> *Get a good education when a campus is hours away*
> *Make a start on returning to school, when you're filing timid about joining a class*
> *then distance education is a good move. (Dulaney Gilbert, 2001:70)*

**Results**

**Study results**

The result from registers is presented and commented more in detail for the groups who started in 2004 and 2005 and in brief, in order to indicate trends for early drop-outs, on the group that started in 2008.

**Group one (start 2004)**

There were seventeen students, eleven women and six men, who started their teacher program in the spring 2004. They were registered to become a teacher for the later years in compulsory school or upper secondary school. The students' main subject was Social science (SAMD). None of the students came directly from upper secondary school. Most of them had most likely some kind of work experience or previous university studies. The result is presented in figure 1.
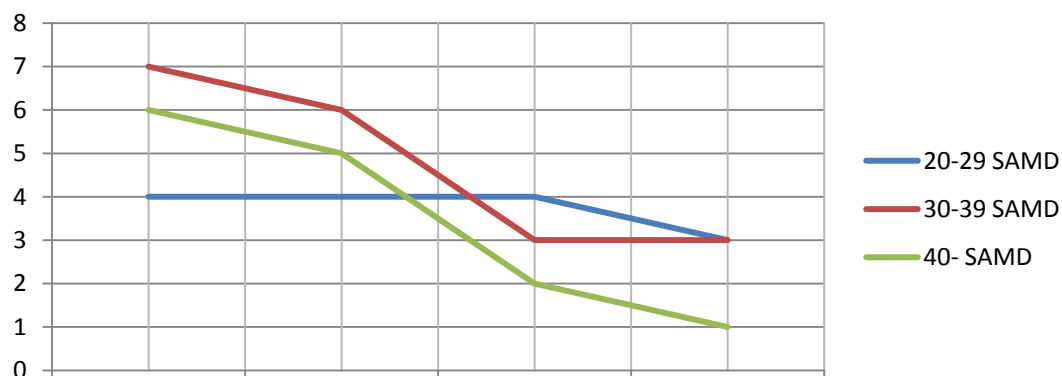


Figure 1. Achieved study results for students who started in 2004 divided on study time and age

After the first semester had all but one of the students succeeded. After two years seven students had failed and after four years had only seven students succeeded to reach the goal. There was no significant connection between age, earlier work experience or education.

**Group two (start 2005)**

Of the forty-two students who begun their studies in the spring term 2005 had fourteen as their main subject Swedish (SVED, SVEA) and twenty eight were their main subjects Culture and milieu of humans (KULD). In figure 2 are SVED and SVEA presented together. In the comments (below) they are separated.
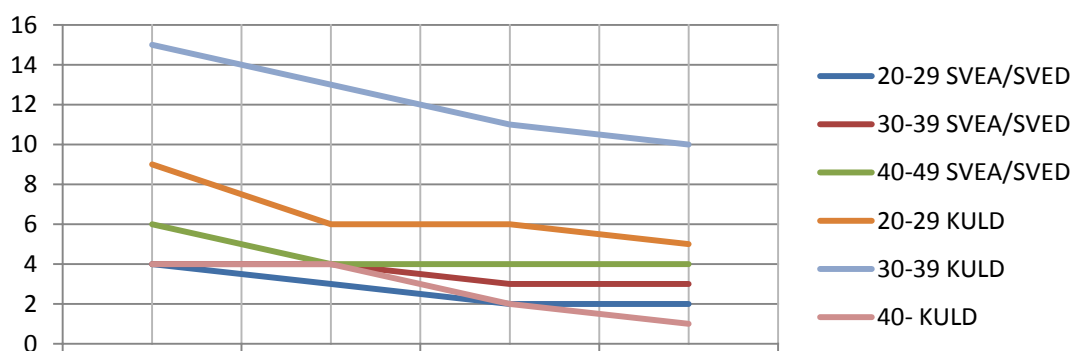


Figure 2. Achieved study results for students who started in 2005 divided on study time and age

Three of these students (SVEA) were registered to become recreation instructors or teachers for the early years in compulsory school. All were women and accepted as 25:4. They all succeeded in accordance with the syllabus. Two have a university degree while the third seems to continue and broaden her studies in the subject Swedish as a second language despite the fact that she could have had her university degree.

Three students were registered in the main subject Swedish. Two were men and one woman. The youngest woman succeeded the first semester and then seems she to have left the University. The other two did not succeed even the first semester. Eight students were registered to become teachers for the later years in compulsory school or upper secondary school. Six were women and two were men. Four of the students came from a three year theoretical program in upper secondary school, while two were accepted as 25:4. After the first semester all but one student had passed. After two years (spring 2007) the remaining seven students had all succeeded and in 2009 had all but one succeed.

All the twenty-eight KULD-students had their main subjects in Culture and milieu of life and all were registered to become recreation instructors or teachers for the early years in compulsory school. Twenty five were women and three were men. Considering the age all of the students, but for one, seem to have had work experience or other

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education before starting the teacher education. After the first semester five students, all women, had failed. After two years eighteen students succeeded to reach the goal.

After three and a half years sixteen students has reached the goal 210 points. Thirteen students, one man and twelve women, have received their final university degree. Neither concerning this group any connection between age, work experience and results can be found.

**Group three (start 2008)**

Of the thirty-two sampled students in the spring semester 2008 had eighteen, sixteen women and two men, the main subject in Swedish (SVED), four, three women and one man, in social sciences (SAMD) and ten, all women, in Culture and milieu of life (KULD). As they have been at the University just a short time the results are only shortly commented. After the first semester had fourteen of the eighteen SVED-students succeeded and also produced during 2009. Among the ten KULD-students nine succeeded to reach the goal and are still producing.

A general conclusion is that a lot of students seem to fail, but no significant differences between age and study results can be found.

**Age**

In the first group of students (start 2003): "A majority of the students /.../ (14/16) were women in the middle age and a rather homogeneous group" (Andersson & Lundgren, 2008:4). In a later study concerning students in general at Dalarna University answered 60 students a survey, in which 90 percent were women and 10 percent men (Hanefors, 2008). Most of the students were between 30 - 39 years old and almost half of the group was 40 - 49 years old. Only a few of the respondents were younger than thirty years or older than fifty years. In most cases are the students participating in distance education did not they who recently had left upper secondary school. It seems to be the middle aged women who at first hand are attracted of distance education, perhaps because they see a possibility to do things that before have not been possible to do.

Many have had dreams which never have been carried through. They have had an idea, this is what I want to do, but it has not come true. (University teacher).

About the importance of the students age and their study-results, said an experienced university teacher that were interviewed:

I think age and motivation to a high degree are linked to each other . I imagine that students, mainly women a little bit older 35, 40 with work experience have another motivation to get an education. When you are becoming older become your possibilities to choose also more and more important of several reasons. (University teacher).

Although there nowadays in general are younger students, it is still not the real young that are applying for teacher education at distance. However, the distance students are supposed, from the university teachers' point of view, to being more successful than the campus students. It seems that the age in some cases might influence the study results, perhaps most of all depending on former experiences from working life and sometimes from former university studies.

Many of the older students have not only work experience, but also experience from earlier academic studies that gives a totally different start in the new studies apart from what kind of earlier studies they have. They have an advantage. (University teacher).

The distance study form is an opportunity to change the future for the older students and this fact increases the motivation to succeed in the studies. These aspects are elaborated more in detail in the forthcoming sections.

**The life situation**

The women, but also the few male students, that participated in two of the case studies (Oom Gartman, Lundgren, & Svärdhagen, 2005; Andersson & Lundgren, 2008) claim that their life situation was such that they could not have been able to study if campus courses would have been the only alternative.

The majority point out that distance education gives them the opportunity to study from home /…/ several also points out that this is the only opportunity for them to pursue university-level studies /…/. Another factor /…/ was that to study at home is financially more attractive /…/ it avoids long journeys /…/ and it gives opportunity to spend more time with the family /…/. (Oom Gartman, Lundgren, & Svärdhagen, 2005:4).

For example, in Hanefors (2008) study had 88 percent of the students' children. Many of the students had family with children and/or a work they could not leave for social and economical reasons. Teacher education as distance education was the only alternative to be educated or to re-educated. One student said: "This is my only

possibility because I have children and family. I have no other choice /…/" (Andersson & Lundgren, 2008). Another said: "Economically must I work daytime due to the kids" (Östlund, 2008: Course II p 9). For those living far from the university opens distance education new possibilities. This was also the case in study of Östlund (2008).

> No, I could not [go to campus]. My intention was to be a teacher in 1998, but I could not, because me and my husband lived in separate cities and we already had children and dogs. But, when I received this opportunity I took it and it was distance education. (student quoted in Andersson & Lundgren, 2008:5).

It seems reasonable to say that distance students that live far away from a university that their life situation influenced their choice of distance education.

**Motivation**

Andersson and Lundgren (2008) claim that the motivation among the distance students in the first group in the teacher education at Dalarna University was very high. They also stressed that in this form of education must the students have a strong motivation and a lot of discipline to be able to succeed. Some of the students, with experience from campus education, said that it was easier to succeed in campus education than in distance education. This also was what the university teachers said. "They [the distance students] have made a more active choice, they are disciplined and motivated" (University teacher quoted in Andersson & Lundgren, 2008:7). "I also think that at least the first groups of distance students I have taught had more ambition than what Campus students have. They were more focused. /.../" (University teacher quoted in Andersson & Lundgren, 2008:6). Motivated distance students seem also more aware of the importance of being disciplined.

> You can study more independent, when you have time, but at the same time it is necessary that you really are doing so. You must have a strategy and you must accomplish it. Those who lack discipline cannot study in distance. (Distance student quoted in Andersson & Lundgren, 2008:9).

On the other hand, the student's motivation always seems to be important. Unmotivated students succeed not well in any form of education.

> I do wonder if it isn't so after all that one sees a little more motivation from the distance students. They handle remaining tasks more seriously. I know that I have to ask for remaining tasks more times in campus courses than I have to do in distance courses. (University teacher).

It is not possible to claim that distance students in general are highly motivated. However, in this case study it was middle aged women living far from a university they who that in most cases were highly motivated.

**Educational background and earlier work experiences**

In a study of Hanefors (2008) had fifty-five percent of the students experiences from earlier university studies. It seems reasonable to think that earlier university education in general is helpful, as many of earlier non academics in the beginning of their studies have great problems to understand what academic studies mean and what was required from them. "/…/ because I have studied at the university before, I have learned how to handle my studies /.../ it takes time to understand this" (Östlund, 2008).

However, students seem to find university studies more time consuming than expected. "/…/ as I'm not used to university studies I did not understand that it was not possible to take time as long as you wished" (Östlund, 2008: Course II p.12).

If students not before they started their studies at distance had used technical equipment (ICT) took it a lot of energy to handle this in the beginning of the education. This was obvious in the studies of Andersson and Lundgren (2008), as well as in the study of Östlund (2008). However, one university teacher who was interviewed about what distance students need says: "Time and motivation are considerably more important than technical knowledge and experiences" (University teacher).

In Andersson and Lundgren (2008) study had sixty-three percent of students' experiences from the teacher role before they began their teacher training. Two of them had, for example, worked as a recreation teacher for a long time and one as a teaching assistant, another as a supply teacher. "I have a long experience in schools prior to this training and I was fortunate enough to have a good practice. Important, I think" (Student teacher quoted in Andersson & Lundgren, 2008:7). Students with previous experience from working in the preschool said that this had helped them to better fit with teacher training because it was possible for them referring to practical situations in the everyday school work. Most of the students who had these experiences were also older. "Many of these students had worked in schools or in care facilities, without being a trained teacher. They have a long experience and now they want to know more" (University

teacher). To have work experience gives you a more mature understanding that your work is important.

**Discussion and conclusion**

The ambition with this paper was to find some answers of the question: How could a successful student teacher in distance education be described? Not surprisingly, important aspects appeared to be high motivation, stable situation in life, good study discipline, earlier university studies and good relations to their fellow students and the university teachers. However, the use of ICT seemed to be of minor problem.

The case study showed also that many distance students do not complete their teacher education. However, some of them do continue their studies after some time. Some presumptions can be made: Lack of time because of family reasons or work, misjudging of what is demanded in university studies and lack of discipline influence the possibilities to fulfil the studies. Some of the students may also have discovered that the teaching profession was not what they expected and have therefore left the teacher education.

I line with Dulaney Gilbert (2001) it is, also in this case possible saying that most in the first group that studied at distance had chosen this due to their family situation. We also know that the first group (Andersson & Lundgren, 2008) did not chose distance learning because they thought it to be faster, cheaper, easier, nor less socially involved. For the students who started in 2005 and 2008, we do not know for what reasons they attended the distance education.

What can be done to get better results in teacher education at distance? It seems important to emphasize the demand of self discipline in academic studies and to stress the communication with fellow students and university teachers in the courses. It is also time to think more about how to develop the distance education pedagogically. This study, as well as others, shows that the demands to be a successful distance student very much are the same as in campus studies. Is it possible that these different study forms may have a stimulating effect on each other in the future?

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# E-FORUM AS A MEANS OF STUDENT TEACHERS' PROFESSIONAL DEVELOPMENT DURING TEACHING PRACTICE

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ABSTRACT

*Use of virtual learning environments and course management systems such as Moodle has already proven beneficial in teacher preparation. In his paper, the author describes and evaluates an e-discussion forum that took place during the 2-week teaching practice period in April 2009. Set up in a rather "ad hoc" manner, the e-forum turned out to be a lively "discussion room" where some unexpected and relevant topics and questions were brought to attention and discussed. As such, the forum proved to be an environment which stimulates creation of knowledge and student teachers' professional development.*

## 1. Introduction

There seems to be general agreement among in teaching and teacher education that the ability to work with advanced information and communication technology (ICT) is one of key competences that every teacher must have. More recently, however, one particular ICT-related ability/competence has gained importance among teachers and teacher educators, namely, the ability use virtual learning environments and course-management systems such as Moodle.

Moodle is a course (or learning) management system or tool for creating effective online learning sites for students (http://moodle.org). By using this tool, teachers can provide students with materials for coursework and study (e.g. advance reading, practice exercises, supplementary activities, assessment tasks), assign various reflective tasks (e.g. diaries, reflective essays) and provide students with opportunities to communicate out of classroom or school. Especially in this latter function Moodle serves as a means for building (constructing) knowledge (http://moodle.org).

Of the various features (functions) of Moodle, the Forum feature deserves attention, especially for its usefulness for achieving active learning and collaborative interaction between the teacher and students (or between students themselves) without necessitating physical contact. Several authors (e.g. Marsick &Watkins 2001, Brandt 2006, Maharg & McKellar 2004, Lopes dos Reis & Martins 2008, Stanford 2008) confirm its usefulness for stimulating reflection and critical thinking, for promoting cooperative learning, a spirit of community and student autonomy. Also, it has been found that participation in discussion forums can enhance informal and incidental

learning (Kerka 2000, Marsick &Watkins 2001). Not lastly, many students learn significantly by lurking, thinking and planning off-line (Maharg & McKellar 2004).

In this paper I will report on the use of one of the Moodle features, that is, on an on-line discussion forum titled "News from the Trenches", which took place during the 2-week teaching practice period as part of the study programme for future (English) teachers at the Faculty of Arts, University of Maribor in April 2009. I will begin by providing the context, aims and procedure of discussion forum. Then, I will present the content of the discussion on one of the (sub)topics initiated by the forum participants. In the last part of this paper I will briefly report on the results of a survey conducted among the forum participants and consider its implications for teacher preparation at the University of Maribor.

## 2. The context, purpose and procedure of "News from the Trenches" discussion forum

In teacher education institutions in Slovenia, teaching practice is traditionally viewed as an opportunity for students to put the "academic" theory to practice. In the four-year curriculum, which reflects the traditional positivist approach of "technical rationality (Schön 1983, 1987) and the applied-science model of teacher education (Wallace 1991), teaching practice is given little importance; it is organised in two 2-week periods spent in schools in 3rd and 4th year of study. As most students take two major subjects (which qualifies them for teaching two subjects) students, future English teachers for example, have only two one-week periods to apply the "theory" of English language teaching to classroom practice. It is thus not surprising that many graduates of these programmes start their career as teachers with the traditional positivist, teacher-centred and transmission-oriented conception of teaching (Cvetek 2002).

Still, there has been some positive development towards a more profession- and reflection-oriented preparation of future teachers. At the Department of English and American Studies, activities such as portfolios, reflective essays, critical incident report have become a standard practice in the subject-didactics course and a standard part teaching practice requirements. Most students in general, find these reflective writings worthwhile in useful for their development as teachers although some see them an additional workload that students enrolled in most other study programmes don't have.

In recent evaluations of teaching practice and subject didactics course an increasing number of students complained that their reflective writings are seen only by their subject didactics teacher. Indeed, in their writings, most student described and reflected on events and situations that had made a strong impact on their thinking or feeling, thus causing a natural need to communicate. In order to meet this need, an on-line discussion forum "News from the Trenches" was used for the first time during the 2-week teaching practice in April 2009.

The purpose of the forum (as written in the instructions for students) was to provide a place where students can

> "get in touch, share information and experiences from your observations and your teaching encounters, make comments or express opinions on "hot" issues and topics, ask or answer questions, share your newly acquired wisdom as English teachers - or just inform everybody of some interesting or "hot" news or tell a story (a happy or sad one) from your "teaching trench".

Participation in the forum was not obligatory but it was strongly recommended that each student contributes at least one piece of "news" from their "trench" and responds to someone else's post at least once. Also, confidentiality of the information disclosed on the forum was required from all participants. In order to "break the ice" and get discussion going the moderator (in this case myself) posted the following two pieces of "news" on the forum, both heard from practicing teachers of English during assessment lessons earlier this year:

1. At one elementary school, some parents were furious because of bad results on English tests (4th grade) blaming the teacher and her bad work. The grades were as follows: 12 excellent, 5 very good, 3 good, 0 (zero) e, 0 (zero) unsatisfactory. What do you think?

2. At one school, some 3rd grade boys ambushed some 7th grade girls and began touching their private parts. The girls reported the attack to the school authorities. What will happen to the "courageous" perpetrators is yet to be seen.

The 2-week teaching practice took place from 30 March to 10 April 2009. In the period from 2-14 April altogether 69 posts on 7 different topics were sent in the forum. They are given below with the number of posts related to each topic.

| Discussion topic | No. of posts |
| --- | --- |
| Student learners | 15 |
| Consistency among teachers | 1 |
| Ability grouping | 8 |
| Student violence | 21 |
| New English teachers | 10 |

As seen above, the topics initiated by the participants received a varied number of responses ranging from one to 21 posts per topic. The (sub)topic that got most replies from student teachers (Student violence) is presented below.

**Content of discussion on the topic of student violence**

At the end of the first week, the following post was uploaded on the "News from the Trenches" discussion forum:

> Simona: This has been a very hot topic lately since every now and then we hear of school massacres and gun-attacks and shootings. Violence in schools is a very burning problem not just in USA or Germany but also in our schools. Let me just state some of the things that happened at my school just this week. A boy got into a girls bathroom and forced one girl to play with his "special" body parts. Since she refused he grabbed her head and pushed it in his pubic region. Luckily there was one more girl in the bathroom who heard all this and ran to get one of the teachers. What do you do with the attacker? And what do you do with a victim? What do you do that precise moment when you enter the bathroom and see the happening? The boy is in 9th grade and he is 1.80 cm tall and weights more than 100 kg and the girl is in the 6th grade and very little and tiny. Next, one boy broke 10 lockers (…)

Two replies came early the next day. In the first one, the author gave two examples of student misbehaviour in the classroom and concluded:

> Nada: So I guess learners at my school are not as problematic, but rather funny when they try to be rebels. Nevertheless, hope the problems at your school work out and your practice is still fun.

In the second reply, the author, after expressing her shock, provides another example of what she calls violence but is an example of bad behaviour of students and concludes:

> Katja: I can say that if there would be this kind of environment - peace, no violence as it is in my school, the world would be a better place. But unfortunately the world is not such a great place anymore, horrible things happen everyday and the most sad thing of all, that terrible things happen to children and those terrible things are caused by other children.

Both above replies were, as it seems, triggered by surprise and shock caused by the "news" and aimed both to express solidarity with the author of the initial post. In the next response, however, there is evidence of reasoning. Mojca says what, according to her belief, is the cause of violence in schools,

> Violence seems to follow us everywhere. Why? Because we allow it to do so. (…) because punishment became a big taboo in the modern classroom. And I do not mean to say that teachers should be allowed to use physical punishment, no, not at all.

expresses her belief in the "rule of school law",

> But boundaries have to be clear in my opinion (right now, only the teachers have very clear boundaries.

and speculates on a possible solution or action.

> We as students are still full of energy and (hopefully) full of belief in the basic goodness of children (I know I still am). There are of course a lot of teachers that complain (usually not without foundation), but there is a handful of them who still know how to gain respect and cooperation from the class. Maybe we should look up to and learn form those teachers and not become one of those people who only know how to complain about the youth and how irresponsible and bad they are. (…).

In her reply to Mojca's post, Simona, the author of the initial post, agrees with Mojca.

> Yes. Students are reflection of the environment they are growing up in.

and ends her post in a positive way, with a promise to herself to become an agent of change.

> (…) This boy is actually a challenge to me. Unfortunately, our practice lasts only 14 days and I won't have enough time to break through to him, but I've already made the first step.

Now, Nada, the author of the first post, continues the discussion asking for more details about the incident:

> I couldn't stop thinking about the boy in the bathroom-situation .What did the principal do after the assault? I mean, what happened to the boy and girl? The more I think about it, the more I can't come up with an answer. Do you know what happened? Whereas, what would I do? Have no idea to be honest.

Curiosity? Yes, but also growing concern and an awareness of insecurity and lack of knowledge. Similarly, Tanja, the author of the next post expresses her fears about a problematic class she was going to teach the following day.

> I don't know what I will do to calm them down but I will probably give them a lot of different exercises to occupy them as much as possible.

Katja, too, is shocked by the "news" blaming herself for not being able to recognise violence in domestic environment and admitting she has no idea how to deal with this problem:

> Every evening when I check this forum I'm more and more shocked. I knew that there is violence in schools, but I always thought that it is far away from us - in 'those American schools', but not in our sweet little country. I was hiding the truth from myself (…) I'm just happy I didn't see any violence in action, because I would be really scared and I can admit I

would not have any idea what to do and how to react-and I suppose that this would be the most awful thing for me, not knowing how to react, and also the situation would became even harder because of me not reacting immediately.

In her post, Klavdija is worried about her future work as teacher:

(…) And now I am asking you. What now? We have at least 30 years of teaching in front of us. How will we get along? I think it is about time, for teachers to stand up for themselves, make a new educational plan which protects pupils but also TEACHERS, themselves.

In her next post, Simona satisfies Nada's curiosity providing more details about the incident showing concern about the victim,

(…).the assault was finished in a very good way for that boy. (…) The teacher took him to principal's and they immediately called his parents and of that little girl. However, I haven't seen that little girl ever since but I must imagine she's scared and petrified each time she goes by that toilet. I don't know what the teachers have decided to do with her.

then shares her view about the issue,

(…) I believe parents play the most important part. We can try to re-educate children, but they spend what... about 4-5 hours with us per week and when they get home the situation is back to the old ways. We cannot make much difference. But we can make some.

and then suggests some actions to be taken:

I think we should make kids speak up about this. Let them form workshops on this topic and let us hear from them why and how they do that. Let's try to see their point of view and show them they're wrong. (I have in mind the bullies). And to the victims they should not remain silent. Stand up for yourself and report on those guys. I think this would spread awareness among children. Perhaps even try to play some scenes (within these workshops, just acting) with the bullies to make them see, that there is always someone stronger than themselves, and what would they do if they turned to victims. Children haven't got respect for no one and that goes back to the personal scale of good and bad or personal scale what's OK and important. These are just my thoughts at this precise moment.

In the three posts that follow, their authors agree on importance of work with parents in order to achieve their greater role in education of their children. Then, in her last post, Simona points to the key role that teachers have in this regard.

We need to teach them fair play. I think they lack of basic things like respect, appreciation, tolerance, understanding etc..(…) And it's a pretty hard thing if you try to re-educate the parents first and then the students.

In the last post that was sent to the forum on the topic of student violence, Katja, as it seems, successfully summarises the discussion:

So who is guilty? I wouldn't say only parents or only teachers are. Parents are responsible for students and students are somehow their "product" when they come to school. But once they come to school, also we, as teachers are responsible for them. Also behaviour is something we should teach students and not just English, math etc. And as I said, I believe that in this case, it is teachers and parents who should be consistent.

While it is impossible to measure the impact that the above discussion had on those who participated or just read the posts something can be said about students' thoughts and feelings about the forum as such. At the first meeting after the teaching practice, students filled-in a short anonymous questionnaire about the discussion forum and the following answers were obtained:

**Student evaluation of the discussion forum: Results of survey** (N=46):

*1. General thoughts and feelings about the forum*

Answers: Not a very good idea: 0; No opinion: 11 (24%); A (very) good idea: 35 (76)

*2. Forum's usefulness (value) for learning and development as teacher?*

Answers: More or less unimportant: 7 (15%); Of some importance: 22 (48%); Quite important: 14 (30%); Very important: 3 (7%)

*3. Posts read*

Answers**:** None or almost none: 4 (9%); A few: 15 (32%); Quite a lot: 13 (28%); All or almost all: 14 (30%)

Reasons for "None or almost none" and "A few" (19 responses): time constraint, other work, tiredness, lack of interest, the forum not seen useful or important for learning

*Illustrative comments:*
- I was surprised there were a lot of posts but I do not know how they managed
- I would love to read posts if they were interesting. I am here to teach English and to read advice but not for reading how bad children behaved.

Reasons for "Quite a lot" (13 responses): Interest, curiosity, forum seen useful

*Illustrative comments:*
- I didn't like the fact it was all coming to my mail, so the mail keeps loading …
- Didn't have more time to read them all.
- Some of the posts were just too long.
- Not enough time /other work/additional work

Reasons for "All or almost all" (14 responses): Interest, curiosity, forum seen useful, a sense of achievement

*Illustrative comments:*

- (…) and I wanted to know what were the comments on my comments
- some of the things I read got me thinking. It also made me connected with my colleagues.
- I did a lot of thinking when reading their answers and building my self-confidence
- I put a new discussion topic at the forum and I was glad when I saw that somebody responded.
- I think it is important to know what experiences other had, if they had the same experiences as I did, did they react in the same way and what are other possible solutions to problems.

### 4. Thoughts (feelings) about possible future use of discussion forums

Answers: Not a good idea:2 (4%); No opinion: 8 (17%); A good idea: 36 (78%)

### 5. Thoughts (feelings) about going "public" (student blog on departmental website)?

*Answers*: Not a good idea: 7 (15%); No opinion: 21 (46%); A good idea: 18 (39%)

### 6. Comments and suggestions

A selection of comments and suggestions is given below.

### General (positive and negative) comments on the (idea of) forum:

- The idea itself is good, it connects us and evokes our imagination.
- I think that we should continue with e-discussion forums.
- I like the forum the way it is.
- The students stay connected, one can learn from another.
- I find the forum a very good idea, but I have the opinion that the conversations should be seen just by us (students from English Didactics).
- It's a good idea – it keeps you in the contact with other students.
- I think it is not a bad idea, we would save some "previous" paper and money.
- I think that the whole thing is well-formed …

- We should have read about this stuff before going on teaching practice, to know what to expect. It would be a good idea to let younger students know how we felt, what went wrong, how to prepare themselves etc.
- Do not send us "News from the trenches" on our e-mails.
- It should not be obligatory to participate in e-discussion.
- You give a theme to talk about. And we need to be self-motivated to write. I think that almost everyone writes because you say so. And forums should not be obligatory. When that will happen I think the discussion would be real.
- But sometimes it is impossible to use e-forums because not all have the internet access available 24/7.
- We should discuss about those topics before going to our teaching practice.
- This one isn't well structured and it's hard to see who is replying who … Could be put in more segmented form.
- This forum is in a very weird structure. It should be more segmented, colourful etc., maybe to be put on a different website.

### *Suggestions and proposals for future use:*
- There should be more topics to write about, not just 7.
- Maybe everyone could send his lesson plan on the "moodle".
- Perhaps we could have e-forum during the whole didactics not only during the teaching practice.
- I think the participation on the forum should be obligatory, for it would motivate us more to share our opinions and ideas.
- Maybe e-discussion forum could be open all the time not just during the teaching practice.
- It would be nice if forum would be open any time for us to ask different questions. Those 2 weeks were too short to discuss everything.
- I think that this can help Ss in their home-tasks, papers to print out and keep in touch with what is happening if you missed lectures.
- Students could discuss about some assignment we have to do, instructions because I noticed we all sometimes have some doubts about certain things.
- We could create our own website for discussions.

- Well, if the students are too shy to come up with new topics, the moderator should write some new ones.

- Much more practice and self-reflection/evaluation. Connection among student teachers themselves and we could invite also mentors to participate or share their ideas. Also didactic teachers. No time limitations (people shall write when they have time).

- It would be great if we can have some teachers' reflection how they handle the situations.

**Conclusion**

If anything, something is evident from the content and student evaluation of the discussion forum, and this a recognition of the value and importance of communication for student learning and professional development as teachers. Through their post, forum participants "put to practice", rather than their previously obtained (accumulated) knowledge, the concept of teaching which "is seen as a profession that entails reflective thinking, continuing professional development, autonomy, responsibility, creativity, research and personal judgements" (ATEE Policy paper, 2006)**.** By taking part in the forum, student developed not only their professional knowledge but also themselves as persons and their role as future teachers in the changing world.

One more thing has become clear as regards teacher education at the University of Maribor, and that is an evident need for change. The new accreditation criteria for teacher preparation study programmes adopted in 2008 include a requirement that graduates of these programmes must be able to connect and use the acquired knowledge in complex, unpredictable and changing circumstances and that teaching practice in schools must be organised according to the principle of reflective practice. In times of financial and other constraints, the use of modern information and communication technology such as Moodle, has become not only a viable option but a necessity.

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# CREATING KNOWLEDGE WITHIN A VIRTUAL WORLD: REFLECTIONS ON THE USE OF SECOND LIFE IN DEVELOPMENT EDUCATION COURSES FOR TEACHERS IN IRELAND

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ABSTRACT
*Virtual worlds such as Second Life are increasingly being explored by innovative teachers around the world. This paper presents work in progress that seeks to design effective learning opportunities in Second Life for knowledge creation in Development Education courses for teachers in Ireland. Following a short pilot, a full design and implementation of a learning experience took place with fourth year student-teachers, aiming to address concerns of immersion and knowledge construction. Evaluation of student projects and course team reflections provide insight into the concerns of participants and understanding of their knowledge creation. This has informed the design of future courses.*

Keywords:  Knowledge creation; Second Life; computer-supported collaborative environments; Development Education; primary teacher education

## Introduction

As the educational potential of virtual worlds (also known as Multi-User Virtual Environments, or Immersive Virtual Worlds) is increasingly explored in a variety of contexts, the use of this new technology in the education of student-teachers and practising teachers in the K-12 context has become of particular interest to the authors. This paper reports on their attempts to use a virtual world, specifically Second Life[®], for both pre-service and in-service courses on Development Education run at their university.

Development Education focuses on creating awareness of the issues facing the world and on possible personal decisions that make a difference with regard to such issues (McGrath, 2005; Regan, 2006; Stiglitz, 2006).  Ireland has a history of involvement with education in many parts of the world; the State Department of Foreign Affairs, through its grant-awarding section Irish Aid, provides funding for a variety of education-related activities both at home and overseas.  Recent activities  for which resources have been forthcoming include partnerships with agencies in Uganda and Lesotho, aimed at promoting development through education.  Within Ireland, support has been given for relevant teacher education courses, both pre-service and in-service; the project reported in this paper has received such funding.

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The main focus of the paper is on the work done with a group of students who were in the final year of a four-year Bachelor in Education (B. Ed.) programme that prepares them for primary teaching. Such students are qualified to start teaching after the first three years of the programme, and when they undertake the fourth year of the course most of them are already in their first full-time teaching jobs. Understandably, therefore, they are preoccupied with their teaching; when they come into college at the end of the primary school day, they are tired and often disinclined to participate actively in lectures. Oldham et al. (2009) questioned whether it would be possible for these typically passive and un-engaged learners to become immersed in a virtual world. An initial pilot with fourth year B. Ed. students in 2007-08 yielded positive indications with regard to immersion. Members of the project team therefore set about designing and implementing opportunities for some of the equivalent cohort of learners in 2008-09 to participate in knowledge creation activities in Second Life, as part of a B. Ed. module on Development Education.

Plans were also made to offer a similar module to more experienced teachers as an in-service course. One of the intended aims for the paper was to compare and contrast the reactions of the two groups of participants: the B. Ed. students (taking the module as part of their degree course) and the volunteers who chose to give up part of their summer holidays for further study but who did not have to undertake assessment for certification. The in-service course was originally planned for mid-summer 2009. However, there were not enough applicants for the course to take place – a fate that has befallen a number of in-service courses at the present time of 'credit crunch' and educational cutbacks. *It is now hoped that a course will run in August, and that its outcomes can be reported at the ATEE conference.*

This paper begins with a brief discussion of the most pertinent existing research and a description of the learning context. Against this backdrop, the course design is presented, with particular focus on the project that students were required to undertake as part of the course assessment. This is then followed by an evaluation of the design and implementation. The paper concludes with a discussion on lessons learned so far and their impact on current and future courses for both new and practising teachers.

**Literature**

While there has been a substantial increase in the interest of using virtual worlds for learning, literature in the field remains scattered across disciplines and academic interests. Hew and Cheung's (in press) review of research into the use of virtual worlds illustrates the disparate nature of this research. For this paper, it is appropriate to cite relevant work done on teacher education, assessment, learner perceptions of the learning experience, and knowledge construction. Findings in these four areas are outlined in turn; more general aspects of knowledge construction through the use of computer-supported collaborative environments are then considered.

Within the field of teacher education, Mullen et al. (2007) propose virtual environments as appropriate for field experience for student-teachers, allowing these students to take on differing identities in preparation for teaching, and thus providing an opportunity to transform preconceptions. The altering of preconceptions is also a core aim of Development Education, so virtual worlds would appear to be an appropriate vehicle for the teaching both of student-teachers and of practising teachers within this subject domain. Albion (2008) suggests that in order to use virtual worlds in their own teaching practices, it is necessary that student-teachers are introduced to approaches to designing learning within such technologies.

Although there are a limited number of reports on assessment of learning in virtual worlds, Jarmon et al. (2009) describe a successful, collaborative, project-based assessment activity within Second Life that provided opportunity for learners to apply knowledge gained through the course. While there were advantages to conducting the project in a virtual world, learners had contrasting beliefs about the transferability of Second Life activities to 'Real Life.'

Several studies consider learners' perceptions of the learning experiences in which they have taken part. For example, Mayrath et al. (in press) found learners' perceptions on the use of virtual worlds for learning can be mixed. While some may see relevance in particular activities being conducted in a virtual world and may find them engaging, others may view them as irrelevant to the course they are studying and lacking in direction. Although there are increasing numbers of teachers engaged in the use of virtual worlds for education, there remains a paucity of teacher, rather than researcher, perceptions on the efficacy of virtual worlds for learning.

Examining the design of interactive learning experiences within Second Life, Girvan (2008) constructed a learning activity to support the construction of knowledge of issues around North-South interdependence. Implementation and evaluation of the activity with experienced educators used Communal Constructivism (Holmes et al., 2001) as its theoretical underpinning. Communal Constructivism closely resembles the underlying processes of Knowledge Building (Scardamalia & Bereiter, 2006) with the extension of constructing knowledge for both current and future learners. This approach was found to be successful in leveraging the features of Second Life, including communication, immersion through an embodied social presence and persistence. The participants reported enjoying the experience and there was strong evidence of learners collaboratively constructing knowledge.

Aspects of knowledge construction in other computer-supported collaborative environments are also of relevance to the work reported in this paper. Strijbos et al. (2004a, 2004b), writing specifically about computer-supported collaborative learning in higher education, emphasise the importance – true in general for all applications of technology in education – of starting from considerations of students' learning and hence using technology only when it is an appropriate tool for achieving the required learning goals. They point out that '[if] students (and teachers) do not see the added value of technology, the chance is great that it is not there and we should not be surprised that nothing happens' (Strijbos et al., 2004b, p. 253). Writing in the same context, Chan and van Aalst (2004) focus on assessment issues; they stress the importance of developing a collaborative, rather than an individualistic, learning culture and corresponding assessment structures. Successful implementation of such ideas with younger learners – of primary school age – is reported for instance by Zhang et al. (2007), using the knowledge creation software Knowledge Forum®. A feature of this study is the considerable length of time over which the children were exposed to Knowledge Forum.

**Background and context**

Fourth year Bachelor in Education (B. Ed.) student-teachers at the authors' institution in Ireland have spent three years qualifying to become primary level teachers (preK-6). As described above, their fourth year is typically undertaken while they are beginning their

first teaching post. They choose from a range of modules, ideally selecting subjects in which they have a particular interest. Development Education is one of the modules; it caters for about 25 of students in the cohort of around 200. Typically some students have placed the module high in their list of choices, but others may have been allocated to it only because their preferred options were over-subscribed. Thus, the students' initial interest in or commitment to Development Education cannot be taken for granted. Equally, it cannot be taken for granted that the students are highly computer literate. A study carried out over a five-year period with B. Ed. and other student-teachers in the authors' college has found that, though they were generally comfortable with technology use for communication in their personal lives (through frequent texting, membership of social networks, and so forth), their own reported educational experience of technology was limited, with little evidence of learning connected to the technology (FitzGibbon et al., 2007). There is an assumption, however, that through exposure to the effective use of technology during their time as student-teachers, they will be more likely to use technology effectively in their own teaching careers (Oldham et al., 2009). This follows Becker's (2007) suggestion that in order for student-teachers to use games effectively as part of their teaching practices, they need to engage first with games as part of their own education.

Thus, using a virtual world as a vehicle for learning in the B. Ed. Development Education module provides both opportunities and challenges. As stated above, Oldham et al. (2009) questioned whether it would be possible for the typically rather passive and un-engaged learners to become immersed in a virtual world, Second Life – whether, in fact, introduction to a virtual world would be a particularly appropriate way of promoting the students' engagement and co-operation despite their tiredness at the end of the teaching day. Use of Second Life in the Development Education module was seen as relevant for various reasons:

- As indicated in the literature review, it is intrinsically appropriate for Development Education studies
- It appeared to be appropriate also for the specific cohort of learners
- It would also provide the students with a new experience of the use of ICT in education – a goal that was not specific to the Development Education module, but valuable for the B. Ed. fourth year programme overall in terms of opening the students' minds to the possibilities afforded by use of computer-supported collaborative environments in the classroom.

As regards the latter point, a brief attempt had been made to use Knowledge Forum with a previous group of students, but practical difficulties had obviated sustained use. However, positive indications regarding immersion in Second Life were observed in the pilot study in 2007-08. Hence, the course team set about designing and implementing opportunities for the equivalent cohort of learners in 2008-09 to take part in knowledge creation activities in Second Life, as a requirement of their module on Development Education. The design is described in the following section.

## Design and implementation

This section outlines the design of a specific knowledge creation activity; it includes a description of the setting and of the final activity in which the learners took part. It then reports on the implementation and data collection undertaken for the project.

### Design of the environment and the assessment activity

Within Second Life, the island 'Murias' was designed to provide an immersive environment for learners and educators working within Development Education:

> This ongoing virtual environment contains media-rich resources and artefacts and provides experiential learning opportunities focusing on the key elements of Development Education and sustainability education as recommended by Irish Aid, the sponsors. The content includes materials and resources obtained from Irish Aid and also Non-Government Organisations (NGOs), and course content and resources from the B. Ed. Development Education module (Oldham et al., 2009, p. 2320).

In particular, the island offers a number of discrete learning experiences that focus on the Millennium Development Goals. There are eight goals set for 2015:

- eradicate extreme poverty and hunger;
- achieve universal primary education;
- promote gender equality and empower women;
- reduce childhood mortality;
- improve maternal health;
- combat HIV/AIDS, malaria and other diseases;
- ensure environmental sustainability; and

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- develop a global partnership for development.

The design was evaluated through expert review (McLoughlin, 2008). Murias provided the environment for the learners to take part in the Second Life activities in the module. Five two-hour sessions (constituting a quarter of the entire module) were planned, covering: initial familiarisation with Second Life; exploration with emphasis on educational potential and demonstration of examples; introduction to Murias; and activities germane to the assessment activity. Further details of the design and initial implementation are given by Oldham et al. (2009); the focus in the present paper is on the assessment activity.

Within the wider Development Education module, students are typically assessed through essays and presentations. However, Second Life provides opportunities for collaborative and creative projects that may be used for assessment purposes (Chan & van Aalst, 2004; Jarmon et al., 2009). It was decided that an assessment activity that focused on collaborative knowledge creation would be most appropriate. As part of the Development Education module, the activity required students to demonstrate understanding of the complexity of the issues featured in the module. For a cohort of student-teachers, it was also important that the activity demonstrate how technology could be used for teaching and learning. Thus, the focus was on Development Education and wider educational issues, not on technical features of Second Life.

The activity constructed by Girvan (2008) provided the model for the student-teachers' assessment exercise, leveraging the communication, immersive and persistent features of the technology. As a group they would have to construct an interactive learning experience for an identified group of learners. This required them to design a lesson and produce resources around one of the Millennium Development Goals, in Second Life. In order to design their learning activity they would need to form a personal understanding of the issues, discuss their opinions and reach a consensus on the information that would be appropriate for their target learners. Specific Second Life technical skills would not be assessed, so students would be given support with the building and scripting of objects for their learning environments.

**Implementation and data collection**

The assessment activity was completed towards the end of the Development Education module (some weeks after the initial sessions on Second Life), to provide opportunities for students to demonstrate the knowledge they had gained throughout the module and to afford time to construct a deeper understanding of this knowledge collaboratively. Learners chose to join one of five groups, each having to construct a learning experience on a different Millennium Development Goal.

Reflective logs were kept by the course team throughout, and these form the primary data source for the evaluation of the collaborative knowledge construction activity. Comments provided by students are included. In addition to this, the learning activities created by each group were analysed. Questionnaires were also distributed as part of the wider course feedback procedure; however, few questionnaires were returned, resulting in insufficient data from this source for drawing general conclusions, though the individual responses are of interest.

**Evaluation**

The learning activities created by the learners closely resembled the original activity provided as a model for the students. As part of the design process there was significant debate amongst the course team about the level of construction of resources that the learners could be asked to do for themselves. Each group created text-based notecards, which were placed inside objects that were pre-created for them. One member of the course team recorded surprise at the speed with which the learners picked up the basic building skills necessary to create their resources, as well as a basic understanding and use of scripting – which surprised all members of the team. However, another member of the team noted that these skills were not mastered by every student, and that groups tended to rely on one or two members of their group for these activities.

Despite evidence of students' initial immersion and active participation (Oldham et al., 2009), the reflections of the course team showed a reduction in student interest at the start of the assessment activity. Each member suggested that this might be because of the time delay between the initial activities immersing the learners and the assessment activity. This was due partly to the way in which the entire module was scheduled (for

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example, with a break over the Christmas vacation period) and partly to the time required to design the activity. Despite this, the students showed signs of engagement with the activity; as one team member noted, even the most unmotivated students quickly re-engaged. There was substantial evidence of collaboration and construction of new knowledge within the groups, with discussions resulting in deeper understandings of the course material and resolution of key concept misunderstandings. During the course, some students were noted as being concerned about the relevance of using Second Life in the course in general. While virtual worlds such as Second Life may have segregated areas for teenagers, they are not available for the children of primary school age whom these student-teachers currently teach. The course team member who noted these concerns suggested that it might have been relevant to provide learners with experience of virtual worlds designed for younger children; however, the time was not available.

From the questionnaires that were returned, it appears that there were mixed responses to the use of Second Life as part of the Development Education course, similar to the findings of Mayrath et al. (in press). Students referred to the high proportion of time required to complete the assignment activity on top of an already high quantity of assessment on the module throughout the year, combined with the pressures of the first teaching post. There was also a comment on the module as a whole that there were few examples of activities that the student-teachers could use with their own classes, a feeling that was compounded by the Second Life activities.

**Discussion**

In the discussion, first, some specific issues raised by the experience of the 2008-09 Development Education module are addressed. Secondly, broader considerations about the student cohort are considered.

The close resemblance of the learning activities created by the students to the original activity provided as a model may be due to the students' limited experience with the wider Second Life grid. As their experience of the main grid occurred several months prior to the assessment activity, and without subsequent exposure to a wide range of activities, we might have expected students simply to recreate the original activity. As

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this was an initial implementation, it was also not possible to show them examples of similar work from previous cohorts.

The loss of impetus during the module needs to be addressed. To maintain the active participation and immersion of learners, future courses using Second Life will provide an uninterrupted segment of the course for these activities. This should also support students in retaining the experiences encountered on other islands around Second Life. Perhaps, however, the short duration of the experience within the Development Education module is insufficient for the purpose (compare the work reported by Zhang et al. (2007)). Utilisation of Second Life in a core module of the B. Ed. fourth year course – provided that it is educationally appropriate and justified (Strijbos et al., 2004a) – could help in this respect.

Questions arise also about the use of Second Life itself. Some virtual worlds are age restricted – for Second Life, participants must be at least 18 years of age – leading some student-teachers to question their relevance to classroom practice. While virtual worlds (such as Club Penguin® or Quest Atlantis®) designed for younger children could have been demonstrated to the students, they lack some of the variety and depth of features seen in Second Life. In preparation for future implementations, virtual worlds that can be hosted on a school's own internal server will be explored. These may provide the rich environment similar to Second Life but within a secure network, thus reducing potential exposure to those from outside the school network. However, it is our opinion that, while this may address the concerns of parents and teachers as to child protection, it may also limit some of the espoused potential of virtual worlds, especially within a Development Education context, limiting interaction between children of different schools in different countries. Demonstrating the work of primary school children in virtual worlds as it relates to the curriculum may address some of the transferability concerns raised by the students and (bearing in mind the comments of Strijbos et al. (2004b)) may help them to see the potential that others have identified for such technology providing added value – a point discussed further below.

Overall, the opportunities for collaboration through the shared construction of a learning activity and the opportunities for knowledge creation in the construction of its resources proved to be successful. The lessons learned have informed the design of a full course on Development Education for practising teachers, to be conducted through Second Life. *The course is scheduled for the last week in August; it is hoped to report on it, comparing and contrasting the outcomes with those for the B. Ed. students, at the ATEE*

*conference.* Following that, the fourth year B. Ed Development Education course will be redesigned rather than repeated, incorporating lessons from both implementations. Questions remain; for example, while student-teachers may be willing to immerse in a virtual world and create knowledge within it, is the use of such a technology appropriate when it has no immediate impact on their day-to-day teaching? Although Mullen et al. (2007) and Albion (2008) suggest virtual worlds for use in the education of teachers and for equipping them with experience of designing learning situations within virtual worlds, we question whether these teachers, at such an early stage in their careers, have sufficient classroom experience to envisage the potential of virtual worlds in their own classroom teaching. In terms of Prensky's (2001) categorisation of 'digital natives' versus 'digital immigrants,' the students initially appear to qualify as digital natives; they have grown up in a world in which technology is pervasive, and they are comfortable users of technology in their social lives (FitzGibbon et al, 2007). However, they attended schools shaped in pre-digital times; and, far from rejecting such a model of education as inappropriate for their own and future generations, they appear to have adapted to it and to be resistant to the introduction even of such changes as are currently being attempted in the education system. Significant alteration of their perceptions may take considerable time. These questions will direct our future research.

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# COUNSELLING VIA TEACHERS' WEB FORUM: REFLECTION AND PERSONAL SUPPORT IN PRACTICE

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ABSTRACT

*Teachers are often confronted with difficulties such as aggressive students, demanding parents and conflicts with colleagues or supervisors during their every-day work. This can be very draining if not a threat to health. Instead of turning to others for help, teachers rather tend to deal with their problems in private. Some of them create the same solutions, which may be ineffective or insufficient, s over and over again, to the detriment of the pupils and themselves.*

*An internet forum - www.laererforum.net - is now an integrated part of a dual counselling, assistance and learning system at Bodoe University College. Our experiences show that the forum is an effective means of counselling by information and learning by reflection and of contributing to decision making.*

Keywords: Online learning, Teachers' Forum, problem solving, knowledge building, professional learning community.

## Introduction

In this paper we reflect on exploring text-based blended counselling. The paper is an opportunity to clarify experiences about online counselling, the strengths it brings to the teacher's work and the need for personal support that has to be addressed in problematic situations. Based on reading, experiences and counselling texts, this discussion relates to theory and assumptions about problem solving, teacher's needs and issues. The purpose of the paper is to provide a forum from which we can begin to articulate particular approaches to counselling. Assuming that we grow and change, the paper provides a starting point for what we hold to be important, what we are like as people and how we might see ourselves as counsellors.

## Approaches to counselling

With the dissemination of computer-mediated communication (cmc) in our schools as well as in our lives, scholars of inter-personal communication are faced with new questions about the development and maintenance of professional relationships. Individuals are not only using these computerised channels of communication to seek textual information and mediated relationships, but they also have the opportunity to form new kinds of relationships that otherwise would not have been possible without cmc (Green 2009). Initiating and maintaining professional relationships – in this case,

online guidance relationships - may create unconventional possibilities for problem solving in schools. Despite the rapid growth of cmc-enhanced relationships, researchers have until now not shown much interest in this field and are already lagging behind in exploring how, if at all, traditional theories of face-to-face communication apply to these kinds of relationships. This paper explores how partners may tackle the new challenges and tensions between online and face-to-face communication through the application of constructivism, client-centred theory and theory of problem solving.

Counselling has a lot to do both with theory, process and skill. "One philosophy adheres to the view that practitioners should study one theory and follow it in practice. Another view adheres to the belief that counselling has more to do with process and less with theory. Still another view posits that skills and techniques are what are most helpful to people." (Sumarah 2004). Online counselling is based on the assumption that all three views have their merits and that an understanding of theory, process and skill are important ingredients in counselling practice. But the requisite skills are not the same as those in face-to-face counselling.

The psychological and philosophical concepts that have informed the development of the three major theoretical approaches to counselling - constructivism, person-centred and problem-based theories - will be used in this paper. The cultural, historical and social factors that have influenced the development of each theoretical position are not discussed in this paper, but we will choose elements from these theoretical approaches to analyse web-based counselling in practice. There are many important aspects of a counsellor's practice (Searcy 2004).

    1. The counsellor must have a basic understanding of the various theories of counselling and how these theories can assist counsellors in understanding the dynamics of online counselling and consequences in people's lives

    2. Counsellors should have tools to evaluate and integrate counselling theories into their counselling practices

    3. They should compare and contrast counselling theories with reference to their own conceptual, practical and ethical dimensions

    4. Counsellors should have a basic understanding of specific aspects in the counselling relationship and of the process of attending, reading, responding and valuing this relationship

5. They should gain a sound awareness and understanding of their own self and of the impact of their own identity on counselling relationships.

In the context of our study, school psychologists (educational-psychological counsellors) are exploring the possibilities and restrictions of web-based counselling. Texts, interviews and surveys are used to analyse and describe the content of the counselling process. We would like to know what web-based counsellors are doing. In this context they assist teachers in relation to knowledge building, personal and practical problem solutions, interpersonal relationships, the workplace and even health problems. They are also trained to assist teachers and schools experiencing both more acute and chronic conflicts and crises. Web-based counsellors may use a wide variety of techniques and support approaches - even therapeutic ones. These will vary and will be tailored to meet the personal needs of the client. In the context of our study, therapeutic approaches have not been heavily used and are not emphasised.

**Theories**

Our intention is to use aspects from constructivism, personal-centred and problem-solving theories (Dewey, Egan, Rogers, Vygotsky, Piaget) when we develop web counselling. The influence of Rogers on therapy, counselling and education has been enormous. Learning through facilitation was established by him and still continues in a mix of counsellor and teacher roles. Teachers Forum also has an ambition to facilitate or support learning.

1. Theoretical basics for *building knowledge* and learning in blended contexts. Both cognitive and social psychology, as well as the constructivism approach of Piaget and Vygotsky, are relevant and serve us with concepts that help us understand and explain knowledge building and learning possibilities.

2. Theoretical basics for *personal and social support*: The psychodynamic approach to counselling, humanistic psychology and the approach of Carl Rogers seem to be relevant in internet counselling for users and visitors seeking personal and social support. Internet Counselling also opens for social support (Sjøvoll 2009)

3. Theoretical basics for *practical problem solving*: Eclecticism means exploration of core integrating factors including John Dewey and Gerard Egan's use of problem solving.

## 1.  Building knowledge.

Reflection on activity is increasingly seen as important to lifelong-learning approaches. The importance of reflection goes back to Dewey's early writing but there has been increased interest in researching and using reflective processes in teaching during the past 30 years (Bengtsson 1995). The "skilled helper" approach to therapy is widely used by the helping professions, including many counsellors (Eagan 2006). "The Skilled Helper" is a three-stage, integrative approach to *problem* management and *opportunity* development. Egan takes the reader through his understanding of the three stages of the counselling process; a) finding out what is going on for the client, b) helping the client to identify possible solutions, c) and helping the client to figure out how to achieve those solutions. This approach is pragmatic and practical. Egan does not attempt to set out a personality theory that explains human behaviour or maladjustment, nor does he construct a global theory of how problems arise. Instead, his focus is simply on discovering *what actually works* in helping clients. The model can therefore be thought of as a kind of "tool box" of helping skills and techniques, from which a helper can pick and choose those aspects that seem most relevant to helping a specific client.

## 2. Personal and social support. Client-centred theories

Learning is an active concept; learning is a way of interacting with the world. In the process of learning, our conceptions of a phenomenon change and we maybe see the world differently. We are using learner-centred strategies when we give advice about the construction of knowledge which emphasises the key importance of the social process to learning (Biggs 1999). Internet strategies give the learner the opportunity to process information, solve problems and make decisions themselves. An online learning environment is a framework for supporting teachers. Teachers Forum is an example of this.

## 3. Practical problem solving

A social-constructivist perspective on learning seems to be a fruitful and relevant angle of approach to take up the main sides of the phenomenon of online-based learning. Schön, also, (1987) pointed out that the working out of a task often involves ways of posing problems which are ambiguous, holding uncertainties, unknown elements and possible value conflicts. The situation cannot be simply defined from training and earlier experience.  In such situations, knowledge gained from previous work experience is inadequate. Consultation at the Teachers Forum means that people who visit Teachers Forum can expect discussions to focus on thoughts and feelings that may be of concern, which will enable them to gain new perspectives and understanding. They may learn to think in new ways, see a wider range of alternatives, and learn how to explore and practise different ways of behaving. Web-based counselling is provided on a one-to-one basis, but their students may be seen in the company of other students, their family or other significant people. Facilitated learning may benefit more from the honest dissolution of misconceptions than from an abundance of empathy. Therapy-oriented counselling techniques aimed at troubled minds do not always apply to people who simply want to learn and need personal and social support. Lack of competence is not an illness to be cured by therapy so there is a need to maintain a distance from therapeutic issues (Searcy 2004). Many teachers are just looking for *information* and do not expect problem solutions from web-based counselling. *Dialogue* may be more appropriate than pure acceptance and empathy.

## Research and methods

Our research has been conducted as a process of text analysis performed in two major steps. The first step was to analyse 18 postings from teachers, randomly chosen among more than 200 postings to the online "Teachers Forum".  The second step was to do a similar analysis of the answers given as response to these 18 postings.

The approach to all text material was to a great extent built on the principles of "Grounded Theory " (Glaser & Strauss, 1967/1970) (Strauss & Corbin 1990), from the principles of abduction, (Blaikie 2000) from the principles of hermeneutic studies (Gadamer 1997) (Guneriussen 1996) and from general principles of qualitative text

analysis. (Kvale 1997). Such analysis involves a process of changing focus between the texts in their entirety to the basic unit of analysis.

As a basic rating unit of analysis we used units that can be described as a "meaning unit". A "meaning unit" can be understood as a statement that in itself expresses a meaningful content for the reader. Sometimes this unit may consist of only one sentence; other times the unit is a part of a sentence, and sometimes part of a device consisting of several sentences. Using Glaser & Strauss (1967/1970) we will adapt a process of text analysis in three phases; open coding, axial coding and selective coding.

Open coding is the first phase, in which the phenomenon is identified. This phenomenon may be concrete, like things and activities, or of an abstract character like emotions, relations and organisations.

Axial coding is then phased in where relationships between those phenomena identified in the first phase are discovered. In the basic principles of Grounded Theory the researcher is recommended to focus on relationships of the type nexus of cause and effect.

Selective coding is used in the last phase where a core category is chosen. This is a category to which other dimensions will be related. As a narrative this could be described as findings, or perhaps rather choosing a "storyline" that brings meaning to the material. In this analysis we do not focus on the thematic issues. The important question is not which topics are brought forward by teachers using "Teachers Forum". Instead we focused on how the users of Teachers Forum express their problem statements and on the expectations expressed towards the counsellors and peer advisers.

When analysing answers from the counsellors we used the same approach, focusing on the statements contained in the answers rather than on the type of solutions recommended. In this process, based on the existing text material and with no pre-defined theoretically-based categories, new categories of statements were "washed out" from the texts through repeated reading and careful elaboration.

Our research also includes a quantitative element. We would like to register the frequency of occurrence of certain types of statements in the material. We consider that important information about the material as a whole can be drawn from finding out whether a category of statements appear in a few texts, in several, or perhaps in all.

**Results**

Table 1: From the analysis of postings from teachers (18 postings, randomly chosen)

| Category | Number * | Main Category |
|---|---|---|
| The present background of information | 43/18 | Problem description |
| Description of the problem situation | 36/14 | |
| Description of the position | 13/11 | |
| Description of own role in the problem situation | 15/9 | |
| Presenting own opinions on the situation | 2/2 | |
| Invitation to reflection on issues | 7/6 | Reflection on statements |
| Critical perspective on own practice | 8/5 | |
| Request for (normative) advice | 17/14 | Ask for professional support |
| Request for information on professional issues | 3/3 | |
| Describing emotional reactions to the problem | 10/8 | Ask for personal support |

These categories occur a number of times in all/occur in number of messages.

**Comments on table 1**

The three categories of statements we find most often in the material are:

- Presenting background information, such as information about context and aspects seen as relevant to the problem description.

- Presenting the phenomenon, the situation or the pattern that is seen as the problem

- Requesting advice, often expressed in the form: "what do I do now?"

We can also see that only half of the postings contain reference to the participation of the teacher (the person requesting advice) in the situation described as the problem situation. This may suggest that the problem described is seen as a problem belonging only to the student, and not as a problem in the interaction between the student and the context. This will be important for the solutions.

Table 2: Analysis of answers of the same 18 postings

| Category | Number** | Main Category |
|---|---|---|
| Commenting his/her own guidance | 11 | Meta - communication |
| Commenting the problem statement as such | 6 | |
| Encouraging further dialogue | 12 | |
| Giving personal support | 15 | Personal and social support |
| Acknowledging actions of the person requesting advice | 16 | |
| Acknowledging judgment of the person requesting advice | 1 | |
| Reference to problem description | 24 | Exploring problems |
| Supplementary questions to problem description | 19 | |
| Reformulation and problem description | 16 | |
| Reflective questions | 22 | Reflective - feedback |
| Alternative perspectives | 6 | |
| Pointing to different ways of understanding the problem | 18 | |
| Generalised professional statements | 105 | Knowledge dissemination |
| Opinions towards issues in problem description | 51 | |
| General information related to problem description | 13 | |
| Pointing to possible options of action | 70 | Normative and concrete advice |
| Normative, concrete advice | 47 | |
| Questions - with one single option | 4 | |
| Statements presupposing one special action | 3 | |

**      The frequency of these categories in the material.

**Comments to table 2**

Here, the three most frequent categories of statements are;

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- Generalised professional statements, such as: "We know children with ADHD benefit from a predictable schedule".
- Pointing to possible courses of action, such as: "In such situations many teachers choose to consult the school health service..."
- Opinions in respect of issues in problem description, such as: "I think the headmaster should have informed the parents in the situation you described..."

Some statements that were hard to categorise were questions with one single option – so-called closed questions such as: "Have you informed the headmaster?" Is this really intended as a question seeking more information, or does the statement imply an instruction? The same issue concerns statements presupposing one particular action, such as: "I suppose you have informed the headmaster..."

**Discussion of this separate study**

With regard to the three stages of coding described by Glaser & Strauss (1967/1970) we see the basic categorising of statements corresponding to what is termed "open coding". The next stage, organising these categories into main categories, we see as corresponding to the "axial coding" stage. The relationship between the categories, however, is not one of cause and effect, but a relationship based on the existence of a related semantic function in the message. The third phase – selective coding – could in this case correspond to our attempts to find similarities and differences in patterns between problem statements in the answers.

As mentioned above, quantitative elements are also added to the text analysis by counting the statements belonging to each category. To a certain extent it is interesting to find whether one type of statement occurs very often in a text or if it hardly occurs at all. But we are very careful not to confuse quantity and importance. One kind of statement mentioned just once in a text may have a greater impact on the reader than other kinds of statements occurring several times in the same text. We see, for instance, in fig. 2 that the number of "generalised professional statements" is far higher than the number of "reflective questions". Nevertheless we can not say that the one kind of statement has a greater impact than the other.

When it comes to seeing the two samples of text in relation to each other, we will simply point to the similarities of patterns between reflection-promoting questions and

more normative and action-related statements. A discussion of these aspects will have be the subject of another study.

We think that a systematic analysis and presentation of material will indicate the quality of the counselling process outlined above. The procedure can serve as a method to enhance the counsellor's professional skills. Presenting a systematic summary of what kinds of statements that are used, both by the applicant and the counsellor, will strengthen the reflection on how to understand problem statements and on how to formulate the answers.

## General discussion

Teachers Forum is a context for web-based counselling. Here we will discuss the opportunities and advantages inherent in counselling via the Teachers Forum. We will reflect on practical experiences and results from our own research in relation to findings made by Mulhauser and others.

## Web-based counselling skills

Web-based counselling needs to conceptualise the practical role of counselling and helping relationships in a variety of educational contexts. It will enable those counsellors whose professional role involves the academic and social support of learners to develop an appreciation of ways in which change and development can be sustained through effective helping relationships. Web-based counsellors should be supported to develop skills in their textual counselling and communication skills, and to critically evaluate the application of such skills in their professional contexts. They will be introduced to a range of theoretical frameworks and will be encouraged to critically value such frameworks in their own educational environment. This new web forum considers problems raised by clients in educational settings and provides the opportunity to evaluate critically established frameworks and practices that inform counsellors' responses and use of counselling skills. Written counselling provides an opportunity to reflect critically on professional issues encountered by counsellors in

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educational settings and the professional norms that inform the responses. It will also consider professional ethics and professional development.

**Counselling via Teachers Forum**

Our experiences from Teachers Forum, compared with Mulhauser's discussion (2008), will be summed up in this section.
Blended counselling via teacher's net-forum offers many advantages in comparison to traditional, face-to-face counselling. First of all we would like to focus on free choice and flexibility. Working online provides counselling with several advantages in terms of choice of counsellors and "meeting" arrangements, independent of time and space

**Flexibility**

Many users put their questions into the teacher's forum in the afternoon and when they are free from work. For clients who are unable to keep regular appointment times for reasons of work the flexibility of working with an asynchronous medium like teachers net-forum can make the difference between pursuing counselling and doing without. Flexible, client-driven "appointment" times and frequency, are seen as an advantage ([www.laererforum.net](www.laererforum.net)).
Online counselling offers an unusual level of *privacy*. For many users online counselling can take place from the client's own workplace or home; in our project 76% from home and 24% from workplace. It also means the absence of intermediaries. It is not necessary to speak with a receptionist to arrange appointments.

**Textual Focus**

Writing about the problem is a part of the process of problem solving. For most people, typing is harder and more time-consuming than speaking. Because it "costs" more in terms of physical effort to write than to speak, some people find that web-based communication encourages them to express themselves more clearly and to put greater

effort into understanding the other person. Explaining a problem also requires reflection on the problem by using the PC as a medium. Some people find it easier to express complex ideas, reflection on experiences, or feelings via the web forum, knowing that they have time to finish the thought before eliciting another person's reaction to what they have expressed. This means that the act of writing about one's experiences can itself solve problems. "For me, writing meant solving the problem - myself", a teacher reported.

The asynchronous nature of counselling provides both client and counsellor the opportunity to reflect on thoughts, feelings and on reactions to the other person's life-space. It is our experience that the amount of time we spend reflecting on a given statement by a client is significantly greater in the case of text exchanges than in the case of live verbal exchanges. Written examples can also be used in the training of counsellors as cases demonstrating problems in practice. When working without the normal visual cues, both client and counsellor need to be especially aware of assumptions they might make about the other person. The opportunity to reflect on these assumptions can in itself be helpful to the counselling process (Lund *et.al* 2008, Mulhauser 2008, Sjøvoll 2009).

**Benefits of text-based, asynchronous communication?**

Elsebeth Korsgaard Soerensen (2003) suggests that one advantage of online virtual interaction as opposed to direct dialogue is that virtual interaction promotes reflection to a greater extent than direct dialogue, which promotes involvement to a greater extent than reflection. In a paragraph in her article "Virtuality promotes reflection" she states:

> When we move from the physical reality to the virtual reality we are subject to
> a solution in context and to a change of principles and premises of being and interacting. Looking more closely at what happens to our "ontological" conditions for action and interaction, we find 3 basic principles from appearance (being) to representation (signs of being).
>
> 1. It is only through signs and symbols produced by a learner, that the learner is "present" in the shared virtual environment. In other words, presence in a discussion is mirrored through the action of making a comment in the discussion. Thus, a comment has two functions:1) communicating presence, 2) communicating its content.
>
> 2. From primarily being involved in interaction to primarily reflection in interaction. In the virtual environment the learner cannot interact (make a comment) without to reflect at a

meta-level about the content of his/her comment. There is no level of interaction without a process of reflection.

3. From involved speech to reflective writing. The move from dialog to monolog is an environmental change, which also contributes to draw and define the basic reflective conditions for learning processes in distributed virtual environments. (Sorensen 2003 s. 24)

Sorensen notes that the only kind of presence in an electronic communication group is the presence inherent in the messages. A message communicates both the presence of the sender, and the content of the message. She argues further that the participants have to reflect at a meta-level on the content of their messages, and that the shifting of the dialogue from "dialogical" voice to "mono-logical" typing provides a basis for a reflective learning process.

**Conclusion**

Why do we offer online counselling via Teachers Forum, a net-forum, and not only by using e-mail? Counselling using e-mail in a person-to-person context will promote privacy, but will not promote the ideology of sharing knowledge with each other. Knowledge building has been a central issue at Teachers Forum.

An open web forum is an opportunity to build a knowledge base. The users and visitors can log into the teachers' web forum and anonymously read communication processes between users and counsellors. This may be sufficient to provide them with the basis for ideas on solving their own problems. It will give them an opportunity to reflect on problems by means of textual meta-positions or references. Learning by sharing experiences seems to be the most common way to use the web forum as a knowledge base. The very high number of *visitors* at the forum greatly exceeds the number of *users*.

In this article we have not discussed the advantages of traditional face-to-face-counselling. Such advantages naturally exist, but we have chosen to focus on web-based counselling. Our conclusion, based on our own practical experiences, is that counselling via the teachers' web forum or via e-mail seems to be a very good supplement to traditional counselling.

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# IMPROVING KNOWLEDGE CREATION WITH BLENDED GROUP WORK. STRATEGIES TO FOSTER COLLABORATIVE LEARNING BETWEEN CLASSROOM, COMPUTER LAB AND INTERNET

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ABSTRACT

*This article shows some activities for pre-service teachers who could experience different types of work group, set in three learning environments: face-to-face in classroom, face-to-face around the computers, and online. The main objectives were: to emphasize and compare the characteristics of collaborative interactions in different learning environments; to design some educational strategies to be applied to university courses to foster the growth of teamwork among student teachers. After the workshops, the students built a deeper awareness of the collaborative dynamics and their metacognitive processes. Blended group work allows the students to share and create knowledge, meanings, individual and team learning.*

Keywords: Teamwork, Teacher Education, Educational Strategies, Teaching Methods, Blended Learning

## 1. The workshops in three learning environments

In the last two academic years, 2007/08 and 2008/09, we organized two workshops for pre-service teachers at the Faculty of Education at the University of Genoa. Students present at the workshops took part in work groups set in three different learning environments: initially, face-to-face in the classroom, then online, and finally, face-to-face but set up around computers.

The main objectives of the workshops were:

a) To emphasize, evaluate and compare the characteristics of collaborative interaction in the three learning environments;

b) To design educational strategies for application in university courses in order to foster and support the growth of teamwork among student teachers and, consequently, to enhance their meaningful learning.

Throughout the course of the first laboratory encounter, the participants were presented with a task in a face-to-face context without the use of technological tools. Specifically, the students were required to solve a decision-making problem structured as follows: in the first part which lasted approximately one half hour, each student had to individually answer ten questions; the students were then divided into small groups of 6 to 8 members where they had to identify the common answers to each question.

In the second part, the students in groups carried out an animated discussion for the purpose of identifying the correct answers while providing the information necessary to support their individual positions.

These two phases carried out in this first learning environment emphasized some cognitive and relational characteristics. From a cognitive perspective, the students did not have access to a data bank and, therefore, had to answer the questions relying solely on the information they already possessed. From a relational perspective, the face-to-face interaction permitted them to rapidly structure the group defining roles and leadership among the members as the immediate feedback transmitted by non-verbal and para-verbal messages (Olson and Olson 2000) allowed them to outline a sufficiently effective group structure.

Upon termination of this first phase, the workshop facilitator did not reveal the correct answers to the group. In fact, after the first session, the students were allowed to continue their work at home. Each one of them could search for the answers to the questions on the Web, in written reports or by asking experts, colleagues, friends or relatives for help. Once they found the correct information, the students uploaded it on the e-learning platform of the faculty where each group had been allotted a space where the students could share the information each other. That way the probability of them finding the answers greatly increased, and also, the students experimented the differences between interaction for the purpose of completing a task developed face-to-face as opposed to online.

At the beginning of the second encounter, the workshop facilitator had the students reflect upon the peculiarities and differences between the two environments in which they had worked: in the classroom and on the Web. The considerations that emerged were rather interesting in that they showed the crucial points regarding collaboration when on the Web and when face-to-face. Some of these are mentioned below.

- The possibility of having basically unlimited access to a data bank makes it easier to work, but it also necessitates the handling of an enormous amount of information which may not always prove to be coeherent;

- The asynchronized discussion on a forum is more practical because it can be accessed at any time of the day, whereas, text-based communication is rather difficult and tiring as it involves reading and writing an enormous amount of text.

- From a relational point of view, a significant amount of para-verbal and non-verbal exchange which would make the flow of comunication much smoother, is not

possible with written text.

- At times, feedback arrived late (sometimes students would answer the following day), hence, making it  difficult for the discussion to specify, focus and consider the different points of view;

- It is not easy to make decisions in an asynchronous manner; the structure of the roles is less obvious, therefore, a few students were obliged to take on the role of the one who grouped the information and summed it up to give an answer.

- In that regard, wiki is a tool which greatly assisted each group in composing the final results because changes could be made quickly in records visible to all.

As can be noted, alternating between group work face-to-face and online learning does not necessarily ensure meaningful learning. The considerations that emerged, in effect, highlighted both the positive as well as the negative aspects of face-to-face and computer mediated communication-CMC which are transformed into functional or inadequate aspects as far as the development of professional competencies is concerned. The fact that initially the group had worked in presence helped the members to recognize each other and hence facilitated the assignment of the tasks to one another.

 One of the considerations posed by the members of the group was: if we had not met each other beforehand, would online interaction have been different? The first two laboratory sessions, in fact, found that there is a connection between face-to-face and online work from a cognitive as well as an interactive point of view and vice versa.

The third meeting in the laboratory was organized in an intermediate learning environment:

1) In the first part of the meeting, the students got together in small groups of 6 to 8 members different from the ones in the previous session;

2) The groups were asked to simulate a situation where they were teachers in a school that was presenting its programme of activities to parents of potential future students;

3) Each group worked around a computer which was connected to the Internet;

4) The groups had to devise a multimedial presentation of the school that was both effective and captivating from a communicative perspective;

5) Different groups could interact amongst themselves if they deemed it necessary or beneficial.

This enabled the students to compare the characteristics of their face-to-face and online work simultaneously. The observations made from this experience are:

- from an interactive standpoint, the roles were assigned quite easily and the task could commence almost immediately in parallel to the face-to-face work groups without technological tools;

- but from an organizational standpoint, the impact of a technological tool on the group forced the students to assign themselves specific tasks, and this sometimes proved to be difficult as regards the task itself. Hence, a considerable amount of time had to be dedicated to regulation and coordination interaction (Kleine Starmaan, Krol and Van der Meijden 2005; Overdijk and Van Diggelen 2009);

- internet access gave the students the opportunity to find numerous images and texts just as with work in online learning;

- the group though had to manage this abundance of information in real time and consequently, the members needed to increase their discussion time making it even more time consuming;

- technology made a lot of feedback available to the users resulting in the need to choose among the numerous possibilities, hence, more time needed for the members to come to an agreement on a variety of aspects.

- from a cognivite standpoint, the presence of Internet access, of elaboration of presentations on computer, of research for information and of discussion, risked the creation of cognitive and collaborative overload (Mayer and Moreno 2002; Paas, Renkl and Sweller 2004; Dillenbourg and Bétrancourt 2006);

- the immediate feed-back amongst the members though tended to alleviate this problem because the group was quick at indicating its choices;

- the groups could share a significant amount of information in real time because the requests made by other groups would be dealt with immediately;

As noted, the laboratory was set up in an open concept where the students and the groups could collaborate in different ways, set themselves up in the learning environment in a functional way, exchange roles, etc.

Upon completion of the laboratory, the facilitator again had the participants reflect upon the dynamics which had taken place in the different times and different environments of the work group. The results of their considerations are shown in tables that monitor the evolution of the collaborative capabilities of the members in the different phases. One of

the summary tables is presented in paragraph 3 below. The paragraph that follows that one, highlights the theoretical structure and the experience in international research which scientifically support the course taken and results of the workshops.

## 2. Theoretical framework

We needed to create a theoretical structure to support the ideas which emerged from our workshops. Therefore, we analyzed studies and international researches concerning peer interaction in the different possible collaborative learning environments, specifically, in the following three environments (Kleine Starmaan, Krol and Van der Meijden 2005; Deaudelin and Lefebvre 2001; Van Diggelen and Overdijk 2007; Overdijk and Van Diggelen 2009; Mercer, Littleton and Wegerif 2009):

- interaction face-to-face;
- interaction face-to-face around the computer;
- computer-mediated interaction.

These three environments are the three most common situations that are likely to arise at school. The first is the one that we are most familiar with, albeit not always fully developed and structured by defined plans. The second is the one that usually takes place in the computer lab. The third one occurs less frequently, that is at least, in Italian schools.

Each of these situations has interactive prerogatives which can facilitate collaborative learning and, hence, the social construction of knowledge. The face-to-face group work in the classroom has been studied for quite some time, in fact, the movement linked to various forms of cooperative learning originated with face-to-face groups. Here, however, we are concerned, in particular, with the other two settings, because learning environments based upon open technologies seem to facilitate the quality of social interactions (Hakkarainen et al. 1998) and because we want to emphasize the features so that they can be recognized and, consequently, designed (Parmigiani 2009).

In recent years, the collaboration and the development of collaborative learning have been pursued mainly online via e-learning. These processes have been implemented and are improving in centres of higher education (universities or research centres) or in business areas. Learning with Internet struggles to penetrate in Italian schools for a

number of reasons such as, lack of equipment, inflexible school timetable, and inadequate teacher skills.

The situations most often seen in schools as far as practice teaching using information and communication technologies (ICTs) is concerned are the face-to-face environment, in the classroom or in the computer lab. It is very probable that teachers start to implement activities with ICTs in situations that they are most familiar with and that are the least complicated for them to manage, such as, the making of a video, a hypertext, or multimedia lessons. Internet is normally used to locate and download useful information, to expand upon or as a supplement to topics which begin in the classroom. Collaborative learning online is still limited. These educational activities are often structured and configured in a classroom which resembles a workshop: students interact around a computer creating a group with cognitive, social and emotional goals.

The  activities carried out at school can essentially be divided into three types:

- individual work where learning is aimed primarily at the individual mind: the relationship between knowledge, competencies or skills and the one who learns, is basically direct;

- group work where learning is organized for groups: the goals are varied but the main objective remains the learning of the individual, so the group and its activities are functional to the individual;

- group work where learning is essentially different from the previous types: by working within a group, the individual can elaborate meanings which would not otherwise be possible if he were working on his own because there are certain elaborations that can only be constructed in a social context (Parmigiani 2008).

From a theoretical point of view, team learning – the third point – is qualitatively different from the one prior to that, even if they are closely related and constant. The three perspectives, hence, are not alternatives to one another as they concern both the individual and the group at the same time. In the first point, the educational activities aim at the evolution of the individual who is faced with the knowledge, skills and individual competencies. In the second point, the organization is of the cooperative type, but it still tends towards individuality. Individual contributions and interactions among the members tend, in fact, to strengthen the individual's knowledge.  In the third type, the organization is collaborative and processing is inter-subjective. Team learning (Suh and Lee 2006) is founded on the belief that the work group requires participants to

become co-learners and are not there to simply help each other out (Zajac and Hartup 1997).

Members' input, therefore, does not concern only knowledge, but also and above all, individual interpretations on open issues that intersect with the interpretations of the others. In that case, the group is a discussion team that distinguishes, motivates and argues to design ways to develop, to construct new meanings, and to provide critical interpretations (Gillies 2003).

Activities with ICTs tend to enhance this perspective because, on the one hand, the individual is encouraged to be the protagonist of his own learning through tools and digital products; on the other hand, the group is involved in the critical analysis, the development and sharing of objects and the construction of artefacts. Teacher planning begins at the individual stage, continues on in the cooperative/collaborative stage, hence returning to the single student in a network perspective (Hakkarainen et al. 2004).

The interaction among the students in a collaborative relationship with ICTs, comes from the transmission of information, and close coordination amongst themselves to reach defined roles, share resources and common goals (Himmelmann 1993; Misanchuk and Anderson 2001). Strijbos and Martens (2001) and Strijbos and others (2004) have developed a model of group-based learning in which the activities of the group vary continuously, from cooperation monitored very precisely with roles defined by the teacher, closed skills and well-structured tasks, (represented by the authors by the jigsaw technique), to a very open collaboration where there is a low level of pre-structuring of the group, and where the tasks are ill-structured and provide many solutions with terminal open skills (represented by the authors by the technique of progressive inquiry).

At school these two educational opportunities represent theoretical reference points. It is probable that a teacher can visualize various kinds of activities that would change depending on how they are held on three axes: high or low level pre-structuring of the group; well or ill-structured tasks; open or closed skills. In one class, for example, that has not yet had meaningful experience in cooperation, it is appropriate to consider a high pre-structuring of the group to avoid disrupting the team, and a clearly defined task to allow the teacher to lead and handle the activities effectively. In parallel, a class with a lot of previous experience in cooperation, should have less organized tasks, based on inquiry with minimal pre-structuring of the group because the students are already trained in assigning roles and tasks in an evenly balanced manner.

This approach to education is based on the principle of the design of a networked classroom. In our case, we do not want to refer to it using expressions such as, online, computer-based or web-based. As far as we are concerned, a networked classroom is a learning environment that, on the one hand, includes the use of Internet and ICTs best suited to deal with educational activities; while on the other hand, however, it does not want to develop procedures only on the Internet or through ICTs, but also to interact online and offline methods (Garrison and Vaughan 2007) with different types of technologies (books, voice, computer, Internet). The online work enhances the face-to-face work and vice versa.

As such, the digital classroom is a networked classroom because it develops a variety of interactions among the different actors of the learning environment to produce information and build knowledge (Soller 2001).

## 3. Indicators for assessing the growth of the group

Following the workshops, the groups and the professor discussed their experience, emphasizing both characteristics and similarities of the different activities. The most important observation made, was that through the interaction among the three learning environments, the students became more aware of the collaborative dynamics and were able to effectively understand their meta-cognitive processes, enhancing their chances of developing individual and team learning.

The results of the workshops are two-fold. Firstly, we were able to draw up lists of indicators which permit us to highlight and emphasize the development of collaborative interaction in the three learning environments, thus, permitting teachers to check the real growth of groups in the classroom. Assessing the construction of a meaningful learning environment is a challenge for teachers and designers. The following are the main questions that arose:

How can we assess the growth of the group both in the classroom and online?

Which are the main indicators that have to be observed in order to assess the construction process of the  group?

Which indicators are necessary in order to observe the interactions and effectively transform them into collaborative ones?

Which indicators show that the members structure roles and activities autonomously for effective interaction among members and groups?

Which indicators show that the group has reached its goals?

Teachers working in both online and in classroom learning environments need accurate tables which they can use as benchmarks to assess whether or not groups in their classrooms or online are growing. Due to the complexity of the relationship between group work and web learning it is not possible to structure standard tables for use in the different learning environments. Instead, it is deemed necessary to identify indicators which tend to emerge during the collaborative activities. Based on these indicators, teachers and designers can highlight the behaviour which shows that the group is in fact growing. If these indicators (and relative behaviour) emerge during the teaching/learning activities it is more likely that the designed process will result in a profound and meaningful collaboration among the learners.

Therefore, to assess group work, the teachers and designers have to come up with principle guidelines with the following features:

- the guidelines must emerge during the project;
- the guidelines should be founded on the development of learning, knowledge and competence which can be used in many environments (Franchini 2007).

The educational challenge is to identify indicators that the teacher can use during group work to make comparisons and measure whether or not the group is growing. In this article we have, therefore, presented a table which shows indicators that assess collaborative interactions in different environments (classroom, computer lab and online).

In fact, the purpose of the article is to spread collaborative behaviour in the different contexts that each day marks the technological action of the teachers. The spread of collaborative behaviour is not, therefore, tied to an unequivocal environment but to the diffusion of behaviour that can be encouraged in a specific environment and, later, reinforced and consolidated in other contexts to be enhanced and perfected.

It is evident that the Table presented in this article cannot be used directly in the classroom, but it does offer some pointers which can assist teachers in the construction of charts that emphasize these indicators. It is possible that they may not be thorough enough. The collaborative situations are characterized by their plurality and complexity. It is opportune, therefore, for the teachers to integrate the proposals suggested with supplements from their own teaching experience.

There are two types of charts: one intended for the pupils so that they can be made aware of their personal participation within the group and of the collaborative behaviour (or uncollaborative) that each of them has assumed; and another one oriented towards the observation by the teacher who decides which areas to favour.

| INTERACTIONS | INDICATORS | EXAMPLES |
|---|---|---|
| **Communicative area** | | |
| Face-to-face interactions | Talk frequently with members about the task | • members use different types of interactions effectively (oral, text-based, webconference, etc.) |
| Involvement | Suggest plenty of information about the task | • members plan and use interactions to solve the task |
| Feed-back | Answer many questions that emerge in the group | |
| Meta-communication | Suggest different communicative styles to face the discussions | |
| Discussion | Suggest many understandings and argue own ideas | |
| Change of mind | Accept ideas with critical elaboration | |
| **Structural area** | | |
| Change of role | Change role by mutual consent with other members | • groups indentify individuals or other groups (in classroom or in the platform) with useful skills to solve the task |
| Change of leadership among members | Change status by mutual consent with members | • members manage roles and tasks functionally<br>• members play specific roles to solve the task |
| Positive interdipendence | Connect own learning with team learning | • members accept to change the role according to the learning environment (classroom, computer lab or web) |
| Relationship among groups | Groups share important information | • groups interact frequently in classroom and on the web<br>• members share information through tools more suitable |
| **Task area** | | |
| Task sharing | Task is shared among members according to skills of everyone | • members assign specific tasks according to the learning environment (classroom, computer lab or web) |
| Decision-making | Decision-making is open to all members | |
| Scaffolding | Members help members in difficulty | |
| **Cognitive area** | | |
| Individual learning | Pupil faces the individual tasks looking for necessary information | • individual learning develops in parallel with team learning |
| Team learning | Pupils share individual learning outcomes; collect, analyse and share information; debate questions and solve problems | • members offer own knowledge to all members<br>• every member's information is used by all members and groups |
| **Affective area** | | |
| Confidence | Members not expert ask and receive support by highly capable members | • members are aware of own potentiality and resources |
| Self-efficacy | Members identify necessary resources to solve the task among members | • members are able to identify external necessary resources |
| **Technological area** | | |
| Use of tools and equipment | Members organise and manage use of tools and equipment to face the task | • members are able to identify the equipment, tool or software more suitable to solve the task |
| Share out the task | Members share out the task in different parts | • members are able to communicate results to other groups effectively<br>• members are able to manage different equipment, tools and software |
| | Members with different technological skills carry out the parts of task with various equipment, tools or software | • members are aware of relevance of media and technology for learning |

As illustrated, the Table is divided up into three sections: Areas, Indicators and Examples. The intent of the Areas section is to focus on elements designed for the construction of the learning environment. The communicative area identifies the variables directed, in particular, at the circulation of information among the members, at its use and its changes. The structural area draws attention to the variables that indicate changes in the configuration of the small group. The task area analyzes the variables oriented towards the completion of the task assigned, while the cognitive area focuses on the variables directed at the learning. The emotional area considers the variables which maintain a positive relational atmosphere within the group. Finally, the last area – the technological one – concerns the variables directed at the coordination and the utilization of technology by the members of the group.

## 4. Application to university courses for pre-service teachers

The second result of the workshops defined at the beginning of this article is to design educational strategies for application in university courses for pre-service teachers for the purpose of improving collaboration among students and, in turn, to develop their professionalism and to increase the probability of more meaningful learning.

In fact, we applied the results of the workshops to the university courses of "Planning and Evaluation at School" and "Educational Technology". In particular, the courses included:

1) traditional lessons in the classroom;
2) group work in the classroom;
3) online individual and group work carried out on the faculty e-learning platform;
4) individual or group research work in the schools;
5) group work around computers.

The first activity entailed traditional lessons in the classroom comprising questions and thought- provoking ideas by means of continuous reference to group discussion acitivties which took place during and in parallel with the lessons. The teachers supplied the students with information on a particular subject (for example, assess pupils' competencies). The students were then assembled in small groups where they had to work on an activity suitable for a class of 3 to 11 year olds, and then simulate a teachers meeting at school.

The activities indicated in Point N° 3 expanded upon the activities which took place in the classroom. By means of the faculty e-learning platform, the classroom groups had to continue the work begun in presence, expand upon it, elaborate it, argument it and render it scientifically coherent.

Following the phase of acquisition of fundamental skills and competency, the students took part in two researches conducted by a group of researchers at the Faculty of Education. The first research was centered around the decision-making processes at school, in particular, the methods which the teachers used to decide what activities to organize in the classroom, and on the organizational modalities used to connect the classroom activities with the general functioning of the school.

The second research, focused on the use of technological tools in teaching in order to foster the development of the collaborative and learning capabilities of the pupils. In particular, the researchers wanted to illustrate the methods used by the teachers to organize classroom, computer lab and online activities in order to verify whether or not these activities fostered the development of collaborative behaviour.

The students, who were divided into groups, had to go to the schools to interview teachers or to make observations in the classroom, in the computer lab or during teachers meetings; distribute questionnaires; assemble all data in tables; interpret the data gathered in a written report.

In doing so, on the one hand, they were able to verify that the teachers at school were building knowledge by structuring the three learning environments cited in the preceeding paragraphs. On the other hand, they were able to experiment first hand, the value of the three environments because the groups were required to carry out their work within these different environments at different times during the activities. Finally, in order to write the report, the students had to discuss and work in groups around the computer analyzing the data that was periodically being entered on line.

**Conclusion**

In conclusion of this article, the experiences carried out in our Faculty and the ones underway in other international contexts, lead us to make some basic fundamental considerations.

First of all, it is appropriate to point out some of the structural and organizational difficulties which were noted.

The first regards the number of students that can be managed in order to successfully alternate and integrate the three learning environments indicated. Our experiences in the field would suggest that it is possible to manage about forty to fifty students at the most. A larger number would cause considerable problems to design group work in presence. In fact, in this case it would be impossible to organize a number of groups small enough for them to be able to maintain direct contact with the teacher and establish effective inter-group contact amongst the members. Furthermore, with larger numbers, finding enough space and subsequently organizing that space would also be a problem. In a faculty it is difficult to find an open space concept (classrooms and laboratories) for more than seven or eight groups even, for example, if they were to work alternately in the laboratories.

A feasible solution would be to structure the activities so that the groups could work outside the university timetable and off campus.

In courses with large numbers of students, the possiblity of collaboration comes from the successful integration of classroom lectures with group work online. In our experience, we tended to include in the courses additional seminars given by experts and colleagues from other universities. In so doing we could commence tasks on the faculty platform which came from ideas that emerged in the seminars and got the groups of students involved by participation in discussions and networking. The work, though, becomes significantly more important when it is guided by tutors who stimulate and monitor the discussion and the production of materials.

The main theme of this article can be summed up in a modality which can be defined as "blended group work" expanded and spread over the three learning environments. This means that in order to stimulate and encourage the development of dynamics for meaningful and effective collaborative learning, it does not suffice to routinely alternate work in presence with online learning, but rather, we need to blend these environments with activities to supplement them so as to render one just as important as the other.

The addition of the third learning environment (in classroom with technological tools) highlighted three main advantages:

- it facilitates the recognition of the characteristics of the other two, enhancing them while allowing the members of the groups to fully exploit them;
- it is useful because it trains the teachers to plan the work with technological

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tools in the classroom and in the computer lab, that is, in the environments which they will come across most often throughout the course of their professional experience;

- finally, it also fosters student teachers, who are less familiar with technological tools, how to use them.

In our opinion, the blended group work (arranged in the three learning environments) aids in sharing and building knowledge, meaning and team learning. Consequently, the students can experience the importance of knowledge creation in teacher education. Through the group processes, the students activate and develop their competencies and compare them with those of other students, thus indicating the path to becoming professional teachers.

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# ENHANCING SUBJECT ATTAINMENT BY USING DIGITAL MULTIMODAL TEXT PRODUCTION AND PEER PRESENTATION IN SECONDARY SCHOOL PROJECT WORK

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ABSTRACT

*This paper examines to what extend project-based learning processes, where the learners are using digital artefacts as part of whole-class technologies for producing multimodal text presentations, have positive effects on subject attainment. The examination is based on analysis of qualitative empirical data, collected from an ongoing action research project in a Norwegian secondary school. The overall project objective is to obtain deeper insight into how the assumed learning-enhancing potential of modern ICT can be utilise, and the action part of the project is concerned with integrating ICT use into pupils' learning processes. The project is embedded in a knowledge-production perspective, which implies that the learners are encouraged to pursue creative approaches to school work and actively apply digital media for constructing presentations. It also implies that they communicate and share their understanding with the other learners. This learning style has been used extensively in Norwegian schools since the 1970s and is characterised as project work or thematic periods and organised as a combination of group work and whole class presentations. One criticism of this learning approach has been that peers are too passive and not very interested during presentations; another is that group work is not really collaboration but only cooperation in order to divide the workload. The project has involved the use of digital presentations in order to find out if this would enhance the learning effect for groups as well as the whole class. Two cases are presented in order to illustrate the level of interaction during group work as well as peer presentations. As this work is still in progress, the investigations allow the presentation of only tentative comments at the present stage.*

Key words:  ICT, learning, project work, secondary school

## Introduction

During the past decade, Norway and many other countries have experienced that efforts to integrate information and communication technology (ICT) into most aspects of school practice have received massive attention from education authorities. It is widely accepted that competence in handling ICT is a required and important asset for citizens in modern society. Digital literacy is considered important and equal to other more traditional competences such as reading, writing and mathematics. This view is clearly reflected, among other places, in the White Paper no. 30 to the Norwegian parliament (2003-2004), "Culture for Learning" ,which emphasizes that achieving digital literacy is a goal in itself and pupils in primary and secondary schools should receive systematic training in the use of ICT.  It is also assumed that the active use of ICT is not only a goal in itself but a means of supporting pedagogical processes which will contribute to an enhancement of learning outcome in most subjects. However, despite from the best

of intentions of educational authorities, the learning-enhancing effects of ICT-supported learning processes on subject-learning outcome is still not convincingly verified and reported in Norway. And it is thus not surprising that many teachers are reluctant to use ICT as long as they find it hard to see that it has a positive effect on subject attainment. If this is so, the use of ICT means only a loss of time and a lot of extra worries for the teacher. For instance, many teachers point out that ICT in the classroom involves booking and planning and they will still often find that technical problems will mean that what they planned to do was not possible.

The Norwegian experience - with relatively little systematic ICT use in the classrooms compared to the financial investments and high political expectations - is reported from other western countries as well (Ruthven, Hennessy & Deaney 2005). The teachers have a number of arguments to support the view that permitting ICT use as part of their teaching is a waste of time. For instance, they experience that it is difficult for the weaker pupils to stay concentrated on the task; instead they fall for the temptation to search for other pages on the internet. In addition, they feel that many of the resources on internet are not designed for the schools and are often too complicated for school children. It is also argued that the digital "style" which the pupils have acquired from their private use of the net makes it difficult for them to accept the more subject-focused and systematic search style which the teacher demands. The conclusion is that for effective use of internet search the teacher has to control the process by giving search terms of URL addresses to the pupils. This, however, is a time-consuming process for the teacher.

Criticism has been voiced about those who have tried to measure the learning outcome of ICT for having taken the learning process too lightly (Passey 2006, Watson 2001, Cordon et al 2007). Most teachers use ICT for increasing motivation but few uses ICT planned for internalisation and externalisation of new knowledge. According to Passey 2006, one cannot expect long-term improved learning outcome if ICT is not planned to stimulate both the internal learning process and externalisation of new knowledge. If teachers are able to identify suitable affordances and planning for pupils learning with the help of ICT as well as providing appropriate support during lessons it is possible to see that ICT can enhance learning outcome. If teachers become more concentrated on using ICT to stimulate internal cognitive processes, they will find that ICT has a great potential for enhancing learning according to Passey (2006). A necessary prerequisite is that the teachers are themselves competent and confident ICT users. Research shows

that teachers will need a great deal of ICT support in order to be able to plan and implement learning sequences, which implies the use of ICT (Wikan et.al 2009, Watson 1993).

To sum up, in order to fully utilise the potentials of ICT we need both ICT-confident teachers and teachers who are able to work in a constructivist perspective. In this perspective a learning method such as project work is well designed to utilise the potential which ICT has to add learning value. Project work is often associated with a socio-constructivist learning approach as it involves aspects like collaborative learning, independence of learners and sharing with the whole class. Project work has been used extensively in Norwegian schools since the 1970s and is typically organised as a combination of group collaboration and whole-class presentations. One criticism of this learning approach has been that peers are too passive and not very interested during presentations. Another shortcoming of much project work in practice is that it has typically led to division of labour and not collaboration.   In the present article we will show that certain uses of ICT in project work have the potential to enhance both general curriculum attainment and subject attainment because the learners are more motivated to work harder, they need to collaborate, and the enhanced quality of the products makes the learning outcome for the whole class better.

**The knowledge-production perspective and project work approach**

The present project encourages learners to apply digital media for constructing presentations for whole-class presentation in most school subjects. Based on previous and ongoing research there is clear evidence supporting the view that subject learning can be considerably enhanced by emphasising the knowledge-production perspective (Dons & Bakken, 2003; Hennessy, Ruthven & Brindley, 2005). There is also reason to believe that learners enhance their digital literacy by being producers and not just consumers of digital media content. Being a knowledge producer implies that the learner is a producer on two levels: both as an active knowledge constructor according to constructivist theories and as a producer of digital representations.   In relation to the production perspective Papert's notion of *constructionism* is highly relevant. Based on the work of  Piaget,  Dewey and Montessori he proposed a theory of constructionism stating that children learn best when they are in the active role of  designer or

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constructor (Idit Harel & Papert, 1991). Papert is particularly interested in how to use the computer as a knowledge-mediating artefact. This view is supported by Barak (2006), who argues that ICT technology offers powerful tools for supporting these principles and points out that teachers should see computer technologies as a means of supporting knowledge discovery and construction, rather than letting the learner be a passive receiver of knowledge transferred from teachers.

Learning also involves the use of cultural tools. According to Säljö (1999), learning to use cultural tools is essential in a socio-cultural understanding of learning. The notion" cultural tools" includes a wide range of artefacts and semiotic systems that we use to interact with society. Today many of the cultural tools are digital, such as word-processors, video-editing tools and interactive whiteboards (Buckingham 2007).

The learning perspective in the present project is simply that  knowledge is actively constructed through relating to others and acting in the world (Ackermann, 2004). Thus we are working in a socio-cultural learning perspective. We see learning as an active and social process where the learner builds new knowledge based on previous knowledge in interaction with the environment. In this perspective project work is a central work method. Project work emphasises the active construction of knowledge as opposed to a more passive transfer of knowledge from teacher to learner. The view that ICT-focused knowledge-production perspective in project-work method is effective for attaining subject knowledge is supported by findings from several empirical studies (Dons  & Bakken, 2003, Goos et. al 2003, Webb& Cox 2004).

Learning of *ICT* in project work is what Sfard calls a "participation learning metaphor" and not an "acquisition metaphor" (Sølvberg 2004). The dialogue, communication and collaboration, is central in this perspective. Learning is seen as a process where knowledge is primarily constructed and not transferred. In this perspective it is important for the teacher to create situations which strengthen the ability of the learners to participate.  However, we are also aware of the importance of opening up for other perspectives of learning than socio-constructivism. An important part of the first phase of project work in many schools is the transfer of knowledge from the teacher. This is based on an acquisition metaphor and has elements of both behaviourism and cognitive learning theories. In such a perspective ICT might also support individual learning processes, for instance by increasing motivation. This is therefore what Salomon (1992) would call effect *with ICT*. In analysing our material we will use theories which represent individual and social aspects of learning and acquisition and participation

because in the classroom the teacher uses a mixture of approaches. During a project work period a mixture of learning approaches are used, as demonstrated in figure 1.

|  | Individual | Social |
|---|---|---|
| Acquisition | Teacher present /introduce the subject | Whole class presentation |
| Participation |  | Group work |

Fig 1 Analytical model

**Research design**

The action-research project referred to in this paper was conducted as a partnership project involving Hedmark University College, a local lower secondary school and the municipal educational authorities. Using ICT for supporting subject teaching and learning as well as enhancing pupils' ICT competence has been given high priority by the participating school, and the school represents a culture characterised by a more-than-average supportive attitude towards ICT as a learning tool, and the participating teachers were more-than-average enthusiastic. Throughout the project the overall objective has been to investigate how ICT can be successfully used for supporting subject teaching and learning. In the pursuit of this objective, the action part of the project has focused on the enhancement of the pupils' digital literacy and more trivial ICT competence, and teachers have been invited and encouraged to try out and reflect on the use of ICT in their daily work. A project group including team leaders at the school and two researchers planned the actions and it was of paramount importance that the actions were integrated in the school's teaching plans and curriculum. At regular intervals during the project a net-based questionnaire was used for registering the pupils' digital competence and trivial ICT competence. The Microsoft Photo Story 3 software was introduced to the teachers early during the proceedings, encouraging them to apply this as a presentation tool. Ms Photo Story 3 is presentation software which enables the learners to present their work as short movies with pictures, music and recorded text.

The first phase of the empirical data gathering, starting in the autumn of 2007, involved conducting individual interviews with all the teachers. Later focus-group meetings were

used monthly, providing an efficient and high- quality approach to gathering information. In addition the focus-group approach also provides the researchers with opportunities to explore different perspectives within a social network. The teachers involved were organized' in two inter-subject teams. Each of these teams was chosen as a natural discussion unit and the collected qualitative data is based on a series of focus-group interviews held with each team approximately once a month. The focus-group meetings lasted approximately 1.5 hours and with a few exemptions all the teachers attended the meetings and communicated their experience of ICT-supported learning processes. Typically, the teachers came up with different examples related to their own subjects and elaborated on what impact ICT might have on teaching and learning in the subject in question. Between September 2007 and March 2009 two researchers conducted 20 individual teacher interviews and 9 focus-group interviews with the nine-member teacher teams. In addition, all members of the teacher teams and three members of the administration and teaching staff involved with the use of ICT were encouraged to produce reflection notes, elaborating on particular experiences and their personal views on the integration of ICT in the teaching processes., This resulted in a large number of brief, concentrated textual reports. Informal discussions, reflection reports and group discussions with pupils were other sources of information in addition to observations.

In order to study the possible effects of the knowledge production perspective, we looked for tools and ways of working that would stimulate the learners' ability to express their knowledge by producing digital artefacts. We thereby hoped to enhance both subject learning and digital literacy. In agreement with the teachers we agreed to use Digital Storytelling and Animation during several periods of project work. The idea was that the digital end-product would add learning value to project work because in order to fulfil these types of products the learners needed to collaborate. A digital story normally contains a mixture of digital images, text, audio narration and music. The most important part of the story, however, is the oral narration, just like in traditional storytelling. The other elements are present to underline or reinforce the message to be communicated.  A digital story is a multimodal text.. Any video- editing software can be used for creating digital stories, but in this project Microsoft Photo Story 3 was introduced as the main tool, mainly because of its ease of use and fitness for the purpose.

**Some results**

In the school we worked with a typical two weeks project period followed these 3 steps:

1. Presentation of theme: ICT used by the teacher to introduce the theme to secure a common minimum foundation for all learners.

2. Group information gathering, planning and production: Initial group discussion and searching: ICT used by the learners to gather information. Collaborative phase – group discussions. More searching on Internet and more group discussions. The main aim is the collection of required and relevant information. This phase will also include time for planning and production of a digital presentation.

3. Sharing with the whole class - digital presentation

**Presentation of the theme: ICT used by the teacher-individual and social acquisition**

A form of teacher- led introduction to project work is always used by our team of teachers. They say that it is necessary to give all the pupils a minimum of knowledge base before they start their own work. In addition they believe this will ensure a better quality of the group-based project work. Most teachers use PowerPoint presentation when they introduce project work. The example from "Norway after WWII is typical". The degree of dialogic teaching in this form varies a lot. However, most teachers try to include at least some short whole class discussions as well as question-response sequences. The main didactic approach is that the teacher imparts information and the learners acquire new knowledge. This is a much-used teaching style which is embedded in the behaviourism tradition. How efficient this teaching approach is debatable. However, our teachers believe that because they use ICT in their presentation this will improve the learning outcome because the learners are more mentally. present And most teachers also point to the fact that ICT helps them to vary their teaching and make them prepare better for lessons, which obviously must be a good thing. One of the teachers felt that this first teacher-led phase of project work should also include guidelines from the teacher.

Being online in the classroom also enables the teacher to illustrate and support his teaching with new and relevant teaching material. This is helpful because the textbooks are often outdated or boring.

The learners, however, are more mixed in their evaluation of the teachers' ICT presentations..They criticise the teachers for being uninventive and very repetitive in their teaching style. So, also ICT supported teaching may become as boring as blackboard teaching due to lack of variation.

The situation is thus that most of the teachers use PowerPoint presentation when they introduce a new project work and they believe that this introduction is needed in order to ensure that all learners have a minimum of factual knowledge before they start the group work. In other words, they do not completely trust project work as a method. They also believe that after they started to use ICT presentations systematically this has enhanced the learning outcome. We have observed very few sequences of planned social activities between peers in the teacher-led lectures. Most activity has been in the form of question-response. The learners only partly agree that ICT based teaching is improving their learning outcome. They point to the fact that also ICT presentations can be boring and then the effectiveness of them might be reduced. One shortcoming in the lessons we have observed is the lack of planned sequences of classroom dialogue. It does not seem that the teacher for instance in example 1 appreciates the value of social acquisition in order to strengthen the individual knowledge acquisition. However, when the teachers use ICT in an innovative and varied manner they may stimulate the internationalisation process as described by Piaget because they are creating more activity and response from the learners.

**Group information gathering, planning and production –social participation**

The education value of peer group discussions is debatable. We have observations which have documented learning value of peer discussions and we have observations showing that much time is spent on off-task talk (Roja-Drummon et.al 2008). Theoretically group work it is embedded in a socio-cultural learning perspective and it is the collaboration among the group members which is supposed to enhance the

learning outcome. Very often, however, group work is cooperation and division of labour and not collaboration in the real sense of the concept. In the two examples we are referring to in this paper we also have seen that. Especially in the searching for information phase, there is much division of labour and very little collaboration. However, we have also observed that the group members collaborated in order to produce the final presentation and in the discussion of focus for the written textWhen it comes to information gathering, the group members have worked individually before coming back to the group to share their findings and discuss further progress. A typical statement from an animation group consisting of three boys is:

> Daniel fixed the animation movie, editing and that stuff…. He made the story and I invented it  and then I took part in writing it and improving it and my role as an actor was a heavy role. Honestly, Daniel did most of the work, but we cannot all do as much as he did…

It is clear from this citation that these three boys had worked together, discussed the content and shared ideas in order to make the final product. From our observations of the groups we saw from the eager discussions that the members of a group really collaborated in order to make the final product. Also when interviewed, both teachers and learners claim that the group is more motivated to work seriously together to plan, search for knowledge, discuss and share when they are preparing a digital movie than they would have been if they were to give an oral presentation  or a written text. They also state that the challenges of making a digital movie imply that they really have to collaborate in the planning and information sequence of the group work. A noticeable strength is then that all members of the group are owners of the same information and the whole product and not only "their" part of it. This, however, is very time consuming and some learners say that they prefer PowerPoint as a digital presentation tool instead because it takes less time. We have observed that group work become less collaborative and more like traditional group work when they are asked to present with a PowerPoint.

Digital multimodal text is so motivating that the learners are willing to work harder on both the manuscript and the product. This is something we have observed and it is also confirmed from interviews with learners and teachers.

When the final presentations for the whole class or the teacher is to be a  short "movie" we have observed that the learners use more time to discuss and produce in a more collaborative manner than we have seen from project work where they are to give  an

oral presentation. It the latter case, the normal work procedure is for the group members to divide the task between them, and no-one has worked on the whole product. Even learners who never or very seldom are willing to take part in group work are motivated because they are allowed to use their digital competence at the school. One of the teachers said that multimodal text production is especially helpful for the less school motivated boys because they can draw on competence they have from out-of –school interests.

ICT based project work is motivating because it builds on out- of- school competence that many of the learners have and here they are given an opportunity to be good at something also in a school setting. In their spare time they use social platforms like Facebook and they search on internet and YouTube. A few have also produced and loaded up movies on YouTube. Some of the girls have their own blog. Most learners in grade 10 are very confident users of ICT; they are digital natives. The possibility that digital movies/animation gives the learners the chance to use their digital competence also for schoolwork is an important factor which explains the eagerness they show in group work and also the long extra hours they seem to put into creating a good presentation and a good story. The opportunity they get to use their computer competence helps the learners to succeed.

 Comments from teachers, learners and our own observations suggest that when the presentation is to be either a digital Photostory or a digital Animation the group work becomes more a true collaboration process. This has to do with the nature of digital multimodal text production. The learner have to be together and discuss and plan the digital product, they have to write a manuscript, and they have to find images and / or make images and all this means that the group members must collaborate. This process means that there must be a lot of discussions in the group and the discussions will stimulate participation from all members. We have a hypothesis that this will create at common knowledge basis for the group members and also enhance the learning process for all. In other types of ICT presentation, such as for instance PowerPoint, collaboration is not stimulated in the same way. It is possible for group members to divide the work more between the members and then have a co-presentation. This is what we have seen so often of group presentations.

**Sharing – individual acquisition**

Peer presentations for the whole class do not always have the educational value we could wish. Very often the presentation is hard to follow for the class because the presenting group is not good at communicating their results. Another distracting factor is that those who have not yet presented are busy with last-minute planning for their own presentations and many are also very nervous about standing in front of the whole class. Photostory and animation are pre-made and thus have the potential to rule out some of these obstacles. And they might then have a potential for increasing the learning outcome of project presentation for the whole class.

In our research we have seen that having a digital multimodal text- presentation for the whole class as the final stage of a typical project-work period has a better learning outcome for everybody. This is due to factors such as higher quality of presentations, more fun for the others, the pre-made products make the whole class more relaxed and this may also increase the learning outcome. However, we have not been able to observe more interaction between the whole class and the group presenting, nor among learners in the class. When the presentation is finished they typically applauded and have only very few comments on the presentation. Thus this type of multimedia text production has not been able to stimulate a whole-class dialogue. One possible solution to improve discussions after a presentation might be to not have too many presentations in the same lesson. According to one teacher the pupils become apathetic and are not able to keep up interest during the whole lesson.

**Added value by digital-based project work?**

Group work as part of project work became popular in Norwegian schools in the 1970s. The question is what the added value of using ICT is. Have certain types of ICT software the potential for increasing the learning outcome of project work? We think that digital multimodal text production and presentation has a potential to enhance learning outcome because it demands group collaboration and because it bridges out-of –school competence and school competence for the learners.

Making a multimodal text using Photostory 3 involves many steps which are supposed to strengthen collaborative and creative group-based learning. The group must work

together and plan and write a manuscript for the digital story. Creative writing implies searching together on the internet and in other sources for relevant information, sorting this information and in the end agreeing on the final manuscript. Among other things this will also enhance their digital competence as they will learn how to search efficiently, they have to decide what material they are allowed to copy and use for their own purposes, and they have to use a word processor to write a manuscript. This process involves a lot of co-learning and collaboration in order to make progress. Once the stories have been written they must collaborate in order to produce a multimodal version of their text. All these activities mean that they have to use and often also develop their digital competence in addition to improving their subject knowledge.

The learners also read more than only the textbook material. The teachers say that learners increase their subject knowledge because they read so much more on the Internet. One problem is of course that the learners do not see seeking information in books as an option any longer. "*If there are no computers available, they just sit and wait…*". Another improvement is that ICT makes for better presentations. This is because the presentation is based on more reading and thus shows more knowledge, and because it is more interesting to watch for the others. Earlier they only searched for and "glued" in information, but when they use Photostory or Moviemaker or make an Animation they have to work through a manuscript and plan the presentation. We have also observed that the learners are now more critical as to which sources are good and not. This is a result of the fact that they have become better users of the technology and that the teachers have become more familiar with working with ICT as an integrated part of their work, the teachers say.

Because ICT improves motivation and closes the gap between learner competence in ICT and schoolwork we have seen that some of the theoretically less able learners say that they get higher marks than they did before:

..Yes, I get better marks now, before I had only 3 and 4, now I get 4 and 5…

Theoretically it is also possible to deduce that learners internalise subject information better when allowed to produce subject challenges as short movies. If so, it has the potential to stimulate a better and deeper understanding than using more traditional learning methods.

To us it seems likely that certain ICT presentations like digital movies have the potential to stimulate project work in a collaborate direction and thus increase the

learning outcome for the group members. In addition, it has the potential to increase the learning outcome for the whole class because it is easier to follow and the presentation is pre-made. The challenges built into digital multimodal text production stimulate real group discussions and this is exactly the type of collaboration which is seen as so important in project work but is so hard to create in a school setting. Because these types of digital presentations are more stimulating for the others to listen to they have the potential to increase the learning outcome for the whole class.

 We have a hypothesis that the two examples shown in this paper and the processes we have described might enhance the learning process. This is a view which is supported by Passey (2007) when he claims that in order to utilise the potential which ICT has for increased learning one has to stimulate the internal cognitive processes. We believe that digital multimodal text production has that potential and because it also bridges the gap between school competence and out-of-school competence in the learners it further stimulates learning outcome. One shortcoming is that so far in our project we have seen little or no effect on stimulating whole-class discussion as a result of multimodal text presentations.

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# In-Service Learning and the Development of Practice

# EMPATHY: A CONSTRUCT WHICH SHOULD BE CONSIDERED IN TEACHER PRE- AND INSERVICE EDUCATION? A CORRELATIONAL STUDY

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## Introduction: Definition of "Empathy"

Empathy, a capacity of an observer to react to the experiences of other persons by sympathetic understanding and commiserate appreciation of their thoughts, feelings, volitions, and actions is considered as one important competence in the wide range of qualities related to interpersonal functioning and social-emotional intelligence (Snow, Corno & Jackson, 1996).

Despite the fact that empathy has a long history of discussion and research in a variety of disciplines, like moral philosophy and psychology (Losoya & Eisenberg, 2001) the literature has unfortunately been confounded by definitional controversy. The essence of this disagreement is the extent to which either affective or cognitive elements define empathy. Some authors restrict empathy to the non-affective realm (e.g., Hogan, 1969), others emphasize the affective experience (e.g., Mehrabian & Epstein, 1972; Loyola & Eisenberg, 2001). The majority of authors, however, agree that both of these elements are included in the term "empathy".

Especially the psychotherapeutic literature (e.g., Aragno, 2008) and training studies (Cotton, 2001) include into the empathy-definition the *communication* one's empathic thoughts and feelings (nonverbally and verbally).

Thus, the label of empathy includes *affective competencies,* (i.e., the ability to share another's affects, or the capacity to experience affective reactions to observed experiences of others), *cognitive capabilities* (role taking capacity, ability to engage in the cognitive processes of adopting the psychological points of view of others, perspective taking) and the *ability to communicate* verbally and nonverbally one's empathic cognitions, conations, and affects for the improvement of *mutual* understanding and helping.

**Purpose of Studies**

The purpose of this project is to conduct a set of coordinated correlational studies to generalize and expand upon earlier research on the *importance of empathy,* i.e. the associations between empathy and

**1.** *Personality dimensions* (Personality Dimensions, Competence and Control Orientations, Directiveness, Extraversion), Age, Gender, Majors Studied at University; and Semester Completed.

**2.** *Accuracy of Interpersonal Perception* (Nonverbal Sensitivity);

**3.** *Psycho-Social dimensions* (Success in Interpersonal Relations, Interpersonal Sensitivity);

**4.** *Interpersonal Behaviours:* Nonverbal Encoding Ability ( "Charisma");

This study, based on three samples of university students, tries to contribute to a clearer understanding of the construct of empathy and the characterization of empathic persons.

**Theoretical Framework**

The following research review is aided by the comprehensive review of Davis (1996).

*Relationships between Gender and Empathy.* In self-reports, like the *Questionnaire Measure of Emotional Empathy,* QMEE (Mehrabian & Epstein, 1972) or the *Interpersonal Reactivity Index,* IRI (Davis, 1980, 1983b), adult women surpassed adult men consistently and significantly in empathy. The differences were higher in affective empathy (Davis, 1980; 1996).

Cotton (2001, 6) reviewed six studies on the relationship of empathy and age and concluded: "Research clearly demonstrates that adults exhibit greater degrees of empathetic feeling, understanding and responsiveness than children, and that older children are more empathetic and pro-social than very young ones." Relationships between empathy and age among adults could not be found; thus the association of empathy with gender and age were examined in the present study.

*Associations between Empathy and Personality Dimensions.*

Certain elements of personality and psycho-social dimensions of observers, representing relative stable characteristics, influence the likelihood of empathy. A number of studies attest that *affective empathy* was found to be significantly related to personality

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dimensions like *affect intensity* (empathetic concern, IRI's EC-scale: r=0.42***; personal distress: IRI's PD-scale r=0.37***, Eisenberg, Fabes, Schaller, Miller, Carlo, Poulin, Shea, & Shell, 1991), *emotionality* (IRI's EC-scale: r=0.13*; IRI's PD-scale: r=0.56***Davis, 1983), *neuroticism* (QMEE r=0.33**; Mehrabian & O'Reilly, 1980; IRI's EC-scale: r=0,12*; IRI's PD-scale: r=0,42***, Davis, 1996) , and *arousability* (QMEE r=0.65***, Mehrabian, 1977). Also aggression and hostility, often studied in extreme groups (juvenile delinquents, child abusers), are in most part negatively related to cognitive and affective empathy: while hostility and anti-social behaviour among males (verbal aggression) was significantly positively related to personal distress (PD) these variable were, however, significantly and negatively related to perspective taking (especially for males) and empathic concern (EC) among women (Richardson, Hammock, Smith, Gardner, & Signo, 1992; Davis 1992). An inhibition effect of cognitive empathy (PT) is weakened at high levels of provocation (Davis, 1996). Empathic concern (EC) and perspective-taking (PT) were significantly related to a set of other-oriented characteristics, depicted as "Femininity" ("aware of feelings of others", "understanding of others"; EC, females: r=0.55; PT, females: r=0.33; EC, males: r=0.58; PT, males: r=0.37), weakly and negatively, however, to the IRI's Personal Distress scores (PD). A set of negative interpersonal qualities, depicted as "Negative Masculinity" ("arrogant", "boastful", "dictatorial") were significantly negatively correlated with empathic concern (EC, males: r=

-0.30; EC, females: r= -0.35), perspective taking (IRI's PT-scale, males: r= -0.30; PT, females: r= -0.28) and less with personal distress (IRI's  PD-scale, see Davis, 1996, 192f).

In the present study, associations between a wider range of personality dimensions were investigated with measures not used yet for this purpose.

*Associations of Affective Empathy with Success in Interpersonal Relationships.*

Regarding associations of affective empathy with global satisfaction of interpersonal/social relationships, only indirect evidence could be found. Empathic concern (and perspective taking) were associated with having more tolerant, less punitive attitudes toward out-group members (Underwood & Briggs, 1980; Sheehan, Lennon, & McDevitt, 1989). Also, empathy is associated with helping behaviour so it can be claimed that both supports and enhances good communication. Rusbult, Verette, Whitney, Slovik, & Lipkus, (1991) found that empathic concern (IRI's EC-scale) was unrelated to global relationship satisfaction in close relationships. Loneliness (an

indicator of relationship satisfaction) was moderately positively related to EC but negatively with PD (Davis, 1983).

In studies by Davis & Oathout (1987; 1992) significant relationships of empathic concern and "warmth" (e.g., affectionate, supportive, generous), "even temper" (e.g., patient, understanding), and "positive outlook" (e.g., friendly, positive, dependable) within romantic relationships were found, while personal distress was unrelated or weakly negatively related to the same self-rated behaviours. Insensitivity (e.g., rude, critical, selfish) was negatively related to EC (for women) and unrelated to personal distress. It can be concluded (Davis, 1996) that empathic concern (IRI's EC-scale) is positively related to "warmth", while perspective taking is more associated with the avoidance of "insensitivity". Franzoi & Davis (1985), Davis & Franzoi (1986) and Davis, Franzoi, & Wellinger (1985) investigated the associations between empathy (using the IRI) among high school students and found that empathic concern was significantly related to self-disclosure of men to female peers, and among female students to their female peers; no other associations were found in these three studies. No significant associations were found for personal distress (PD) and perspective taking (PT).

In the same two studies, Davis & Oathout (1987; 1992) investigated the relationship between empathy (IRI) and what they called, "good communication" within romantic relationships (assessed with a four item index: "opening up" and "readily listening" to one's partner). Empathy (IRI's EC, PD and PT-scales) was consistently related to this index (disclosure and willing to receive disclosure) among females: higher empathic concern, perspective taking, and lower personal distress were associated with self-reported "good communication". Also, males EC-score were related to disclosure to opposite-sex peers.

While there is some evidence of a negative relationship of affective empathy and aggression however, little evidence could be obtained for affective empathy (Personal Distress and Empathic Concern) related to the number of conflicts (Davis & Kraus, 1992).

*Associations of Cognitive Empathy with Accuracy of Perception and Judgement.*

Empathy is often related to accuracy of the perception or judgement of other persons. Different kinds of this interpersonal "accuracy" were assessed.

Using the PONS-test (Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979) to assess Nonverbal Sensitivity, Hall (1979) found no significant relationships between

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Nonverbal Sensitivity and empathy based on 10 samples (r=0.01, Hall, 1998). Four additional studies, however, found at least weak relationships. Funder & Harris (1986) found no relationship between PONS and the *overall* Empathy (assessed with the EM) except with two of its factors: "Sensitivity" and "Social –Confidence" (R=0.29, p<0.10). In a study by Hart & Rosenthal (1988) a significant correlation of Nonverbal Sensitivity (PONS) and Empathic Concern (IRI's EC-score r=0.36) was found. Barnes & Sternberg (1989, see Hall, 1998) found a correlation of r=0.18 between Nonverbal Sensitivity and empathy. Riggio, Tucker, & Coffaro (1989), using a decoding task based on still pictures (faces showing the basic emotions) found significant associations of decoding ability and empathy (QMEE, r=0.29, p<0.05).

Davis (1996) reported some other approaches to relate accuracy in judging other people (thoughts, emotions, traits) to empathy by comparing experts' ratings, self-ratings, or self descriptions with those of judges/observers in filmed group conversations. These accuracy measures were correlated with an empathy measure (EM or IRI). In one of the studies, no significant relationship between accuracy and empathy (using the EM-scale) was obtained (Borman, 1979); in two other studies, however (Bernstein, McGuire, Ganzach, & Thiry, 1988; Bernstein & Davis, 1982), significant (p<0.05) correlations of r=0.33 and r=0.20 with perspective taking (PT) were found.

Furthermore, Davis (1996) reported four studies (Ickes, Stinson, Bissonnette, & Garcia, 1990); Stinson & Ickes, 1992; Marangoni, Garcia, & Ickes, 1993; Levenson & Ruef, 1992) correlating empathy with the accuracy of inferences (from observations of filmed interactants) of specific thoughts and feelings or the physiological linkage between observer and observed. Results revealed with the exception of the Levenson & Ruef study (1992; QMEE r=0.38, p<0.05) no association to any measure of empathy.

All together, meagre and weak evidence were found for associations of empathy and interpersonal accuracy of perception. In the present study the relationship of empathy and accuracy of nonverbal perception was investigated.

*Associations of Cognitive Empathy (Perspective Taking) with Success in Interpersonal Relations.*

Cognitive perspective taking (e.g., IRI- PT scale's) were consistently positive associated with measures of global opposite-sex romantic relationship satisfaction (Franzoi, Davis, & Young, 1985; Long & Andrews, 1990; Fincham & Bradbury, 1989, see Davis, 1996) displaying stronger patterns with measures of taking the *specific* perspective of one's

relationship partner (Rusbult et al., 1991). Moreover, Davis (1983) found significant negative correlations of perspective taking and EC (IRI's PT and EC-scales) and loneliness, while Bruch, Kaflowitz, & Pearl (1988) did not. Significant associations were found for perspective taking (IRI's PT-scale) with the amount of responsibility for positive events assigned to one's spouse (Fincham & Bradbury, 1989b).

Studies by Davis & Oathout (1987; 1992 found significant relationships of perspective taking (IRI's PT-scale) and "warmth", "even temper", and "positive outlook" within romantic relationships, while personal distress was unrelated to "even temper" or significantly negatively related to "warmth" and "positive outlook". Insensitivity (e.g., beeing rude, critical, selfish) was negatively related to perspective taking. It can be concluded (Davis (1996) that perspective taking is more associated with patience and understanding and an avoidance of rude and egoistic acts.

In a set of studies, Davis and colleagues (Franzoi & Davis, 1985; Davis & Franzoi, 1986; Davis, Franzoi, & Wellinger, 1985) investigated the relationships of empathy with self-reported disclosure to peers among high-school students. No significant associations were found between these variables, but for affective empathy-scores (see above).

However, perspective taking (IRI's PT-score) was besides a positive relation of empathic concern and a negative to personal distress significantly related to "good communication" (disclosure and willingness to receive disclosure) for females in romantic relationships, not for men.

Perspective-taking was correlated with effectiveness in communication (Feffer & Suchotliff, 1966) and the effectiveness in negotiation (Neal & Bazerman, 1983).

It seems plausible that cognitive empathy is related to having fewer conflicts and to resolve conflicts more quickly and effectively. Perspective Taking (PT) was indeed negatively related to the (self-reported) number of angry arguments, physical fights (r= -0.25—0.17; Davis & Kraus, 1991). Perspective Taking (PT) was also related to, for example, constructive conflict resolutions (Rahim, 1983) and to resolving conflicts by "mutual give and take" (self-report, Franzoi, Davis & Young, 1985).

As already mentioned, about a dozen studies, comparing juvenile delinquents and nondeliquents, support the view that role-taking ability is negatively associated with aggression and anti-social behaviour.

Taken as a whole, empathy as affective responsivity and/or the ability of perspective taking is associated with a wide range of desired interpersonal and pro-social

communication abilities and behaviours (e.g., positive, effective communication, warmth). It also inhibits hostile behaviours and aggressiveness toward others. Interestingly, however, empathy is also associated to some negatively toned personality dimensions (e.g., emotionality, arousability, forms of aggressiveness, neuroticism).

Most important, affective  sharing, strong affective responsivity, and/or affective responses to the distress of other persons not only influence positively interpersonal relationships but also make helpful behaviour toward other persons more likely for egoistic (reducing own unpleasantness)  or true altruistic reasons  (resulting from non-egoisic motives) as a large body of studies impressively attest (Davis, 1996).

 Based on this research, mostly conducted in the USA, a study combining three samples was conducted to approach the question, whether that research justifies to integrate a module to foster empathy into teacher education programs.

**The studies**

**Research Questions**

The following research questions were formulated:
Are there significant associations between four scales of empathy and

*1. Personality Dimensions:*
*Personality Dimensions;*
*Competence and Control Orientations;*
*Directiveness, Extraversion;*
*Age*;
*Semester Completed at University*;
*Gender*;
*Subjects Studied at University.*

*2. Accuracy of Interpersonal Perception*
 *Nonverbal Sensitivity (PONS).*

*3. Psycho-Social Dimensions*

*3.1 Factors of Success in Current Interpersonal Relations*:

*3.2 Self-rating of Interpersonal Sensitivity..*

## 4. Interpersonal Behaviours

*Nonverbal Encoding Ability (assessed as "Charisma" ).*

## Subjects

Altogether 136 German University students signed up to participate in the correlational study. The sample was made up of student teachers for secondary schools majoring in subject matter but with few pedagogical studies *and* students of education reading for an MA or Diploma and majoring in pedagogy (males: 37; females: 99; Age: M=24.95. s=3.72; semester completed: M=6.89: s=1.94).

## Data Collection

## 0. Empathy:

Davis (1980) developed a multidimensional individual difference measure of empathy, the **Interpersonal Reactivity Index (IRI)** containing four scales with seven items each (five point scales):

*Perspective Taking Scale* (PT: spontaneous attempts to adopt the perspective of other people, to see things from their point of view). (Seven items).

*Fantasy Scale* (FS: Tendency to identify with characters in movies, novels, plays and other fictional situations). Seven items.

*Empathic Concern* (EC: feelings of warmth, compassion and concern for others). (Seven items).

*Personal Distress Scale* (PD: personal feelings of anxiety and discomfort that result from observing another's negative experience). (Seven items).

Factor analyses confirm that the test measures these four aspects of empathy. Reliabilities are satisfactory: Internal consistency ranged from 0.70 – 0.78 (Cronbach's alpha), test – retest reliabilities from 0.61 – 0.81 (Davis, 1980).

*1. The Assessment of Personality Dimensions*

To examine the relation empathy to psycho-social and personality dimensions, three paper and pencil tests of sufficient psychometric properties were administered. Not all of the instruments described below could be administered in all samples.

1.1 *Freiburger-Personality-Inventory* (FPI, (Fahrenberg, Selg, Hampel 1978);

*Questionnaire-of-Control-and-Competence-Orientations* (FKK, Krampen, 1991);

*Questionnaire-of-Directiveness/Extraversion* (FDE, Bastine, 1971);

*2. The Assessment of Accuracy of Perception.*

*Profile-of-Nonverbal-Sensitivity* (PONS, Rosenthal et al., 1979);

Because the effects of pretesting with the PONS on subsequent PONS-performance are strong (Klinzing, 2003) the data from participants who took the PONS the first time have been calculated separately from those of the total groups including test-repeaters.

*3. Psycho-Social Dimensions*

Questionnaire of *Succcess-in-Interpersonal-Relations* containing five factors:

1:"Quality-of-Opposite-Sex-Relationships";

2:"Quality-of-Same-Sex- Relationships";

3:"Number-of-Friends";

4:"Speed-in-Making-Friends";

5: "Understanding-in-Relationships" (Rosenthal et al., 1979);

*Self-Report of Nonverbal-Sensitivity* (warmth, understanding other people, understanding social situations, Rosenthal et al., 1979).

*4. Interpersonal Behavior: Nonverbal Encoding Ability*

*Affective Communication Test* (ACT; Friedman, Prince, Riggio, & DiMatteo, 1980)

**Results**

**Empathy- Personality Dimensions**

In *Tables 1.1 - 1.4* the results for the relationships between personality dimensions and the four scales of empathy are summarized.

*Table 1.1* Relationships of Personality Dimensions Assessed with the Freiburger Personality Inventory (FPI) and Four Scales of *Empathy.* Product Moment Correlations and p-Values

| | Empathy (N=64)*** | | | |
| --- | --- | --- | --- | --- |
| | PT r (p**) | FS r (p**) | EC r (p**) | PD r (p**) |
| **FPI 1** *Nervousness* | -0.08 (n.s.) | 0.22 (n.s.) | 0.11 (n.s.) | **0.32 (p<0.01)** |
| FPI 2 *Aggression* | -0.12 (n.s.) | -0.07 (n.s.) | -0.12 (n.s.) | 0.01 (n.s.) |
| **FPI 3** *Depression* | 0.009 (n.s.) | 0.15 (n.s.) | 0.11 (n.s.) | **0.30 (p<0.05)** |
| **FPI 4** *Excitability* | -0.14 (n.s.) | 0.07 (n.s.) | -0.02 (n.s.) | 0.16 (n.s.) |
| **FPI 5** *Sociability* | -0.01 (n.s.) | 0.06 (n.s.) | 0.07 (n.s.) | **-0.26 (p<0.05)** |
| **FPI 6** *Calmness* | 0.10 (n.s.) | -0.10 (n.s.) | 0.02 (n.s.) | **-0.27 (p<0.05)** |
| **FPI 7** *Reactive Aggression/ Dominance* | **-0.25 (p<0.05.)** | -0.02 (n.s.) | **-0.21 (n.s.)** | 0.05 (n.s.) |
| **FPI 8** *Inhibition* | 0.11 (n.s.) | 0.16 (n.s.) | 0.17 (n.s.) | **0.40 (p<0.01)** |
| FPI 9 *Openness* | -0.17 (n.s.) | **0.31 (p<0.05)** | 0.10 (n.s.) | 0.17 (n.s.) |
| **FPI E** *Extraversion* | 0.06 (n.s.) | 0.002 (n.s.) | 0.01 (n.s.) | **-0.26 (p<0.05)** |
| **FPI N** *Emotional Lability* | -0.02 (n.s.) | **0.27 (p<0.05)** | 0.19 (n.s.) | **0.43 (p<0.01)** |

*Due to fairly normal lapses data were not available for some participants..**two tailed test, n.s.: p>0.05.  ***In one of the three samples the FPI was not administered

*Table 1.2:* Relationships of Competence and Control Orientations (Total Score) and the Four Scales of Empathy. Product Moment Correlations and p-Values

| | Empathy (N=134) | | | |
| --- | --- | --- | --- | --- |
| | PT r (p**) | FS r (p**) | EC r (p**) | PD r (p**) |
| ***Competence and Control Orientations (FKK) Total Score* (N=134)** | | | | |
| *Internality - Externality (SKI–PC)* | 0.06 (n.s.) | -0.05 (n.s.) | -0.15 (n.s.) | **-0.30 (p<0.01)** |

*Table 1.3:* Relationships of Directiveness and Extraversion (FDE) and Four Scales of Empathy. Product Moment Correlations and p-Values

| **Empathy – FDE/SWE** (N=131) | | | |
|---|---|---|---|
| **PT** r (p**) | **FS** r (p**) | **EC** r (p**) | **PD** r (p**) |
| **Directiveness** (Whole Group) | | | |
| -0.23 (p<0.01) | 0.09 (n.s.) | -0.20 (p<0.05) | 0.03 (n.s.) |
| **Extraversion** (Whole Group) (N=131) | | | |
| 0.08 (n.s.) | -0.02 (n.s.) | -0.08 (n.s.) | -0.35 (p<0.01) |

Results as summarized in *Table 1.1 – 1.3* reveal that personality measures which possess a markedly negative tone (FPI: Nervousness, Depression, Inhibition, Emotional Lability) displayed significant associations with the comparably negatively-toned personal distress scale (PD). Correspondingly, personality measures which possess a positive tone (FPI: Sociability, Calmness, Extraversion; FKK: Competence and Control Orientations) are significantly negatively correlated to the Personal Distress-Scale. The other scale for affective empathy, empathic concern (EC) and the cognitive empathy scale (PT, measuring the tendency to adopt the point of view of others in everyday social situations or fictitious characters; the FS-scale ) were not associated with personality dimensions, except negatively with reactive aggressiveness/dominance (FPI) and directiveness (FDE); the fantasy-scale (IRI's-FS-scale) was positively associated with Emotional Lability..

*Table 1.4:* Relationships of Four Scales of Empathy and Age and Gender. Product Moment Correlations and p-Values

| **Empathy** | | | |
|---|---|---|---|
| **PT** | **FS** | **EC** | **PD** |
| r (p**) | r (p**) | r (p**) | r (p**) |
| **Age** (Whole Group) (N=135) | | | |
| 0.13 (n.s.) | 0.02 (n.s.) | 0.07 (n.s.) | 0.008 (n.s.) |
| **Gender** (Whole Group) (N=135) | | | |
| -0.02 (n.s.) | **0.24 (p<0.01)** | **0.31 (p<0.01)** | 0.15 (n.s.) |

| | | | |
|---|---|---|---|
| **Subjects Studied**<br>(Student Teachers vs.<br>Students of Education) | **-0.25 (p<0.01)** | **-0.17 (p<0.05)** | **-0.23 (p<0.01)**-0.14 (n.s.) |
| **Semester Completed at University** | -0.04 (n.s.) | -0.11 (n.s.) | 0.08 (n.s.)          **-0.20 (p<0.05)** |

*Due to fairly normal lapses data were not available for some participants.**two tailed test, n.s.: p>0.05.

As the results in *Table 1.4* show, significant gender differences occurred in the Fantasy-Scale (FS) and in the Empathic-Concern-Scale (EC) in favour of women, not, however for cognitive empathy: perspective taking.. Students of Education scored significantly higher on Perspective-Taking, the Fantasy-Scale and Empathic-Concern (EC) than student teachers while there were no significant relations of Subject Studied to Personal Distress (PD). Interestingly, only one relationship between semester completed at university and the four empathy scales were found, a significant negative correlation in Personal distress (PD).

## 2. Associations between Empathy and Nonverbal Sensitivity

As mentioned above, US-American studies investigating a link between empathy and (predominantely nonverbal) accuracy in the perception of others. In *Tables 2.1* the results are summarized.

*Table 2.1:* Relationships of Four Scales of Empathy and Nonverbal Expressiveness: "Charisma" (ACT). Product Moment Correlations and p-Values

| | **PT** | **FS** | **EC** | **PD** |
|---|---|---|---|---|
| | **r (p**\*\***)** | **r (p**\*\***)** | **r (p)** | **r (p**\*\***)** |
| **PONS**<br>*(Total Group)* | 0.12 (n.s.)<br>(N=133) | 0.15 (n.s.) | -0.03 (n.s.) | 0.05 (n.s.) |
| Voice | **0.20 (p<0.05)** | 0.11 (n.s.) | -0.03 (n.s.) | 0.17 (n.s.) |
| Body | 0.09 (n.s.) | **0.18 (p<0.05)** | -0.01 (n.s.) | -0.003 (n.s.) |
| Face | 0.08 (n.s.) | 0.09 (n.s.) | -0.05 (n.s.) | -0.003 (n.s.) |
| Figure | 0.38 (n.s.) | **0.54 (p<0.01)** | **0.48 (p<0.01)** | 0.35 (n.s.) |
| *PONS*<br>*(Without t. rep)*<br>*(N=109)* | *0.12 (n.s.)* | *-0.06 (n.s.)* | *-0.08 (n.s.)* | *-0.11 (n.s.)* |
| *Voice* | *0.23 (p<0.05)* | *-0.04 (n.s.)* | *-0.05 (n.s.)* | *0.07 (n.s.)* |
| *Body* | *0.05 (n.s.)* | *0.01 (n.s.)* | *-0.06 (n.s.)* | *-0.11 (n.s.)* |

| | | | |
|---|---|---|---|
| Face | -0.08 (n.s.) | -0.06 (n.s.) | -0.09 (n.s.) | -0.11 (n.s.) |
| Figure | 0.43 (n.s.) | 0.11 (n.s.) | 0.10 (n.s.) | 0.06 (n.s.) |

*Due to fairly normal lapses data were not available for some participants.**two tailed test, n.s.: p>0.05.

Results as summarized in *Table 2.1* revealed weak correlations between affective empathy measures (EC, PD) and Nonverbal Sensitivity (PONS-test). There is however, a weakly positively association between Perspective Taking (PT), the Fantasy Scale (FS) and PONS-scores which became significant for Voice-delivery; Body, and Figure. Also a significant correlation between empathic concern (EC) and Figure was found.

### 3. Associations between Empathy and Psycho-Social Dimensions

Results for the associations between empathy and *Success in Interpersonal Relations* and *Warmth, Understanding Other People, and Understanding Social Situations* are summarized in *Tables 3.1* and *3.2*.

*Table 3.1:* Relationships of Four Scales of Empathy and *Success in Current Interpersonal Relations.* Product Moment Correlations and p-Values

| Empathy (N=131) | | | |
|---|---|---|---|
| **PT** | **FS** | **EC** | **PD** |
| *Success in Interpersonal Relations* | | | |
| **r (p\*\*)** | **r (p\*\*)** | **r (p\*\*)** | **r (p\*\*)** |
| *Factor 1:* **-0.24 (p<0.01)** | **-0.18 (p<0.05)** | -0.06 (n.s.) | **-0.31 (p<0.01)** |
| *Quality of Opposite Sex Relationship* | | | |
| *Factor 2:* **-0.18 (p<0.05)** | 0.14 (n.s.) | 0.16 (n.s.) | 0.03 (n.s.) |
| *Quality of Same Sex Relationship* | | | |
| *Factor 3:* 0.003 (n.s.) | -0.11 (n.s.) | -0.08 (n.s.) | -0.01 (n.s.) |
| *Number of Friends* | | | |
| *Factor 4:* **0.18 (p<0.01)** | 0.14 (n.s.) | **0.23 (p<0.01)** | **-0.17 (p<0.05)** |
| *Speed of Making Friends* | | | |
| *Factor 5:* 0.06 (n.s.) | 0.04 (n.s.) | 0.06 (n.s.) | -0.12 (n.s.) |
| *Understanding in Relationship* | | | |

*Due to fairly normal lapses data were not available for some participants.**two tailed test, n.s.: p>0.05.

*Table 2.2:* Relationships of Four Scales of Empathy and Self-Rated Sensitivity (1. Warmth, 2. Understanding Other People, and 3. Understanding Social Situations). Product Moment Correlations and p-Values

| | **Empathy-Self-Ratings of Interpersonal Sensitivity** | | | |
|---|---|---|---|---|
| | **PT** | **FS** | **EC** | **PD** |
| | **r  (p**)** | **r  (p**)** | **r  (p**)** | **r  (p**)** |
| **Question 1 (Whole Group) (N=130)** | 0.15 (n.s.) | **0.22 (p<0.05)** | **0.40 (p<0.01)** | 0.17 (n.s.) |
| **Question 2 (Whole Group) (N=133)** | **0.19 (p<0.05)** | 0.07 (n.s.) | **0.30 (p<0.01)** | -0.09 (n.s.) |
| **Question 3 (Whole Group) (N=133)** | **0.23 (p<0.01)** | -0.07 (n.s.) | 0.08 (n.s.) | -0.13 (n.s.) |

*Due to fairly normal lapses data were not available for some participants.**two tailed test, n.s.: p>0.05

 Results as summarized in *Table 3.1* are mixed. Weakly positively associations between the more advanced abilities: Perspective Taking (PT), the Fantasy Scale (FS), and Empathic Concern (EC) with "Speed of Making Friends" were found.  Perspective Taking and Personal Distress (PD), unexpectedly, were negatively related to "Quality of Opposite Sex Relationship" and (in the case of PD) "Speed of Making Friends".

Results as summarized in Table 3.2 revealed positive and significant associations between *Perspective Taking* and (self-rated) *Understanding Other People* (Question 2) and *Understanding Social Situations* (Question 3). Also the findings for associations between the *Fantasy-Scale* (FS), the affective empathy scales (EC, PD) and *Warmth* (Question 1) and *Understanding Other People* (Question 2) are positive while for Question 3 (Understanding Social Situations) the correlations were near zero.

## 4. Associations between Empathy and Social Behaviour ("Charisma").

Results for the associations between scales of empathy and "Charisma" (Affective Communication Test, ACT) are summarized in *Table 4.*

### Empathy - Nonverbal Expressiveness

| | PT | FS | EC | PD |
|---|---|---|---|---|
| | r (p**) | r (p**) | r (p) | r (p**) |
| "Charisma" (ACT) | 0.14 (n.s) (N=135) | -0.0005 (n.s.) | -0.11 (n.s.) | -0.12 (n.s.) |

*Due to fairly normal lapses data were not available for some participants.**two tailed test, n.s.: p>0.05.

Results as summarized in *Table 4* show there are no significant associations between "Charisma" and the four empathy-scales.

## Summary and Discussion

Besides socialization influences, one of the foundations of empathy seems to be the inherent ability of direct affect-sharing as indicated by the *Personal Distress Scale* (PD), i.e., the experience of affections in response to the observed distress of another. In the present study the negatively-toned personal distress scale (IRI's PD-scale) is moderately but significantly associated with the comparably negative toned personality dimensions of Nervousness, Depression, Inhibition, Emotional Lability (FPI), and Externalism (FKK). It was to be expected that personal distress (PD) is then also significantly *negatively* related to positively-toned dimensions: Sociability, Calmness, Extraversion (FPI; FDE), Competence and Control Orientations (FKK). Also, personal distress was significantly and negatively related to the *"Quality of Opposite Sex Relationship"* and (weakly) to *"Speed of Making Friends"*. For all other associations *no* significant results could be obtained. Thus, some of the findings of studies conducted in the USA were confirmed (Davis, 1996) and extended in the similar direction of the associations. The absence of empathy-associations with positive personality characteristics, so important for social professions like teaching, and the associations with negatively-toned personal dimensions support the likelihood of affect contagion (Riggio, 2005), self-oriented feelings of anxiety and unease while witnessing the distress of other persons. Few of the more advanced empathic processes like affective empathic concern (EC), cognitive perspective taking (PT) and the Fantasy-Scale (FS:

imagining oneself in the place of fictitious characters) were associated at least with some desired personality dimensions and abilities. Empathic Concern was moderately but significantly correlated with reactive non-aggressiveness/dominance (FKK) and non-directiveness (FDE), nonverbal sensitivity-scales, self-perceived warmth, Understanding other Persons and "Speed of Making Friends". The ability of perspective taking (PT) was also significantly related to reactive non-aggressiveness/dominance and non-directiveness, nonverbal sensitivity-scales (voice delivery), Warmth, and "Speed of Making Friends"; and the Fantasy Scale was positively associated to Openness (FPI) and nonverbal sensitivity-scales (body. figure) - findings, pointing into the same direction as those reported by Davis (1996).

Similar to findings obtained in the USA, significant gender differences in favour of women in empathic concern (EC) and fantasy scale (FS) were found; but these are susceptible to gender-based self-representational concerns (Davis, 1996). Age and Semester Studied were unrelated to empathy with one exception: there was a significantly negative correlation between semester completed at university and personal distress (PD). And, more importantly, students studying education as a major (including psychology and sociology), were significantly more empathic on the three scales of "advanced empathy (PT, FS, EC) than student teachers.


Empathy is regarded as valuable in its own right and also as an important, personal and professional pro-social ability in professions involving intensive social interaction. This important competence in the wide range of qualities related to meaningful communication, interpersonal functioning, provision of the motivation for caring and helpful while inhibiting aggressive behaviour necessarily belongs to the abilities teacher should possess and therefore be considered to be integrated into the teacher education curriculum.

To look on the partly disappointing findings from empathy research from a broader perspective the question arises: Are universities in Germany and elsewhere effectively and appropriately preparing personnel for important professions, like teaching?

The findings of the present study cast doubts on education and training for the teaching profession at university and teacher education institutions at least in Germany. The findings on the associations of this important element of social-emotional competence, empathic abilities and negative-toned personality dimensions remind us how much more the learning environments which provide personal support and empowerment,

besides the acquisition of professional knowledge and competencies (for a review see Cotton, 2001) should be preserved, developed and established. Traditional mainstays, seminars and lectures, may be sufficient for the acquisition of testable knowledge. But do they also provide opportunities to acquire empathy and influence personality, attitudes, and competencies in a desired direction? Pressures, undesired restrictions introduced, for example, by measures fostered by the "Bologna-Process" aiming merely at not much more than the acquisition of knowledge, will hinder important processes for the development of personality and professional competencies. For example, Balint-groups, sensitivity training or laboratory training-methods are shown to be effective and appropriate to develop not only professional knowledge, but also professional behaviours, attitudes, self-experience, foster self-development in cooperation with peers, and influence positively important, professional and general valuable and practice-relevant competencies and personality dimensions, including empathy (Klinzing, 2002; 2007; Klinzing & Gerada Aloisio, 2007b). While empathy trainings are shown to be effective and efficient (Cotton, 2001), the semester completed at university are unrelated to empathic concern and perspective taking as to many other competencies more important than testable knowledge. The introduction of BA and Master-degrees, replaced by more differentiated and appropriate curricula and degrees since 200 years in Germany, offered once space and freedom for those effective and valuable education practices, - now there is no time for them anymore. The hurry-ahead- obedience to fullfill requirements of the Bologna-contract obedience (like at the Department of School-Education, University of Tuebingen, Germany) affects counterproductively an effective and valuable education and training for teachers and other educational professions. Here all the efforts to develop such environments, thereby to do research on them were eliminated and even investigations on competencies like nonverbal competencies, emotional competencies, or empathy were rendered more difficult or impossible.


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# DEVELOPING TEACHERS THROUGH JOHARI WINDOW

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ABSTRACT

*The complexity involved in becoming a teacher and the variety of aims assigned to school and education signals the importance of teachers' development at a technical level, but also at an educational and relational level.*

*The purpose of this presentation is to present the possibilities and resources to be used when teacher training of the model of personal development known as the Johari Window and strategies that can be included in reflective teaching for the development of interpersonal communication.*

*Based on a dynamic interaction between what I know about myself and what other people know about me and the management of the processes of self-disclosure and feedback the window of Johari is a simple and useful tool for illustrating and improving self-awareness, mutual understanding between individuals within a group, and can promote reflexive thinking in and about teaching.*

Key words: Johari window, teacher training, personal development

"Oh would some Power the giftie give us
To see ourselves as others see us!
It would from many a blunder free us,
And foolish notion"
                        Burns (1786)

The multiplicity of variables involved in becoming a teacher and the variety of aims assigned to school and education signals the importance of teachers' development at a technical level, but also at an educational and relational level (Arends, 2002; Kelchtermans, 2005).

The competencies of interpersonal communication can be considered a key element of being a teacher, crossing the diversity of situations and emphasizing the deep interlinking of personal and professional aspects of the development of teachers. Therefore reflecting about the best procedures to promote competencies of interpersonal communication and self-developed teachers is a aim of all of us interested in teacher development and training. The purpose of this presentation is to emphasize the interpersonal communication resources to be used when teacher training and present a model/looser activities for its development.

The Johari Window model is a powerful tool in this frame and was developed by American psychologists Joseph Luft and Harry Ingham in the 1950s, while researching group dynamics. Interestingly, Luft and Ingham called their Johari Window model 'Johari' after combining their first names, Joe and Harry. In early publications the word

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actually appears as 'JoHari'. Luft and Ingham observed that there are aspects of our personality that we are open about, and other elements that we keep to ourselves. At the same time, there are things that others see in us that we are not aware of. As a result, you can draw up a four-box grid, which includes a fourth group of traits that are unknown to anyone. The Johari Window soon became a widely used model for understanding and training self-awareness, personal development, group development and dynamics, understanding interpersonal relationships, improving communications, team development and inter-group relationships. In summary the Johari Window model is a simple and useful tool for illustrating and improving self-awareness, and mutual understanding between individuals within a group and therefore is a powerful tool for teacher training.

The Johari Window model is also referred to as a 'disclosure/feedback model of self awareness', and an 'information processing tool'. The Johari Window actually reveals information - feelings, experience, views, attitudes, skills, intentions, motivation, etc - within or about a person - in relation to their group, from four perspectives, which are described in more detail below. Therefore is related with the capability of criativity and construction of knowledge. The Johari Window model can also be used to represent the same information for a group in relation to other groups. Johari Window terminology refers to 'self' and 'others': 'self' means oneself, ie, the person subject to the Johari Window analysis. 'Others' means other people in the person's group or team.

Like some other behavioural models (eg, Tuckman, 1965; Hersey/Blanchard, 1988), the Johari Window is based on a four-square grid - like a window with four 'panes'. Each perspectives are called 'regions' or 'areas' or 'quadrants'. Each of these regions contains and represents the information - feelings, motivation, etc - known about the person, in terms of whether the information is known or unknown by the person, and whether the information is known or unknown by others in the group.

The four regions (areas, quadrants, or perspectives) of the Johari Window are as follows, showing the quadrant numbers and commonly used names (image 1):

  1. what is known by the person about him/herself and is also known by others - open area, open self, free area, free self, or 'the arena'.

  2. what is unknown by the person about him/herself but which others know - blind area, blind self, or 'blind spot'.

  3. what the person knows about him/herself that others do not know - hidden area, hidden self, avoided area, avoided self or 'facade'.

4. what is unknown by the person about him/herself and is also unknown by others - unknown area or unknown self.

| | KNOWN BY SELF | UNKNOWN BY SELF |
|---|---|---|
| KNOWN BY OTHERS | OPEN ARENA | BLIND SPOT |
| UNKNOWN BY OTHERS | FACADE | UNKNOWN |

Image 1: This is the standard representation of the Johari Window model diagram, showing each quadrant the same size

The Johari Window 'panes' can be changed in size to reflect the relevant proportions of each type of  'knowledge' of/about a particular person in a given group situation. In other words the lines dividing the four panes can move as interactions progress.

In new groups the open free space for any team member is small because shared awareness is relatively small. As the team member becomes better established and known, so the size of the team member's open free area quadrant increases.

Johari region 1 is also known as the 'area of free activity'. This is the information about the person - behavior, attitude, feelings, emotion, knowledge, experience, skills, views,

etc - known by the person ('the self') and known by the group ('others'). The aim in any group should always be to develop the 'open area' for every person, because when we work in this area with others the group and we are more effective and productive. The open free area can be seen as the space where good communications and cooperation occur, free from distractions, mistrust, confusion, conflict and misunderstanding.

Established teachers logically tend to have larger open areas than new ones. New ones start with relatively small open areas because relatively little knowledge about them is shared. The size of the open area can be expanded horizontally into the blind space, by seeking and actively listening to feedback from other group members. This process is known as 'feedback solicitation' and it is based on the principle that our self-awareness is very rarely as broad as the perceptions of us held by the individuals and groups of people we interact with.

Also, other group members can help a team member expand their open area by offering sensitively feedback. The size of the open area can also be expanded vertically downwards into the hidden area by the person's disclosure of information, feelings, etc about him/herself to the group and group members. Also, group members can help a person expand their open area into the hidden area by asking the person about him/herself. Teachers and team leaders can play an important role in facilitating feedback and disclosure among group members, and in directly giving feedback to individuals about their own blind areas. Leaders also have a big responsibility to promote a culture and expectation for honest, open, positive, constructive, helpful, sensitive communications, and the sharing of knowledge throughout their organization. Excellent performing groups, departments, companies and organizations always tend to have a culture of open positive communication, so encouraging the positive development of the 'open area' or 'open self' for everyone is a simple yet fundamental aspect of effective leadership.

Johari region 2 'blind self' or 'blind area' or 'blind spot' is what is known about a person by others in the group, but is unknown by the person him/herself. By seeking or soliciting feedback from others, the aim should be to reduce this area and thereby to increase the open area (see image 2), so to increase self-awareness. This blind area is not an effective or productive space for individuals or groups. This blind area could also be referred to as ignorance about oneself, or issues in which one is deluded. A blind area could also include issues that others are deliberately withholding from a person creating difficulties in interpersonal exchanges. On the other hand, we all have defenses,

protecting the parts of ourselves that we feel vulnerable. Nevertheless, the blind quadrant contains behaviour, feelings and motivations not accessible to the person, but which others can see. Feelings of inadequacy, incompetence, impotence, unworthiness, rejection, guilt, dependency, ambivalence for loved ones, needs to control and manipulate, are all difficult to face, and yet can be seen by others. To forcibly reveal what we don't want to see, can be traumatic. Fortunately, nature has provided us with a variety of defense mechanisms to cope with such events, such as denial, ignoring, rationalizing, etc.

| 1<br><br>OPEN/FREE AREA | 2<br><br>BLIND AREA |
|---|---|
| 3<br><br>HIDDEN AREA | 4<br><br>UNKNOWN AREA |
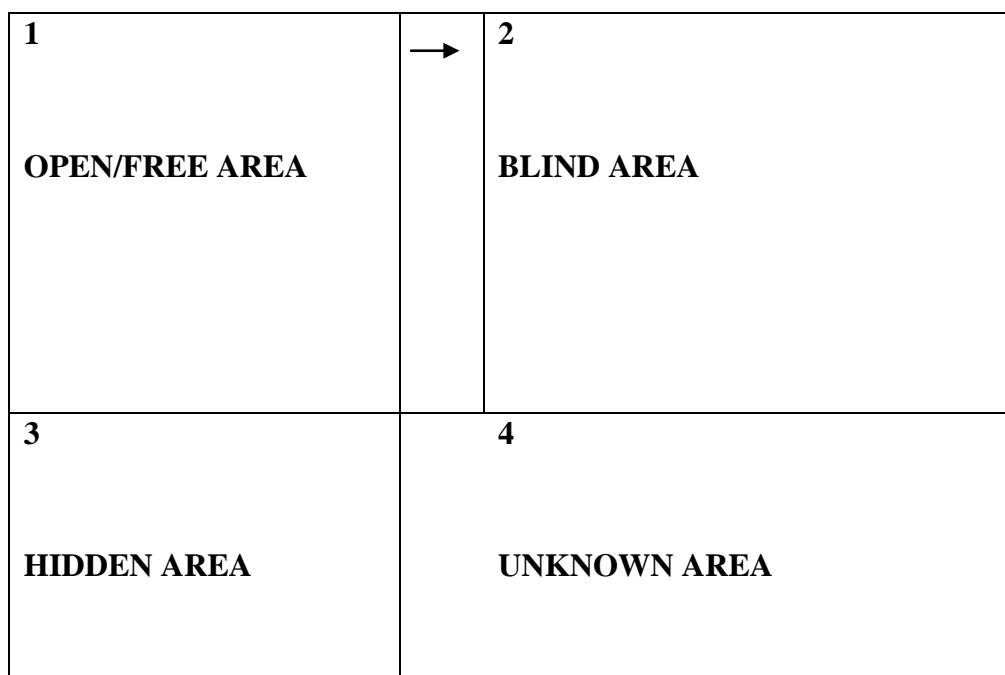
Image 2: Increased open area

Group members, teacher's trainers and teachers can take some responsibility for helping an individual to reduce their blind area - in turn increasing the open area - by giving sensitive feedback and encouraging disclosure. Teachers should promote a climate of non-judgmental feedback, and positive response to individual disclosure, which reduces fear and therefore encourages both processes to happen. The extent to which an individual seeks feedback, and the issues on which feedback is sought, must always be at the individual's own discretion. Some people are more resilient than others - care needs to be taken to avoid causing emotional upset. The process of soliciting serious and deep feedback relates to the process of 'self-actualization' described in Maslow's Hierarchy of Needs development and motivation model.

Johari region 3 is what we know but kept hidden from, and therefore unknown, to others. This hidden or avoided self represents information, feelings, etc, anything that a

person knows about him/self, but which is not revealed or is kept hidden from others. The hidden area could also include anything that a person knows but does not reveal, for whatever reason like sensitivities, fears, manipulative intentions, and secrets (Kelly, 1996). It's natural for very personal and private information and feelings to remain hidden, indeed, certain information, feelings and experiences have no bearing on an educational framework, and so can and should remain hidden. However, typically, a lot of hidden information is not very personal, it is work- or performance-related, and so is better positioned in the open area.

Relevant hidden information and feelings, etc, should be moved into the open area through the process of 'self-disclosure' and 'exposure process'. By telling others how we feel and other information about ourselves we reduce the hidden area, and increase the open area, which enables better understanding, cooperation, trust, team-working effectiveness and productivity. Reducing hidden areas also reduces the potential for confusion, misunderstanding, poor communication, etc, which undermine team effectiveness and teacher development.

Organizational culture and educational atmosphere have a major influence on group members' preparedness to disclose their hidden selves. Most people fear judgment or vulnerability and therefore hold back hidden information and feelings, etc, that if moved into the open area, i.e. known by the group as well, would enhance mutual understanding, and thereby improve group awareness, enabling better individual teacher performance and group effectiveness.

The extent to which an individual discloses personal feelings and information, and the issues which are disclosed, and to whom, must always be at the individual's own will. Some people are more keen and able than others to disclose. People should disclose at a pace and depth that they find personally comfortable - care needs to be taken to avoid causing emotional upset. As with feedback, some people are more resilient than others. Also as with soliciting feedback, the process of serious disclosure relates to the process of 'self-actualization' described in Maslow's Hierarchy of Needs development and motivation model (1943).

Johari region 4 contains a set of information, feelings, latent abilities, aptitudes, experiences etc that are unknown to the person him/herself and unknown to others in the group. These unknown issues take a variety of forms: they can be feelings, behaviours, capabilities, attitudes, aptitudes, which can be quite close to the surface, and which can be positive and useful, or they can be deeper aspects of a person's

personality, influencing his/her behaviour to various degrees. A relatively common example of unknown factors is an ability that is under-estimated or un-tried through lack of opportunity, encouragement, confidence or training. Large unknown areas would typically be expected in professionals with little experience and younger people.

The processes by which this information and knowledge can be uncovered are various, and can be prompted through self-discovery or observation by others, or in certain situations through collective or mutual discovery, of the sort of teacher training.

Whether unknown 'discovered' knowledge moves into the hidden, blind or open area depends on who discovers it and what they do with the knowledge, notably whether it is then given as feedback, or disclosed. As with the processes of soliciting feedback and disclosure, striving to discover information and feelings in the unknown is relates to the process of 'self-actualization'.

Again as with disclosure and soliciting feedback, the process of self-discovery can be a sensitive one. The extent and depth to which an individual is able to seek out discover their unknown feelings must always be at the individual's own discretion.

Uncovering 'hidden talents' - that is unknown aptitudes and skills, is an aspect of developing the unknown area that is not so sensitive as uncovering unknown feelings. Providing people with the opportunity to try new things, with no great pressure to succeed, is often a useful way to discover unknown abilities, and thereby reduce the unknown area. Teachers and teacher trainers can help by creating an environment that encourages self-discovery, and to promote the processes of self-discovery, constructive observation and feedback (see image 3). Creating a culture, climate and expectation for self-discovery helps people to fulfil more of their potential and thereby to achieve and contribute more.

| | | KNOWN BY SELF | UNKNOWN BY SELF |
|---|---|---|---|
| **SELF-DISCLOSURE** | **KNOWN BY OTHERS** | **OPEN ARENA** | **BLIND SPOT** |
| | **UNKNOWN BY OTHERS** | **FACADE** | **UNKNOWN** |
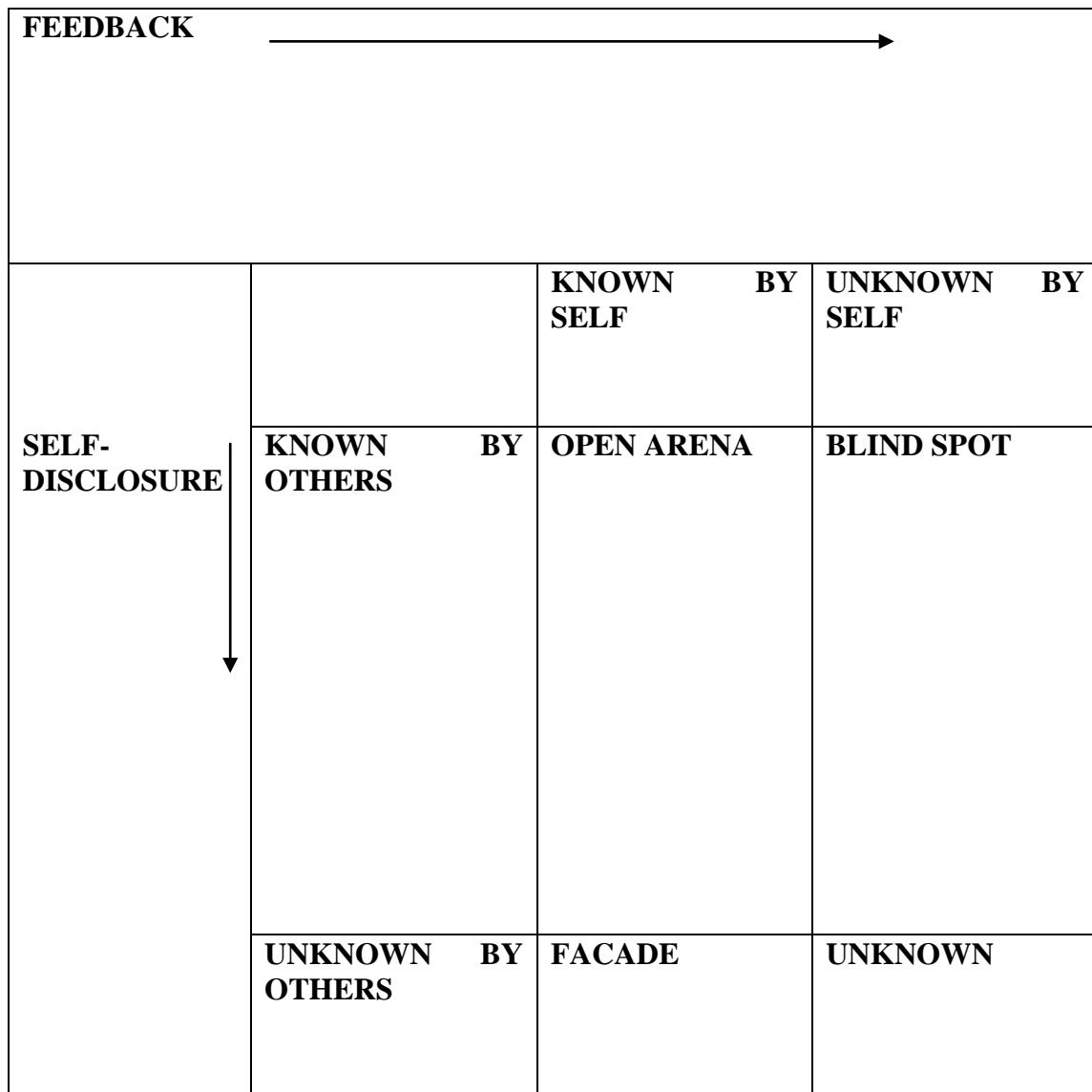
**FEEDBACK** →

Image 3: This is the standard representation of the Johari Window model diagram, showing the process of self-disclosure and giving feedback

Therefore teachers should strive to increase their open free areas, and to reduce their blind, hidden and unknown areas. The common principle is that as teachers matures and communications improve, so performance improves too, as less energy is spent on internal issues and clarifying understanding, and more effort is devoted to external aims and productive output.

As ones level of confidence and self-esteem develops, one may actively invite others to comment on one's blind spots. A teacher may seek feedback from students on the quality of a particular lecture, with the desire of improving the presentation. Active listening skills are helpful in this endeavour.

The Johari window, essentially being a model for communication, can also help reveal difficulties in this area. In Johari terms, two people attempt to communicate via the

open quadrants. On the simplest level, difficulties may arise due to a lack of clarity in the interaction, such as poor grammar or choice of words, unorganized thoughts, faulty logic etc. This induces the receiver to criticize you, the sender, by revealing something that was in your blind quadrant. Then, if the feedback works, you correct it immediately, or perhaps on a more long-term approach take a course in reading and writing. On a deeper level, you may be in a group meeting, and while you secretly agree with the minority viewpoint, you defended the majority. However, blind to you, you actually may be communicating this information via body language, in conflict with your verbal message. On an even deeper level, you in an interaction with others, may always put on a smiling, happy face, hiding all negative feelings. By withholding negative feelings, you may be signalling to your friends to withhold also, and keep their distance. Thus, your communication style may seem bland or distant.

There are several exercises (see exercise 1) and activities for Johari Window awareness development that can be applied to teacher training. This being the case, it might help you to ask yourself first what you want to achieve in your training and development activities? And what are your intended outputs and how will you measure that they have been achieved? And then think about how the Johari Window theory and principles can be used to assist this.

The essential exercise to encourage teachers is on learning how to give and receive feedback. Many find giving feedback difficult, however we encourage them to reflect on its part as an essential professional behaviour as well as a skill they can practice. There are a few simple rules that will make it a satisfactory process, getting the information you need without making the person you ask uncomfortable: being careful and sensitive in the way you give feedback and starting gradually.

Thus our finality of work is the person of the teacher and the set of complex experiential processes that can help him become more flexible and more available (Ferreira-Alves & Gonçalves, 2001). It seems clear to us that the developmental transformations in the person of the teacher (that is, there is development when the subject understands it or is conscious of its experience) are indispensable ingredients in his qualification for dealing with individuals that are at another moment of the life cycle.

The Johari model is a flexible tool for teacher training and development giving him resources to be able to establish a climate for reflexive, open and honest discussions in the class (Schön, 1983). Students in such a climate will be more apt to self-disclosure thoughts, feelings, values, and opinions. In situations where students feel threatened,

they will probably not feel free to reveal themselves. And unless persons are willing to provide feedback, and unless the feedback is heard, behaviours or attitudes will not change.

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## Exercise 1:

Johari adjectives: A Johari Window consists of the following 56 adjectives used as possible descriptions of the participant. In alphabetical order they are:

* able* accepting  * adaptable   * bold   * brave   * calm* caring* cheerful* clever   * complex * confident * dependable * dignified *energetic* extroverted* friendly* giving * happy * helpful* idealistic* independent* ingenious* intelligent    * introverted    * kind    * knowledgeable * logical  * loving  * mature  * modest  * nervous  * observant * organized* patient * powerful * proud * quiet* reflective  * relaxed    * religious*

responsive * searching  * self-assertive* self-conscious* sensible    * sentimental    * shy * silly* smart* spontaneous* sympathetic  * tense  * trustworthy   * warm * wise  * witty

A Nohari window is the inversion of the Johari window, and is a collection of negative personality traits instead of positive. In alphabetical order they are:

* aloof * blasé * boastful * brash* callous* chaotic * childish* cold * cowardly * cruel* cynical * distant * dispassionate * dull * embarrassed* foolish * glum* hostile * Humourless* ignorant * impatient * imperceptive* inane * inattentive  * incompetent * inflexible* insecure* insensitive * intolerant * irrational* irresponsible * lethargic  * loud  * needy* overdramatic  * panicky * passive* predictable* rash* selfish* self-satisfied* simple* stupid* timid * unethical * unhappy* unhelpful* unimaginative* unreliable* violent    * vulgar * weak * withdrawn

Adjectives that are selected by both the participant and his or her peers are placed into the Arena quadrant. This quadrant represents traits of the participant of which both they and their peers are aware.

Adjectives selected only by the participant, but not by any of their peers, are placed into the Façade quadrant, representing information about the participant of which their peers are unaware. It is then up to the participant whether or not to disclose this information.

Adjectives that are not selected by the participant but only by their peers are placed into the Blind Spot quadrant. These represent information of which the participant is not aware, but others are, and they can decide whether and how to inform the individual about these "blind spots".

Adjectives, which were not, selected by either the participant or their peers remain in the Unknown quadrant, representing the participant's behaviours or motives, which were not recognized by anyone participating. This may be because they do not apply, or because there is collective ignorance of the existence of that trait.

# CREATIVE STRATEGIES IN DEVELOPING NOVICE TEACHERS TO BE COMPETENT AND PROFESSIONAL

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ABSTRACT

*Every year beginning teachers are being posted in schools. Beginning teachers normally encounter many problems at the early part of their career, because they are unable to apply the knowledge and theories that they have learned during their pre-service teacher education to the real school situation. A study had been conducted in Malaysia to investigate the professional problems being encountered by 910 novice teachers throughout the country. The findings revealed that novice teachers are facing diverse problems. In order to help and develop novice teachers to become competent and professional, a creative training model for novice teachers has been developed.*

Key Words: Developing novice teachers; Teachers' Competency; Continuing Professional Development; Teachers' Efficacy; A Training Model for Novice Teachers.

## Introduction

Each year, more than 15,000 new teachers (which onwards cited as novice teachers) are posted all over Malaysia. Some of them who have benefited of quality training seem to be competent and confident in helping students to learn. However, there are still a lot of novice teachers who are not ready to face the challenges in the classrooms. Even though there are plenty of reasons why they are not ready, research are continuously being conducted to investigate the importance of effective teaching and what are being done by effective teachers. Effective teachers used various instrument to evaluate *how* their students learn and *what* do they learn. They make use of this information to help their students to get improved. The effective teachers arrange activities, teaching aids and teaching based on the students' existing knowledge and the students' level of development so that all students could succeed. Effective teachers involve students with effective teaching through activities such as debates, discussions, research, writing, assessment and developing models, writing paper works and product, apart from listening and reading information, observing demonstration and practical skills. They have a very high expectation to reach the target *standard*. They also involve parents in the learning process and create a relationship between home and school to support the students learning process. Therefore, it shows that it is vital for teachers to keep on learning to carry out complex duties professionally.

**Profesionalism Problems of novice teachers**

As what being mentioned above, every year novice teachers who had completed their training from teacher education institutions and faculties of education of public universities are welcomed to schools in all over Malaysia. Majority of them are facing demanding tasks at schools. There are some of them who get themselves prepared, yet, there are still many of them who have to struggle to carry out their duties and responsibilities professionally. Many of them fail to face the challenge confidently.

**Problems in early career**

Teachers who are newly posted to schools usually going to have problems in early career due to their incapability to apply the knowledge and theories that they had learned in institution into real situation. There are many views on the teaching by teachers who had just completed teachers training. Aldrich (1990) and Pushkin (2001) in Siti Zohara Yassin (2005) assume that these new teachers do not know how to teach. This is because they are still being influenced by their experience during their school time (Lacey 1977; Kennedy 1991; Simco 1998; Darling-Hammond 1999). Many scholars think that novice teachers are influenced by their experience at higher learning institution or college (Concoran 1981; Kendall 2000; Pushkin 2001; Marks 2002). With regards to their ability to teach, many scholars found that they do not have knowledge in the content and they do not know the appropriate teaching method for their students (Kennedy 1991; Norani, Wan Hasmah & Chang 1996; Darling-Hammond, Berry, Haselkorn & Fideler 1999). It is undeniable that novice teachers do not have experience (Huberman 1993; Puk & Haines 1999; Darling-Hammond et al. 1999; Kendall 2000) because they just got into the real world of teaching profession. As a new person in school, many scholars find that socialisation in theorganization does influence the role of the novice teachers at schools and in the classrooms (Hoy 1967; Jordell 1987; Staton & Hunt 1992; Kuzmic 1994; Auster 1996; Heck & Wolcott 1997; Kelchtermans & Ballet 2002; Farrell 2003). Friedman and Kass (2002) believe that novice teachers who are able to suit themselves in a school organization have reached the organization efficacy.

The best move in understanding the challenges faced by the novice teachers in their early career at school is by referring to a research done by Simon Veenman which was published in 1984. Veenman (1984) mentioned that during the transition, which is from teacher training institution to school, these new teachers or novice teachers will be facing a 'dramatic' and 'traumatic' situation which is the 'reality shock' or 'culture shock'. It is a challenging shock because novice teachers will find that what they had learned in teachers training institution or universities does not similar with the actual classroom (Veenman 1984: 13). Muller-Fohrbrodt, Cloetta and Dann in Veenman (1984) divided five types of shocks experienced by novice teachers which are teachers' perception towards the problem, the changes in the behaviour, the changes in attitudes, the changes in personality, and leaving the teaching career. This 'reality shock' is when novice teachers are facing with the real world of teaching, in which they are responsible for the students' achievement. The novice teachers have no other option but to fulfil this responsibility assigned by the school. Many scholars (Haller 1967; Kremer-Hayon & Ben-Peretz 1986; Skeats 1991; Huberman 1993; Rust 1994; Maynard & Furlong 1995; Urzua 1999; Rust 1999; Pushkin 2001; Eick 2002; Cawyer et al. 2002; Farrell 2003) believe that, to carry out their responsibility given by the school, the new teachers need support from the school community.

Because there are too many views from the scholars on novice teachers, Naish (1990) suggested that teacher educators have to make sure the teachers they produced are professional and have the quality (in Siti Zohara Yassin 2005). Naish (1990) added that some elements that need to be focused by teacher educators are to explore the teaching and the subject being taught by the novice teachers; and observe the effectiveness of the teacher education programme.

Novice teachers realise that they have to face a lots of problems from what they have expected. Sometimes they feel depressed. Novice teachers found that their attitude keep on changing, and sometimes they regretted for the behaviour they have shown (Hoy 1968; Innaccone 1965; Jacobs 1968; Lacey 1977; Muuss 1969). It is also said that they cannot control their personal emotion.

Veenman had summarised all the review of literature regarding to the challenges faced by the novice teachers. There are a lot of studies done since three decades ago which mostly based in United States of America. Most of the studies used questionnaire as an instrument, even though some of the studies used interview method and some researchers used both qualitative and quantitative methods. In those studies, novice

teachers were asked to describe the problems that they might be facing as novice teachers, and the researchers also asked whether they had faced each of the problems given provided to them. Veenman had identified 24 challenges mentioned by the secondary school teachers in 91 studies which were done by him. Most of the studies have the same elements. Therefore, Veenman summarised that all novice teachers are facing the problems listed below;

- Classroom discipline
- Motivating the students
- Dealing with individual differences
- Assessing students' work
- Relations with parents
- Classroom management
- Insufficient materials and supplies
- Dealing with problematic students
- Heavy teaching load resulting insufficient prep time
- Relations with colleagues
- Planning and teaching preparation
- Effective use of different teaching methods
- Awareness of school policies and rules
- Determining the learning level of students
- Knowledge of subject taught
- Burden of clerical work
- Relations with principals / administrators
- Inadequate of school equipment
- Dealing with slow learners
- Dealing with students of different cultures and deprived backgrounds
- Effective use of curriculum guides and textbooks
- Lack of spare time
- Inadequate guidance and support
- Large class size (Veenman 1984).

Researchers fail to identify which novice teachers will have more challenges. According to previous researches, there is no difference between novice teachers based on gender (Grantham 1961; Koontz 1963; Rappa 1986; Sandidge 1989; Stone 1963). How their performance when they were having their pre-service or practical will not

cause them problems during their first year serving as novice teachers? (Brock 1988; Dropkin & Taylor 1963; Rapp 1986). However, there are studies which proven that novice teachers who serve at schools in urban areas have more problems compared to those who serve at sub-urban or rural areas (Dropkin & Taylor 1963; Kennedy, Cruishank & Myers 1976; Rapp 1986; Sandidge 1989). The older the students are, the more challenges the novice teachers will face (Rapp 1986; Sandidge 1989; Stegall 1966; Stone 1963; Thomas & Kelly 1994).

Based on the studies mentioned above, we can conclude that there are five superordinate categories faced by the novice teachers which are;

1. Self Challenge
2. Challenges from the students
3. Profesional responsibility challenge
4. Challenge from adults in the school setting
5. Challenge from outside of the school

**Problems faced by novice teachers in Malaysia**

According to the findings of the studies done throughout year 2008 by a group of researchers from 12 public higher learning institutions which involved 910 novice teachers as respondents, found that there are 10 problems which usually faced by the novice teachers which are put in sequence based on the seriousness;

- Problems in getting syllabus information
- Problems in lacking of resources
- Problems in teaching preparation
- Problems in teaching in the classroom/laboratory
- Problems in managing and controlling the class
- Problems in interpersonal relationship
- Problems in assessing and evaluating
- Problems in the school administrative and service policies
- Problems in managing co- curricular activities
- And other problems.

**What are the things that novice teachers should know?**

To set what the novice teachers should know is not an easy task. Some of the effective teachers are more charismatic while others can be seen more towards burnt-out. There are some novice teachers who are emotional and others are timid. Some of them are seen more serious while others are easier to be moulded.

Many researches done by lecturers from Faculty of Education, National University of Malaysia found that normal practice among the effective teachers focused on the general knowledge which needs to be mastered by the novice teachers to succeed in their teaching (refer Figure 1) includes:

Knowledge on learners and how they learn and develop in certain social contexts.

Understand subject content and presentation which need to be taught in line with the education purposes.

There are a lot of things that need to be known by novice teachers before they are assigned with the responsibilities. To carry out the multi-responsibilities, they need to:

- Know in depth about the subject they are teaching and know how to teach;
- Understand on how students learn and progress;
- Able to observe, monitor, and evaluate students to give appropriate feedbacks on the learning process and the students' development;
- Understand them ourselves-understand their language and their own-culture and know how to learn other cultures which have different languages;
- Able to arrange curriculum and learning activities which are able to connect what they know with what their students need to know;
- Know how to teach subject specific content through ways which can help students to understand certain concept and avoid misunderstood of the concept among the students;
- Know how to develop and use evaluation instrument to measure learning standard and how to use the findings to plan teaching which can fulfil the students' needs;
- Know how to use enquiries systematically, including how to observe a child interacts with the different types of tasks and other students to diagnose the needs.

- Capable of evaluating why students give responses and behave in the classroom context, how an individual learn challenges and the students lifestyle out of school
- Able to develop intervention, identify changes and rearrange teaching strategies if needed

**Preparing Teachers for the World Which Keeps Changing**

Teaching as a profession

Knowledge on Students and Their Development in Social Contexts:
- Learning
- Human Development

Knowledge on Subjects and Curriculum Mission
- Education Mission and Purpose for Outstanding, Content and Field

**One Professional Vision**

Knowledge on Teaching
- Content Including Pedagogical Content
- Teaching Various Types of Learners
- Assessing and Evaluating
- Classroom Management

Learning for Democracy

Figure 1 Conceptual Framework to Understand Teaching and Learning
(Source: Darling-Hammond, L. & Bransford, J. *Preparing Teachers for a Changing World*, 2005)

**The importance of the continuing professional development programme for novice teachers**

Nowadays, education system is also facing globalization and innovation challenges in the areas of technology. Malaysia also will not be excluded by this premier mainstream. Whatever improvement regarding to teachers training need to be interpreted and understood as part of the strategy to balance schooling system as a whole in order to meet k-economy requirements which focus on globalization. When

Malaysia becomes a developed country, Malaysian society will become `urbanized, industrialized, and modernised'.

Based on the scenario above, it is clear that this country needs to train and supply adequate teachers who have the knowledge, quality, appearance, morality, harmonious, virtuous and have positive attitude, dedication, disciplined and strength to face the challenges mentioned. All teaching institutions whether in the faculty of education in universities or Teacher Education Institution (IPG) are responsible to produce ideal, elegant and excellent teachers who eventually can give high quality education in keeping with the country's needs.  These are because,

> "The crucial agent of change in the evolution of our education system to meet the c challenges of the 21$^{st}$ century, is and will always be, the noble teaching profession".
>
> (Straits Times, 24 Mac 1990, p. 7)


**Towards The New Approach in Teacher Education Planning Programme**

Teacher training is a continuous practice in teacher's career.  It is a profession which involves the increase of intellect, moral and behaviour.  It should not stop after a certifícate, diploma or education degree was awarded. This means that pre-service teacher education programme could never become self-contained preparation to provide teachers with knowledge, appearance and attitude, who at the end of the day will work at school.  It must be added with continuous teacher development programme and in-service training programme for all teachers (Elliot 1988).  This integration plan is designed to focus on self directive in education.  Teachers must experience schooling system based on socio-economic and political context.  They learned to follow curriculum specifications, textbook and reference books to draft examination question, comply with grading system and follow school schedule.  This integration plan also recommended that there will be a shift of teacher-directed to students-directed approach in learning and schooling system.  This shows that there will be changes from the role of teacher and student orientation aspect  (Gibbons & Norman 1987).
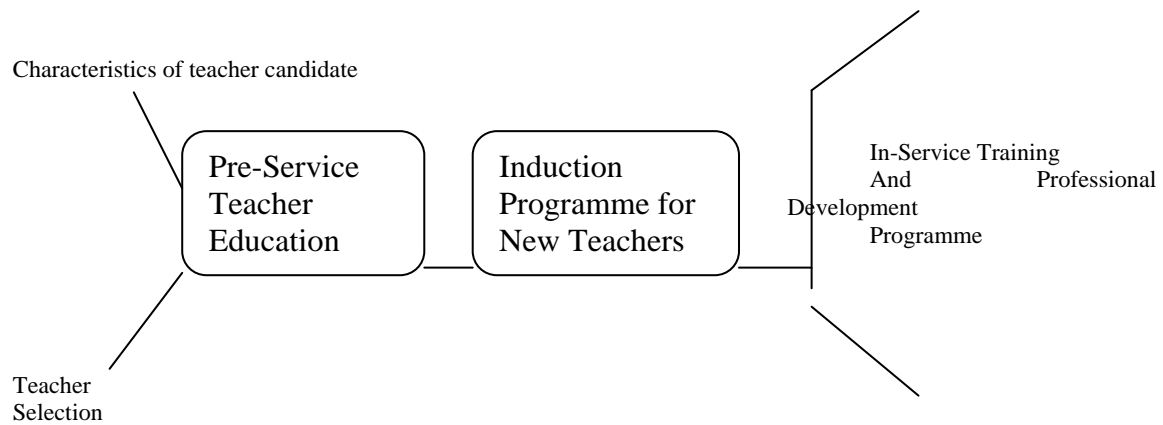
Figure 2: An Integrated Teacher Education Programme

**Teacher Development Theory**

Malaysia Ministry of Education is responsible to produce excellent teachers. The definition of an excellent teachers is similar with `*Master Teacher'*, `*expert teacher'*, `*competent teacher'* and `*effective teacher'*. There are several theories on average teacher development in order to be an excellent teacher. Kwo (1994) explained that based on Fuller model (1969) and comparative study between novice teacher and excellent teacher. Berliner (1988) had introduced five level teacher development model. This Berliner 's model focuses on teacher thinking which underlying teacher's behaviour in the classroom. According to Lilia and Abdullah (1998), Berliner's Model of Development (1995) tries to see teacher development as a process directed to teacher formation to achieve the levels of expertise and excellence. Stages of Berliner's Model of Development are as follows:

• Level 1 - `new person' or *novice* level – Novice teacher in this level learns facts and construct experience. Novice teachers are taught with general rule which fit to all context, for example `Praise students for the right answer' or `Do not degrade a student'.

• Level 2 – A more developed or **advanced beginner** level - Most teachers who have teaching for two or three years are in this level. Teacher experiences and problems context started to influence the teacher.

• Level 3 - Efficient or `*competent'* level – Teachers are able to make choice of their action consciously, make priority and planning. The experience that they had make them more preoccupied with important or unimportant things. However, their teaching ability is still stiff and not flexible.

- Level 4 - Skilled or `proficient' level - Teachers who have taught for five years are in this level. Teachers can detect existed information in all situation and context and are able to predict situation promptly.

- Level 5 - Expertise or *expert* level - Not all teachers are able to reach this level. Teachers' teachings seem to be smooth and they carried out easily.

This model shows that a teacher needs to go through several stages before he or she reach the level *expert* or excellence level. According to Kwo (1994), although this model had been studied and refined by Kagan (1992) and then a new model was introduced, there are still several issues which have become controversial. In discussing the issues which have became the controversial; Kwo (1994) stated Grossman`s main point (1992) on the implication of early development stages which are needed to go to the next stage. Kwo (1994) mentioned that Grossman had shown the findings which proven that pre-service teachers were capable of doing reflection on ethics issues and teaching lesson issues. Another criticism by Grossman was teachers' training has an affect on teachers' development. Many studies show that course on teaching can influence the change, belief and knowledge of the lesson. In effort to create an **Integrated Teacher Education Programme**, teacher development theory must be referred in the planning stage.

### Function of Staff Development

By referring to the new concept of the staff development in an Integrated Teacher Education Programme, a few important functions of staff development at various level can be summarized as follows:

For Individual Progression and its Effectiveness

- To support staff individually to be more motivated and committed to their work;
- To give contribution to the enhancement of knowledge, staff competency and expertise;
- To aid staff individually in their career development;
- To aid individual members in making reflection on purpose, objective and policy of the institution/school;
- To expand the potential of each staff member;

- To keep and improve personal satisfaction in their daily work;
- To increase individual confidence.

For Group's Development and its Effectiveness

- To promote cooperation in group;
- To build team spirit;
- To cultivate the feeling of brotherhood and intimate relationship;
- To learn from other group members;
- To understand and accept alternative ideas in group;
- To handle conflict in group;
- To improve communication among members of a group;
- To produce better ideas, decision and problem solving strategy in group.

For Institutions Development / School and Its Effectiveness

- To ensure / increase the quality of teaching and learning in institutions / school;
- To improve staff management;
- To build strong institution/ school culture;
- To cultivate open and positive humanity relationship in institution / school;
- To give opportunity to communicate and develop institution/school mission and goal;
- To aid institution/ school members to implement changes in institutions / school or organise innovations in education field;
- In order to meet school long-term needs;
- To encourage extensive participation among members in institutions / school.


**Strategies in developing novice teachers to become competent and professional**

Because there is no support system to the solving of the professionalism problems faced by novice teachers, it is proposed that **MENTORING PROGRAMME** should be instituted at all schools in Malaysia.


**The Concept of Mentoring**

Mentoring can be defined as follows:

> "a nurturing process in which a more skilled or more experienced person, serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled or less experienced person for the purposes of promoting the latter's professional and/or personal development. Mentoring functions are carried out within the context of an ongoing, caring relationship between the mentor and protégé"
>
> (Anderson 1987)

Important attribute in this definition are: (a) nurturing process, (b) act as role model, (c) five functions mentoring (teaching, sponsoring, encouraging, counselling and be good to each other and friendly), (d) focus to professional development and / or personal and (e) continuous caring relationship (Kerry & Mayes 1995).

## Mentoring Models

If these are the process involved in learning to teach, can it tell us about the role of mentor? What types of strategies and approach which need to be used by them to aid the novice teachers at every level of development? Unfortunately, when we read literature review on the roles of the existed mentor, most of them are in one dimension. By reading the latest literature, we could identify three kind of mentoring models: training model at workplaces (**apprenticeship model**; **competency model**; and **reflective model**). However, if all of the models are applied, we believe that they would contribute to our understanding on mentoring that can respond to the needs of novice teachers which always changed.

### Novice teacher training model
### Proposal for Novice Teacher Training Model

Based on the findings of studies on the professionalism problems of the novice teachers, it is clear that novice teachers indeed face various problems which need to be assisted. Therefore, Novice Teachers Training Model is proposed as shown in Figure 3. This training model is a form of continuous professionalism development programme (Continuing Professional Development Programme). Novice teachers should master six components to increase their professionalism level. They need to be nurtured to master all knowledge, competency and fulfil the standard of competency so that they can

enhance professionalism level from NOVICE to the more DEVELOPED level, increase to the COMPETENT level, become PROFICIENT and further become EXPERT in their own field in a short period of time.  The six components are as follows:

1. **Organization Socialization** - Leadership aspect, administration, financial management and resource, communication, conflict management, policy and rule, relationship with parent and community, service circular, general order, decision making and others.

2. **Teaching and Learning** – Teaching preparation aspect, pedagogy, test and examination management, homework management, lesson observation, inclusive classes management, action research, generic skills such as critical and creative thinking skill, facilitating skill, and others.

3. **Co-curriculum Management** – Managing and coordinating sports activities and recreation, athletics, co-curricular and game.

4. **Student/Pupil Affair Management** - Managing students' document, students' discipline, guidance and counselling, students' career, students' motivation need, hostel management, students' welfare, school cooperation, students' diversity, inclusive programme, discipline, etc.

5. **Information Technology and Communications Management (ICT)** – Managing Information technology software, computer literacy, and smart teaching and learning, integrating technology in teaching and learning.

6. **Personal Affairs and Self Potential Development Affairs Management** – Managing stress, self motivating technique, life-long education, personality development, academic writings, intrapersonal and interpersonal skills, mastery of the Malay language, English, mother tongue and international languages.


**Facilitator and Mentor Training Programme**


To ensure that this training programme runs systematically, all senior staffs at school are given responsibility to handle the course for the recommended components in Table 1. Principal / Headmaster are responsible in training the novice teachers on Organisation Socialisation aspect.  Senior Assistant Academic Teacher along with Senior Subject Teacher (Field Chief) and Excellent Teacher are responsible in providing training in the teaching and learning aspects.  Co-curricular Senior Assistant Teacher

together with Co-curricular Secretary and co-curricular advisors are given the responsibility to train novice teachers in the aspects of sports, athletics, uniform bodies and games. Students Affair Senior Assistant Teacher, discipline teacher, counselling teacher as well as wardens need to train them in students' affair aspect. ICT coordinator and IT expert teachers are responsible to train in the aspect of ICT management. To increase quality and potential of the novice teachers, principal, Senior Assistant Teachers, Subject Senior Teachers / Field Chief must continue to guide novice teachers in the aspects of Personal Affair management and self potential development.

**Training Process**

Training process can be implemented through approaches like mentoring, organising in-house training, sending novice teachers for short courses sponsored by State Education Department (NRD), District Education Office (PPD), Teacher Education Division (Iktisas), Ministry of Education of Malaysia, Teacher Education Institutes and local universities should be done continuously and periodically. Various courses or workshops related to novice teachers could be carried out as follows:

Make observations on teaching and learning.

2.      Show demonstration and exercises in aspects which involves practical.

3.      Encourage novice teachers to read journals, professional books and articles.

4.      Send them to seminars, workshops and conferences periodically.

5.      Organise meeting session between novice teachers in the district to give them opportunity to discuss professional matters which involves the teaching of subject.

6.      Organise steady support system.

7.      Conduct continuous professional development programme for novice teachers.

**Results of Novice Teachers Training Programme**

It is hoped that at the end of this programme, after novice teachers have undergone the training, novice teachers will be able:

1.      To be assisted in familiarising themselves in the school system.

2.     To master all relevant knowledge and competency connected to the duties and responsibilities with more confident in order to give excellent performance as novice teachers at school.


**Conclusion**


If the training programme is implemented excellently based on the Novice Teacher Training Model that has been proposed, novice teachers therefore will have big impact in the increasing of the students' quality and human capital who is also at the end of the day will become balanced human in keeping with the National Education Philosophy. At the same time, it is hoped that students will be excellent, glorious and respectable who possess multiple intelligences such as intellectual intelligence, social intelligence, political intelligence, economic intelligence, cultural intelligence, emotional intelligence, education and other intelligences as a result of the teaching and coaching by novice teachers at the beginning until they (novice teachers) finally become efficient, proficient and expert teachers.

Strengthening the teaching profession is an important core which make the education as country's main "National Growth Industry". Effort in placing teaching profession at the high rank is to ensure this profession to be respected by the society in line with its role in educating quality future generation (Ahmad Azmey Mutalib 2007). Hence, serious effort must be done to increase professionalism level among teachers including novice teachers. Three important professionalism features which are stressed among novice teachers are:

i.     increasing "sense of efficacy";

ii.    developing morale and commitments;

also increasing relevant knowledge and current needed skills.


Professional learning and its development would be vital to curriculum development and becomes a major factor in strengthening achievement and accountability. It is impossible to increase students' achievement without improving teachers' competency. Professional accountability includes commitment towards duty and responsibility which being assigned and effort to improve professionalism level from time to time. Williams (1992) in his book Monitoring School Performance, pointed out

Teachers who believe they are making an important contribution to the well being of their pupils and to the society in general, will show greater commitment and job satisfaction. The meaningfulness of teaching is an integral part of their value system.



Figure 3: NOVICE TEACHER TRAINING MODULE
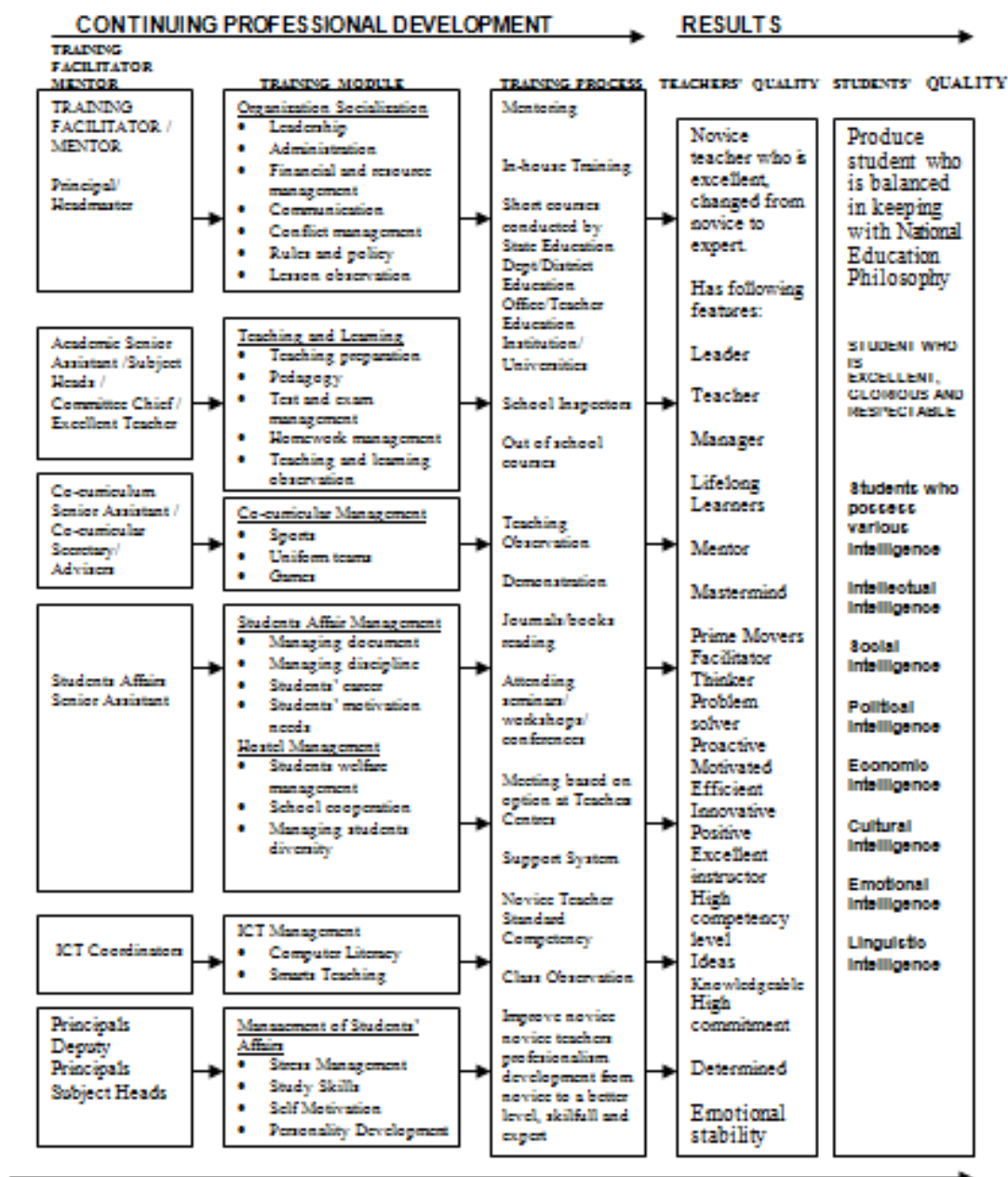
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# PROJECT SUPERVISION: CONVERSATIONS THAT WORK – DEVELOPING PROFESSIONAL LEARNING WITH SUPERVISING TEACHERS

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ABSTRACT

*This paper presents the results of a collaborative project between the Faculty of Education at Griffith University, in Queensland, Australia and partner schools with whom we work to prepare our preservice teachers. Professional learning materials to support teachers who supervise preservice teachers were developed consisting of a CD Rom with nine filmed scenarios focussing on the conversations between experienced and preservice teachers. The purpose is to share knowledge and practices for discussions around developing effective supervisory approaches in the school based teacher preparation components of initial teacher education.*

Key words: initial teacher education; professional experience; supervision

## Literature on school-based supervision

Teacher education research reflects the recognition of the place of practitioner knowledge in the teaching profession (Carter & Francis, 2000). The most effective approach to educating preservice teachers for classroom practice has been and continues to be debated among teachers in schools and teacher educators (Powell,2000). However a lack of preparation of those who are the school supervisors (referred in some literature as mentors) is seen as a major issue by some researchers.

Zeichner (1995) explains that only rarely are classroom teachers genuinely informed for the role of supervision. However the research also indicates that effective supervision is not only about knowledge but also about the institutional limitations in which they accept this role. Nearly two decades ago, Beynon (1990) explained that for most, becoming a teacher mentor must be done in addition to handling a full teacher's workload. As a result there is rarely time to provide careful guidance and feedback. From evidence recently gathered through school placements in the author's Faculty, not a lot has changed. Zeichner suggests that very little deep thinking about teaching and learning occurs in supervisory conferences or conversations with teacher education students. The result tends to be a practicum where the experience is more about demonstrating things previously learned (Feimen-Nemser & Buchmann, 1987).

The literature on styles of supervision tends to focus on the communicative approach taken by the teacher supervisors. In one major study Glickman (1995) investigated

supervision in terms of the degree of control or structure the supervisor believes should be provided for, or imposed upon, the preservice teacher. Glickman found that these beliefs are subsequently translated into unique communication styles. In other words, a highly structured supervision style is associated with a communication style that is highly directive. Decisions are for the most part made by the supervisor and the preservice teacher is given very little responsibility for self-direction. This is explained as a 'direct style'. Other teacher supervisors in Glickman's study believed that as emerging professionals the preservice teachers must learn to make decisions on their own. So the student teacher is encouraged to explore possible solutions when problems are encountered and to come to his or her own decision – a 'non- direct' style of supervision.  Further studies by McJunkin et al. (1998) introduce a third style of supervision termed a 'collaborative' style. This emphasises a belief in the student teacher as partner in the process - ideas are exchanged as colleagues and decisions made on mutual agreement. Overall there is evidence from the literature that the non-direct style tends to be the preferred model of teacher mentors.

The problem emerges as McJunkin et al. (1998) found when they investigated the supervisory style preferred by preservice teachers.  Their study of 159 elementary and secondary student teachers identified that 67% preferred a collaborative style of supervision, 37% preferred directive and 6% preferred the non-directive style.  So where teacher mentors might prefer a less directive role as supervisor, student teachers do not.

Other researchers of mentoring approaches have described them according to the consequences of the approach. For example, Ballyntine, Hansford and Packer (1995) in their study identified that for some teacher supervisors they want their preservice teachers to "teach like them" and therefore perpetuate their particular view about teaching.  Ballyntine *et al* refer to this as the "transmission" style. It is characterised by a technical-skill approach that emphasises how well student teachers master certain skills for classroom teaching.   They also describe an approach that focuses on negotiation between supervisors and student teachers. Marsick & Watson, (1990) also refer to this and describe it as a "transactional style". This is similar to the inquiry-oriented ideology from the work of   Morine-Dersheimer (1998). In this approach the preservice teacher's self perceived needs, concerns and understandings become central. Mitchell (1996) describes what could be an extension of this inquiry-oriented style – a style that aims for reflective and "transformational" learning (Mitchell, 1996).

In approaching this project, the author as designer had as a focus to enhance a partnership between tertiary teacher educators and the school teacher educators. Knowledge of the research into the range and effectiveness of school based supervision in the preparation of future teachers was important to the development of a process to make the project happen without marginalising school based personnel because they might be judged as having the 'wrong' approach. Thus it was important to the success of the project to have schools' supervisory teaching teams identify what they considered to be important 'issues' for them in their role in the student tecahers' journey to become a teacher.

## The Project

In 2008, the Australian Government's Department of Education, Employment and Work Relations (DEEWR), provided Universities with funds for projects that would be aimed at improving the practicum component of teacher education. This federal funding was the result of a national inquiry in to the effectiveness of the teacher education programs in Australia (Commonwealth of Australia, 2007) One of the major outcomes from the inquiry was the need to provide funds to universities directly to improve the professional experience ( Practicum) component of teacher education courses. This is a costly part of Australian universities' delivery of initial teacher education programs. The costs are incurred mainly through the payment of teachers to supervise our students. Thus with such a high investment, ensuring higher quality supervision was a priority for our Faculty at Griffith University.

*Project Supervision* was designed and managed by the author and involved establishing a community of practice with teachers from eleven schools. The joint aim was to develop professional development materials for those who have the important role of guiding our future teachers through their school based learning – the supervisors/mentors. The teachers in the community represented both primary and secondary levels, and government and private sectors. In all, 53 teachers and administrators – including five preservice teachers - played an active role in the project. A core group of 19 teachers became the leaders of the project.

**Methodological framework**

The framework used in the project drew on the foundational work of Lave and Wenger (1991) and continued by Wenger (1997). The concept of communities of practice is supported by a sociocultural theory of learning. Such a theory draws on the work of Vygotsky in learning and development (John-Steiner & Mahn, 1996; Renshaw, 1998; Van der Veer & Valsiner, 1991) and reflects the importance of the link between learning and the social environment in which that learning occurs (Wertsch, 1991).

In order to learn, therefore, learners need to participate actively in that social community by "engaging in and contributing to the practices of their community" (Wenger, 1998, p. 7). Therefore, through the social interaction that occurs in a workplace, or community of practice, an informal transfer of knowledge that is essential for an effective organisation (Wenger, 1997) occurs. Indeed, the concept of learning from others in the workplace is identified in the Australian Government Quality Teacher Programme: Cross-sectoral Strategic Plan 2006-2009 For Queensland (Francis, Newham, & Harkin, 2005) where enhancement of teacher quality is identified as possible through the development of "networks and communities of practice as contexts for professional dialogue, and sources for theoretical inputs, practical advice, and mentored reflection" (Francis et al., 2005, p. 6). As there is no formal requirement for established teachers to supervise those entering the profession, a community of experienced teachers is a significant strategy for information sharing and learning for those who supervise new entrantsinto the profession. According to this perspective, interaction between colleagues, then, is a pre-requisite to professional learning.

Wenger (1998) has identified three distinct but interrelated modes of belonging to a community of practice: engagement, imagination, and alignment. Investment in each mode of belonging contributes to an individual member's identity in a particular community of practice and it is in the combination of the modes on which the individual's identity is dependent (Wenger, 1997). Engagement involves the development of identity from experiences and interactions with other members while imagination and alignment are derived from a contextualisation of the practices of the community in which one is involved within a broader framework (Wenger, 1998). For example, from the lived experiences gained through engagement, one can imagine oneself as a colleague of others who perform the same or similar role (Wenger, 1998).

On the other hand, alignment provides an opportunity for seeing how the practices engaged in align with a particular employer's or system's expectations (Wenger, 1998). These three elements became the central planning for the Project. The community is an informal one brought together by a common commitment – the improvement of preservice teachers learning in school settings. Project Supervision's overall goal was engage with school teachers in a partnership. A project with a directly applicable professional learning tool was a strong motivation for the community to form. All members had a clear and common goal: to develop this tool for it could be imagined as manageable by schools to improve the supervision of preservice teachers, and therefore their learning. Five objectives enabled the sense of belonging, the alignment and the imagination of those involved:

1. improve the practicum experiences for all involved;
2. develop skills for the wide community of supervising teachers;
3. provide immediate professional development for those involved in the project;
4. enhance and acknowledge leadership skills of those involved; and
5. establish collaborative decision-making between partner schools and the university.

In this Project what was important was developing a process that grew out of the needs of particular teachers, responded to their assumptions and goals, recognized the constraints and possibilities of their contexts, and respected the ongoing work of all participants. As Starnes & Paris (2000) explain there is a great burden placed on the student teacher and the supervisor and success is a shared responsibility – teacher education institutions included.

**The Process of developing a collaborative professional learning project**

Grisham et al. (1999) in their study of professional development school projects across a number of sites identified how a community of practice approach to professional development benefits both the preservice and the experienced teacher. Teachers in their schools help preservice teachers learn the profession. Preservice teachers in turn bring new ideas, viewpoints and practices into classrooms.

The pieces of evidence used in the Project include the kinds of learning activities and representational practices found in particular school sites during professional experience

placement blocks. The 'representational practices' refer to the sets of experiences that occur bringing the preservice teachers into the particular community of practice and at the same time aligning them with shared meanings that are needed to pursue the common endeavour of teaching.

To align with the "community of practice" focus of the Project it was also important for the community to approach the task as a collaborative inquiry between the school supervisors and the university team. As Stenhouse (1976, p. 143) argued, "It is not enough that teachers' work be studied; they need to study it themselves".

Over twenty schools were contacted and invited to participate in developing the materials. Eleven schools participated, nominating two teachers experienced in supervision. These leading teachers then co-opted teachers in their own schools for the production of their scenario. Each school team determined a focus for improvement and Established a plan to achieve the focus; then carried out the filming, documenting the steps and collating evidence. The Griffith Project team led by the author then collected from each school their video clips and documentation. The Griffith Multi Media staff worked on the development of the CD Rom and booklet.

Over six months meetings were held with the project members. These meetings included decisions on the scope of the scenarios to ensure a range but also to advise each other on how the situations might be demonstrated. Workshops were led by academic staff with expertise in mentoring skills and coaching strategies to assist the school teams. In between these monthly meeting ( 6 in all) each school team was supported by a university advisor who visited and provided advice and encouragement to ensure the filming was completed.

**Conclusion**

The outcome of this project is the development of the Professional Development CD Rom consisting of:

1. nine video clips comprising of conversations between school supervisors and student teachers.
2. Text providing explanation; guidance and resources.
3. The nine scenarios featured focus on:key issues/milestones in the student teacher's development from first school experience through to final placement

before graduation. The scenarios are of the supervising teacher giving advice and feedback to a student teacher and are represented in conversations advising students on topics around

   a) appropriate appearance;

   b) relationships with students;

   c) planning lessons;

   d) Delivering lessons;

   e) classroom management; and

   f) reflection strategies.

The purpose of developing scenarios of conversations is to provide a basis for professional discussions in the schools by supervisors – both experienced and new to the role. Each scenario site on the CD includes strategies to suggest how to explain and guide the inexperienced student teacher with empathy. The focus is on building empathy and understanding the concerns and stages of a student teacher's growth of knowledge about teaching. The  material includes specific skills for giving feed back.

A Handbook accompanies the CD Rom – this was requested by the partner schools. We are also investigating the establishment of a website. Every one of Griffith school partners – over 300 primary and secondary schools  - have a copy to use with their teachers who are supervisors.

A very important second outcome has been the building of knowledge and understandings, leadership and collaboration among the schools who formed this community of practice with the University teacher educators.

**Project Supervision**
Conversations that work!

This DVD has been developed by Griffith University's Faculty of Education in partnership with eleven schools across the primary and secondary levels and the government and non government sectors.

Project Supervision's overall goal is to provide a resource that will contribute to the learning and teaching during school-based components of teacher preparation programs.

This is a resource designed by and for teachers who are our teacher educators in schools - our mentors and supervisors.

Griffith UNIVERSITY    Australian Government
Department of Education, Employment and Workplace Relations

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DVD    DVD

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# USING MULTIPLE MEASURES TO INVESTIGATE KNOWLEDGE CREATION FOR IN-SERVICE TEACHERS IN AN ADVANCED MASTER'S DEGREE PROGRAM

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ABSTRACT

*This paper examines the critical features that lead to knowledge creation for experienced teachers participating in an advanced master's degree program in the United Stated that is aligned with the National Board for Professional Teaching Standards. The paper addresses the programmatic features, key learning experiences and measures used to assess teachers' professional learning. While the data for this paper are from the United States, they have global parallel application for work with experienced teachers. Results of the study provide support for using multiple measures to examine different types of evidence to evaluate the knowledge, skills, and dispositions teachers attained in an advanced master's program.*

Introduction

Achieving effective assessment practices that provide concrete evidence of teacher education graduates' knowledge has become an increasingly significant issue in teacher education (Cochran-Smith, 2001; Darling-Hammond, 2006). In the United States a federal mandate requires that teacher education institutions become more accountable for the quality of their graduates. Thus, it has become critical that professional development programs for experienced teachers use the research on teaching and learning to guide their coursework, and to evaluate the program's overall impact on teachers and teaching (Darling-Hammond, 2000; Zeichner, 2006).

This paper will examine the critical features that lead to knowledge creation for experienced teachers participating in an advanced master's degree program aligned with the National Board for Professional Teaching Standards (NBPTS), the only set of standards for experienced teachers in the United States. Specifically, the paper will address this degree program's key features, learning experiences and measures used to assess teachers' professional learning. While the data for this paper are from the United States, they have global application for work with experienced teachers.

Built on longitudinal research in teacher development, this paper provides further support for using multiple measures to examine different types of evidence to evaluate the knowledge, skills, and dispositions teachers attained in an advanced master's program. It contributes further evidence on how multiple measures of teacher education outcomes can lead to a more comprehensive view of what teachers learn and what a

program can contribute to their performance (Darling-Hammond, 2006). By examining multiple forms of evidence, faculty working in an advanced master's degree program for experienced teachers can better understand how teachers change during sequences of coursework and how program outcomes may or may not be achieved.


**Conceptual Framework and Context**

Teachers often begin coursework in advanced master's degree programs with varying backgrounds and different needs. For example, an assumption often made about a teacher's reflective practice is that reflection begun during pre-service teacher preparation will carry over into the classroom and continue to support the development of one's professional teaching life (Freidus, 1996; Morin, 1995). However, many highly experienced teachers require specific experiences, such as purposeful conversations and collaborative inquiry in a supportive environment, to move beyond descriptive thought and writing (Lyons, 1998; Ross, 2002). Moreover, there is limited empirical evidence that can inform teacher educators on how certain educative experiences, such as reflection, affect teachers' long-term professional learning (Anders, Hoffman, & Duffy, 2000; Brouwer & Korthagen, 2005).

To effectively meet the needs of teachers, professional development must be situated in the work of teaching and must focus on students' thinking and learning (Whitcomb, Borko, & Liston, 2009). As such, the strategies that teacher educators use to assess the results of their efforts must provide a variety of lenses on the process of teaching (Lunenberg, Korthagen, & Swennen, 2007). In teacher education, Cochran-Smith (2001) suggests that to examine teacher performance productively, standards that indicate what teachers know and can do should be used. The five core propositions developed by the United States' National Board for Professional Teaching Standards (NBPTS, 1989) provide a consensual, research-grounded view of what experienced teachers should know and be able to do (Darling-Hammond, 2006). Using these propositions as program learning outcomes provides a framework using multiple measures to examine teacher performance. In addition, assessing outcomes can also be used to examine teacher educators' efforts with ongoing program improvement, including changes in curriculum and pedagogy (Darling-Hammond, 2006; Fox & White, in press; Fox, White, Kidd, & Ritchie, 2008).

This study builds on the work of Cochran-Smith (2001); Darling-Hammond, (2001; 2006) and Lunenberg, Korthagen, & Swennen (2007). It provides additional evidence that extends understanding of how program outcome data can be used to assess experienced teachers' professional learning and program effectiveness in an advanced master's program in which the program learning outcomes are aligned with the core propositions of the NBPTS.

**Program Context**

The *context* of both accountability and professionalism has propelled colleges of education to turn their focus to master's degrees for experienced teachers on thoughtful professional development rather "than on continuing education, or license renewal" (Galluzzo, 1999*,* p. 8) in order to retain a cadre of highly qualified teachers (Darling-Hammond & Cobb, 1996; Murray, 1996; National Center for Education Statistics, 1999).  Additionally, Blackwell and Diez (1998) suggested that framing advanced degrees around the NBPTS core propositions helps focus the degree on experienced teachers' ongoing professional learning and knowledge creation.

These five core propositions are: 1) teachers are committed to students and their learning; 2) teachers know the subjects they teach and how to teach those subjects to students; 3) teachers are responsible for managing and monitoring student learning; 4) teachers think systematically about their practice and learn from their experiences; and 5) teachers are members of learning communities. In addition to the five NBPTS propositions, teachers in this degree program are expected to demonstrate knowledge, skills, and dispositions in three additional areas that the program faculty identified. These three are: 6) teachers account for the needs of culturally, linguistically, and cognitively diverse learners; 7) teachers are change agents, teacher leaders, and partners with colleagues; and 8) teachers use technology to facilitate student learning and their own professional development. Together, these eight propositions comprise the program's stated learning outcomes that provide the conceptual framework for the program.

Using these eight program learning outcomes as conceptual organizers, the program incorporates other attributes to build meaningful teacher learning. These attributes include: *teacher reflection, teacher collaboration, and school-based and community*

*learning experiences* that are threaded through the fabric of the coursework. The program's conceptual framework, comprised of the eight program learning outcomes and attributes, are similar to the conception of teacher learning described by Borko (2004), Desimone (2009), Hammerness, Darling-Hammond, and Bransford (2005), and Whitcomb, Borko, and Liston (2009). They see teachers as much more than empty vessels waiting to be filled with readings and assignments that may not add up to changes in practice, and view the classroom as a living laboratory waiting for measured experimentation and analysis.

This degree program is premised on facilitating teachers to become seekers of their own knowledge by helping them find ways to think about teaching, learning, children, and schools and to base their professional decisions on research and systematic inquiry. A program goal is for teachers to fulfill the eight program learning outcomes that will serve as the foundation for continuous professional learning (Desimone, 2009).


**Program Structure**


*The Core and the Concentration*

There are two distinct programmatic components: 1) a sequence of courses taught in the Graduate School of Education, labeled the education Core, and 2) the academic Concentration taught in a chosen discipline. The Core focuses on analytical thinking and writing around the program's eight learning outcomes. It features cohort-based learning, innovative scheduling, courses taught by both faculty and National Board Certified Teachers (NBCTs), alignment with the Board's propositions, and extensive use of technology. Teachers' classrooms serve as laboratories for conducting action research on their own teaching and its impact on student learning. These features align well with what is known about meaningful professional learning for experienced teachers. These include a commitment to quality, coherent program requirements that "situate professional development in the work of teaching, . . .. . . focus on student thinking and learning, . . . [incorporate] professional learning communities , . . .[are sustainable and scalable], . . . and are supported and accompanied by carefully designed research" (Whitcomb, et al, 2009, pp. 208-211) in a participatory culture that values interactive learning (Blackwell & Diez, 1998; Tom, 1999).

The education Core coursework is comprised of 12 graduate credits delivered in five courses. In *EDUC 612 Inquiry into Practice*, teachers use research skills to foster systematic and thoughtful inquiry into their own classroom practice and build the foundation for critical reflection and action research skills. *EDUC 613, How Students Learn,* delves into the study of learning based on research and theory, focusing on increasing teachers' understanding of student learning through study of different learning systems, and understanding learners in context of the learning process itself. *EDUC 614, Designing and Assessing Teaching and Learning*, has teachers explore the design and development of curricular, pedagogical, and assessment strategies responsive to needs and interests of their pupils. *EDUC 606, Education and Culture*, focuses on the acquisition of cultural, social, and language-related perspectives on educational processes. Teachers conduct a culturally focused action research study in their classrooms. *EDUC 615, Educational Change,* examines educational change at classroom, school, community, state, and national levels and provides teachers with skills to become change agents.

The Concentration is an 18 – 21-credit hour specialization, which enables teachers to develop an area of academic expertise in one of seventeen disciplines, such as Early Childhood Education, Mathematics, History, Science, Literacy, Gifted Education, or Foreign Languages. The notion of content area expertise is grounded in Shulman's (1986) concept of pedagogical content knowledge.

Because this degree program values teacher content knowledge, the concentrations include the participation of colleagues from other colleges of the University where they are taught. Key faculty members in these colleges are actively involved in using state and national content standards, the content knowledge of both elementary and secondary teachers, so that teachers develop deeper understandings of the content they teach. This major content commitment of the program is consistent with the National Board's expectations that "teachers know the subjects they teach and how to teach those subjects to students." The successful completion of both the Core and the Concentration and their requirements results in the completion of the master's degree.

**Learning Experiences and Assessments for Teachers**

All learning experiences for teachers use their work in their classrooms as a laboratory for learning. Appendix A contains a list of the program learning outcomes, the courses in which these outcomes are addressed, the performance-based assessments used to measure the learning outcomes, and the connection to the NBPTS assessment activities.

**Methods Used to Study Teachers' Knowledge Creation**

This multiyear study examined both overall trends and specific data within and across multiple cohorts of teachers to gain deeper insight into experienced teachers' development of reflective practice, and their understanding of program learning outcomes. It took place in an advanced master's degree program in a large university's college of education located on the east coast of the United States. A professional portfolio aligned with the program outcomes is an exit requirement for all program participants. This study builds on previous smaller studies and has enabled us to combine multiple cohorts of teacher reflection data to begin to build a theory about what constitutes meaningful professional learning for teachers enrolled in a master's degree program. See Figure 1 for the sequence of reflection points completed throughout the coursework and compiled in the program portfolio.

Three research questions guided the study:

How do teachers enrolled in an advanced master's degree program rate their experience level and understanding as they pertain to the eight program learning outcomes prior to and following a 12-credit sequence of coursework?

In what ways do these teachers' professional portfolio reflective writings demonstrate growth and change in reflection related to program outcomes as they progressed through the 12-credit sequence of coursework?

How do teachers perceive their application of the program learning outcomes to their teaching one year after completing the 12-credit sequence of coursework?

**Data Sources and Participants**

Three data sources were used in this study: 1) initial and exit self assessments, 2) five sets of prompted reflections written at specified points during the 12-credit hour course sequence, and 3) follow-up interviews gathered over a period of three years from three cohorts of teachers enrolled in a master's degree program. There were 89 teachers enrolled in the three cohorts, from whom 445 prompted reflections were collected for analysis. Initially, data were collected using questionnaires and prompted reflections that referred to specific program learning outcomes. The teachers ranged in years of teaching experience at the PK-Junior College setting from 1 to 22 years. There were five males and 84 females; the ethnicities represented were African American (4), Asian (4), Caucasian (78), Hispanic (1), and Middle Eastern (2). All 89 participants signed an approved informed consent letter prior to data collection, completed the initial and exit self-assessments, and responded to the reflection prompts.

Follow-up interviews with a purposeful sample of teachers to ensure representation of diverse perspectives were conducted one year after the completion of the 12- credit education Core. The 20 teachers selected for follow-up interviews included two males and 18 females; the ethnicities represented were African American (1), Asian (1), Hispanic (1), and Caucasian (17). Interview questions were designed to ascertain individual perceptions about coursework effectiveness in relation to program learning outcomes. Graduate assistants, who did not know the participants, were trained to use the interview guide by participating in a pilot interview.

**Analysis**

Data were analyzed using qualitative research methods, particularly coding and categorizing (Glesne, 1999; Maxwell, 2005). Beginning and ending self assessments that measured participants' perceived level of understanding of each program learning outcome were tabulated, compared, and connected to comments regarding teachers' understanding of the eight program learning outcomes. Each set of prompted reflections, as described in the data sources, were first hand coded and analyzed by learning outcome and emergent themes (Maxwell, 2005). Further, a count of the number of times (passages) each teacher mentioned any of the eight learning outcomes: *student*

*learning, content knowledge and pedagogy, monitoring student learning, systematic inquiry of practice, learning community, diversity, change agent, technology* was recorded for each reflection set. Finally, a content analysis of cross-program reflections was conducted to look for evidence of change in teachers' reflective writing, such as changes that occurred in their language, references to course readings, and relevance of examples drawn from their teaching settings. The interviews with 20 teachers were audio taped and transcribed; researchers coded the interviews for connections to the learning outcomes using passage counts and allowed additional themes to emerge.

**Validity and Reliability**

To ensure validity and reliability, the researchers used a variety of qualitative research methods, including triangulation through the use of three different types of data -- self report survey, student assignment, and interviews. Participant data, such as written reflections, were numerically coded and names of participants removed prior to data analysis by members of the research team who were outside of the program to reduce reliability threats from bias. Members of the research team who were outside of the program then coded the data and tabulated passage counts. Throughout the data analysis process, the research team members met to determine common understandings of each of the learning outcomes and to discuss and enumerate emergent themes. Researcher member checks occurred consistently throughout the analysis process to ensure consistency in interpretation. The researchers achieved an inter-rater reliability of 80 percent for outcome coding and passage counts. Researchers were trained and practiced interview protocols to maintain consistency among post program interviews. A purposeful sample of students for the interviews also contributed to the validity of the findings.

**Data Analysis and Interpretation**

*Evidence: Beginning and Ending Self-Assessments.*
The self-assessments required participants to evaluate their experience level and understanding of the eight learning outcomes at the beginning and end of the sequence

of Core coursework. Participants used a four-point scale from zero to three (i.e., zero indicating no understanding of the learning outcome, three indicating strong understanding) and explained why they rated themselves this way. Numerical analysis indicated similarities and differences in how teachers assessed their understanding between the beginning and the ending assessments.

Across the three groups, the teachers expressed a moderate or strong understanding of the majority of learning outcomes during the beginning and ending self-assessments, with a shift toward the strong level of understanding by the end of the Core (see Figure 2). The average of the results across the cohorts indicated that while 40% of the average of the responses across the outcomes was at the strong level of understanding, this increased 20% on the ending self-assessment, with nearly 60% of the average responses at the strong level of understanding. Although the majority stated that they possessed a moderate or strong understanding of each outcome at the beginning of the program, nearly none of the teachers indicated "no understanding" of any of the outcomes.

Qualitative analysis of participant comments regarding their understanding of each outcome revealed more specific applications to classrooms in the ending self-assessments. The initial self-assessment data indicated that teachers articulated an understanding of the importance of the different outcomes, defined what the outcome meant to them, and described their beliefs about the outcome. A number of the participants' responses began with "I believe" or "I think" when commenting on particular outcomes. In contrast, the comments on the ending self-assessments focused on application of the outcome to their own teaching and research-based strategies and included rich examples drawn from their classrooms.

A detailed analysis of differences between and among the three cohort groups highlighted the extent and nature of the teachers' knowledge of each of the learning outcomes. The majority of Group I teachers reported their level of understanding as strong for six learning outcomes, excluding *systematic inquiry of practice* and *technology*. Group II participants expressed a moderate level of understanding for five learning outcomes: *content and pedagogy, monitoring learning, systematic inquiry of practice, diversity,* and *change agent*. Of the Group III respondents, the majority considered that they had a strong understanding of just two learning outcomes, *student learning* (the strongest area across the three cohort groups) and *learning communities*. The majority of Group III respondents reported a moderate level of understanding for

*diversity, monitoring student learning*, and *change agent* on the beginning self-assessment. Across the groups, the learning outcomes of *student learning* and *learning communities* had the greatest percentage of respondents that rated themselves as having a strong understanding of these outcomes. The learning outcomes *technology, systematic inquiry of practice*, and *change agent* had the highest number of participants in the three groups who reported a minimal level of understanding.

The ending self assessments for Group I demonstrated a significant increase in the teachers' level of understanding across all eight learning outcomes. While participants rated themselves highly in the beginning self assessment, almost 85% reported a strong understanding of the average across the learning outcomes, up from nearly 60% in the beginning self assessments. Only the content areas of *diversity* and *technology* included responses of minimal understanding, and these were fewer than six percent of responses. Similar to the trends from Group I, ending self assessment data for Group III (ending self assessment data were not available for Group II) revealed an increase in perceived level of understanding as the majority of respondents, 57% reported a strong understanding of the average of the outcomes, up from approximately 40% at the beginning of the core. However, these percentages do not represent the dramatic increase and level of strong understanding in the Group I data, where more than four out of five of the teachers stated a strong understanding of an average of the outcomes. The majority of Group III participants reported a strong understanding of six of the learning outcomes, excluding *technology* and *change agent*. Across the groups, the learning outcomes *student learning*, *systematic inquiry of practice*, and *learning community* had the greatest number of participants who reported a strong level of understanding by the end of the coursework. The learning outcomes *diversity* and *change agent* represented the greatest increase in level of understanding from the beginning to the ending self-assessments. The self assessment data provided a snapshot of how the participants evaluated the effects of the program on their understanding of the outcomes and the teachers elaborated in more detail in their reflections.


*Evidence: Prompted Reflections*

The five sets of prompted reflections written at specified points during the education Core for the three groups provided general trends across cohorts. By analyzing the passage count percentages, the number of times participants discussed the eight program learning outcomes, the researchers were able to identify changes that occurred

across the program from Reflection 1 to Reflection 4, and to the Synthesis Reflection. Table 1 summarizes these data. In Reflection 1, using the total group average, passages related to participants' *systematic inquiry of practice* accounted for 22% of the passages across the three cohorts. The next most frequently mentioned learning outcomes were *diversity* (19%), *monitoring student learning* (15%), and *student learning* (14%). The least frequently mentioned outcomes were *change agent* at 4%, *technology* at 7%, and *content knowledge and pedagogy* at 8%. These percentages correspond to the content of the two courses that were taken at the outset of the program when participants completed Reflection 1.

Similarly, using the total group average, the researchers found a similar pattern in Reflections 2, 3, and 4. For example, in Reflection 2, where *systematic inquiry of practice* remained the most frequently referenced program learning outcome (20%), the course corresponding to Reflection 2 focused on analyzing assessment and instruction. At Reflection 3, it was not a surprise that *diversity* was mentioned in 25% of the reflection passages since the course preceding Reflection 3 focused on the role of culture and diversity. At Reflection 4, written after the course on teachers as change agents, the *change agent* learning outcome represented 28% of the reflection passages.

The researchers also used the individual group percentage counts when analyzing different groups. Due to a change in the course order for Group II where the course on teachers as change agents was taken prior to the course on diversity, the frequency of passage counts focusing on those learning outcomes follows the course content. Thus, for Group II participants, *change agent* passage count percentages were higher at Reflection 3 (33%) and *diversity* was higher at Reflection 4 (38%). In addition, while the frequency of reference to the majority of the outcomes generally corresponded to the course content, researchers noted that the *technology* outcome remained among the least frequently mentioned across the reflection points with the exception of Reflection 2 when it did correspond with coursework.

The Synthesis Reflection, which was written at the end of the course sequence, asked participants to reflect on their learning across the program and to comment on each of the eight program learning outcomes. The reference to learning outcomes in this reflection corresponded less to the content in particular courses and provided a more retrospective reference to the learning outcomes addressed at the close of program coursework. Using the total group average, the most frequently mentioned outcomes at the conclusion of the course sequence were *content knowledge and pedagogy (19%),*

*change agent (18%), diversity (15%), student learning* (13%), and *systematic inquiry of practice (13%. Monitoring student learning was* mentioned in 9% of the passages while *learning community* was mentioned in 9% of the passages and *technology* was the least referred to outcome at 2% mentioned. When comparing individual group percentage counts we also noted that for the *content knowledge* and *pedagogy* outcome there was higher variation among the groups than in other learning outcomes. For this outcome, Group II referred to *content knowledge* and *pedagogy* in 26% of the synthesis passages whereas Group I mentioned it in 11% of the passages.

Following the coding of the eight program learning outcomes and analysis of the program outcome passage counts, the data were then analyzed qualitatively to determine the nature of the content at each reflection point. As the researchers studied the reflections more deeply and looked for trends, they determined that while the number of times a learning outcome was mentioned provided a general overview, the percentage counts themselves were only part of the picture.

Analysis of the narrative data in the reflection points indicated that teachers' elaboration and explanation provided a deeper understanding of their connections to the outcomes. The reflections across the program coursework demonstrated a changing trend in the sophistication of teachers' use of language. A comparison of reflections from the beginning of coursework to those at the end of coursework indicated a change from more superficial statements at the outset of coursework changed to statements that included more specific examples and clear references to course content at the end of coursework. Thus, as they progressed through the coursework sequence, teachers' reflections typically included an increasing number of specific references to coursework readings and provided an increasing number of examples drawn from their classroom practice.

*Evidence: Post Program Interview Data*

In-person interviews using open-ended questions were conducted with program graduates one year after they completed the education Core. Data for eight participants were available from both Groups I and III with four interviews from Group II. Questions were written around the eight program outcomes to examine the ways that teachers might continue to apply knowledge and skills learning in the education core in their teaching. Interviews were recorded and transcribed and first coded for program outcomes, and then for emergent themes.

The overall responses across the three groups were very similar (See Figure 2). For example, across the groups, *diversity* appeared to have a substantial impact on teachers as reported in the interviews. Group I interview responses related to diversity comprised 17% of the responses; Group II responses made up 31% while Group III responses about diversity totaled 23% of the passage counts. Many of the teachers mentioned that upon entry into the program they were unaware of the whole definition of diversity, how "culture" is a key piece of this concept, not merely skin color or language. Through the interviews, it became evident that teachers talked about how they began looking at each individual student, "The biggest impact was recognizing the diversity of learners, and of course you see them in the classroom…but realizing that you know they don't really, some kids aren't intrinsically motivated and don't enjoy school" (Respondent 32). Overall, the passage counts for *diversity* were highest at an average of 23%.

*Student learning* made up the second highest total for the Learning Outcomes, with 9-26% of the passage counts, while the overall average response rate in this outcome was 18%. It appears that this program's coursework influenced how teachers view student learning and the importance of focusing on learning for all students. For example, respondent 18 said,

> …And looking at it with a different set of eyes and you know really kind of trying to see the patterns in their learning and the progression of where they're at and having a clear understanding of where they were, and hopefully developing a plan of where they eventually will be.

Respondent 43 said, *"I find myself branching out and using more of what's real to the students instead of just preaching the curriculum…"*

*Content Knowledge* was another learning outcome that resulted in a significant number of responses. The overall average response rate for the content knowledge outcome was 15%. Respondent 32 said, "My knowledge of how you learn to read went from zero to so much more because I don't remember being taught to read. I don't remember how people learned to read from school. I didn't know any of the terminology or what the learning awareness meant, because my teaching had been with the older kids and didn't have to do any of that. So how can kids learn how to read? That was huge for me."

The *learning community* outcome resulted in significant level of responses with the response rate ranging between 15 and 16%. Teachers discussed the importance of working together both within their content areas and across the curriculum. Respondent 30 shared her experience with some research she had completed at her school when she

stated, "I got to share the outcomes and the individual strategies and the readings actually with [a colleague]. We did a lot of collaborative work together."

The final four learning outcomes were mentioned much less frequently than the previously mentioned program outcomes. *Monitoring student learning* and *systematic inquiry of practice* passage counts for all three groups averaged just over 7%. Comments related to being a *change agent* varied the most with Group I at 5%, Group II at 16% and Group III at 8%. Participants appeared reluctant to take ownership of their own leadership, and often the interviewees did not appear to completely understand the phrase "change agent." Finally, the *technology* outcome was rarely mentioned in these interviews. Since technology was referred to infrequently throughout all of the interviews, it appears as if it were not one of the more pervasive outcomes impacting participants' practices one year after leaving this degree program. The few teachers who mentioned technology, however, had very powerful things to say about it.

After coding for outcomes, several emergent themes became evident. Five additional themes: *reflection, increased self confidence/empowerment, life-long learning, leadership, and self-awareness of pedagogical choices* extended beyond the program's learning outcomes. Reflection was discussed often by almost all participants. Respondent 18 summarized the overall sense of all of the graduates when she said, "But the main thing that – for me I wouldn't even choose a specific principle. It's just more being reflective and aware of my teaching practices." Leadership was another major emerging theme. Interview data suggested that teachers felt more empowered after having completed the program, as if the coursework had opened a door to a new way of seeing their roles as educators. Respondent 9 illustrated the serious changes in leadership for her, *"I've become more vocal about things that I want to see happen in the building. I've taken on more leadership roles. I am team leader this year for my team. We had to write a grant for that class and I got my grant, so I am pumped up about that."*

The analysis of interview data resulted in a unique view of how this program affects the beliefs and practices of its teachers. It is apparent that some of the learning outcomes have a major impact on the teachers and their teaching one year after completing coursework. Other learning outcomes appear to have a less powerful impact. Overall, interview data illustrated positive responses from teachers and provide insight into how teachers create opportunities to hone their craft.

**Implications**

The results of the study reflect Darling-Hammond's (2006) suggestion that the use of multiple measures of teacher education outcomes can lead to a more comprehensive view of what teachers learn and what a program contributes to their performance. This study demonstrates how an advanced master's degree program for experienced teachers used multiple measures to examine its effects on teachers' practice (Brouwer & Korthagen, 2005). Data gleaned through assessing teachers' understanding of the program learning outcomes can then be used to inform programmatic decision making and evaluate the effects of program changes on teachers' opportunities to learn and their later performance (Darling-Hammond, 2006). By comparing multiple measures, such as the pre- and post-self assessments, prompted reflections completed during the program and the follow up interviews, we have been able to ascertain a more complete picture of teacher learning and build greater accountability into an advanced master's degree program. The follow-up interview data confirmed that the program emphasis on systematic inquiry of practice resonated with some of the teachers who discussed how they applied reflection to their teaching after completing coursework.

This study provides further support for using teachers' reflective writing to study the effects of program outcomes and consider the impact of advanced coursework on teachers' thinking and reflection. The results of this study demonstrate how teacher educators can use prompted reflections to examine teachers' progress during advanced work. In addition, the data from teachers' reflections can be used to inform programmatic decision making and evaluate the effects of program changes on teachers' opportunities to learn and their later performance (Darling-Hammond, 2006).

The critical features and attributes present in this program have also been identified by Whitcomb, et al. (2009) as being essential in creating meaningful professional development for teachers. Results of this study provide empirical data to help us examine the effects of these elements on teacher learning. For example, the program's eight learning outcomes that are central to its work are born of and supported by research aligned with the core propositions of the NBPTS. The degree to which teachers have understood these outcomes during coursework and then applied them in their classrooms is documented in the research reported in this study.

Whitcomb, et al. also state that, to be meaningful, professional learning must be situated in teachers' practice and "focus[ed] . . . on student thinking and learning" (p. 209).

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Results of this study provide evidence of teachers' growing ability to apply knowledge in their classrooms as they systematically monitor student learning through case study methodology and action research, and consider the results of their work in their teaching. The data presented in this study have been situated in the work of teaching.

Finally, this program's structure has clearly embedded research in its design on several levels (Whitcomb, et al., 2009). First, teachers' work is situated in their educational settings where their classrooms are laboratories. While teachers take an inquiry stance in their classrooms, faculty also engage in programmatic research on teachers' learning during and after coursework. The elements provide the foundation for faculty inquiry with the goal of developing a theory about how teachers learn. The professional work of both teachers and program faculty is embedded in professional communities that serve to inform program update and change.

The program has measurable outcome data and clearly identifiable features that can continue to be studied to understand its ongoing impact on teachers and these features have the potential to support program scalability and sustainability. This study presents evidence that building a program around measurable outcomes and then examining the results through multiple measures is an important link in understanding teacher learning and providing robust professional development.

As we look at future directions for ongoing research, we concur with Whitcomb, Borko, and Liston (2009) that future teacher development research must look at the impact of teacher development on K-12 student learning. Results of this study also point to the importance of teachers' growing understanding of diversity. With the increasing number of "culturally and linguistically complex classrooms" (Ball, 2009, p. 45) found in 21st century schools, changes in the demographics of the teaching force do not reflect those changes. Since most teachers come from middle class, monolingual backgrounds, it has become imperative that meaningful professional development for experienced teachers also include opportunities for reading, research, and purposeful conversations to increase their knowledge about students' cultures, languages, and backgrounds. In this study, teachers' reflections revealed increased awareness and understanding about diversity after coursework that engaged them in culturally focused action research in their classrooms. Their understanding and focus on diversity remained salient in their teaching one year after program completion, as shown in the post-program interview data. We contend that for professional learning to be comprehensive, it must include targeted work to scaffold experienced teachers' growth in how to work effectively with

culturally and linguistically diverse learners.  These attributes and future steps need to be part of carefully planned professional development for experienced teachers in order for it to maintain a robust learning experience.

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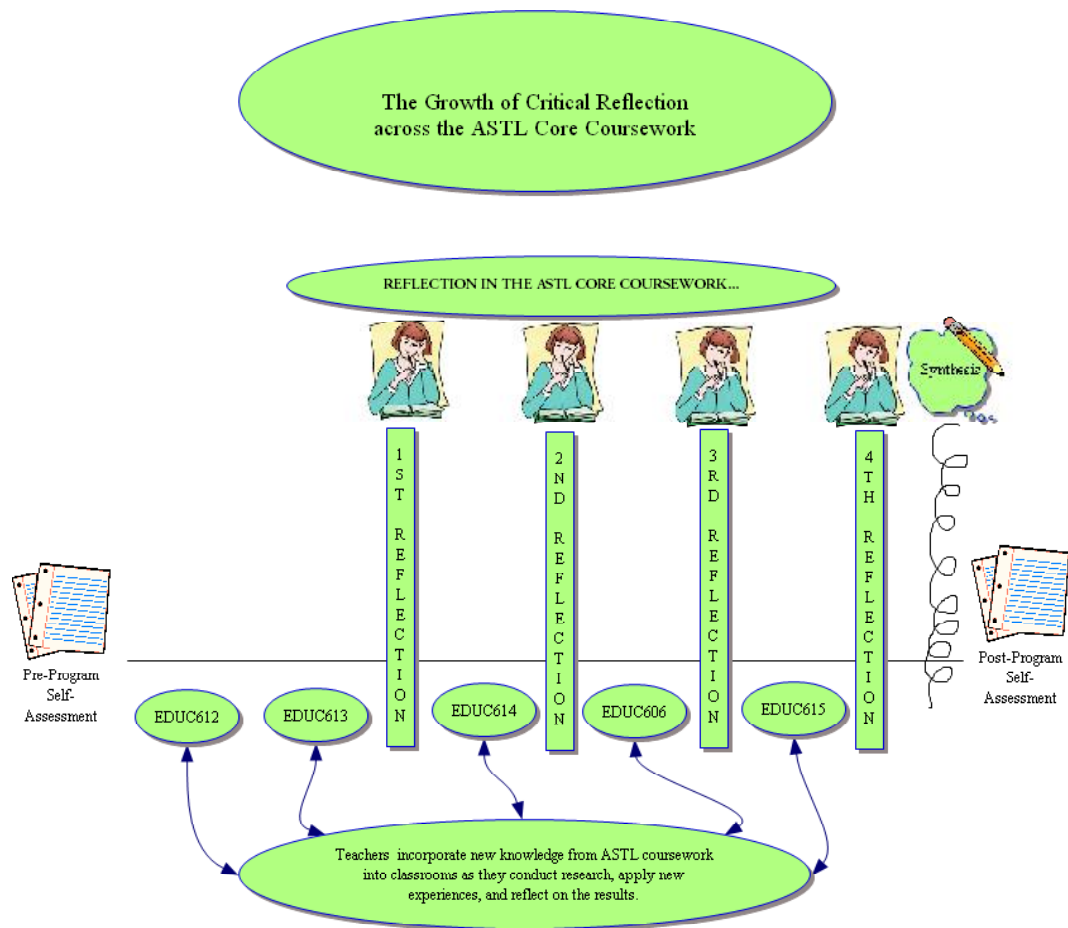
Figure 1: Reflection Points

**Beginning and End Self-Assessments Average Response Rates**
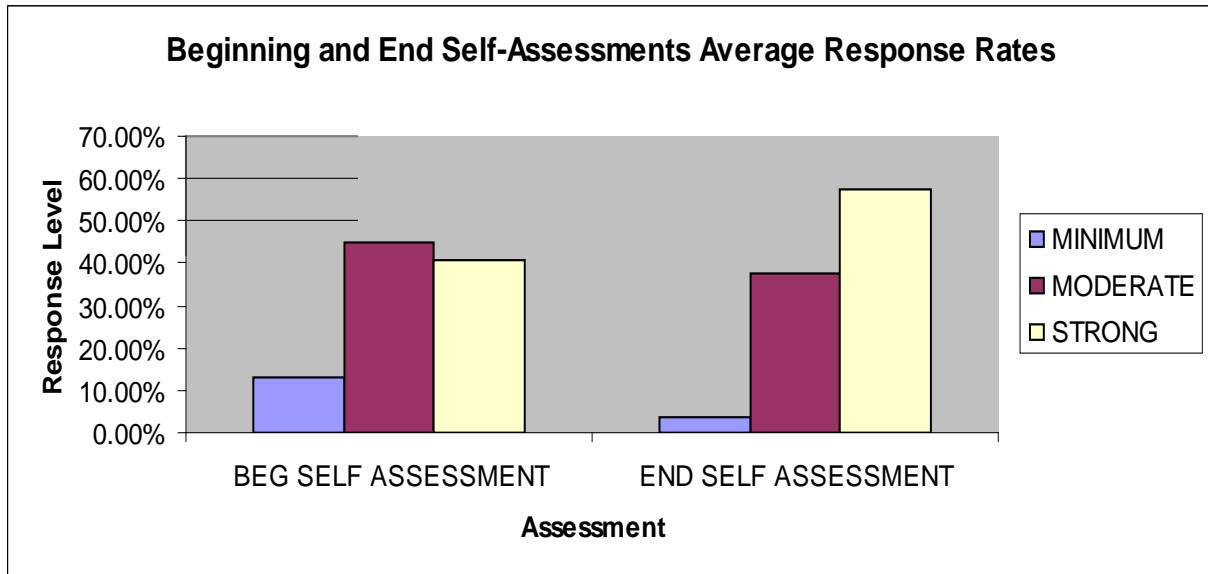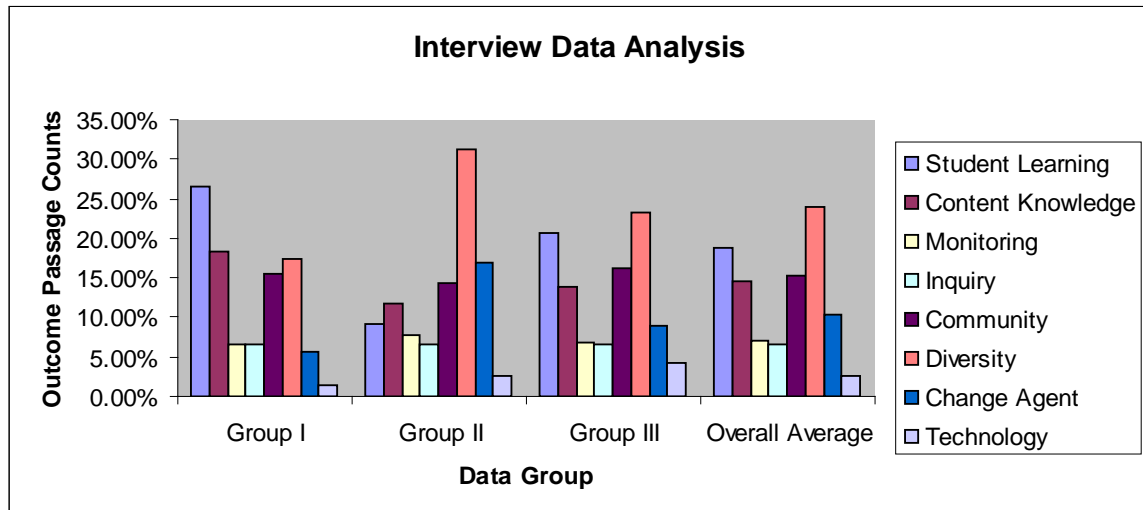
Groups



Figure 2: Beginning and End of Coursework Average Response Rates Across the Three Groups

Table 1: Percentages of Reflection Point Passage Counts By Outcome

| Reflection Point 1 | Group I | Group II | Group III | Groups 1-3 Average |
|---|---|---|---|---|
| 1) Student Learning | 19 | 8 | 16 | 15 |
| 2) Content Knowledge & Pedagogy | 5 | 12 | 8 | 8 |
| 3) Monitoring Student Learning | 10 | 27 | 7 | 14 |
| 4) Systematic Inquiry of Practice | 25 | 18 | 22 | 22 |
| 5) Learning Community | 14 | 8 | 11 | 11 |
| 6) Diversity | 19 | 8 | 30 | 19 |
| 7) Change Agent | 6 | 3 | 2 | 4 |
| 8) Technology | 2 | 15 | 4 | 7 |
| Reflection Point 2 | Group I | Group II | Group III | Groups 1-3 Average |
| 1) Student Learning | 17 | 25 | 10 | 17 |
| 2) Content Knowledge & Pedagogy | 16 | 19 | 13 | 16 |
| 3) Monitoring Student Learning | 22 | 12 | 8 | 14 |
| 4) Systematic Inquiry of Practice | 16 | 21 | 24 | 20 |
| 5) Learning Community | 3 | 6 | 20 | 9 |
| 6) Diversity | 8 | 10 | 12 | 10 |
| 7) Change Agent | 2 | 3 | 2 | 2 |
| 8) Technology | 18 | 3 | 12 | 11 |
| Reflection Point 3 | Group I | Group II | Group III | Groups 1-3 Average |
| 1) Student Learning | 12 | 10 | 13 | 12 |
| 2) Content Knowledge & Pedagogy | 3 | 6 | 6 | 5 |
| 3) Monitoring Student Learning | 1 | 3 | 4 | 3 |
| 4) Systematic Inquiry of Practice | 18 | 13 | 19 | 17 |
| 5) Learning Community | 17 | 23 | 7 | 16 |
| 6) Diversity | 31 | 6 | 39 | 26 |
| 7) Change Agent | 8 | 33 | 8 | 16 |
| 8) Technology | 11 | 5 | 3 | 6 |
| Reflection Point 4 | Group I | Group II | Group III | Groups 1-3 Average |
| 1) Student Learning | 7 | 11 | 11 | 10 |
| 2) Content Knowledge & Pedagogy | 1 | 13 | 15 | 10 |
| 3) Monitoring Student | 4 | 6 | 8 | 6 |

| | | | | |
|---|---|---|---|---|
| *Learning* | | | | |
| *4) Systematic Inquiry of Practice* | 16 | 9 | 8 | 11 |
| *5) Learning Community* | 24 | 8 | 10 | 14 |
| *6) Diversity* | 4 | 38 | 8 | 17 |
| *7) Change Agent* | 40 | 11 | 34 | 28 |
| *8) Technology* | 3 | 5 | 6 | 5 |
| **Synthesis Reflection** | *Group I* | *Group II* | *Group III* | *Groups 1-3 Average* |
| *1) Student Learning* | 19 | 11 | 10 | 16 |
| *2) Content Knowledge & Pedagogy* | 11 | 26 | 20 | 15 |
| *3) Monitoring Student Learning* | 10 | 12 | 8 | 9 |
| *4) Systematic Inquiry of Practice* | 14 | 9 | 16 | 14 |
| *5) Learning Community* | 7 | 11 | 10 | 9 |
| *6) Diversity* | 18 | 12 | 15 | 16 |
| *7) Change Agent* | 19 | 17 | 19 | 18 |
| *8) Technology* | 2 | 3 | 1 | 4 |

Please note that percentages have been rounded to the nearest whole number.

# SHAPING VISION FOR TEACHERS-TO-BE: UPGRADING HIS/HER VIEWS FROM A TEACHER TO A MENTOR

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ABSTRACT

*TEFL graduate students in Taiwan mostly plan to be an English teacher. With this goal in their mind, how do they need to prepare themselves personally and professionally? What professional qualities do they need to be equipped with? With action research approach, this study examines how teacher trainers can shape TEFL graduate students by conceptualizing them about the features a teacher and a writing teacher in particular need to be equipped with, and specifically unique missions a teacher of a special country, Formosa, needs to carry out, and also how students negotiate between imported writing pedagogies and local contexts.*

Key words: Teacher Education, Writing Instruction, Action Research, EFL Writing, Students' Negotiation

## I. Introduction

Students of EFL teaching graduate programs mostly plan to be an English teacher at elementary schools or high schools. With this goal in their mind, do they have clear concepts and identities about what a teacher is like? How do they need to prepare themselves? What basic qualifications do they need to have? What professional quality do they need to be equipped with? What mission do they need to carry out for the society and country? In this study, I examine how we teacher trainers can shape graduate students to realize their dreams by orienting and conceptualizing them about the features, qualities a teacher in general needs to be equipped with, and specifically, the special missions a teacher of a unique society and country such as Formosa needs to carry out.

Based on learning theories, all learning go through three stages: at first, learners go through conceptualization, then they need to put what they know and learn into application and practice, practice and practice, at the end when the skill is internalized in their brain, and they gain the skill internally and can execute the action automatically and naturally; i.e., they can act with automation, then the learning processes have been accomplished. To train a teacher to be able to teach, there are also a lot of qualifications and features a student teacher need to equip with, and a series of stages they need to go through. In this study, I would like to portray the basic concepts I helped equip graduate

teachers-to-be and the processes and journey I guided them to go through and their responses and feedback to the instruction of the teacher training course.

This paper first portrays the TEFL graduate program at a comprehensive national university in central south Formosa and the graduate students who plan to be a high school teacher, then, also a brief description of this special and powerful but unrecognized country in eastern Asia. The study adopts action research and critical/reflective frameworks to examine the processes of orienting graduate students, teachers-to-be, to be qualified and reflective teachers with critical thinking mind. On the one hand, the study is conducted in the proceedings of the courses to adopt multiple approaches to collect data to investigate the effect of the classroom instruction. On the other hand, the professor of the graduate course is teaching as well as researching by observing the classroom interactions and activities through taking reflective notes. The data collected includes students' mid-term reflective reports and final self-evaluation form and feedback to the professors, and portfolios at the end of the semester.

The results of the study are presented issue by issue as follows: Issue 1: qualifications of being a teacher, Issue 2: professional knowledge and development (Life long competence vs. short-term knowledge for exams), Issue 3: learning by doing, the two field trips, Issue 4: The self and identity (Awareness, determination, reliance, self-dependence, and self-control). The issues were well discussed, written and presented by the teachers-to-be in class one by one. These issues are also presented and discussed in this paper to show how the issues were integrated with the graduate course of "Writing Theory and Instruction." At the end of paper are discussions and conclusion. Pedagogical implications are also suggested for teacher trainers.

## II. Context of the study: Formosa, a unique country, and the TEFL program

Formosa is located in west Pacific Ocean in East Asia. For over four hundreds' years she has been colonized under different colonizers such as the Dutch, the Ming, the Ching, Japan, and KMT. Even up to today, it seems that she is under control of external immigrants from China. Along with a long process of democratization in Taiwan since 1930s, then under the Japanese governance, Taiwan had come to its direct democracy stage in 1996 with direct electing the president. Very unfortunately, up to today,

Formosa remains unrecognized, not an official member in the UN, as an unresolved issue and territory since WWII.

In 2000 the political power of Taiwan was peacefully transferred. Since then, Taiwan has come to her new century, a new era of paradigm shift in every way. Taiwan society has faced a lot of challenges to restructure the whole country in every aspect of politics, education, economics, and culture. In education, there has been an educational reform to implement 9-year executive curriculum and also extend English education down to the elementary schools. On the one hand, the educational reform tries to incorporate Taiwan history and cultures into the curriculum for elementary and high school education, and this trend would further integrate and facilitate a real multicultural society by cultivating different ethnic cultures and nurturing "positive cross-cultural attitudes" (Lambert, 1984, 1987) among the citizens and also develop real Taiwan identity. On the other hand, there is a need to internationalize students by teaching them English from elementary school to upgrade the national competitiveness.

Under the circumstances, English teacher education has been urgently demanded. Traditional teacher education from Normal colleges or universities cannot supply enough qualified English teachers. Responding to the situation, on the one hand the government, Ministry of Education, has been taking various measures such as recruiting potential English teachers by English proficiency exams, then offering intensive teacher training courses to train and certify potential English teachers to meet the need of the country. On the other hand, MOE approves more graduate programs of TEFL under the department of English or foreign languages and literature in comprehensive universities to train potential English teachers through regular academic tracks. All these TEFL programs offer a required research methods course and a series of graduate courses related to EFL teaching methodology and language acquisition theories and practices, especially in EFL context, to train graduate students to be teachers. With this background, the TEFL graduate program was proposed and set up in 2004, in this central south comprehensive university, where I have been serving and teaching since February 1993. This is the background of this study.

## III. Methodology
### 1. Settings

This is a graduate course "*Language Acquisition: Writing Development and Instruction*" offered to graduate students in the TEFL graduate program at a central south university in Taiwan (Formosa). The course aims to offer an overview of writing theories and composition research to graduate students and also the related pedagogical applications in teaching writing.

The objectives of the course are as follows: First, to get students oriented with the issues of how children develop their writing ability. The complex human act of writing were understood from its fundamental aspects – linguistic, physiological, psychological, and social – and on what is involved in learning to read and write and how literacy develops. Second, the writing theories were introduced and discussed, especially the issues about how children learn to write, how second language writing develops, what involves in the writing process are emphasized. Third, based on the comprehensive understanding about writing development and writing processes, the implications and issues about the kinds of writing instruction learners are most likely to benefit from were illustrated.

The teaching outline was described as: This course is designed to offer an overview of children and ESL/EFL writing developing processes. By reviewing the development of writing theories, students can understand composition research more thoroughly. With this kind of profound understanding about L1/L2 writing development, students can apply these theories to practical teaching and figure out the most beneficial approaches for EFL learners to learn to read and write. The reading and teaching materials have been chosen from several textbooks and supplementary reading articles are also provided from contemporary journals. Students read, discuss the chosen chapters and articles. Lectures are kept to the minimum. Students' discussion and presentation on the issues in the reading materials are the major activities in class. Meanwhile, the course tries hard to have one session of about 20 minutes for discussion on the assigned issue and writing practicing per week.

The requirements for students to complete are: 1. Several writing assignments on the assigned issues, 2. Six summary assignments on student selected articles from the academic journals, 3. Mid-term proposal for the final term project, 4. One final term project for designing an intensive writing teaching of several weeks, say four weeks or eight weeks, for a preferred level of students.

## 2. Participants/student teachers

There are 17 graduate students taking this graduate course of writing development and instruction. Among them, six of them are the second-year students of TEFL program and 11 of them are first-year graduate students. In terms of gender, six of them are male, while 11 of them are female. All of the participants are graduates who previously majored in English or foreign languages at various comprehensive universities or universities of science and technology. Two of the students are overseas Taiwanese, one from Canada, the other from Belize. Their ages range from 22 – 24. Most of them just graduated from universities and were admitted to the TEFL program, with an obvious intention to become an English teacher after earning the master degree.

With the previous academic background of English majors from undergraduate studies and English learning at high schools of six years in the official educational system or even earlier private learning since elementary schools, all of these graduate students can speak and write English fluently and made presentations in English with Power Point smoothly in class. In total, they have been learning English as a foreign language officially in the system over ten years or even longer if plus their earlier private learning. That's why all these students can speak English fluently. In particular, they went through a very challenging and tough selective entrance exam including oral test and written one to be admitted to this TEFL program. Basically, the English language proficiency of these graduate students is about at high intermediate level. In a word, they can listen, speak, read and write quite well. They attend the TEFL program to gain professional knowledge in language learning and teaching and expect to be certified as qualified English teachers for elementary or high schools.

## 3. Method

The present study adopts action research, also named teacher researcher method, and critical/reflective frameworks to examine the processes of orienting graduate students, teachers-to-be, to be qualified and reflective teachers with critical thinking mind, professional knowledge and educating vision.

In terms of educational action research, the teacher is also a researcher observing what's going on in the classroom, identifying the problem encountered, and then planning,

acting and designing a study to try to solve problem and improve their teaching. It is a cyclical process of planning, acting, observing, and reflecting for professional development (Lewin, 1946; McNiff, 1995). It is a reflective, personalized, and contextualized process of research, aiming to cope with the difficulties happening in the real world (Wallace, 1991). (On the one hand, the study is conducted in the proceedings of the courses to adopt multiple approaches to collect data to investigate the effect of the classroom instruction. On the other hand, the professor of the graduate course is teaching as well as researching by observing the classroom interactions and activities through taking reflective notes.

The data collected for this study includes students' writing assignments, mid reflective reports and final self-evaluation forms, feedback to the professors, and portfolios at the end of the semester.

The study also applied critical pedagogy intending to orient graduate students to thinking critically to conceptualize the features of mentors, the missions of being a teacher in his/her own unique country, what responsibilities they should shoulder and help construct a normal country of their own. Being a professional in teaching English as a foreign language, they ought not only to absorb the western writing theories and teaching pedagogy but also localize and contextualize the professional knowledge and pedagogies to meet the needs of the special EFL context in Taiwan, which is more exam-driven orientation to education with over emphasis on academic performance for students, especially at high school levels. In other words, these students need to "negotiate" with what they have learned as an agent (Liu, 2008: 86), the academic professional knowledge in the field imported from western theories and pedagogies, transform the knowledge into the context-specific professionals in their future teaching career in Formosa.


## IV. Students' Orientations and Negotiations
### 1. Issue of qualifications and basic features of being a good teacher

No matter what career one will develop, one has to identify why to choose, what to achieve, what to learn, and how to learn it. In this study, it is obvious that all students in this graduate course, they had set their career goal already when they applied and took the entrance exam, and were admitted to the TEFL graduate program. Therefore, we can

assume that all students in this class are aware of their future career direction and also have expectations to become an elementary school or high school teacher after graduation. Even though the situation is like this, i.e., they know they want to be teachers; however, can we say that they know how to be a good teacher or they know clearly in their mind what qualifications of being a good teacher? I am afraid that the answer is: "Not necessary." Definitely, they come to learn to be a teacher and they need to be oriented, conceptualized, and trained to be good teachers.

Under the circumstances, in this course, though it covers the issues on "Writing Development and Instruction," as a professor of the class, I am very clear that the students still need to be conceptualized from the original point, i.e., to ponder over the issues of features or characteristics of good teachers, not just discussing the issues of writing instruction but also thinking over the general issues of responsibilities of an educator to offer good education for next generation.

Therefore, students were requested to write an essay as the first assignment, i.e., "Missions of a Teacher." The students were directed to think over the qualifications of being a good teacher. In class, we had a very thorough class discussion to talk about the roles of a real educator. The students were asked to brainstorm with one another to figure out metaphors for the role of an educator. Various metaphors were proposed and identified by the students, e.g. a teacher is like a lighthouse, a gardener, a spirit designer, a torch holder, a guide to life, a mind engineer. The following example of Joe's writing, you can see that he identified himself as teacher as a mentor, torch holder, and sculptor:

> Generally speaking, teachers are expected by our society to be the mentor of students, guiding them in every step of the way and offering their assistances whenever necessary. Teachers are also expected to be a torch holder to enlighten the students by opening their minds to new knowledge. Thus, it can be said that teachers are expected by our society to be like sculptors sculpturing students, with extreme tender and care, into beautiful masterpieces so that they can shine brightly in the future.

In the meantime, the basic qualifications were well discussed and elaborated, too, in the assignments of the students. It was found that professional knowledge about the subject and about teaching was generally identified first by most of these graduate students. That is to say, the cognitive dimension of a teacher is significant for being a good teacher. The academic competence as well as performing competence will enable one to present and teach the subject knowledge well. Meanwhile, students also think that affective dimension of a teacher is important. Thus, features of personality such as

patience, kindness, enthusiasm were illustrated one by one as the basic traits of being a good teacher. Here are the excerpts from Joe's writing:

> … First of all, teachers need to be knowledgeable and analytical in the field of his teaching. …Secondly, teachers need to have patience, tolerance and sympathy in his virtue. In addition, they should also have very good interpersonal skills. …because they are required to listen, understand …Teachers are also required to be considerate and must try to boost the students' self-esteems without making them feel embarrassed or inferior. Furthermore, they must have a positive attitude towards the students. …Last but not least, teachers must be responsible and have a moral virtue.

In short, the point to request students to brainstorm ad write about the missions of being a teacher is to help student negotiate within themselves, develop and identify themselves as teachers as well as mentors. Surely the students were encouraged, too, to develop more holistically to become a knowledge producer as well. It is expected that they can develop not only their clear identity as teachers but also their awareness and ambition as mentors for future students.

The students are really anticipated to have multiple dimensional development and growth with various levels of the identities and development of the self (psychological), the content knowledge (cognitive), a sense of mission as a community and society member, and the metacognitive thinking for life long self-educator and educator.


## 2. Issue of professional knowledge and development

The graduate course aimed at getting students oriented with the composition theories, research, and practices that form EFL writing instruction. Thus, if we put it more clearly, the course is part of teacher education program with respect to how writing skill can be taught successfully and how to prepare these writing teachers. For this purpose, the presentation and discussion of the class started from the psychological underpinning of writing development based on Vygotskian theory of interpersonal and intrapersonal relationship as a writer (Arnold, 1991) to writing teaching approaches of product-based research, process-based research, and contrastive rhetoric, etc.

The students were requested to present the content of the chosen textbooks chapter by chapter to discuss the origin of the theories and practices of instruction. After presentation, students would discuss thoroughly the imported pedagogies to see how they could be used and fit in well in our educational system, which is more exam-constrained at high school stages. This process helped the students to adapt

appropriately the imported theories to local practices, a negotiation and contextualizing process (Liu, 2008), turning students to be an aware agent between the western imported pedagogy and the local Taiwanese educational settings.

> Nick: I think the free writing at the beginning of the course is quite interesting and helpful because I can write freely to express my own ideas and have the opportunity to have a discussion with classmates and professor about the writing concept and writing skills. The presentation of chapters provides me an opportunity to train our abilities to organize the ideas from the papers and to present orally to the public. The opportunity for oral presentation in class not only impresses the ideas but also trains our speaking proficiency.

However, the students were not examined in a written test the content of the knowledge of this field but encouraged to read widely the related research articles published in related academic journals such as *Journal of Second Language Writing, College Communication and Composition* to expand and enrich their knowledge in the disciplines of composition research and second language writing. Thererfore, they were trained to read this kind of academic articles by being taught how to summarize a research article, and they need to turn in summary assignments one after one. In this way, the students were nurtured a life long competence to be able to research and read any time as a problem solver and self-educator rather than a good test taker, who can only memorize the subject knowledge for a short time for only exams.

Meanwhile, since this is a "teacher education course devoted to writing instruction," (Hirvela and Belcher, 2007), what problems are widely encountered in young children's writing development process and what are those writing developing stages should be pinpointed to conceptualize the students. As it is, students were trained to write to express their thoughts and concepts in the essay writing assignments, so-called "writer-centered writing" (Silva, 1992), to develop and be able to write to construct knowledge in a report to meet the expectations of the academic discourse, so-called "reader-based writing" (Silva, 1992). The students need to experience this writing ability development process by themselves from a subjective writer to an objective writer; as a result, they can be a good writing instructor for their students in future.

> Cindy: From this class, I have learned a lot from teacher's lecture or classmates' presentation. Especially, I loved the section of free writing, peer evaluation, and group discussion. Sometimes, at the beginning of the class, teacher asked us to do some free writing and get rid of the limitation of grammar or word usage, and just write down what we want to say. That moment is really comfortable. And I feel my mind is so peaceful and pure.…In addition, I also love the group discussion through which I was often inspired to come up with some ideas and gained more knowledge than I work by myself. A variety of unexpected outcomes often result from the discussion.

**3. Issue of learning by doing, field trips, and by reflecting**

As John Dewey (1961?) put "learning by doing." Learning is occurring while doing and experiencing. Student teachers can only learn how to teach by practicing teaching. Thus, in order to let students learn the professional knowledge more practically, two field trips were arranged to visit two nearby senior high schools.

The first field trip was to visit a nearby private senior high school to observe writing teaching classes. The seventeen students were divided into five groups. Three groups' students were assigned to observe three junior high writing classes, while two of them observed two senior writing classes. As Vygotsky (1987) advocated that cognition is always socially mediated or influenced by others in social interaction. Hatano and Inagaki (1991) also state that learning, thinking, and knowing arise through collaboration with others. The students went to observe together as a group and they also needed to discuss what they had observed and worked together to write an observing report as a teamwork.

Through observing together and group discussing, the group members discussed and identified their focus to report and worked on the report as a group. In this way, they could have their dialectic thinking and dialogic interaction among one another. After discussing and conversation among one another, they emerged their unique voice and focus in their observing report and brought to present in class, then received feedbacks from the instructor as well as the classmates.

In this trip, the most shocking point to the graduate students were that they noticed that in one senior high school writing classes, the discussing topic even included the political issue of "Is Taiwan part of China." In a political and ethnical diverse society like Taiwan, most of the time teachers are requested not to refer to any political issues in teaching. Therefore, this finding of authentic political issue was publicly discussed or even debated in a writing class embodied what so-called "authentic principle" (Jack Richard, 1986) for language teaching or teaching, especially language teaching, should be socially grounded. As a result, students in a writing class would learn not only about linguistic aspects such as lexical, grammatical usage and text structure but also about independent thinking on concrete issues in their real life.

> Gabi: In addition to discussion section, I especially loved the chance to go to visit practical teaching situation in junior high school. By means of real visiting and observing, I had

deep understanding about real teaching situation. Moreover, my view of teaching became broader since we were stimulated by foreign teachers' teaching perspectives and teaching ways. I treasured this chance actually.

Besides observing trip, there was another trip to a public senior high school for teaching practice. Again, the 17 graduate students were divided into five groups to do collaborative teaching. They went trough discussing and negotiating among the group members on what they wanted to teach and which method or approach they would adopt to carry out their teaching. Then they prepared materials and designed activities and implemented the teaching in a real class for one session of fifty minutes.

The point to have this fieldtrip was to create an environment for students to apply what they had learned into practices. Of five groups, each practiced teaching in different ways. One group taught about the structure of a text as "Introduction, body, and conclusion," trying to increase students' awareness about the structure of an essay. The other taught story-telling through drawing and brainstorming to one vocational class. Another taught authentic topic about Christmas story. In a word, each group had their creativity in topics and methods and collaboration in the team teaching. The key problem they arose was that though all graduate students are fluent in English, however, while facing those senior high school students they tended to use about 80 percent first language to explain and teach. In my viewpoint, they shouldn't have accommodated so largely to the students' habits and should have tried to orient those senior high schools students to a target language environment by slowing down or repeating their talk in English. By this, day after day students would gradually get used to listening to English and improve their listening comprehension.

This is a first try in real teaching to real students for these graduate students. The aim to have this practical teaching fieldtrip is to help students apply theories or methods they had learned to real teaching and facilitate their understanding the distance between theories and practices and conceptualize the reality in the real world, thus they can be empowered to bring about change in the instructional context.

Furthermore, as student teachers they were guided to reflect on their teaching practice and write their team report to describe their real teaching experience and difficulties and problems they encountered, in which they can raise questions about the crucial issues in a real EFL learning context and about writing pedagogy and instruction in an authentic context in Taiwan. Consequently, they need to negotiate between the imported western writing pedagogy and the EFL context in Taiwan and turn to be a reflective and

powerful teaching agent after this real practical teaching trip and the assignment writing and presentation process after in class.

> Cindy: I think this class impressed me a lot. I learned various valuable experiences which I never experience before, especially the teaching in Tung-Shih Senior high school. I and my group members prepared a lot for this teaching, and we also discussed how to teach students writing and searched for some information and material. I think that the procedure and discussion of preparation for teaching is really helpful for my future career, being an English teacher.

## 4. Issue of missions of a teacher in Taiwan: the Self and Identity´

Since Taiwan is an abnormal nation, there are a lot of weird things among the citizens and in the education. For example, there are diverse identities among the citizens because of different ethnic origins and different historical memories. A majority of the citizens, about 65-70%, actually identify themselves as Taiwanese, while some minorities, about 30-35%, identify themselves as Taiwanese as well as Chinese or even only Chinese (about 1%-3%). Though Taiwan is Taiwan; however, at schools students are still educated with Chinese history, which is a legacy of the Chinese Nationalist Party regime for over five decades and the system is like para-colonizing one, trying hard to brainwash Taiwanese to be Chinese and let Taiwanese forget who they are. However, for decades the two ideologies have been conflicting and competing along with the democratization process. Consequently, the political situations in Taiwan sometimes seem very chaotic and the political issues are also very controversial and seen most of the time as taboos in classroom.

It is until 2000 that a local Taiwanese government was elected then the Taiwanese ideology had a chance to be nurtured and grow and a lot of native Taiwanese got an opportunity to discover and remember again who they are. Though it is not an easy job to clean away this kind of confusing identities among the citizens, for the democratizing purpose and the aim to make the country a normal one recognized as a member of the international community, there is no choice but awaken students' critical thinking in terms of identity issue to get to know who they are not just as a teacher but as a citizen.

It is clear that teachers of a normal country can not have a confusing identity getting into a classroom. That's why I used various authentic issues related to this special country to arouse students' contemplation on their position about the realistic issues, expecting that these teachers-to-be will have a clear self-identity as a real citizen of this country Taiwan rather than a confusing identity as a fake Chinese and pass wrong self

identity down to next generation. And this wide authentic issues discussion actually was quite welcome by the graduate students. As follows you can see the feedbacks from the students:

> Gabi: Moreover, preparing presentation increases my critical-thinking ability. …The last but not least, discussion of recent event brings about influences on me. Current issue which involved politics, culture, life styles and so on let me understand the relative importance between academic knowledge and reality. That is, the use of authentic materials such as political issue and world news arouses students' motivation and interests. Among the discussion period, I obtained broader view and attitude toward every day life.
> In this class, I acquire both academic knowledge and positive attitude. I also understand how to write meaningful and clear articles. …

> Joe: Apart from the free writing and group discussion sessions, I think the writing assignments were also really helpful. The topic the professor gave really helped me to develop independent and critical thinking. Therefore, I learned a lot from writing these assignments. …Overall, I think this course is well designed and organized and I have acquired a great amount of knowledge from both the contents as well as from the professor.

That is right. The course is trying to orient the student teachers to be good teachers in general, specifically to be writing teachers. But, the fundamental issue of who they are as an individual is even more crucial in the situation of Taiwan, for this is a historical legacy all Taiwanese need to face, not mentioning to these teachers-to-be. Therefore, back to the original and basic issue, this course was also trying hard to nurture right concept and correct attitude towards life and get to know the reality in Taiwan. To be a qualified teacher in Taiwan, I think at least the teachers shouldn't be a naïve in political status and situation of Taiwan and its past history, especially the relationship to the extremely unfriendly neighboring country, China. Therefore, by offering realistic and authentic issues of Taiwan, the aim is to guide and reorient these teachers-to-be to ponder over the social expectations and the need of this unique home country, currently still caught in a post-colonial framework though the president has been directly elected since 1996. The following are some examples of students' feedback to the issues:

> Shawn: From admitting Chinese students to recognizing their degrees, and diplomas After admitting Chinese students and recognizing their degrees of education, little by little, there might build up a diplomatic relationship or, to be direct, return to China. After that, there will be one thousand five hundred and twenty-three millions of communists in China. Then our wealth will be evenly divided and more people from China will come to Taiwan to deconstruct our society as the same to what they did to Tibet." …. "We are suffering under the overwhelming pressure of China in many different ways such as: buying our diplomats, stealing our technology, stopping us from joining any international organization, aiming their missiles to our land, and especially, schematizing our country. Now schematizing is a very serious issue due to the fact that China is a communist country, which is totally different from that we are democratic here in Taiwan. Thus, if a part of us turned into communist, then the democracy would go down and that is now happening in Taiwan ….

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From the statement of Shawn, we can see it easily that he is concerned and worried about the current situation in Taiwan. Obviously that he has the awareness what is going on in Taiwan and what will happen next after some controversial issues are decided, i.e., there will be very serious impact in the future direction for Taiwan. And I think as teachers-to-be they need to have this kind of life-and-death vision and clear mind seeing the country and their own future clearly. This kind of writing activities and class discussion surely aims to initiate their independent thinking ability and push them to think the profound issue of who they are to help them identify with the land they are living on and also furthermore the distinction between democracy and communism. The eternal goal is to sweep away their blurred self-image from the previous ambiguous history and geography education. It's just like using those crucial current realistic topics to force them to look at themselves profoundly who they are, not just as teachers but the fundamental self as Taiwanese.

This process of self-identifying is just like a centric circle with one after one outer circle with a fundamental center. The students were guided to locate their positions in this world and the relationships to all related parties in their life. It is a critical thinking training process and repositioning process as Nick put it:

> Nick: Regarding to the assignment each week, I think it is also a good opportunity to enhance our writing ability, and orient us into critical thinking about authentic issues what just happened in our country and are highly related to our life and our near future.

**Discussion**

As presented above, the four issues: 1. the natures of being a teacher, 2. the professional knowledge of the second language writing, 3. the practical teaching through reflective and collaborative processes, 4. critical thinking over the special context of Taiwan were embodied in the proceedings of this graduate course. The major aim is to offer students' professional orientation in terms of reflective and critical thinking nature of being a teacher as well as a writing teacher. The students were helped to identify themselves layer by layer, from the core of who they are as a citizen of a country like Taiwan, what their missions are being a teacher in such an unrecognized nation in the international community, to the basic requirements and qualification of being a teacher in general, to the fundamental equipment for being a EFL writing teacher in Taiwan. As we can see it is self-identifying orientation from being a citizen to a mentor to an EFL writing teacher

to help students position themselves in this real world. The self-images are like concentric circles from the inner core of being a Taiwanese to outer circle of being a real educator or mentor, then to the external specific EFL writing teacher.

As Samaras and Gismondi (1998) put it, "Socially shared cognition in field work and course work makes a significant difference in enhancing preservice teachers' sense of what it means to teach in terms of using partnership for cognitive and collegial support, perspective-taking, social negotiation, and ownership." (715) It is same with in this course, the students were situated socially in the real world to think over their roles or agents as citizens, as teachers, as writing teachers. They were forced to negotiate with themselves about their positions and take their perspectives on the authentic current issues happening in the real context in Taiwan. The process starts from within profoundly towards external roles socially as Shawn has put it:

> In this semester, we've done several different writings. From teacher's mission, diet, Vygotsky, summary, to political situation, etc., we came to learn not only how to write different writings, but also experienced as how our students might experience in the future. Then we can base on our knowledge and experience to teach our students writing.

This is a process to convert student teacher into not only teachers in Taiwan context but also mentors. In other words, in Taiwan context, teacher educators need to take critical perspective on student teachers' moving upward their concepts from teachers to mentors and the necessary traits. As Cindy has summarized it:

> Finally, I would like to say that the some information professor provide were really useful for us though they are not directly relate to our teaching of writing, professor provide were really useful to me. I leaned some knowledge, information, issues that we need to know. Since we are adults already, indeed we have the responsibility to care about what happened in the world, what happened in our country, and what happened in our society. As a knowledgeable adult, it is especially essential and vital. I firmly believe that this kind of passing down experience is really valuable and useful for me.

Cognitively the student teachers were conceptualized with professional knowledge in the field of EFL writing, simultaneously, they were put into the fieldwork to teach real students at high school to push them to negotiate between the theoretical grounds of imported western writing pedagogies and the local context of specific exam-driven educational system and, in the meantime, to reflect critically their role as a teaching agent and the ownership of being an educator. As thus, they were put actually in the situated learning environment to negotiate between theories and realities, too. Surely, along the process, they were negotiating with the self, the peers, and also the imported

western writing theories and pedagogies. They need to contextualize what they have learned from the book in a specific EFL context in Taiwan. Through the negotiating process, they need to question and challenge themselves as a citizen, as an educator, also as a writing instructor in such a unique context in Taiwan and situate and position themselves in the multiple layers of diverse discourses such as in the society, at school, and in the classroom. Through the process, there are arguments, social negotiation, perspectives taking, and eventually they reach to have a sense of ownership as an educating professional in the field of EFL writing teaching in the unique country of Formosa.

In practice, the graduate student teachers need to be aware of the context and question imported theories and writing pedagogy. In the meantime, the student teachers have to play a role of a reflective teacher to relate theory to experience-based knowledge with a critical mind in order to continuously improve their teaching practice, as thus to improve the schools and the educational system and thus strengthen the next generation, and eventually to upgrade the country to be a normal nation in the world.


**Conclusion**

This is actually a case study through teacher action research to plan and design a TEFL graduate course of "Writing Development and Instruction," to observe the various ongoing activities in class, to record and document the data through students' writing assignments, self-evaluation forms and reflective reports, and collaborative works and finally their term papers and portfolios. With the data, the researcher tries to report the content, the forms, the objectives, and the issues discussed in this graduate teacher education course. The main purpose of the course is to help the student teachers to raise their self-awareness of being an educator to critically negotiate their role in this unique country, to reflect and challenge themselves as an EFL teacher in Taiwan to negotiate between the imported writing theories and the practices in Taiwan reality. The students were guided through learning and developing journey not only to broaden their vision in the academic professional knowledge and concepts but also deepen their insight as an educator of the unique country.

The eternal goal is to re-orient and empower the graduate student teachers to construct their subjectivity and ownership with self-relying, self-awakening and self-reflecting

features to be able to continuously challenge the self, the imported theories, and the institutional or social constraints as a liberating and powerful professional with consecutive self-improving strength. The students are expected to be liberated and emancipated to be an active and independent self-relying agent in the learning process in their life long professional development as an educator as well as unique human individual.

The significance of this study is to demonstrate how a teacher education graduate course can be designed deliberately to include different layers goal with various teaching activities in class, after class, or in the field trips to achieve the multiple objectives in such a specific context in Taiwan.

Surely, there is limitation of the study, i.e., this is an action research with only qualitative data to support this descriptive paper for pedagogical implications and purposes to show how student teachers were emancipated to think critically their roles and agents in the teaching practices and academic professional development. However, for research purpose, if there was quantitative data to complement or supplement the outcomes of this study, the conclusion will be more convincing academically.

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# Professional Development of Teachers

# TEACHER RESEARCH AND TEACHER KNOWLEDGE BUILDING IN DUTCH SCHOOLS

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ABSTRACT

*In the Netherlands there is a persistent gap between educational research in universities and the use and application of research results in schools and educational institutions. A new Dutch educational policy supports the development of so-called academic or professional development schools by funding a number of pilots. The aims are to establish partnerships between schools, (professional) universities and teacher educational institutions, and to bring together in a novel way, teaching practice, school management, research and in-service training of students. The paper reports the results of studies covering four of these pilots and analyses the tensions and gains of the new initiatives.*

## Introduction

Academic educational research has to produce theories, results and insights that can give teaching and learning practices in schools a scientific base. However, a lot of educational research in the Netherlands is done in universities by means of experimental designs or surveys; schools are only sites for gathering data, which are mostly analysed and prepared for scientific publication in national and international journals. Results are seldom effectively distributed and communicated among school professionals. Consequently, academic research has come to be seen as something experts do and as having little practical relevance for teaching (cf. McNamara 2002).

Therefore, Dutch teachers and school management are not much inclined to take regular notice of scientific findings in order to improve and to innovate their classroom practices and beyond. They often find the academic knowledge rather abstract, not practice-oriented and not easily applicable in the complex social conditions of a school. Rather, they trust their own experiences, insights and intuitions and those of their colleagues. (cf. Bransford, Brown & Cocking 2000)

Several years ago the most important educational advisory council for the Dutch government and administration (De Onderwijsraad, 2005, 2006) recorded a huge divide between academic research and the use of science-based knowledge by teachers and school management and at the same time identified serious tendencies of deprofessionalisation among Dutch teachers. A lot of teachers were unable to profit

from the merits of educational research and to judge the nature, the appropriateness and the quality of the research. In its turn, the academic community put hardly any efforts into collaboration with schools and educational institutions and into making their results more known to them. These concerns pertain to a broader Dutch framework of discussions and debates about school innovations and the status and quality of the teacher profession.

In order to counteract the negative tendencies of deprofessionalisation and academic isolation, the Dutch administration opted in favour of the development of so-called Academic Schools. This concept has been developed analogous to the Dutch academic hospitals and its history of close connections between practice, research and education. The foundation of the Dutch academic hospital reaches back to the work of Boerhaave, an eminent Dutch professor of medicine and practitioner in the seventeenth-century (Lindeboom 2007). He broke with the old university tradition of entirely theoretical medical teaching (practical experience had to be sought elsewhere) and initiated the modern method of bedside teaching. In his clinical teaching Boerhaave integrated practice, education and personal examination and observation of the patient and stimulated his students to take a research-attitude in daily medical practice. Boerhaave was a pioneer of a practice-oriented science of medicine and a science-based medical profession at the same time. In this way, he laid the foundation for the later modern science of medicine and its successful medical education. Research training became an essential part of the education for a medical profession. In the same way, it is assumed that teaching practice in schools, school management, research and in-service training could be brought together in a novel way. The aim is to establish a new collaboration and partnership between schools, universities and teacher education centres. These new Dutch Academic Schools can be best compared with the Professional Development Schools in other countries.

**Pilots of Academic Schools**

In 2005/2006 considerable funds were made available in order to start or to continue transforming a number of primary and secondary schools into new academic sites. The Dutch Ministry of Education launched twenty in-depth pilot projects, called Academic Schools to narrow the gap between research and practice in schools. There are twelve

projects in secondary schools and eight in primary schools. The new Dutch Academic School combines teacher training with practitioner research within schools. Each pilot project has got the possibility to develop and to try out its own conception of the Academic School for a period of two years.

An important aim of these pilots is to promote an inquiry-based culture in schools, to stimulate research-minded attitudes among (beginning) teachers and staff, to develop practical research skills and to obtain evidence-based insights into the best possible development, organisation and realisation of an Academic School. Every pilot enclosed three to six schools. The pilot schools were not charged with too many restrictions, because the Dutch administration wanted to get enough variety in realisations of the original idea of an Academic School. The only conditions the ministry laid down were to organize the research training as a form of workplace learning, to connect teacher research with school development and innovation, and to cooperate on a structural base with teacher training centers in universities and higher education institutions. Meanwhile the pilot period has been extended until 2011. The ministry hopes by this approach to get clear under which conditions and in which ways an academic school can be a success and can offer a surplus value. There are plans to install Academic Schools distributed over the country which can serve as good practices and as examples of teacher training sites.

**Four studies**

A lot of research has been done to get better insights into the process of development and transformation of teachers, staff and schools in the academic pilots. The main questions were: what went well and what did not and why was that?

This paper gives an account of the results of four studies covering activities of four pilots (11 schools). The four studies focus on the experiences of teachers and their academic coaches, on the communication with colleagues, on the perspectives of management, on the link between school development and research questions, on the distribution and use of the results and on the relations between perspectives, experiences and results. Conceptually, the studies build on theories and research about 'teacher as researcher' (Cochran-Smith & Lytle 1998,1999), about practitioner research (Zeichner 1994, 2007; Zeichner & Nofke 2001), about learning communities in schools (Peters &

Besley 2006; Hugues& Unwinn, 2007), about workplace learning and professional development (Meirink 2007), about learning and thinking styles (Coffield, Moseley, Hall, Ecclestone, 2004) and knowledge attitudes (Hofer & Pinrich 2001), about open and closed mind sets (Elliot & Dweck 2007) and about the nature and status of different forms of knowledge (Kwa 2005).

Because of the need for internal and deep insights into the processes of development and transformations taking place (rather than the need for an external assessment) a set of research methods and techniques have been used with the support of the teachers and their coaches, ranging from strict data collections such as quantitative surveys and evaluations to individual interviews, focus groups and observations.

*Study 1:*

The PDS is a pilot project of four secondary school organizations in the area of Rotterdam, the big Dutch seaport. The schools have joined their forces and ambitions to grow into an academic site in which education, research and teacher training are closely interwoven. The pilot started with a research training for about twenty teachers from six different high schools. Most of the selected teachers participated in small teams to do research in their own educational settings. Every team developed its own research question(s), embedded in the school and carried out its own investigation. A characteristic feature of the pilot has been the combination of a top-down and bottom-up phrasing of the research questions. School leaders supplied the broad themes inferred from school development and innovation plans and within these frameworks the teams determined the smaller research questions. The teams were supported and coached by experienced researchers from a university and a higher education institution nearby. The research questions were diverse, covering a broad range of educational issues and varying in micro-, meso- or macro-level questions and innovation interests. The types of research and methods used differed as well: applied or field research, action research and evaluation research.

Two evaluation studies have been carried out during the PDS pilot to get insights into the course of the project. The first evaluation took place after one year midway the pilot, the other at the end of the pilot. The first evaluation included documentation analysis, questionnaires for participating teacher researchers and interviews with school leaders and supervisors. The results showed that during the first year of the project a lot of take-off problems hindered a good start of the project. Vagueness and lack of clarity about

aims, intentions and conditions of the project made it hard for teachers and supervisors to steer the direction of their engagement.

The second evaluation at the end of the pilot had a more penetrating character. The research methods included in-depth interviews with most of the teachers, with school leaders and supervisors engaged in the project. Open questions were asked about the perceptions, (learning) experiences, uncertainties, opinions and appreciations of the processes involved in the teacher research and about the supposed possibilities of an Academic School in the future, given the experiences of the PDS Pilot. Besides documents and investigation reports, the interviews were input for a more thoroughgoing analysis of the ups and downs of the pilot. The analysis revealed several problems in relation to the implementation of doing research in schools.

*Study 2:*

A parallel evaluation study has been done in another Academic School pilot in the South of the Netherlands. This pilot is a collaboration of a large secondary school board and two teacher training centres. Three different secondary schools made up the pilot. The three schools offered practice and training facilities on the job for student teachers. The general aim of the pilot was to promote a research mindset and to develop research skills among both teaching staff and student teachers. In 2006 teachers and teacher students in the three schools started their research projects as a form of workplace learning. They were supervised just in time and place. Besides (student) teachers followed a schooling programme by researchers / teacher educators from the universities. The following research questions were part of the evaluation research:

 – What knowledge and skills have been developed during the teacher research in schools?

 – What do teachers report to have learned from doing practitioner research in the school?

Semi-structured interviews have been used to gather data on both the results generated by the different teacher research projects and teacher learning experiences (research question 2). 33 teacher researchers participating in the pilot were interviewed. The interviews have been analysed on topics as knowledge acquisition, positive / negative attitude and metacognitive insights. In addition, to gain insight into the kind of research questions, 28 research reports written by the teachers have been analysed.

When asked about their learning experiences, teachers reported that they mainly learned how to do research. Their attitude towards research changed in a positive way. In the interviews they welcomed the variety that doing research brought into their professional life; they emphasized the value of doing research in the classroom and school, and indicated that doing research had made them more reflective about their own teaching. The negative experiences related to the many difficulties they ran into when designing and performing their research, for example where and how to elaborate the research question(s), how to organise the research in time and place and how to combine the several research activities with regular teaching.

The results of the study offer practical implications for improvement of the supervision and facilitation of teachers and student teachers engaged in practitioner research.

*Study 3:*

A third study has been done about the learning experiences and the functioning of research in three secondary schools in the East of the Netherlands. In this pilot a teacher without research experience and a student teacher worked together in a small research project supervised by an experienced researcher from a professional university. The pilot included seven of these small-scale research projects. The general aim of the pilot was to discover how research done by teachers can improve school functioning and school development.

Concurrently, participants of the small projects were part of a broader learning community. Monthly they came together to discuss problems and progress of the research projects and to learn more about the ins and outs of doing research in schools.

Most research done by the pairs of teachers and student teachers was inspired by their own practice and closely connected with student learning or improvements and innovations in school. They were forms of practitioner research guided and supervised by a coach from (professional) universities for the teaching of research skills.

*Study 4*

Study 4 is a report on the basis of a process evaluation in two schools which make part of an Academic School consisting of five schools of secondary education and three educational institutions in the South-East of the Netherlands. In the schools Learning Communities of teachers and student teachers were set up to develop research activities. The Learning Communities were coached by researchers of the educational institutions

which were part of the Academic School. In the study a number of motivating and demotivating factors were identified for teachers doing research in school. The results are based on participating observations and logs by the researchers and questionnaires and interviews by participants of the coaching program.

- A shared view on research in      school

  School management has different objectives for professionalization of teachers in research       skills.      The       following      objectives      were      identified:
  - Being able to conduct research in school
  - Developing a more investigating and reflective attitude of teachers in school
  - Being able to coach student teachers in conducting their final research project
- Being able to coach pupils in developing a more investigating and reflective attitude and to conduct research activities.
- *Explicit     goals*

  For all parties the motives for research must be clear.
- *Intrinsic     motivation*

  The more teachers were intrinsically motivated, the greater the chance they actually rounded off their research. When teachers regularly experienced moments of success in the form of useful knowledge or new options for acting, they were more motivated. If higher management had ordered a teacher to join a Learning Community, this appeared to be a demotivating factor.
- *Time*

  Insufficient time, whether or not in combination with too much workload, was an important demotivating factor for teachers doing research. If allocated hours were cut up, this also proved to be an important contra productive factor.
- *Practitioner research*
- The primary task of a teacher is teaching. If research questions derive directly from practice, this motivated teachers to do their research. It appeared that the direct applicability of research skills in their own school practice was also a strong motivating factor. Teachers experienced they were better equipped to coach students and/or student teachers to conduct research activities.
- *Appreciation*

  Teachers doing research mentioned they wanted to be supported by their colleagues and management.

- *Cooperation*

  Many teachers said they enjoyed working together with a partner or in a group. It raised the quality of their research.

- *Coaching*

  Coaching had to be practical and tailor-made. Research methods had to match the dynamics of teaching practice and the specific characteristics of the teachers involved. Teachers reported they learnt a lot by experiencing the cycle of research themselves in order to be able to coach others in doing research (double loop learning). Important learning results were becoming more critical in their teaching practice and being better able to coach pupils and/or student teachers in doing research.

- *Autonomy*

  Ownership of research must be with the researcher. School should benefit as well.

- *Results*

  Research activities which in a relatively short period of time lead to results or changes in school practice raised motivation of the teachers doing research and commitment in school.

**Combined results of the four studies**

The combined results of the four studies reveal a lot of tensions and uncertainties in the start and development of Dutch Academic Schools. The most striking are:

- an identification of 'research' by teachers and staff with 'academic research', and a  strong tendency to imitate this. There was the preference for use of questionnaires
- a misunderstanding or even denial by teachers of their own previous research activities in class and school
- a mismatch between the logistics of the teaching process and those of doing research, aggravated by the intensification of the teacher profession in the last decade
- a total absorption in the research cycle and process by teachers as beginning researchers and the neglect of any communication with colleagues and presentation of interim and provisional results

- impatience of school management due to a lack of knowledge of the research process underestimation of what is necessary in time and effort for the different parts of the research process
- lack of clarity about requirements, quality and standards for research activities in the school.
- uncertainty about the division of tasks and competences of schools, universities and teacher education

But apart from these tensions, there are clear gains in motivations, attitudes and skills:
- an intensification in the communication and collaboration between universities, schools and teacher education
- an increase in mutual understandings and sympathy for their specific competences and cultures
- a growing analytic mindset of teachers and schools
- a feeling of pride and engagement by teacher researchers in new activities
- an expanded notion of what teachers can and ought to do
- motivation by direct applicability of the results of the research
- appreciation of cooperation with colleagues
- more engagement in school matters

**Discussion**

Research in classrooms and schools that is performed by teachers themselves is a relatively new phenomenon in Dutch education. A lot of teachers hardly got research training in their professional education. They are poorly prepared for activities as formulating and elaborating a research question, gathering and analysing data and drawing evidence-based conclusions. Moreover, they are not familiar with research literature and hardly have access to it. For lack of knowledge and of experience with research they can't profit from the results of educational research, let alone critically translate these results into their own teaching and school practices. In schools there is usually not a research atmosphere. In case of difficulties or innovations, solutions are often already chosen before problems or situations are adequately examined and analysed.

The new ambition is to change this culture and to combine research and practice-orientation in the teacher profession. A great number of initiatives have been taken and several pilots have been carried out. The four reported studies show that a lot of obstacles have to be negotiated. Doing research has its own culture and logistics and these have to be joined with the daily practice of teaching. Teachers in the pilots who were doing research complained about the lack of time and the difficulties of combining research activities with their regular teaching.

But this is not the only problem. A second risk is that research in schools becomes an isolated phenomenon done by a few teachers relieved from other tasks and doing research without a relationship with the regular activities of teaching and learning in school. The risk is even bigger when the research is a pale imitation of academic educational research at the university with its strict experimental conditions and requirements. Usually such research fails in ecological validity and has little (immediate) meaning for the practice of teaching and learning.

This leads to a more fundamental problem: the kind of research to be done in schools. On this issue the views and ideas vary in the Netherlands. Some comply with the traditional academic requirements of good research. But others see possibilities and advantages of more relaxed variants of research. (for example more qualitative forms of research, action research). They warn against the danger that sticking to strict academic norms can reproduce the existing gap between research and practice but now within the school itself. They emphasize the profits of the systematic and controllable character of any research activity in schools, of the clarity and precision to which research compels, and of reflection and discussion to which research challenges. But this is only possible if research elements can penetrate into the daily teaching practices. The results of the four studies show that many teachers participating in the pilots report the acquisition of examining and critical thinking skills and attitudes and that they are more willing to call their own teaching into question.

Another important concern relates to the question which knowledge and skills teachers must have. How comprehensive must the knowledge be and how extensively must the research skills be developed? It is not realistic to aim at full-skilled researchers. This question touches a larger issue of how research can be embedded in the school. Must all teachers become similar researchers or is a division in skills and specialisations between teachers or teams more practical and desirable?

The four studies show that a lot of questions still have to be answered. There is some but not enough clarification about opportunities and restraints for research in and by Dutch schools. There is still uncertainty about the conditions that favour a research culture and research activities in and by schools. But the development of a conceptual framework for Academic Schools based on empirical evidence is on the way.

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# TEACHER TRAINEES BETWEEN "PROFESSIONAL CALLING" AND "JUST ANOTHER JOB":  CHALLENGES FOR TEACHER EDUCATION AND TEACHER TRAINEES

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ABSTRACT

*This paper will discuss today's challenges for teacher education and teacher trainees. The Norwegian teacher education will be the starting point for the discussion but will be related to teacher education in Europe. The discussion will focus on general educational trends and their effects on teacher education and teacher trainees all over Europe. The paper will start with a discussion on the general educational trends in Europe, such as higher education as mass phenomena, the decline in the relative value of education, and the situation on the labour market. These trends are then related to the specific challenges for teacher education and teacher trainees. The Norwegian teacher education and the specific challenges it is facing will be presented and discussed. The main focus will be on the structure and content of the teacher education, and the recruitment and dropout of teacher trainees. The situation for the teacher trainees will be discussed, focusing on their achievements, commitment and motivation during teacher education. The teacher trainees' attitudes towards their profession will also be discussed. There are some signs indicating that the traditional high level of professional commitment and the ethos of teachers is lacking among today's teacher trainees. Could it be that today's teacher trainees (and the teachers of tomorrow) do not have the same "professional calling" as previous generations of teachers and that teaching for them is "just another job"? Problems in doing research on teacher education and teacher trainees in particular will also be discussed. This paper is related to an empirical study of Norwegian teacher trainees focusing on their achievements, commitment and motivation during their teacher training, and the reasons for teacher trainees' dropout from teacher education.*

Key words: education, globalization, teacher education, teacher trainees, teacher professionalism

## 1 Introduction

In the times of globalization, education and competences seems to be more important than ever before. The global society is largely a knowledge based society, where knowledge is the base for economic and social growth. In a knowledge based society, what you know and what you can governs what you do and how you live your life. Based on these general observations it is clear that what goes on in the realm of education is very important for the development of society in general. One important aspect of education is teacher education.

In this paper I will discuss the challenges for teacher education and teacher trainees in global society. The starting point for the discussion will be the Norwegian teacher education, but it will be related to teacher education in Europe in general. The discussion will focus on general educational trends and their effects on teacher

education and teacher trainees all over Europe. I will start with a discussion on the general educational trends, and these trends are then related to the specific challenges for teacher education and teacher trainees. The Norwegian teacher education and the specific challenges it is facing will be presented and discussed. Lastly, problems in doing research on teacher education and teacher trainees in particular will be discussed.

## 2 General educational trends in Europe

If we look at general educational trends in Europe, and indeed the rest of the Western world, there are several points to be made:

1. **Higher education has become a mass phenomenon**: Especially in the recent 10-20 years, the attendance rate in higher education has risen. For instance, in the age group 19-24 years old, around 35 % of women and around 25 % of the men had entered higher education in Norway in 2007, compared to around 12 % for both men and women in 1980 (SSB, 2009).

2. **The decline in the relative value of education:** Because more people than ever before undergo education, and in particular more higher education, than ever before, the relative value of education declines. The relative value of for instance and BA degree is lower today than say 20 years ago. The need for highly educated people with specific competences seems also in general to heighten the level of education in society.

3. **The situation on the labour market:** The need for highly educated workers has increased in the labour market in recent years. This has, naturally, consequences for the educational sector. The increase in higher education could be seen as an answer of the needs of the labour market. From another perspective, the few possibilities in today's labour market for unskilled and semiskilled labour, also forces more people than before to undergo more formal education in order to get a job or to get ahead in the labour market.

4. **The global educational market:** Education has become a global commodity. People travel abroad to undergo education, more today than ever before. For instance Norway had over 11.000 students studying abroad, and around 208.000 students studying at home in 2007. In 2007 Norway also had around 15.000 foreign students studying in Norway (SSB, 2009).

5. **Quality in education:** As education becomes more important for the society as a whole, but also for the individuals, quality of education has become more in the forefront. In various cross national tests (such as PISA and TIMMS) the knowledge level among pupils in primary schools all over Europe has been investigated. These tests have shown that Norway score relatively low compared to most European countries. These results have in turn (re)started the debate on quality in Norwegian education, and in primary education in particular. An underlying question in the debate has been: *Why is the output (grades) in Norwegian schools quite low, when the input (economic resources) is quite high?*

## 3 Challenges for teacher education

This debate on the quality of Norwegian education has to a large degree also focused on Norwegian teacher education. Here the underlying question in the debate has been: *Is the teacher education to blame for the quality of Norwegian primary schools? And if the teacher education is to blame (more or less), what changes must be done with the teacher education?*

In 2006 there was published a national evaluation of the Norwegian primary teacher education (NOKUT, 2006). The evaluation was concerned with the primary teacher education as a whole national system, but also with the situation in all primary teacher education institutions locally in Norway. The situation of the teacher education was discussed and various positive and negative sides of the education were presented. On the basis of this national evaluation a new Norwegian primary teacher education was proposed by the government in early 2009 (KD, 2009). This proposal was sanctioned into law in the spring of 2009. This new Norwegian teacher education will be implemented from the academic year 2010/11.

The challenge in constructing this new teacher education was to construct a teacher education which was more fitted to the present trends and needs in the field of education. The structure and content of the teacher education was therefore dramatically changed when creating this new teacher education. In order to understand the content of this change one has to know the previous teacher education model (which is presently in used and will be in use in the academic year 2009/10).

The main differences between the old and the new Norwegian teacher education is presented in figure 1. The old model gives the teacher a general competence in teaching all pupils age 6-16 in all school subjects. In spite of having just competence in a limited number of school subjects it is not so uncommon that teachers would have to teach in other subjects as well, especially when teaching the youngest pupils (for instance teaching music without having musical competence as part of one's teacher education).

The new model is actually two separate models. They both are specific models, compared to the old model. Model 1 gives a specific competence for teaching the smallest pupils in four specific school subjects, and model 2 gives a specific competence for teaching the oldest pupils in three specific school subjects. Both in model 1 and 2 the competence is restricted in the sense that the competence is only related to specific group of pupils (age of pupils) and specific schools subjects (those studied during teacher education only).

Another new feature in the new Norwegian teacher education is the introduction of the subject "Pedagogy and knowledge of pupils". The new teacher education has more focus on pedagogical matters and in understanding the pupils' situation better, therefore the title "knowledge of pupils" is added.

To sum up, the new teacher education could be seen as a major shift in Norwegian teacher education. This is because the new education has a changed focus on both pedagogy and subject teaching. The new education gives the teachers specific qualifications on both level (age of pupils) and subject teaching (which subjects they are qualified to teach). By reorganising the teacher education is has become more focused on both knowledge and on pedagogical issues. Hopefully this reorganisation will strengthen teachers' basic competences, and teachers' competences concerning how they teach, and what and how pupils learn.

|  | Old model (in use) (until 2009/10) | New model 1 (from 2010/11) | New model 2 (from 2010/11) |
|---|---|---|---|
| *Length of study* | 4 years (some possibilities for a 5th year which gives an MA degree) | 4 years (more possibilities for a 5th year which gives an MA degree) | 4 years (more possibilities for a 5th year which gives an MA degree) |
| *Age of pupils* | 6-16 years old | 6-13 years old | 11-16 years old |
| *Compulsory subjects* | Pedagogy (teaching skills etc.) Norwegian language Mathematics Religions & life views | Pedagogy (teaching skills etc.) and "knowledge of pupils" Norwegian language Mathematics | Pedagogy (teaching skills etc.) and "knowledge of pupils" |
| *Subjects of students' own choice* | School subjects by choice (normally two) (Social science, Natural science, English etc.) | School subjects by choice (normally two) (Social science, Natural science, English etc.) | School subjects by choice (normally three) (Social science, Natural science, English etc.) |
| *Competences* | General competence in teaching all pupils age 6-16 in all subjects in school (+ class management) | Specific competence for teaching the smallest pupils in four school subjects (+ class management) | Specific competence for teaching the oldest pupils in three school subjects by choice (+ class management) |

*Figure 1 The old and the new Norwegian teacher education*

The challenges ahead for Norwegian teacher education are therefore, naturally, related to the implementation of this new teacher education (cf. KD, 2009):

1. **Introducing the new model:** The new model will be introduced from the academic year 2010/11. Therefore local planning has already started, in spite of the fact that a national framework plan is not yet in place.

2. **Local implementations of the new model:** As local variations of the model are possible, as every local teacher education institution must choose which subjects to offer in model 1 and 2. Due to economic restrictions in the local teacher education institutions, not every institution can offer every subject offered in primary education. Most institution has to decide if they want to offer both model 1 and 2, or just one of them, and which subjects therein.

3. **Gradual implementations of MA teacher educations:** The new model encourages the development of MA in teacher education. This could be done by adding a fifth year to the four year teacher education. Some MA teacher educations are already in place in some teacher educations. The challenge is to encompass the fourth year of the teacher education in such a way that it fits into the MA framework. The content or focus of future teacher education MAs is also challenging. Should they focus on pedagogical issues only or should they also focus on further qualifications in school subjects? If and how many teacher education MAs that will occur in the future is also related to economical restrictions in the local teacher education institutions.

4. **Inclusion of present teacher training students into the new model:** Present teacher education students and students starting their teacher education in the academic year 2009/10 will gradually be included into the new model. This will propose many challenges for the teacher education institutions.

5. **How to meet the need of newly educated teachers:** Starting work as a teacher for the first time poses many challenges and there consist a high danger for dropout from the teaching profession in that period. The teacher education institutions have a specific responsibility in working with this issue.

6. **The lifelong education of teachers:** This point is related to the discussion above about the knowledge based society. Teachers' competences must be under constant revision, renewal and updating during the whole of the teachers' career. As society changes faster than before, and as what is knowledge and "truth" also changes rapidly teachers' should engage themselves in lifelong learning in order to be fully prepared for their task as teachers. However, this is not only important for the individual teacher. This is also an important issue for the teacher education institutions. As these institutions often update working teachers' competences (thru courses, seminars, MAs etc.), they also have a specific responsibility in working with this issue.


**4 Challenges for teacher trainees**


After discussing the challenges for teacher education I will continue with discussing challenges related to teacher trainees (or teacher education students).

1. **Recruitment of teacher trainees:** This varies among countries in Europe. In many European countries the recruitment of teacher trainees is good. In some countries there are even more qualified teachers than teaching positions. In the case of Norway the recruitment of teacher trainees is somewhat insufficient to the societies needs. In recent years, some teacher education institutions have experiences a drop in the number of applicants. Some teacher education institutions have therefore vacant positions for teacher trainees. As the mean age of teachers in Norwegian primary schools are quite high, this lack in recruitment poses a threat to the recruitment of teachers in primary schools in the near future.

2. **Dropout of teacher trainees:** This varies also among countries in Europe. In Norway the dropout of students seems to be an increasing problem, not only among teacher trainees, but among students in general. Because students who do not graduate costs money, this problem has been of growing concern for the teacher education institutions. Many teacher education institutions have started to work systematically in order to do something with this problem.

3. **Professionalism among teacher trainees:** The development of professionalism is often assumed to be an important part of the formal education of professionals. Professional education not only introduces the students to specific approaches in order to solve specific problems or to perform specific tasks. Professional education also tries to strengthen the commitment towards the profession among the students. Furthermore, professional education tries to socialize professional students into professional values, first and foremost professional autonomy (Jacobsen, 2001; Macdonald, 1995; Snizek, 1972; Wilensky, 1964).

However, today's young professional students could also be viewed upon as individualistic. For many personal experiences have priority over external authorities and the pursuit of personal authenticity is important. There is a strong urge for self-realization and individual choices are emphasized to a high degree (Jenssen, 1990; Repstad, 2002). Combined with the individualism of today's youth there is also a general assumption that work is not so important. For young people life is primarily something other than work. Leisure activities and spending time with friends seems to be more important than work among young people (Almås et al., 1995). Young people states more clearly than older people that work is just for earning money and nothing else. For young people work is never a goal in its self (Furnham, 1990). This could

indicate that the teacher trainees' attitudes towards their profession have changed in recent years.

An empirical analysis among Norwegian professional and non-professional students found that the professional students had a higher degree of professional values than the non-professional students (Jacobsen, 2001). However, this study questions the assumption that students get socialized into professional values when undergoing professional training. Rather, the study suggests that people choose to start professional training because they have professional values. These professional values are internalised before starting the professional training. Jacobsen's (2001) thesis is that instead on being socialized into professional values during a professional education, one chooses professional training because one has professional values already in place. However, these findings do not imply that professional education is unnecessary. One might assume that the professional values of the students will be reinforced as a result of their professional education.

Traditionally, both teacher trainees and teachers have had a high level of professional commitment. One might ask if this ethos of teachers is lacking among today's teacher trainees. Could it be that today's teacher trainees (and the teachers of tomorrow) do not have the same "professional calling" as previous generations of teachers and that teaching for them is "just another job"?

4. **The minimalistic student:** Another challenge concerning teacher trainees is the economical restrictions they study under. Norwegian students' economy is not bad related to most European countries, but many students have paid work besides their full time education. Many have paid work in order not to take up student loans. The fact that many students have paid work besides their full time education promotes, intentionally or not, a minimalistic behaviour towards their education. This in turn promotes a climate on campus, both among students that have paid work and those who have not, that studying is not among the most important things in one's life, and gradually being on campus seems less attractive. This attitude is typical among the students we could, with some irony, label as minimalistic students (MS). The essential features of the minimalistic student are as follows:

> MS does exactly what is needed in his/hers studies but not more
>
> MS is seldom on campus and only when it is strictly necessary
>
> MS has often paid work besides her studies

MS is also often occupied with various social and hobby activities outside the studies

MS has a low level of professional commitment towards his/hers future profession

MS is not quite sure if he/she will work in the profession he/she currently studies

MS has a relaxed relationships to his/hers own achievements in his/hers studies

MS has attitudes and actions towards his education that is similar to a customers'

5. **Teacher trainees' achievements, commitment and motivation:** It also has been a growing concern in recent years about how much students really study. A Norwegian study has shown that students from various professional educations have an average working week below 30 hours. However, there were large variations between the various professional students, but teacher trainees did not have working week which was much higher than this average (Aamodt 2003). The same Norwegian study has also shown that professional students (including teacher trainees) may be divided into four groups on the basis of their choice of profession and motivation towards their studies (Dæhlen 2001):

1. Insecure (47 % of students).

2. Dedicated (15 % of students, but 20 % among teacher trainees).

3. Engaged (25 % of students, but 30 % among teacher trainees).

4. Distanced (13 % of students).

The reasons for teacher trainees' dropout from teacher education, and variations in their achievements, commitment and motivation during teacher education are many, complicated and interlinked (cf. Bratterud et al. 2003; Børresen & Tangen, 2003; Dæhlen, 2001; Aamodt & Terum, 2003; Aamodt 2003; NOKUT 2006; KD, 2009). Previous theories and investigations has emphasised various personal factors, such as personal well-being, how well students feel they master their studies, their motivation and their work efforts, as explanatory factors (cf. Csikszentmihalyi, 1985; Deci & Ryan, 1985; 1991; Deci, Nezlek & Sheinman, 1981; Harter, 1992; Maehr & Braskamp, 1986; Skaalvik & Skaalvik, 1996. Cf. Lindseth, 2001 - 2007b; Lindseth & Smyth, 2003).

## 5 Problems in doing research on teacher education and teacher trainees

Based on what is written above, the need for doing more research on teacher education and teacher trainees is evident. However, one problem that often occurs is the problems concerning studying the minimalistic student, or in this case the minimalistic teacher trainee. Because the minimalistic teacher trainee is seldom at campus it is difficult to investigate his/hers achievements, commitment and motivation. Because of many dropouts during teacher educations it is also difficult to follow students over time, for instance over all the four years of teacher education.

## 6 Conclusions

Educational and social research has researched teacher education and teacher trainees relatively well, but there is always need for conducting new empirical research, and for the development of new theories and new research models. This is due to the fact that the realm of teacher education changes, sometimes drastically, as we have shown with the introduction of a new teacher education model in Norway.

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# AN INTERNATIONAL MODEL FOR INDUCTION FOR NEWLY QUALIFIED TEACHERS

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## 1. Introduction

In this paper we will present the results of the second phase of the IGNATIUS Comenius Multilateral project. IGNATIUS is the acronym for *induction and guidance of newly appointed teachers in european schools*. The aim of this project is to improve induction and guidance of newly qualified teachers (NQTs). An innovative feature of this project is the consistent use of the tandem of teacher education institute and school in six different countries, viz. Denmark, Germany, Hungary, Italy, the Netherlands and Portugal. In the first phase of the project an analysis of the teacher education systems of each participating country was made. Also the current models of guidance and induction for each country were inventoried. The results were presented at the ATEE conference in Brussels in August 2008. In the first phase of the project it was our goal to look for shared belongings and common values. The outcome of the first phase gave us a starting point for the development of an international model for guidance an induction.

In the second part of this paper the process of working towards the international model within the IGNATIUS project, the criteria for the model and the lessons learned from existing practices will be discussed. The third part of this paper will present the international model and show how it is embedded in the literature. The paper ends with a final word about the use of this model and the continuation of the IGNATIUS project.

## 2. Working towards an international model within the IGNATIUS project

New teachers face a reality shock when they start their professional carrier [Commonwealth Department of Education Science and Training, 2002]. An inadequate induction is a factor that contributes to this shock [Ramsey, 2000].

In the first phase of the IGNATIUS project it became evident that the attention for the guidance and induction of NQTs is considerable but the reasons are different per

country. Whisnant et al. [2005] analysed the literature for themes and came up with five areas of potential impact of programs for induction and guidance:

reduction in teacher attrition from the profession, which is most common [Cameron, 2007]

- reduction in the costs of attrition
- increased teacher satisfaction
- enhanced professional growth
- development of a tiered professional career model

## 2.1. Induction of NQTs

While research has shown that there is no "one-size-fits-all" approach to induction [Smith and Ingersoll, 2004] there is a growing knowledge base about the characteristics of effective induction programmes. Stephens and Moskowitz [1997] describe effective induction programmes to serve several purposes, including orientation, personal and professional support, professional development and appraisal.

According to Wong et al. [2005], comprehensive induction programs vary in their particular design, but essential elements include a high quality mentor program, ongoing professional development, access to an external network of beginning teachers and standards-based evaluations of beginning teachers and the program itself.

## 2.2. Criteria for the international model

In the second phase of the IGNATIUS project the six tandems paid attention to finding common concepts and values that can be used as a theoretical fundament for the international model. It was decided to choose three concepts on teaching and learning that have been of major significance in the development of education in all the six countries. These concepts provide a common understanding and have served as a starting point to constructing an international model:

- Experiential learning [Kolb, 1984],
- Reflective practitioner [Schön, 1987],
- Situated learning [Lave and Wenger, 1991].

Korthagen [1999] implies that teacher development is conceptualised as an ongoing process of experiencing practical teaching and learning situations, reflecting on them under the guidance of an expert, and developing one's own insights into teaching through the interaction between personal reflection and theoretical notions offered by the expert.

The use of these concepts as fundament of our model can be regarded as the first.

The second criterion has to do with the main objective of the model. The model must give attention to the right subjects and concerns of newly qualified teachers and should serve as a starting point to designing an international course on induction and guidance of newly qualified teachers.

With the third and final criterion we aim to broaden the scope of the model. It is not merely about teaching and mentoring, it has to apply to the organisation of induction and guidance of NQTs. It must give directions to activities of mentors and directions to the organisation of good quality guidance and induction in the school.


## 2.3. Learning from existing induction practice

The next step in the construction of the model was to study existing practices, in the practice of the six participating countries and in other international contexts. As a model can take on many forms, the challenge is to choose the right language, ingredients and graphical representation so that the objective of the IGNATIUS project could be achieved.

The work of Eisenschmidt [2009a and 2009b] gives a broad perspective on concerns of teachers in the first years of professionalism, the need for mentoring and sound organisation of induction to avoid NQTs dropping out in their first years of teaching.

The Australian Commonwealth Department of Education Science and Training [2002] describes the needs of newly appointed teachers across three dimensions: pedagogical (how to bring theoretical notions of teaching into practice), professional (e.g.: the development of routine) professionalism and personal (the balance between professional and personal objectives in a teaching career). Stansbury and Zimmerman [2000] recommend three types of support (and two levels of intensity) for new teacher induction. The three types of support the authors advocate are personal and emotional

support, task or problem-focused support, and support with critical reflection on teaching practice.

In describing the fundaments of the English system of induction and early professional development, Pollard [2008] stresses the importance of dealing with concerns relating the development of craftsmanship – e.g. addressing concerns regarding lesson planning, and class management - the organisation of systematic observation and reflection. In the English system there are key roles for mentors providing support and school managers for the formalization and facilitation of the system at schools.

## 3. The international model for induction and guidance of NQTs

One lesson learnt from studying these practices was that the subject of induction and guidance should be addressed at more than one level. It was decided to differentiate between: the intra- and interpersonal issues, issues related to mentoring and issues attached to school level; furthermore we recognised the environment of the school as the fourth level (see Figure 1).
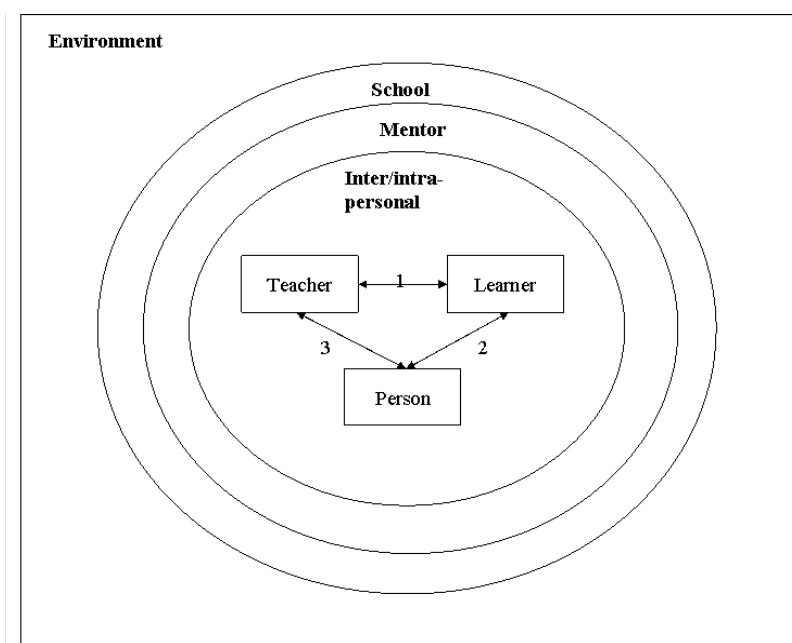


Figure 1. International model for guidance an induction of newly appointed teachers.

At the first level we focus on the NQT himself. By labelling this as the _inter- and intrapersonal_ level we express that teacher's concerns have to do with processing (thinking, reflecting, feeling) experiences with others (students, classes, colleagues).

The preferred reflection process for the international model is described with the so-called ALACT model for reflection [Korthagen, 1985, 1988], named after its five phases: action, looking back, awareness of essential aspects, creating alternative methods of action, and trial. The fifth phase is itself again the first (action) phase of the next cycle, which means that we are dealing with a spiral model. This approach aims at an ongoing process of professional development. Learning is more effective in cases where the teacher is operating at a fairly conscious level, especially if the teacher reflects after the lessons ("reflection-on-action" [Schön, 1987]) or if there has been a fraction of stop-and-think before reacting ("reflection-in-action" [Korthagen, 1999]).

At the _mentor_ level concerns are addressed in order to provide mentoring. This also involves the skills required for mentors to address the new teachers' concerns adequately. The outside ring illustrates concerns at meso or _school_ level. Induction and guidance has to be organized, facilitated and formalized by the school itself within the framework defined by issues on macro level; e.g. rules and regulations.

The _environment_ (macro level) is an important factor. Schools are by no means isolated organisations; they will be constantly influenced by matters on macro level (law, trade unions, local government programmes, funding possibilities, etc.), but also by other factors in the environment like demography, location, and partnerships with education institutes or parent involvement. These matters will influence the practice of induction in schools in various ways.

Schools have to deal with the question how to deal with concerns arising from macro level or how on occasion to influence decisions made on macro level. As these concerns are specific and differ strongly between European countries, the focus of the model is limited to processes that can stimulate the development of effective induction programmes within the context of the school taking universal concerns into account on inter/intrapersonal, mentor and school level.

A second lesson learnt was that the complexity of the learning that takes place by the NQT and the challenge to support this learning in a right way should be taken into account. This complexity is recognised by adding three essential and universal dimensions that determine professional development of teachers: teaching as a NQT, learning the craft of teaching, and personal development as a teacher. For the sake of clarity, these dimensions are represented in the model as roles: _teacher_, _learner_ and _person_. A model that is applied at the teacher training college in the Netherlands (Hogeschool van Amsterdam) to describe the in-service learning of students has been an

important inspiration for this 3-role approach [Dirks and Van der Laan, 2004]. These roles are also related to the three dimensions of The Australian Commonwealth Department of Education Science and Training [2002] and the three types of support by Stansbury and Zimmerman [2000] mentioned earlier in this paper.

It is important to remark that when using the term 'roles', it is not suggested that a concrete professional experience will be attached to one unique role at a time. An experience in teaching will always carry an aspect of learning and professional development as a teacher. Nevertheless, the concept of roles was adopted, as it is helpful to explore and identify concerns of induction of NQTs. These roles are not unique for novice teachers; they apply to all professional teachers. Nevertheless, this model is designed to illustrate guidance and induction of newly appointed and qualified teachers, as in their case professional development is especially crucial. The roles are dynamic; they influence each other and change over time.

The target of an NQT is to become a competent teacher. It is the process from being a novice to becoming a self-confident, skilled, professional teacher. In our model the *teacher* stands for the concept of a newly qualified (hence skilled) teacher with full responsibilities at his or her school. As he or she is new on the job, the need for learning in practice in order to master the profession in evident. This role has all to do with craftsmanship; the practical knowledge and skills of a competent teacher. A teacher's competences are constantly developing and even a competent teacher is always learning [Dirks and Van der Laan, 2004]. In the teacher role, the NQT is practicing and personalizing these competences to fit his needs. The starting point *learner* in this model is that of a freshly (state of the art) qualified teacher with little or no experience in performing the real profession. Thus, though having acquired theoretical resources, the learner in our model lacks experience in how theory works in practice. The motivation, personality, thinking patterns and attitudes of the *person* in this model are unique for each NQT.

In the next three paragraphs the concerns on the inter- and intrapersonal, mentor and school level will be discussed by looking at the relation between teacher, learner and person.

### 3.1. Concerns on the inter- and intrapersonal level.

Table 1. Typical questions on the inter- and intrapersonal level

*Teacher-Learner* relation

How to apply pedagogical and subject matter theory into practice?

How to plan my lessons?

How to create an orderly atmosphere?


*Learner-Person* relation

How did I manage this class?

What were strong and weak points in this situation?

What motivated me in this past lesson


*Person-Teacher* relation

What is my view on teaching (working theory)?

What is my view on teaching in this school?

What is my personal development plan?

The *Teacher-Learner* relation (figure 1, arrow 1) has to do with questions on how to bring subject, methodological or pedagogical theory into practice. Concerns are known to often relate to questions of classroom management. The learner will have acquired models and theory on this subject but will be much concerned about how this will work in practice. Some typical questions for each relation can be found in Table 1.

The *Learner-Person* relation (figure 1, arrow 2) has to do with reflecting upon and learning from the experience gained in practice. The direct short-term teaching experience is the subject of concerns here and the need for observation and feedback by a mentor is essential. The NQT will learn by reflecting on his or her experiences directly at school. And he or she may do so as well with other trainees, friends and family.

The *Person-Teacher* relation (figure 1, arrow 3) is about the development of the person in becoming a teacher; it is about a person's motivation, values and beliefs towards the teaching profession. It is a two- way relation because one's values, motivations and beliefs influence the actual teaching routine. And vice versa: developing teaching

routine will to some extent shape values, motivations and beliefs of the teacher about his profession. As in the relationship indicated by arrow 2, arrow 3 also has to do with reflecting upon experience. These concerns, however, are related to professional development on the long term. What type of teacher am I and what do I want to become?

## 3.2. Concerns on the mentor level

Table 2. Typical questions on the mentor level

*Teacher-Learner* relation

What is your plan for the next class?

What do you know about the students in the next class?

What focus should I choose in observing you teach the next class?


*Learner-Person* relation

I have observed your lesson just now, what aspects shall we look back on, where shall we start?

What is your feeling about this experience?

What went well and what could have gone better?


*Person-Teacher* relation

Remember talking about your view on teaching in this school 6 months ago?

How do you compare what we discussed then with what is happening now?

What points would you want to develop in the coming year?

Although there has been only limited empirical scrutiny of its supposed advantages [Feiman-Nemser, 1996], mentoring has gained prominence over the last 20 years as one of the key strategies for beginning teacher induction. Mentoring enables beginning teachers to obtain information or assistance in response to particular needs, as and when they arise, from a credible source, in a safe, individualised learning environment. This

setting also enables the mentoring relationship to encompass personal support needs, as well as broader professional issues. Support must be sequenced to match beginning teachers' changing developmental needs [Commonwealth Department of Education Science and Training, 2002]. Pollard [2008] states that the role of the mentor in facilitating reflection is fundamentally important to the professional well being of teachers. Mentoring provides a stimulus, based on accumulated professional knowledge and experience, helping teachers to reflect with purpose and focus.

Rippon and Martin [2003, p. 224] made a "person specification" for a mentor based on 5 characteristics: approachability, teaching credibility, professional knowledge and authority, motivational skills and other skills like being fair and honest. The international model gives direction to the skills a mentor needs to provide adequate support, which fit these characteristics.

The *Teacher-Learner* relation is mainly about craftsmanship. To support the NQT, a mentor would have to live up to high standards in his own teaching practice. The mentor should be a craftsman with excellent teaching credibility. Furthermore, as a role model he or she should be well regarded by children, young people, colleagues, managers and parents [Rippon and Martin, 2003, p. 224]. But as mentoring is about facilitating the NQT, these requirements are merely conditional. The mentor in this relation is an advisor. He or she must be explicitly aware of how things work in classroom, should be capable of legitimating this in a clear way and should be capable of following the learning process of the NQT in making a next feasible step in developing craftsmanship. A pitfall of expert mentors is that they expect an NQT's craftsmanship – e.g. regarding classroom management – to evolve in too short a period. No matter how skilled a mentor is as a teacher, the tempo with which a novice teacher develops into a routine professional is managed by the NQT himself or herself.

Some typical questions for each relation on the mentor level can be found in Table 2.

While skill development is a primary focus during the 'establishment' stage of induction, the role of the mentor is broadly defined as encouraging the novice to move to critical reflection. To support reflection in the *Learner-Person* relation this requires good interpersonal skills. To perform well as a mentor, the mentor will have to be competent in for example observation, providing feedback, and all other interpersonal skills in the field of mentoring. Mentoring in the learner-person relation is connected to concrete experiences of the NQT. Essential is to provide feedback in the right manner and on time.

It is vital that the mentor is approachable and has good motivational skills. He must be able to make a pleasant and professional learning environment in order for effective reflection to take place. This view of the role is openly discussed to ensure both partners have shared expectations of the relationship [Commonwealth Department of Education Science and Training, 2002]. To be effective, feedback to new teachers should be grounded in evidence about their practice. Tools to collect data about various components of their classroom practice and documentation of all mentoring conversations ensures a structure for focussing on instructional and continual growth [New Teacher Centre, 2006, p. 6].

The *Person-Teacher* is about developing a professional attitude towards education. Here the mentor will address matters that have to do with values, motivations and beliefs of the NQT. In order to guide this process a mentor must possess up-to-date educational knowledge and must be aware of wider issues and procedures. It is to be kept in mind that the beginning teacher must not try to be a copy of his mentor and a mentor must not try to create a copy. The mentor must keep an open mind and let the beginning teacher create his own style and vision.

Becoming a mentor is often seen simply as an 'expectation of the career structure of teaching, and an opportunity for the mentor's own professional development' [Stephens and Moskowitz, 1997]. A good teacher, however, is not automatically a good mentor. According to a mentor quality checklist [New Teacher Centre, 2006. p. 6] the mentor should be rigorously selected based on qualities of an effective mentor. Also Arends and Winitzky [1999], Kardos [2002] and Bartell [2005] state that mentors should be carefully selected and trained to effectively guide and assist new teachers. As well as covering the role, skills and practices of mentoring, training also provides opportunities for mentors to analyse heir own beliefs about learning to teach, and to articulate their practical knowledge of teaching [Feiman-Nemser, 1996].

Beginning teachers need relevant and timely guidance. This implies that mentors should be in close proximity to their partners, should share the same staff room, teach in the same subject areas and have daily contact [Dowding, 1998]. There are also strong arguments for matching of age and gender [Martinez, 1994, as cited in Commonwealth Department of Education Science and Training, 2002].

### 3.3. Concerns on the school level

Britton, Paine, Pimm, and Raizen [2003, p. 2] present some key features of limited versus comprehensive induction programmes that are relevant for the international model within the school context: promotion of career learning, substantial paid time, complementary set of activities, training for providers (mentors etc.), attention to pupils and no teaching duties.

For the *Teacher-Learner* relation to be effective, the school has to provide sanctioned time and space for the mentor and the beginning teacher. While some national initiatives are taken to reduce the stress for beginning teachers [Van der Linden et al, 2008] a lot of teachers still face an overwhelming workload at the start of their career [Dinham, 1992; Khamis, 2000]. In effective induction programmes teaching loads and other responsibilities are allocated appropriately to suit beginning teachers' skills and experience [Commonwealth Department of Education Science and Training, 2002].

Although informal interaction is important, the practice of mentoring should be formalised, to ensure it is not left to chance conversations over a cup of coffee [Dinham, 1992]. Mentors are selected on the basis of their ability to work collegially, and facilitate critical dialogue, which encourages beginning teachers to reflect on their teaching practice [Khamis, 2000]. Mentors are trained for the role.

Table 3. Typical issues on the school level

| |
|---|
| *Teacher-Learner* relation |
| Introduction into school practice and culture in the first weeks. |
| Formalizing guidance for one or several years. |
| Providing a clear induction and guidance programme. |
| Rigorous selection of mentors |
| |
| *Learner-Person* relation |
| Providing space to learn, e.g.: possibilities for ongoing interaction for experienced and novice teachers to learn together. |
| Contacts with other expert organisations. |
| |
| *Person-Teacher* relation |
| Providing possibilities for life long learning. |
| Clear system of assessment and career development. |

To stimulate the *Learner-Person* relationship, the school has to create a professional learning environment. At schools where this learning environment is absent beginning teachers can feel physically and professionally isolated [Hargreaves, 1994]. Johnson et al. [2005] identify three different school cultures which can be linked to the learning environment:

• Veteran-oriented: workplace norms are set by veteran teachers who protect individual autonomy; little exchange between new and experienced teachers

• Novice-oriented: values and work modes are determined by a predominantly novice faculty; new teachers' work is uninformed because there are few opportunities for novices to interact with experienced teachers

• Integrated: ongoing professional exchange among all teachers across experience levels.

According to Johnson [2004, p. 159], "In integrated professional cultures, mentoring is organized to benefit both the novice and the experienced teachers, and structures are in place that further facilitate teacher interaction and reinforce interdependence". The "novice status" is held in high regard, and novices and experienced teachers share the responsibility for growth.

Effective programmes depend on school cultures which foster openness, collaboration and help seeking [Commonwealth Department of Education Science and Training, 2002, Martinez, 1993], when observation is an organic part of school life [Stephens and Moskowitz, 1997], and reflective practice is widely modelled. Principals and experienced teachers should work to cultivate a professional culture that recognizes the needs and knowledge of new teachers and provides for the ongoing interactions of teachers across experience levels. Principals and teacher leaders should consider the needs of new teachers when planning required faculty meetings. Principals should devote time and attention to topics having to do with curriculum and instruction, and the day-to-day challenges of the classroom. Principals and experienced teachers would do well to elicit the participation and contributions of new teachers [Kardos, 2002]. Some typical issues on for each relation on school level can be found in Table 3.

In order to support the *Person-Teacher* relation schools devise a teaching development plan, which incorporates an induction policy [Commonwealth Department of Education Science and Training, 2002]. This development plan describes how the school wants to develop educationally and gives direction to the personal development of the beginning (and experienced) teacher. Because a teacher is constantly developing his competences

the personal development plans are normally part of an evaluation cycle. As in most countries new teachers start with a temporary contract they usually face a formative assessment after the induction period. It is advisable that assessment is managed so that it does not overwhelm, undermine or conflict with the provision of support [Commonwealth Department of Education Science and Training, 2002]. Traditionally, researchers have considered that formative and summative processes should be kept separate, because of a belief that it is difficult for the mentoring relationship when the mentor is also the assessor [Moskowitz and Stephens, 1997].

## 4. Conclusion

As was mentioned earlier in this paper, there is no "one-size-fits-all" for induction and guidance for NQTs. The international model can be used as a framework for developing new guidance and induction programmes or for improving current programs. The characteristics of this model are universal and well supported by literature but as each country, region or school has its own specific issues regarding NQTs these issues should be explored and be taken into account.

The international model was also used to create an international in-service training course in the guidance of teacher trainees and newly appointed teachers for mentors in the schools. The training contains activities that support mentors in understanding the needs of newly appointed teachers and in guiding them. Furthermore the mentors are trained in organizing induction and guidance in the schools. The results of this training will be reported at a later stage.

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# A RESEARCH BASED JOINT DEGREE: THE EUROPEAN MASTER EDUCATION OF TEACHER TRAINING (EMETT) PROGRAMME

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ABSTRACT

*We present the characteristics and the principals of our European Master Education of Teacher Training program (EMETT), created by a consortium of eight Universities of different countries of the European Union. The preparing training program will be a joint degree. The construction of this program is based on comparative analysis of the eight partners' current teacher training program, and on a systematic research of the needs and attitudes of the students and trainers.*
*We present the most important results of our research based on this questionnaire. Trainees declare a balanced need of solid scientific knowledge and a detailed school practice and the integration of theory and practice. The aims of our program are to train an effective teacher not only in the home country, but in a multicultural educational field in abroad.*
*The curriculum consists of six core areas: Reflective Practice, Educational Sciences, Multilinguistic Mastery, Intercultural Studies and Thesis (Project Work/Field work).*
*The main strengths of our program: During the mobility semester, trainees improve their language competences in English and in the language of the host country. The reflective practice is a central element of the curriculum. This is a systematic analysis of the teaching experience parallel with the school practice. Subject Studies and Subject Didactics will be integrated, using modern didactical methods in the training.*

Key words: teacher training, joint degree, master education, intercultural studies

There is a considerable diversity in the different EU countries' teacher training programmes and there are different traditions. Nevertheless there are common principals and similarities as well. In a research project financed by the Lifelong Learning Programme of the European Union our consortium carried out a comparative study of the teacher training programmes of eight different countries in the European Union. Based on the research findings a common European Master Degree Programme for Teacher Training was created.

The consortium consists of eight universities, the Ca' Foscari University (Venice, Italy) as project coordinator, University of Aarhus, School of Education (Copenhagen, Denmark), Eötvös Loránd University (Budapest, Hungary), Jagiellonian University (Krakow, Poland), Pedagogical University of Tirol (Innsbruck, Austria), University of Cyprus (Nicosia, Cyprus), University of Nantes (Nantes, France), Vilnius University (Vilnius, Lithuania).

Our European Master Education of Teacher Training (EMETT) programme is planned to be a joint degree. In this paper we present the characteristics and the principals of the programme. The programme outline is based on a comparative analysis of the eight partners' current teacher training programmes, and on a systematic study of the students' and instructors' expectations and attitudes. The student questionnaire consists of 73 items, the instructor questionnaire of 75 items. It deals with the following four topics:

- The characteristics of the present teacher training, and those that would be necessary – "How is it now and how should it be?"
- The professional competences of a teacher: the importance of different teaching skills and how difficult it is to attain these skills during teacher training
- Expectations about the European Teacher Training programme
- Personal data, experiences of teaching and learning

The student and instructor questionnaires were similar. The most important findings are presented in this paper, based on the trainees' questionnaire.

The sample contains of 597 students enrolled in teacher training programmes. The sample is not balanced in terms of the number of respondents from different countries, the subjects studied by the respondents and the male/female ratio. We consider this fact in our analysis.

## Samples from different countries
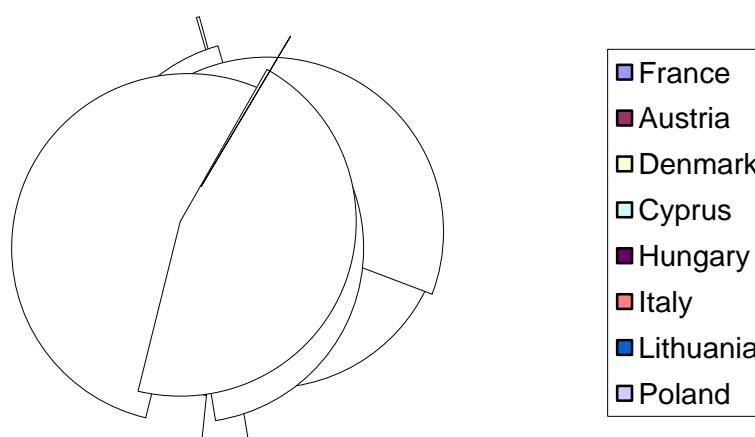


Figure 1.: Sample ratios from the different countries in the study

**Sample male-female ratio**
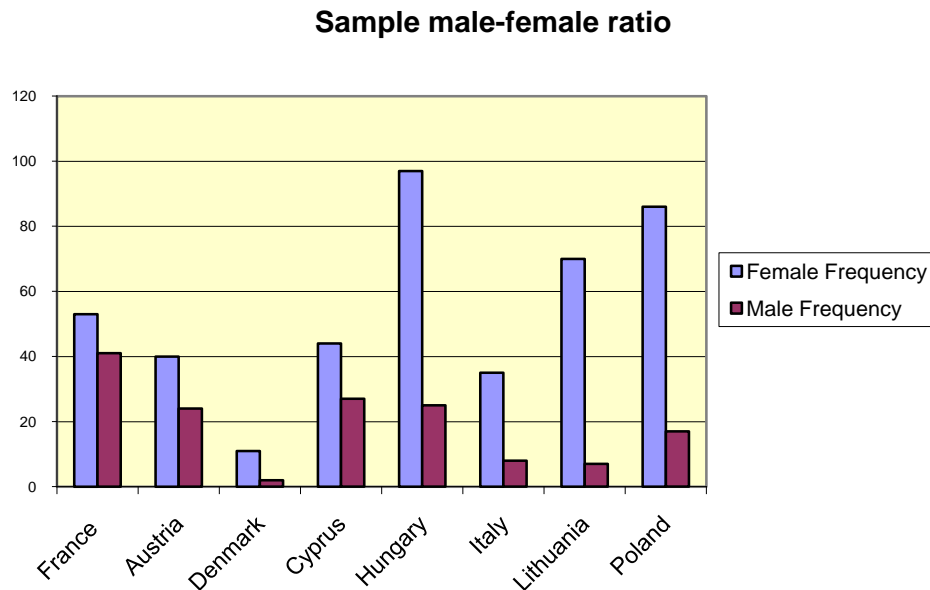


Figure 2: Gender ratio in sample

In seven countries there are more females in the sample (t test p<0,01). It is caused by the overrepresentation of females in the teaching profession, and the higher ratio of respondents in human sciences.

**Expectations of teacher training**
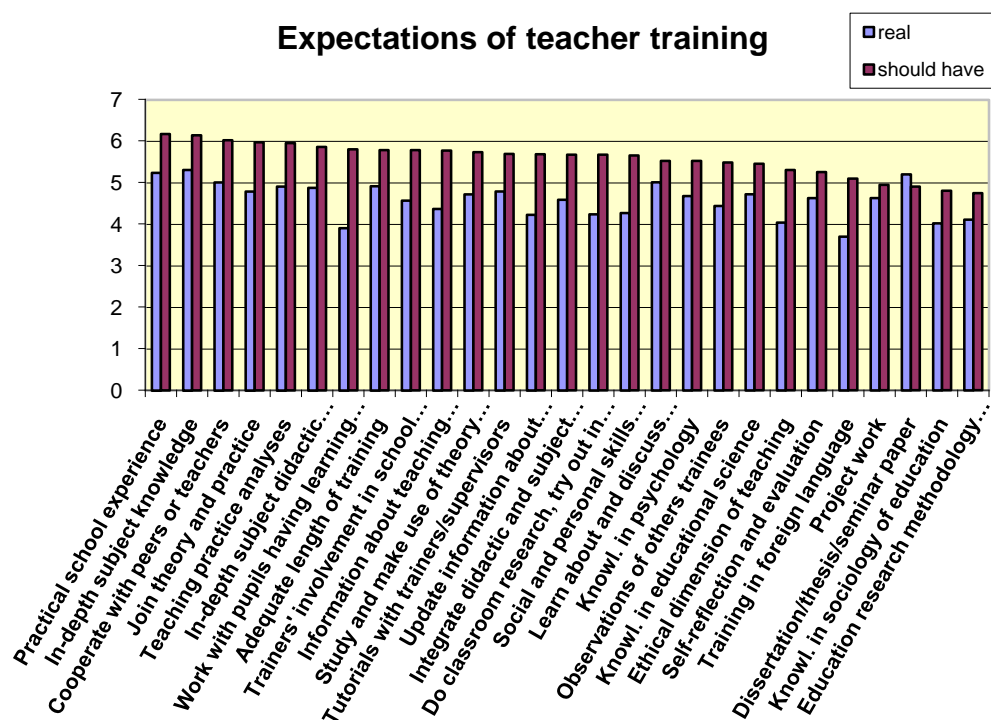


Figure 3: Expectations of different aspects of the teacher training

Trainees rated their training programmes on twenty-seven different dimensions including the level of theoretical knowledge in subject, didactics and educational

studies, possibilities for different aspects of the school practicum and the integration of theory and practice. Comparing the existing program ratings with the expected level declared by the trainees, the difference was significant in all twenty-seven dimensions. Most of them scored lower on the 'reality' questions than on the 'desired' questions. There was only one exception: the importance of the dissertation. From the trainees' point of view, the role of the dissertation in the teacher training is exaggerated. The most important element of the training should be the practical school experience, the in-depth subject knowledge, regular opportunities to cooperate with peers or schoolteachers, the opportunity to join theory and practice, and the analysis of the teaching practice. They declare a balanced need of solid scientific knowledge and a detailed school practice and the integration of theory and practice.

The most important aspects are the practical school experience and the in-depth subject knowledge, these two aspects are equally important. The cooperation with peers or teachers is the second mostly needed aspect declared by the trainees (t test p<0,001).

Joining theory and practice, teaching practice analysis and in-deep subject didactic knowledge are ranked third on the importance scale. The difference between in-depth subject didactic knowledge and the work with pupils with learning problems is also significant (t test p<0,001).

Analysing the difference between the expectations about the teacher training, the trainees of the different countries give different answers (One way ANOVA). We found significant differences in twenty-six of the twenty-seven tested dimensions. The dimension where consensus could be found in the level of importance was "tutorials with trainers/supervisors". We present the differences in the two most important training elements.
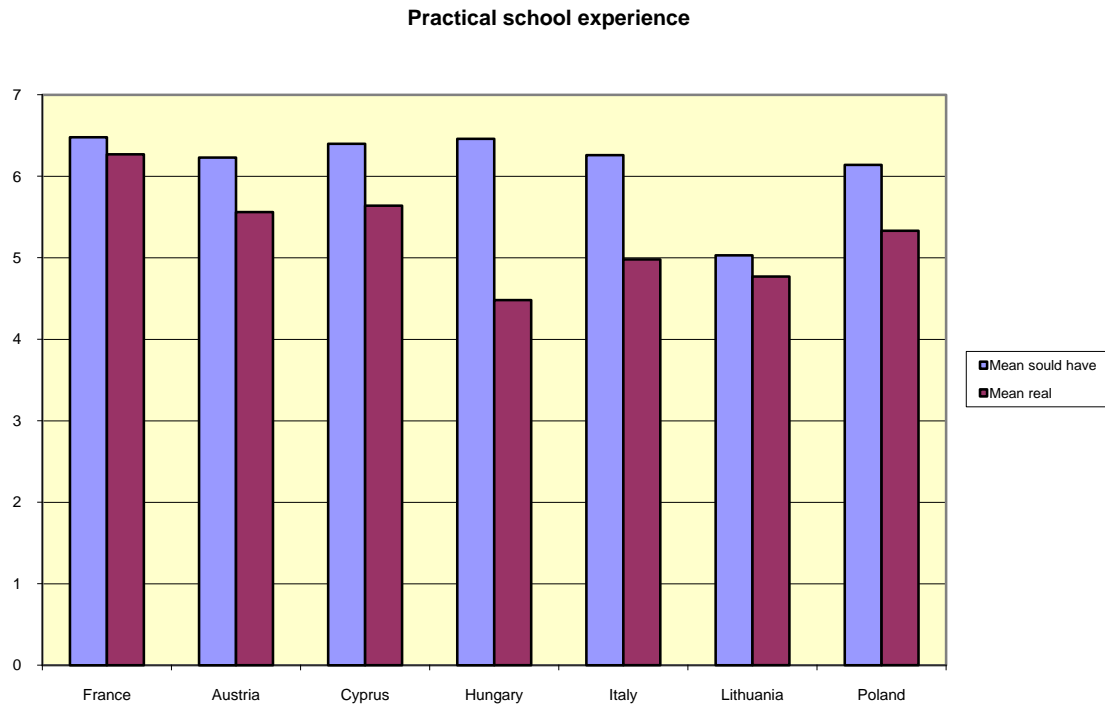
Figure 4: Differences between the tested countries in the expectations and the present situation of the level of practical school experience

As regards the different backgrounds of the present practices there is a large consensus in the judgement of the importance of the school practice. Only the Lithuanian students demonstrated a smaller need for practice. That is explained by their exceptional situation, i.e. they are students of a correspondence master course, being ordinary teachers in schools.

Within the remaining samples there is one significant difference, which is to be found between the Polish and the French/Hungarian students' views. The French and the Hungarian trainees declare a high demand for school practice. Compared to these groups the need for practical school experiences is slightly but significantly lower in the Polish sample.

**In-depth subject knowledge**
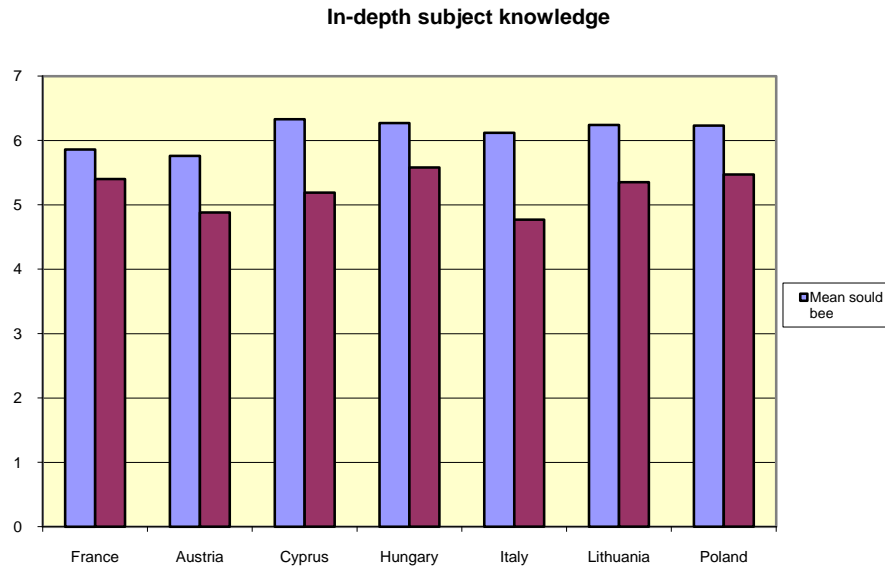


Figure 5: Differences between the expectations and the present situation of the level of subject knowledge among the trainees in these countries

The need for in-depth subject knowledge is the highest in Cyprus, Hungary, Lithuania and Poland, the rate on the seven stage scale is between 6,2-6,3. The trainees of France and Austria prise the importance of in-depth subject knowledge less and the rate given of the Italian students is between these two groups.

We represent the main differences of the desired and the real characteristics of the teacher training in the answers of students from seven countries on Figure 6.
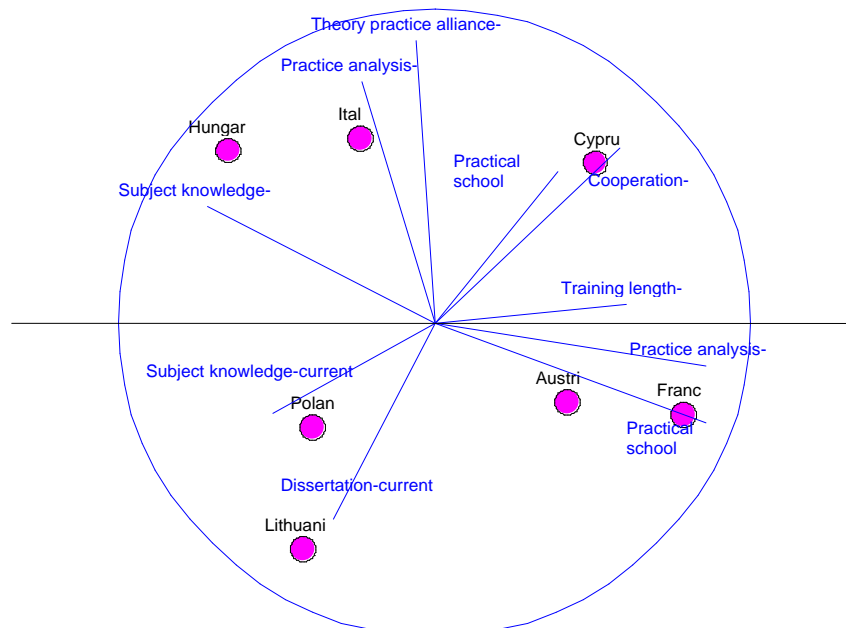


Figure 6: Differences between aspects of the teacher training in the tested countries

On figure 6. we present the assessment deviations of the seven countries. The aspects closer to the given country are more characteristic for them. Slightly simplified, we can consider the contrast between countries in two dimensions. They diverge on the one hand around a horizontal axis between those expressing particular wishes (Hungary, Italy, Cyprus), and others who note the importance of certain features in current training (Poland, Lithuania, Austria, France). On the vertical axis the countries are separated from the point of view practice or theory and subject knowledge.

We were not only interested in desired aspects of training, but also in the perceived necessary professional skill set of a teacher. The trainees were asked about their opinion on the importance of different competences for teaching.

The subjects rated the importance of these skills relatively high, but there are some differences in the perceived importance (Friedman $p<0,001$). The most important aspects are: "motivating pupils", "mastery of subject knowledge" and "communications skills". "Appropriate rapport with pupils" ranks forth but there is a significant decrease in the level of importance compared to the previously mentioned competences (t test $p<0,001$).

Further differences were found between

- "appropriate rapport with pupils" and "planning lessons and sequences" (t test $p<0,01$);
- "planning lessons and sequences" and "achieving the goals of lessons" (t test $p<0,01$);
- "achieving the goals of lessons" and "right timing in lesson" (t test $p<0,01$),
- "right timing in lesson" and "understanding the theoretical foundations of the curriculum" (t test $p<0,001$),
- "team work with others" and "cooperation with external institution" (t test $p<0,001$).

Our students are first of all interested in carrying on with teaching, and they feel less motivated to work on their personal development and the cooperation with colleges and parents. So, the students prefer the previous over the latter aspects but it does not mean that the latter should be left out of their training. It only implies that the training should begin with school experiences from the teacher's point of view.

Our curriculum is based on mobility and international experiences, so we were interested on the European dimension of the training too.

## Expectations about European Teacher Training
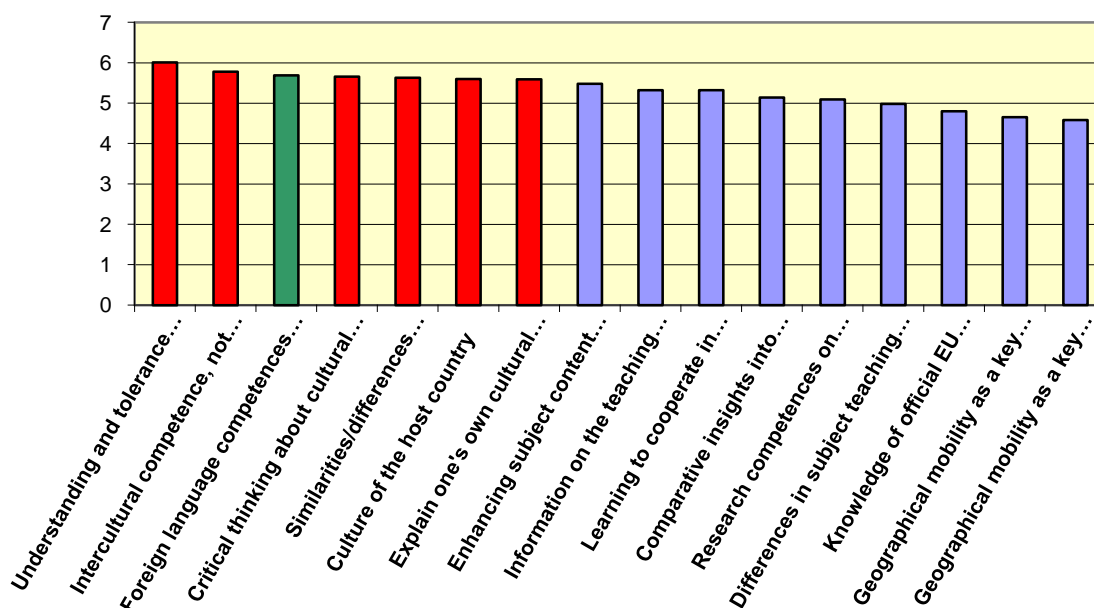


Figure 8: The expectations of the European Dimensions the EMETT program should include

The cultural and the linguistic aspects are the most important aspects of the international teacher training, and the possibility of studying in abroad. Those (six) questions concerned with the cultural aspects are ranked within the seven most important aspects. The most important aspect is "understanding and tolerance of different cultures". There are significant differences between

- "understanding and tolerance of different cultures" and "intercultural competence" (t test p<0,001) and
- "explaining one's own cultural perspective" and "enhancing subject content knowledge" (t test p<0,05).

Our programme is aiming to train effective teachers not only in the home country, but in a multicultural educational field and to add European values by developing multilingual competences and providing intercultural experiences. At least one semester of the studies is to be realized abroad. It provides the trainee with real life experiences within a different culture. They can get to know different practices and attitudes, and they can study (within) another educational system. It offers the possibility to experience a real minority situation, to develop openness for different solutions within the school environment. From the answers of our students we can conclude that our students consider geographical mobility as a means to get acquainted with other cultures, to enhance tolerance and to develop their foreign language competences.

The curriculum consists of six core areas:

1. Subject and Subject Didactics,
2. Reflective Practice,
3. Educational Sciences,
4. Multilingual Mastery,
5. Intercultural Studies and
6. Thesis (Project Work/Field work).

**CA3-Educational Sciences (18-30)**
at least 3 modules
**CA3.1.Psychological aspects of education and training**
**CA3.2.Sociological aspects in education**
*CA3.3.Educational research methodology*
*CA3.4.Inclusive education*
**CA3.5.Pedagogical issues in education and training**
*CA3.6. Educational management processes*
*CA3.7. Social psychology in education*

**CA2-Reflective practice (18-24)**
at least 3 modules
**CA2.1.Practice and practice analysis**
**CA2.2. Training competences for practice analysis**
*CA2.3. Research based project on educational practices (case study, experimental study etc.)*
*(CA2.1 can be iterated, also for 1 subject only)*

**CA4-Multilinguistic Mastery (12-18)**
at least 2 modules
*CA4.1.Main FL proficiency(B2/C1 – other FL if EN ok)*
**CA4.2.Foreign Language in host country(courses for 2 linguistic competence levels available)**
*CA4.3. Multilingualism/FLs EU policies*

**CA6- Thesis/project work/field work (0-18)**

**CA1-Subject Studies and Subject Didactics (24-42)**
at least 4 modules
**CA1.1. Subject didactics**
**CA1.2. Theoretical perspectives on subject studies for teaching**
*CA1.3. Advanced subject studies for teaching*
*CA1.4. Subject teaching in foreign language*
*(CA1.1/2/3 can be iterated, also for 1 subject only*

**CA5-Intercultural Studies(12-18)**
at least 2 modules
*CA5.1. Comparative perspectives on European Education*
*CA5.2. Aesthetic perspectives on European cultures*
*CA5.3. Intercultural communication*
*CA5.4. Intercultural education*

Figure 9: The structure of the EMETT programme

To complete the EMETT programme students will have to earn 180 credits. The trainees will have the possibility to choose how they would like to earn these credits. There is a minimum and number of credits required to complete each core area. There is a maximum of realisable credits in all core areas though. Each module is worth six ECTS-credits. Our curriculum consists of compulsory and optional modules. On Figure 9. the compulsory elements are written in bold, the optional ones in italics. There are units (CA1. 1,2,3 , CA 2.1.) that can be iterated too. It allows flexible adaptation to national requirements and to students' individual needs, interests and levels of competences as well.

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In the core area Subject Studies and Subject Didactics the subject studies will be integrated with subject didactics. Subject studies have specific contents according to the teaching material at secondary schools. Subject knowledge and subject didactics will be taught in an integrated way using modern didactical methods in the training. The subject will be taught in a manner that will later be required from the trainees to use in their own teaching.

The reflective practice is a central element of the curriculum. This is a systematic analysis of the teaching experience parallel with the school practice, facilitating the connection of theory and practice. The reflective practice will be realised in a group that can be led by different experts (e.g. methodologists with psychologists, or sociologists with experts of educational science). The main aim of this practice is to develop reflective abilities for the teachers-to-be. This school practice helps students to integrate didactic and theoretical knowledge with their class experiences and enable them to try new methods in a protected environment.

The module of Educational Sciences contains pedagogy, didactics, psychology and sociology courses. During these courses the subject content is linked to the context of teaching and presented in a practice focused manner. Examples will be drawn from the school context.

Multilingual Mastery is a basic skill for language teachers. Nevertheless in the EMETT programme linguistic mastery is important for all students, because one of the goals of the EMETT training is to facilitate the teachers' mobility in the EU. During the mobility semester, trainees improve their language competences, having courses in English or in the language of the host country. Having a chance to attend crash language courses in the host country's language they get to know the challenges with language difficulties.

Intercultural Studies consist of cultural and communicational studies and comparative elements in the educational field. The main goal of these studies is the understanding and tolerance of different cultures, as students defined it, the most important European aspect of EMETT.

Thesis in our programme is not necessary a theoretical work, we prefer project work and field work carried out in school environment. It can serve as a tool for widening the practical skill set of a future teacher too.

The EMETT program is planed to start in the autumn semester 2010 in the partner institutions, and it is open for other teacher training institutions all over the European Union. Further information: www.emett.eu

# THE ROLE OF THE TEACHER – COMPARATIVE STUDIES IN ENGLAND, FINLAND AND SWEDEN

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ABSTRACT
*In the study, Finnish, English and Swedish teachers and student teachers described their (future) teacher role. The study was cross-national and consisted of multiple case studies. Data were collected through 24 focus group dialogues, and 110 teachers/student teachers participate. One conclusion was that teachers and student teachers in all three countries were concerned to promote pupils' development of critical thinking; this was most evident in the Finnish and Swedish cases. Conclusions were that the English focused much on teaching the subject. In Finland the teacher role did not appear to be as postmodern as in the two other countries.*

Key words: Attitudes and values; citizenship education; cross-national case studies; focus group dialogues; teacher role.

## Introduction

This paper draws upon an article to be published in *The Canadian Journal of Social Sciences* (Sandström Kjellin, Stier, Davies & Asunta, 2009). In the following the presentation of the results is condensed (in accordance with the conference requirements) and partially altered. Some ideas are further elaborated – all with the intent of focusing more precisely on the role of the teacher.

The study focuses on teachers' (T) and student teachers' (ST) personal accounts of their identity. The aim is, more precisely, to explore what T and ST in England, Finland and Sweden depict as their most important tasks as teachers – active teachers now or in the future. Research questions are: What aspects do T and ST mention, and to what extent? In which ways, and to what extent, do T and ST depict that they focus on promoting pupils' development of critical thinking? Which cross-national similarities/differences in addition to similarities/differences between T and ST are crystallized?

According to Fredriksson (2007) teachers today are to play multiple and often highly diverse roles. Apart from instructing and teaching their pupils, they must serve as mediators and counsellors (uphold a good dialogue with parents), bureaucrats (consult guiding documents), professionals (discuss value conflicts with colleagues) and business promoters (compete for pupils). Also, they must function as social mediators whenever interpersonal conflicts occur.

Hargreaves (1998) claims that the more postmodern the teacher role is, the more complex it becomes. Whereas the *modern* teacher role is more restricted to the traditional task of delivering subject knowledge to pupils, the *postmodern* role includes mastering competences to facilitate classroom dialogue where the pupils' apprehension of the world is at the centre of attention. This teacher task is nowadays a European level goal to be reached within the realm of 'citizenship education' (CE).

**A note on citizenship and citizenship education**

In some countries, 'citizenship' primarily implies a judicial relation-ship between the State and its citizen; in others the term denotes the social role of coexisting in society (Torres, 2006; Roth, 2007). *Eurydice* (2005) examines how 'citizenship' is conceptualized in school curricula as well as if/how teachers received institutional support in their work with CE. Unsurprisingly, there are significant cross-national variations in how CE is understood and worked with in the different countries. *Eurydice* also contains teachers' personal accounts of their pedagogical practice in this field. At the same time, it provides few details on how citizenship manifests itself in teacher-pupil classroom interaction, and merely concludes that this matter demands further research.

In *Eurydice* (2005) three aspects of CE are singled out: (1) political literacy, (2) development of critical thinking and certain attitudes and values, and (3) active participation. The order between these aspects is described as hierarchical, suggesting that first of all, political literacy must be achieved. CE targeted at the 'political literacy' aspect provides pupils with theoretical knowledge of the rights and responsibilities of a citizen (an obvious example is when pupils are instructed about school rules). By contrast, CE focusing the 'attitudes and values' aspect assists pupils to obtain "skills needed to participate actively in public life, develop recognition and respect for oneself and others with a view to achieving mutual understanding, acquiring social and moral responsibility, including self-confidence" (Eurydice, 2005: 10). CE focusing 'active participa-tion', finally, aims at encouraging community involvement amongst pupils (one example is when pupils are encouraged to participate in the school council). Once again, it comes as no surprise that there are significant cross-national variations in how countries formulate the aspect of critical thinking and certain attitudes and values.

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**Previous studies**

Drawing from five national case studies, Sandström Kjellin and Stier (2008a) found that teachers who communicate an 'attitude of citizen-ship' in the classroom (the 'attitudes and values' aspect) involve their pupils in the lesson contents to a higher extent than teachers who merely teach *about* citizenship. Therefore, it was concluded that teacher education must focus more on horizontal classroom dialogue if goals for CE are to be reached.

In a European collaboration project (Sandström Kjellin & Stier, 2008b) the authors found that even in countries where there is a political goal to teach children to judge critically (see Gutmann, 1987), the pupils at an upper secondary school were unaware of, and consequently uncritical of, the way adults treated them in school (Gustafsson, 2008).

Yet another study, (Sandström Kjellin, Stier, Einarson, Davies and Asunta, 2009), showed that, according to pupils' understanding, the focus of CE and the nature of the teacher-pupil classroom interaction varied significantly between three European countries. In England, the teenagers were well-informed *about* 'political literacy'; yet, they were unaccustomed to confident relationships with adults. In Sweden on the other hand, the situation was quite the opposite; the teenagers were relatively uninformed about 'political literacy', but used to open, confident dialogue with teachers (this corresponds to 'the attitudes and values' aspect of CE). In Finland the pupils were *very* taciturn and it was hard to conduct dialogues with them.

**A few assumptions about citizenship in the classroom**

Against this background, we see the second aspect (i.e. development of critical thinking and certain attitudes and values) as the paramount target of CE. If pupils do not master critical thinking, they will be unable to exercise citizenship. By the same token, we claim that CE with this focus demands horizontal teacher-pupil communication, where teachers take a sincere interest in the pupils' understanding of the world. Thus *all* school work (that is also in seemingly trivial interactive encounters) must encourage pupils to

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make their voices heard in classroom dialogue, and for this reason classroom dialogue need to be horizontal.

In 'horizontal communication' the interlocutors are perceived as equal, whereas they are perceived as unequal in 'vertical com-munication'. What complicates matters, however, is that any adult-child relation, by necessity, is vertical to some extent (Janson, 2002), a fact which has classroom implications. Their professional role renders teachers a positional advantage compared to their pupils. Yet, by being receptive in classroom dialogue teachers can actively facilitate horizontal dialogue and sincerely account for 'the attitudes and values' aspect of CE. It is by facilitating such a classroom climate that a solid foundation for the pupils' active citizenship participation later in life is laid.

**The Teacher Role**

According to Hargreaves (1998) differences in the teacher role can be, at least partially, explained by how 'modern' or 'postmodern' societies can be said to be. Generally speaking, the teacher role tends to be highly multifaceted in postmodern societies, whereas in modern societies it is less diverse and typically more focused on to 'delivering knowledge'. From this it follows that in modern societies it seems easier for teachers to know if they have achieved the goal or not. Presumably variations in how modern or postmodern the teacher role also account for differences in how qualified teachers and student teachers view their (future) professional role. Once again generally speaking, being younger and products of postmodernity to a higher extent than previous generations, student teachers are more prone to promote a positive and more dynamic learning climate than their senior colleagues (Hargreaves, 1998).

Albeit Hargreaves' claim, at first sight, seems plausible, it is difficult to verify empirically (e.g. how can one determine and compare the level of postmodernity in different societies?). For this reason and for our purposes it suffices to propose that role expecta-tions of teachers vary between England, Finland and Sweden.

Teachers in England adhere to a professional role that is clearly and explicitly defined by the Government, and their performance is measured in terms of their impacts and results by Government through Performance Management (TDA 1, 2008). The professional values, beliefs and priorities that teachers assimilate about their roles in classrooms reflect the ways in which Government manages the decision-making

processes and the direct control it exercises. Whitty (2006) argues that part of the educational reform of recent years has been to make teacher training more tightly-controlled and regulated, school-based and to be based on training rather than education. The last few years, and particularly with Finnish pupils' high ranking in the PISA study (OECD, 2006), the Finnish school system and teacher education have rendered international attention. Finland is well known for its concern with equality in education. For once, basic education is the same for all people and there are also social and regional equalities following comprehensive school reforms in the 1970s. Presumably, the good performance of Finnish pupils in the PISA study reflects, at least partially, the specific characteristics of Finnish teacher education (there is also huge numbers of teacher education applicants). Another plausible explanation stems from the teachers' professional self-image. Säntti (2007) found that many teachers stress the fact that being a teacher means that you must be able to develop yourself all the time. Many teachers also emphasize the role of the teachers as a listener as well as the teacher being more an educator than just information distributor (Säntti, 2007).

Historically, the double task of both delivering knowledge and to transmit or even 'teach' values has been central to the Swedish school (Pierre, 2007). Whereas values earlier were *mediated* in school, postmodern ethics demand that they are *negotiated*. When the National Curriculum, *Lpo 94,* (Utbildningsdepartementet, 1994) came in effect it contained substantial changes. Now each school was to be responsible for its own development. It was decided that set of 'fundamental values' should permeate every aspect of school work. Two *types* of goals for the school were also introduced: 'goals to be attained' and 'goals to strive towards'. Goals to be attained concern mastering basic skills (e.g. reading and writing) whereas goals to strive towards refer to mastering of more 'sophisticated' skills (based on fundamental values). The aim is to educate citizens equipped and willing to participate in public debates on problems of modern society (e.g. sustainable development, global inequality), which is consistent with the 'attitudes and values' aspect of CE).

**Method**

For data collection 24 focus group dialogues were conducted. In total 110 T/ST participated in the study; in each country, four focus group dialogues with groups of T,

and four focus group dialogues with groups of ST were conducted. There was a mix of age groups; the age of T/ST varied between 20 and 60. There was also a mix of age groups taught, varying from pre-school T/ST to upper secondary school T/ST. Table 1 shows that more women (79) than men (31) participated, which mirrors the actual sex distribution in the teacher profession. Of 110 participants there were 54 T and 56 ST. Dialogues were conducted over a three-month period. Data was collected in England, Finland and Sweden. Dialogues lasted 20-60 minutes, were tape-recorded and transcribed; dialogues from Finland and Sweden were translated into English. In the dialogues, participants were asked to discuss three questions: What does it imply to be a teacher? What is the most important teacher task in the classroom? What is a good classroom dialogue?

Table 1. Distribution of study participants

| Country | ST Men | ST Women | T Men | T Women | Total |
|---------|--------|----------|-------|---------|-------|
| England | 7 | 10 | 6 | 12 | 35 |
| Finland | 5 | 16 | 4 | 13 | 38 |
| Sweden | 3 | 15 | 6 | 13 | 37 |
| Total | 15 | 41 | 16 | 38 | 110 |

Transcriptions of focus group dialogues can be made with different detail precision (Wibeck, 2000). For the purposes here, with focus on the contents of the T/STs' statements, less detailed transcriptions sufficed. Also, the researchers documented their impressions of the dialogue sessions, accounting for prosodic cues, silence, contradictory statements etc. After the dialogues study participants completed a written evaluation, where they stated the extent ('completely'/'to some extent'/'not so much' or 'not at all') to which they openly and honestly had revealed their opinions. Evaluations were then summarized quantitatively, whereas dialogues were analyzed qualitatively. All three researchers were involved in the categorization and analysis.

When analyzing the dialogues, retorts were categorized as: (1) *subject* (subject knowledge; teaching methods; metacognition); (2) *pupils* (upholding a positive school climate and helping pupils to learn and understand; caring, warmth and love; individual children's achievements; the attitudes and values aspect of CE; talking about individual

pupils); (3) *parents* (positive/ negative statements about parents); (4) *society* (positive/negative to changes in the school society or wider society); (5) *teacher identity* (a drawback in teacher education; that they have learnt something in their teacher education; metacognitive professional reflections); (6) *organization* (logistics; curriculum; teacher-team cooperation). The (few) retorts impossible to categorize did not concern teacher work, but typically had to do with suggestions of having a coffee break or similar.

## Results

First the result of the study participants' self- evaluations of how active they were in the focus group dialogues are reported, and then an overview is given of which topics were focused by the groups of English, Finnish and Swedish T/ST. After that the overviews are compared and, finally, a more detailed account for the most focused topic, the pupils, is given.

## Self-evaluation of participation

As we said earlier, after the focus group dialogue, participants were asked to self-evaluate their dialogue participation – i.e. to state if they had participated in the dialogues 'absolutely', 'to some extent', 'not very much' or 'not at all'. Table 2 gives an overview of the self-evaluation of participation in the focus group dialogues.

Table 2 Self-evaluation of participation in the focus group dialogues (%)

| Country | Absolutely | To some extent | Not very much | Not at all |
|---------|-----------|----------------|---------------|------------|
| England | 28 | 7 | - | - |
| Finland | 25 | 15 | - | - |
| Sweden | 33 | 2 | - | - |
| Total | 86 | 24 | - | - |

As seen in the table, self-stated participation in the focus group dialogues was very high. Of the 110 participants, 86 claim they had 'absolutely' participated in the dialogues and the rest had participated 'to some extent'. The reasons that were given by the few who had not participated completely were such as "it was difficult to make yourself heard", "sometimes everything was said", "I would have liked to make preparations for this" or "the tape-recorder disturbed me".

Of the retorts 43% were produced by the English T/ST; 32% by the Swedish and 25% by the Finnish. In all three countries ST talked more than T. To make figures comparable, the amount of retorts in all figures is therefore indicated in percentages.

**Overview of the distribution of retorts among the six topics**

First an overview is given of the distribution of retorts in the focus group dialogues with ST and T. Table 3 shows to what degree (% of all categorized retorts) which aspects of the teacher profession that were focused in the dialogues performed with English T and ST.

In Table 3 we can see that apart from 'pupils', 'the subject' was frequently mentioned. The explanation for this is probably that the English curriculum is highly prescriptive.

Table 3 Mentioning of aspects in England

| Aspect mentioned | Teachers | Student teachers |
|---|---|---|
| Pupils | 32% | 39% |
| Subject | 31% | 30% |
| Organization | 16% | 17% |
| Society | 18% | 9% |
| Teacher identity | 2% | 5% |
| Parents | 1% | 0% |

It is unsurprising that 'parents' were not mentioned at all by ST, and hardly mentioned by T. Parents stand in a 'powerful rights-based' position with respect to T, where T often are formal in their dealings with parents. Leaving 'parents' out of account English T/ST talked about all five topics.

Table 4 shows those aspects of the teacher profession focused in the dialogues with Finnish T and ST. Mainly three topics were brought up, and 'pupils' was by far the most mentioned. The three topics hardly mentioned were brought up just a little bit more by ST than by T

Table 4 Mentioning of aspects in Finland

| Aspect mentioned | Teachers | Student teachers |
|---|---|---|
| Pupils | 37% | 57% |
| Subject | 30% | 19% |
| Organization | 28% | 16% |
| Society | 3% | 4% |
| Teacher identity | 2% | 3% |
| Parents | 0% | 1% |

Table 5 shows the aspects of the teacher profession that were focal in the dialogues with Swedish T and ST.

Table 5 Mentioning of aspects in Sweden

| Aspect mentioned | Teachers | Student teachers |
|---|---|---|
| Pupils | 38% | 48% |
| Subject | 19% | 22% |
| Organization | 24%% | 12% |
| Society | 13% | 12% |
| Teacher identity | 3% | 5% |
| Parents | 3% | 3% |

Topics were slightly more varied among Swedish T and ST. The topic 'Pupils' was mentioned nearly as much as in Finland.

**A Comparison of the above overviews**

The topics were ranked equally in all three countries, which means that the topic most spoken of was 'pupils' and the least 'parents'. As regards 'Pupils', in all three countries ST talked more about pupils than T. In Finland 'pupils' were most focused, after that

Sweden and finally England. This goes for both T and ST. For 'Subject', the result from England stands out, both for T and ST. Also, Finnish T refer much to the subject (more than ST do). For 'Organization' it is shown that in England, ST talk about this as much as T, which is not the case in the other countries. On the other hand, in Finland and Sweden T talk more about the organization than English T do. For 'Society', results show that in Finland T and ST equally make few references to it.

'Teacher identity' was not very focused – a result similar in all three countries both between ST and T. One explana-tion is that this makes up a 'left-over category'? It is surprising that 'parents' is not even mentioned by English ST and by Finnish T, and very little by English T and Finnish ST. Finally, the results in their entirety concern teacher identity.

**Detailed description of the most focused topic: the pupils**

A closer look is now taken on the results for each country as regards the most focused theme, the pupils. First the result for England is reported. Table 6 gives a detailed description of what English T and ST talked about more specifically, when they talked about 'pupils'.

Table 6. Detailed description of English Ts' and STs' focus on Pupils

| Aspect mentioned | Teachers | Student teachers |
|---|---|---|
| The 'attitudes and values' aspect of CE | 17% | 23% |
| Upholding a positive school climate, help pupils learn and understand | 21% | 34% |
| Caring, warmth and love | 7% | 7% |
| Individual children's achievements | 43% | 28% |
| Negative wording of pupils | 12% | 8% |

Most striking in Table 6 is the focus on providing opinions of what certain children, or groups of children, are capable of achieving – something which was stressed to higher extent by T than by ST. What can also be noted is how ST emphasize supporting learning and a good classroom climate, and the attitudes and values aspect of CE. Also there was a tendency to talk negatively of children which is more apparent among T than ST. Table 7 shows in more detail what Finnish T and ST talked about more specifically, when they talked about 'pupils'.

As is seen in table 7 the strongest response from the Finnish was a focus on the attitudes and values aspect of CE and the support of learning and upholding a good classroom climate, and also a focus on giving opinions of what children can or cannot do. The Finnish also make references to caring, warmth and love more than the English.

Table 7 Detailed description of Finnish Ts' and STs' focus on Pupils

| Aspect mentioned | Teachers | Student teachers |
|---|---|---|
| The 'attitudes and values' aspect of CE | 33% | 27% |
| Upholding a positive school climate, help pupils learn and understand | 32% | 29% |
| Individual children's achievements | 21% | 27% |
| Caring, warmth and love | 14% | 13% |
| Negative wording of pupils | 0 | 4% |

Table 8 shows what Swedish T and ST talked about more specifi-cally, when they talked about 'pupils'. In Sweden there was a strong focus on upholding a positive school climate etc., particularly by T. Additionally, the attitudes and values aspect of CE was stressed, especially by ST.

Table 8 Detailed description of Swedish Ts' and STs' focus on Pupils

| Aspect mentioned | Teachers | Student teachers |
|---|---|---|
| The 'attitudes and values' aspect of CE | 23% | 48% |
| Upholding a positive school climate, help pupils learn and understand | 50% | 28% |
| Individual children's achievements | 9% | 10% |
| Caring, warmth and love | 16% | 14% |
| Negative wording of pupils | 2% | 0% |

The results from Sweden resemble that from Finland in mentioning 'caring, warmth and love' more than was the case among English T/ST.

**Discussion and conclusions**

Tables 3, 4 and 5 showed that the topic 'subject' was much focused in England both by T and ST. Also, Finnish T talked a lot about the subject. The explanation for this is presumably different for the two countries. For England the explanation is probably the fact that T/ST are required to follow very strict detailed rules concerning the per-formance of teaching the subjects (TDA 1, 2008; Whitty, 2006). The explanation for Finland can be that Finnish T are very focused on the pupils' performance in specific subjects (OECD, 2006). In Finland there were mainly three topics mentioned: pupils, subject and organization; Finnish ST talked more about pupils and less about the subject than T. Swedish T and ST talked more variedly on the topics than their English and Finnish counterparts. Returning to Hargreaves (1998), he claims that in countries where the professionnal role is less postmodern teachers can concentrate on traditional tasks: to teach subject knowledge. This may partially explain the Finnish success in studies like PISA.

Hargreaves also suggests that the newer generation is more post-modern than previous ones. This is consistent with the result that Finnish ST talked (slightly) more variedly

about topics than Finnish T. In Sweden both T and ST focused on many different aspects of the teacher role (for example, Sweden was the single country that mentioned 'parents'). This result points in the direction that in Sweden the teacher role is more postmodern.

When comparing the results of tables 6, 7 and 8, results from England (table 4), indicate that ST more stressed the attitudes and values aspect of CE and supporting learning and a good classroom climate, whereas T focused much both on opinions of what specific children can do or not and on talking negatively of children. Once again, ST are expected to be more postmodern than T (Hargreaves, 1998). This is strengthened by the result that English ST were more preoccupied with the attitudes and values aspect of CE and with supporting learning and good classroom climate (both considered to be ways of promoting pupils' development of critical thinking).

Table 7 showed that in Finland there was a strong emphasis on the attitudes and values aspect of CE and on supporting good classroom climate (stressed more by T than ST). This suggests that, in this study, T promoted pupils' development of critical thinking more than ST did – an observation which is inconsistent with the claim that ST are more postmodern than T. On several occasions since 1998 Finnish researchers have claimed that teachers must be helped to adapt to the postmodern society (Sahlberg, 1996; Meri, & Volmari, 2006).

Results from Sweden (in Table 8) showed that T/ST paid much attention to factors promoting the development of critical thinking (the attitudes and values aspect of CE and supporting learning and good classroom climate). Interestingly enough, ST focused very much on the attitudes and values aspect of CE and not so much on upholding a positive school climate. This suggests that the attitudes and values aspect of CE may have been *over*-emphasized in Swedish teacher education.

In conclusion, T and ST in the three countries equally declared their willingness to promote pupils' development of critical thinking – i.e. focused on 'the attitudes and values' aspect of CE. Yet, the Finnish, and particularly the Swedish, did this more than their counterparts. It seemed that English T and ST may not 'be allowed' to focus as much as their Nordic colleagues on democratic teacher-pupil dialogue, since they have to prioritize teaching the subject. This is inconsistent with the European goal of supporting pupils' critical thinking and certain attitudes and values (Eurydice, 2005).

As we said in the beginning, there is a European level goal to make future Europeans capable to participate in democratic societal dialogue about sustainable development.

The teaching task at hand and pedagogical challenge is to balance this with mastering basic skills. Researchers such as Gutmann (1987) stresses the vital importance of furnishing pupils with skills to participate in the demo-cratic dialogue and to judge critically. In order to fulfil these needs, the European teacher role needs to become more postmodern in the true meaning of the word.

**Limitations**

The study has limitations, since it is performed as case studies; its results cannot be generalized to the whole population. The know-ledge contribution of the study is that it points at interesting traits which must be further investigated. Still the method, including self- assessments of the participation in the focus group dialogues, answered well to the aims and research questions of the study.

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# ANALYSIS GRID FOR EDUCATIONAL AUTOBIOGRAPHIES

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ABSTRACT

*This study aims to develop a grid to be used in the analysis of educational autobiographies of student teachers, focusing on the structure, functions and the content of the memories involved.*

*The professional development of the teacher should go beyond the simple acquisition of knowledge. The professional knowledge of the teacher is to a large extent tacit, experiential and thus teacher's development implies an inquiry to his own experience. It is then important to know who the teacher was as a student and learn to look at that wisdom - the practice of many years as students - in a reflexive way [reflection on action- Schön]*

*Educational autobiographies can afford opportunities in order that future educators examine and reflect about their experience or beliefs, and at the same time constitute a privileged instrument of reflexion about one's self or educative experience.*

*A review of the literature shows a variety of models to read and interpret autobiographical memories. In this work, we analyse the models of Tuvling (1983), Piolino (2003), Conway (2000), Brewer (1996), Rubin (2006) and McAdams (1997), seeking to identify the main similarities and differences between them.*

*This analysis is the basis for the construction of a grid that identifies the main areas or dimensions of these memories, and that can be used in its collection and analysis.*

*In this paper we show the various stages / phases of development of the grid, its objectives and specificities and we present some results that illustrate its application on the interpretation of autobiographical memories of student teachers of the Faculties of Letters and of Science and Technology.*

Key words: School autobiographical memory, teacher education, grid analysis

*We remember more about the periods in time that define us as people*

Rubin, 2006

Teaching involves different kinds of knowledge and is to a large extent tacit, experiential. So, the professional development of the teacher should go beyond the simple acquisition of knowledge and implies an inquiry to his own experience.

The contribution of autobiographical narratives, especially of school autobiographies, for the teacher's personal and professional development is currently considered an important issue. Narratives, in particularly autobiographical narratives, are a powerful instrument of observation, interpretation and understanding of psychological and educational reality and school memories and constitute an important element of being a teacher.

It is then important to know who the teacher was as a student and also who he is today and learn to look at that wisdom in a reflexive way. Educational autobiographies can afford opportunities in order that educators examine and reflect about their experience

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or beliefs, and at the same time constitute a privileged instrument of reflexion about one's self or educative experience.

Nevertheless, "an overall assessment of young adults' specific memories of school has not been conducted within the autobiographical-memory paradigm" (Walls et al., 2001, 116) and limited research focusing on the development of pedagogical knowledge has addressed participants' recollections of their previous teachers and how they taught.

Aiming to approach autobiographical memories of schooling considering general autobiographical memory literature, we analyse different models used to read and interpret autobiographical memories. This analysis is the basis for the construction of a grid that identifies the main areas or dimensions of these memories, and that can be used in its collection and analysis.

## Dimensions and types of autobiographical memory

Research about autobiographical memory started with Ebbinghaus, Galton and Freud, all of them developing traditions of research quite different, announcing already the diversity of nowadays coexisting models.

Initially analysed in a static way, as an object, autobiographical memory has progressively been approached as a contextualized and auto-referenced phenomenon. Autobiographical memory may be defined as a personal representation of general or specific events and personal facts, a memory related to the self (Brewer, 1986), those personal dimension being crucial. *Somewhere, somehow, there's got to be an I or a me in the memory. Without this critical link to the self, there's no autobiographical memory* (Kihlstrom, 2000).

## Autobiographical memory, episodic memory and semantic memory

Autobiographical memory has often been associated with the episodic memory (Tulving, 1983). On the other hand, episodic memory has been considered as a basic form of declarative knowledge that can also take the form of semantic memory. Recently, both episodic and semantic memories are conceptualized as different forms of autobiographical memory (Piolino, 2006).

Episodic memory is an autobiographical memory for one's own actions and experiences contains memories of specific events in time and space (eg: memory of the first day of school). Semantic memory is more or less generic, abstract knowledge, like a mental dictionary, not tied to any particular event, includes general knowledge of its past (eg: knowledge that school is a place to go to learn new things. The personal semantic knowledge results from a phenomenon of progressive decontextualization of the episodic memory trace over time and repetition of similar events, although certain crucial or emotional episodes are kept in their details (Piolino, 2006).

However, although both kinds of memory are autobiographical, they serve quite different purposes. Semantic autobiographical memory is associated with a state of consciousness that allows being aware of the world, being also called noetic. Episodic autobiographical memory is associated with a state of consciousness called autonoetic, which implies an awareness of the identity of the individual, a journey in time and a subjective impression of memory characterized by the reconstruction of the episode of the information acquisition with its phenomenological context (perceptions, thoughts, feelings).

**The structure of autobiographical memory**

Brewer (1996) proposed four types of autobiographical memories, based on their acquisition conditions (single instance versus repeated instance) and form of representation (imaginal vs nonimaginal). Autobiographical memory involves then personal memory, that may be define as image-based representation of a single unrepeated event (memory of the first day at school); autobiographical memory may involve also an autobiographical fact, that is identical to personal memory, except that the memory is not image-based (being able to answer "yes" to "Did you begin primary school when you were 6 years old?"); another type of autobiographical memory is the generic personal memory, similar to a personal memory, except that the event is repeated or a series of similar events occur and are represented in a more abstract form (I usually went to school with my sister). Autobiographical memory may also appear on a self schema memory, which relates to a cognitive structure that contains information about the self.

The autobiographical model proposed by Brewer calls attention to the complexity of autobiographical memories, the diversity of the elements and types of knowledge involved and the forms it may take.

**Autobiographical memory hierarquical model**

Conway (1996, 2000) proposed a structural and hierarquical model of the autobiographical memory that considers memory dynamically reconstructed taking in account three components, from general to specific: lifetime periods (when I was a teenager), themes (being in the band), general events (travelling to perform at different functions), and event-specific knowledge (getting sick on the bus going to the Rose Bowl parade).
This model introduces other criterion to analyse autobiographical memory, namely the developmental approach, highlighting the distinction between types of memory and its content.

**A basic-systems approach to autobiographical memory**

The complexity of autobiographical memory calls for a multi disciplinary approach (Rubin, 2006). In fact, the complexity of real life situations implies that episodes referred as autobiographical memories are multimodal, involving the senses, the spatial and temporal dimension, a narrative feature and emotional content and context and personal relevance. Autobiographical memories may then represent factual information, primarily interpretations, temporal information about the date of occurrence of an event; context-specific sensory and perceptual attributes and imagery are frequently present. It includes also a narrative, emotions, and the duration of the memory can last for years.
Also, results from behavior, neuropsychology, and neuroimaging points to the fact that episodic memories are constructed from interactions among some basic systems, namely vision, audition, olfaction, other senses, spatial imagery, language, emotion, narrative, motor output, explicit memory, and search and retrieval. Each system has its own well-documented functions, neural substrates, processes, structures, and kinds of schemata (Rubin, 2006).

These constitute a basic-systems approach to autobiographical memory, and a way to understand episodic memory for complex stimuli routinely encountered outside the laboratory.

**Autobiographical memories and the construction of the self**

Autobiographical memory may be defined as the psychological history of the self, a memory related to the self (Brewer, 1986), a fundamental path of human meaning making (Bruner, 1990).

Central to this view is the idea that memory of our own life in some way supports our personality and our self construct, that life memories tell us something about remembering and about the rememberer. Each autobiographical memory, then, is part of a personal narrative, which reflects our views of ourselves (Kihlstrom, 2000).

Accordingly with McAdams *et al.* (1997), the construction of life stories is related with adult personality characteristics and motives. Autobiographical narratives are based on empirical facts, but are also an imaginative form to redeem the past and to make the future meaningful. They lay "somewhere between pure fantasy and slavish chronicle", and the apparent memory failures must not be considered as errors but as an attribution process that provides life with a sense of unity and purpose (McAdams *et al.* 1997, 3).

Recent studies have come to call the attention to the complexity of the relationship between autobiographical memories and the construction of the self, referring that the "notion of memory and the self are interdependent psychological phenomena" and emphasizing the bidirectionality of the relationship established between both. It is therefore necessary to analyze not only the ways in which the memories of our lives come to influence our personalities, our emotional functioning, who we are, but also the form, as our self-concepts and personalities influence what we remember from our lives (Blagov, 2004).

**Self-Defining Memory**

A self-defining memory is a personal memory that has particular attributes, namely, it is a memory of a specific event that still feels important to the individual. It is also a

memory that leads to strong feelings and that help you to understand who you are as an individual.  It is a memory that you have thought about many times (Baglov & Singer, 2004).

An exercise in order to gain insight about what an autobiographical memory is may contribute to characterize it:  Imagine you have just met someone you like very much and are going for a long walk together.  Each of you is very committed to helping the other get to know the "Real You". In the course of conversation, you describe several memories that you feel convey powerfully how you have come to be the person you currently are. It is precisely these memories that constitute self-defining memories.


**Accuracy/Distortions - Are Autobiographical Memories 'True'?**


A central question concerning autobiographical memory is its accuracy and the occurrence of distortions, the interest for those distortions being as old as the interest about the autobiographical memory. It is actually considered that the distortions associated with autobiographical memory must not be considered as errors, but as a crucial element of its meaning, being very important to explore and analyse them.

A person's autobiographical memory is fairly reliable, meaning that autobiographical memory may be accurate but not literal. It represents personal meaning and interpretation of a particular event (Kihlstrom, 2000).

> The poet Patricia Hampl notes this trend in her wonderful book on the memoir, I Could Tell You Stories (1999), which is subtitled Sojourns in the Land of Memory. There she recounts an experience in which her father took her for her first piano lesson. The passage goes on for a couple of pages, and there's quite a bit of detail, including the red "Thompson book" which I remember from my own piano lessons (and you probably do, too). She then writes:
> "For the memoirist, more than for the fiction writer, the story seems already there, already accomplished and fully achieved in history ("in reality", as we naively say).  For the memoirist, the writing of the story is a matter of transcription. The experience was simply there, like a book that has always been on the shelf, whether I ever read it or not. On the day I wrote this fragment I happened to take that memory, not some other, from the shelf and paged through it. I found more detail, more event, perhaps a little more entertainment than I had expected, but the memory itself was there from the start. Waiting for me.
> And then she drops the other shoe:
> Wasn't it? When I reread the piano lesson vignette just after I finished it, I realized that I had told a number of lies."
> It turns out that almost every detail in the memory is wrong, or at least questionable, right down to the least questionable thing of all: the red "John Thompson" piano book -- which Hampl didn't use, though she envied those children who did. Hampl concludes:

"So what was I doing in this brief memoir? Is it simply an example of the curious relation a fiction writer has to the material of her own life? Maybe. But to tell the truth (if anyone still believes me capable of the truth), I wasn't writing fiction. I was writing memoir -- or was trying to. My desire was to be accurate. I wished to embody the myth of memoir: to write as an act of dutiful transcription. Yet clearly the work of writing a personal narrative caused me to do something very different from transcription. I am forced to admit that memory is not a warehouse of finished stories, not a gallery of framed pictures. I must admit that I invented."

<div align="right">Kihlstrom, 2000</div>

## Developing and analysing school autobiographical memories

The models presented evidence the complexity of autobiographical memory, conceptualized as a multifaceted concept encompassing different kinds of knowledge, form general knowledge about oneself to very specific events. It is now a challenge to analyse school autobiographical memories considering the types of memory referred before. This is a reflexive exercise and may contribute to develop autobiographical memory either as an instrument of research and training.

Previous studies highlighted the interrelationship between the memories of primary school and the characteristics of personality (Lima et al., 2007), highlighting the importance of understanding the nature and functions of autobiographical memories. The study was carried out in a sample of student teachers of the University of Coimbra. Episodes of educational biography were analysed through content analysis (Bardin, 1988), allowing to identify the themes appearing in the memories of the primary school. However, this research also evidenced that content analysis does not consider all autobiographical memories dimensions and complexity, being necessary to read them form the standpoint of autobiographical memory paradigm.

This analyse also evidence that different types of autobiographical memories point to different types of teacher knowledge. It is then important to investigate which and how those different types of knowledge are used and developed by teachers. In conclusion, autobiographical memories of school are an important form of teacher knowledge, which is important to address in order to promote personal and professional development.

The grid resulting form the analysis presented in this paper is being applied to the analysis of school memories excerpts. This exercise aims also to test and discuss the interest and potential of the referred criteria and to try to answer questions such as:

which knowledge is present in autobiographical memories, which functions do they serve or how to use them in teacher education.

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**Professional Development of Teacher Educators**

# DROPPING IN OR DROPPING OUT? IS THE TEACHER TRAINING INSTITUTION TO BLAME FOR WHY TEACHER TRAINEES LEAVE TEACHER EDUCATION?

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ABSTRACT

*The low quality of the Norwegian teacher education has in large part been blamed for the quality in the Norwegian primary and secondary school. A new teacher education will be implemented from the academic year 2010/11. (1) Can the quality of the teacher education institution be the reason for why some teacher trainee drops out from teacher education? (2) What can the teacher education institution do to prevent teacher trainees to drop out from teacher education? These research questions will be answered by analysing data gathered by using semi structured interviews of a group of teacher trainees and a group of former teacher trainees (dropouts).*

Key words: Drop out, teacher training, work effort, motivation

## Introduction

The quality of teacher education is strongly in focus in Norway. Discussions relating to the quality of Norwegian schools often end up pointing at the quality of teacher education. In many cases, the quality of both those who start and those who graduate from teacher education is not satisfactory. Content, structure and length of teacher education have also been debated and criticized. The Norwegian official evaluation of Teacher Education (NOKUT) has pointed at a number of weaknesses and challenges relating to Teacher Education in general and to the teacher training programmes at various university colleges in particular. A new, national teacher training plan was launched in April 2009.

## Issues

On this basis, it seems important to investigate what happens with students during teacher training, especially regarding their work effort and reasons for dropping out from teacher education. In this article we will focus on the following issues:

**1. Teacher students' work effort during their studies.**

**2. What are the reasons why teacher students abandon their studies?**

## 3. What can colleges do to prevent students from dropping out from teacher education?

Work effort is about how much and how students work with their studies, both individually and together with other students. Work effort is also about how much and how students make use of the teaching offered at the college. In short, work effort deals with the extent and structure of students' contributions and achievements during the programme.

Dropping out is when a teacher student leaves a study programme before the completion of this programme. Dropping out from teacher education can take different forms, such as transfer to other types of teacher training, transfer to other types of education or paid employment, etc.

### Research method

This research project started in the academic year 2007/2008 and will finish by the end of the academic year 2010/11. The goal is to conduct in-depth interviews with the same students throughout their education. The first interviews were conducted in the academic years 2007/08 and 2008/09. Most of what appears in this article is derived from the interviews in 2007/08. We interviewed 5 students from the teacher education programme and 7 students from the preschool teacher education. These 12 will in the following be called the control group. In addition, we interviewed 7 of the students who had dropped out from the same period, 5 from the teacher education programme and 2 from the pre-school teacher education programme. These students will in the following be called the drop-out group.

The interviews were semi-structured, with specific questions, but with the opportunity for students to elaborate on answers. All the interviews were conducted by two of the team members. A recorder was used and the interviews were transcribed by a third person. Each interview lasted approximately 1 hour. As part of the project, a survey for the entire student group that we follow was carried out in the spring of 2009. The results from this survey will be published later in the project period.

**Weaknesses and strengths of the survey**

The control group was selected at the start of the year after informing the entire student groups about the research project. Those who wanted to participate were chosen. It was not a random selection, but participation was voluntary. This has led to the fact that the selection was skewed in the sense that it appears that the best students were over-represented. The strength of this selection is that students are strongly motivated to be interviewed. Despite this imbalance, we believe that we have obtained important information about students' efforts. But this potential weakness will be minimized when we analyze the results from the survey.

Students in the drop-out group were contacted personally by telephone, after they had formally left the study programme, and asked if they were willing to be interviewed. Some of them were not interested, which could lead to the same weakness as the result in the control group. This part of the selection also depended on volunteers. The interviews were conducted wherever the student desired.

**Theory Basis**

As mentioned in the introduction, we will in this article consider the teacher and preschool teacher students' work effort, and what colleges can do to prevent students from dropping out. Theoretically, we will therefore look at the social psychological and cultural sociological theory for this study.

Maehr & Braskamp (1986) examine personal investment and Deci & Ryan (1985; 1991) examine self-determination and motivation. Maehr & Braskamp's theory emphasizes that the effort a student makes in a programme or profession is a result of the individual's own feeling of competence, self-perception, i.e. the feeling of knowing and mastering their studies or profession. A pre-school teacher or a school teacher who has inner motivation is primarily motivated for the profession and the tasks due to the fact that the teaching profession and the ensuing tasks are so rewarding and interesting in themselves. This does not mean that other more external factors, such as wages and working conditions, are of no importance. For other pre-school teachers and school teachers, external motivation may be the most important. Maehr considers the personal investment in the profession to be the core of social motivation, how the person invests

his resources, such as time, skills and efforts. Personal investment is a result of the inner motivation a person has for the programme or profession: his personal "investment". According to Maehr, the experience of gaining professional expertise is what gives meaning to a person in their work situation. How meaningful he experiences the situation will be crucial for his personal investment.

E.L. Deci and R.M. Ryan (1985; 1991) have based their theory about the inner motivation on a broad sense of learning, where they include the cognitive and affective dimensions and interaction. They look upon learning as a process that stimulates the best in situations where a person's autonomous choice, competence and emotional sense of belonging are well supported. The importance of self-perception or appreciation of a person's own skills (feeling of competence) is shared by Maehr & Braskamp's theory. Deci and Ryan see the self as an active entity and emphasize that it is primarily the motivation processes that lies behind the inner growth one talks about when one uses the term self-determination or self. They think that inner motivation is characterized by:

- Behaviour with no form of external reward present
- Activities which the person engages in for pure interest
- Activities that are optimally challenging
- Behaviour or activities that have a basis in psychological needs

Moreover, Deci and Ryan believe that there are three main groups of psychological needs that form the basis for internal motivation:

- The need to be competent (competency requirements)
- The need for self-determination (the need to realize himself)
- The need for belonging (social and cultural)


**Other surveys**


There is a great deal of research about students dropping out of higher education. In connection with the Norwegian Quality Reform in pedagogical institutions, Hovdehaugen and Aamodt made a survey in 2003/2004, based on data from the Norwegian Central Bureau of Statistics from the autumn 1999 and autumn 2003, before and after the Quality Reform was introduced. It was found that there were large variations from college to college, but overall, it was just as many that dropped out in 2003 as in 1999 (Hovdehaugen and Aamodt 2006).

Hovdehaugen, Frølich and Aamodt also ran a survey based on questionnaires given to the first time registered students at the University of Oslo, University of Bergen and the University of Trondheim (NTNU) in 2005. This survey shows that only 17% of those who abandon a first- degree course of study leave higher education. The rest of the students change institutions. This is not a major social problem, but rather an institutional problem. Only 20% of students that leave their study programme and 30% of students who drop out say that the university could have done something to influence the decision" (Hovdehaugen, Frølich and Aamodt 2008).

Dæhlen ran a survey in 2000 about the motivation for the choice of study. She distinguishes between uncertain, dedicated, committed and distant students. She found that just under half of the new students were uncertain of their education choice, 15% were dedicated, 40% were engaged and 13% were distant. The largest share of dedicated and enthusiastic students she found among the teacher training students. She also found that about 82% of the teacher training students in the beginning of the programme had rejected other programmes. It may indicate that they were relatively well motivated for carrying on with the teacher training studies (Dæhlen 2001).

**Results and discussion**

We have in this section, chosen to put the main focus on the following:
• The results from the **control group** regarding their work, and colleges' opportunities to prevent students from dropping out
• The results from the **drop-out group** regarding causes of disruption of the education and colleges' opportunities to prevent students from dropping out
We have both male and female students in our sample, but all will be mentioned as "he".

**The teacher training students' work during their studies?**
**The control group**

To the question of how many hours students work on studies per week, most students answered that they work on average about 10-15 hours per week, in addition to the

guided learning activities such as lectures, group work, supervision, etc. All in all, this means between 30 and 40 hours a week. This figure varies from earlier surveys. Kvalbein and Hovdehaugen / Aamodt found that many teacher training students worked between 20 and 25 hours totally per week (Kvalbein 1999), (Hovdehaugen and Aamodt (2006). Bratterud and others found that just over half of the students surveyed reported that they put in medium effort throughout the programme. Approximately 40% put in high and about 7% put in low effort. This study is based on a subjective understanding of the terms low, medium and high effort, but nevertheless gives an indication that the effort made is not particularly high (Bratterud m . fl. 2003). In a survey from 1997, Steen-Olsen found that working hours among university and university college students on average totalled 31 hours per week. She emphasizes that the teacher training students studied the lowest number of hours, and thus less than 31 hours. She also refers to similar surveys that do not differ much from her numbers. (Steen-Olsen 2000). Another interesting study, done by Marianne Dæhlen at the University College of Oslo, shows that 25.9% of the students expect that they must put in 21-30 hours a week studying and 42.6% of the students expect that they must put in 31-40 hours of study. This is the reason why these students have an expectation of a similar effort in relation to the effort they actually make later (Dæhlen 2001).

The fact that our students say that they spend more time studying than in other studies may depend on the fact, previously mentioned, that they registered voluntarily as informants and that they therefore cannot be looked upon as average students. This is also revealed through their answers to the question concerning attendance at lessons; which we will get back to later in the article.

Several of the students expressed that they find it difficult to start reading the literature. Obligations at home, paid work and low concentration are mentioned as obstacles. As one informant said: "...  when I'm home again, there are ... other things that are on the programme."

Or as one of the older students (43 years) says

> But now it is a long time since I have been at school and that's why I need to read thoroughly, and I read slowly because I do not have the experience, and it also applies to my writing. I need more writing practice.

One of the younger (22 years) says that

> To be fair, I'm not very good at doing something at home, I am not structured when it comes to doing homework. But I think I benefit a lot from being present at the lectures because I need to learn in a practical way.

8 of the 12 students interviewed said that they have been present at all lectures. The other 4 students in the control group responded that they had almost always been present in the classroom. We have no sure figures on the average attendance for all students, but after many years as teachers for such student groups, we have an idea that attendance is pretty good at the beginning of the programme. Throughout the study the participation decreases. The fact that students in our research project are so eager to participate in the classes can be attributed to the selection of the control group, as we have looked at previously. It is also important in this context to point out that attendance is obligatory in parts of the lectures, for instance in the pedagogy classes in the pre-school teacher education. In the survey of Bratterud et al. the students answered that they kept up their work efforts throughout the study.

The question in our survey if they put in the same amount of work in the various subjects the student answers vary widely. The reasons are for instance that
• the subject is difficult, therefore, they work **less**: *"But certainly at least on the mathematics - despite the fact that it is where I should work the most."*
• the subject is difficult, therefore, they work **more**, *"English is my weak subject so that I put in a little extra .... In mathematics, I am very good so I do not need to put in as much...".*
• it is soon exam, that's why they work **more**, *"I am working  a lot on Pedagogy right now because I will have to sit for my exam in a short while."*

There is very little absence among our students. Regarding the issue of absence, one of them says: *"No, I enjoy very much being present ...".* Otherwise, some students say that illness is the only reason that they do not show up for lessons. A couple of them state that they a few times had to prioritize writing papers instead of showing up.

To the question on where they work the most with their studies, at school or at home, the answers vary widely. 6 students answered that they mostly work at school. One of them says *"Yes, I like to work here, because I have my friends and lots of resources here. Instead of just sitting at the kitchen table and write…..".*

4 students answered that they work best at home. *"I think it can be too much noise here in the library."* 2 answered that they work just as much at home as at school. It appears that pre-school teacher students use the school a little more than the school teacher students.

To the question on whether students work best alone or together, there is also great variation in the answers. One says that they have a good discussion group where they push each other when an exam is approaching. Another student says that her social needs make the group important to her. One says that the group is functioning very well, but that one must make sure that everyone in the group gets the same kind of knowledge. One says that it is best to work alone because the group is split due to the fact that other group members have a long way to travel and other important commitments.

**Evaluation of the students' own work effort and activity**

In general we can say that the students are satisfied with their own work effort, although several said that they probably could have done more. It may seem as if the students bring their work habits from high school, where they say they did the work the last minute. Several of the students said that they need to experience the pressure to work with their studies. A student says: *"I always do what I'm supposed to, but it is often that I need to have pressure on me, like being short of time".*

Another student said something similar: *"I know what we've reviewed here, and I've been to the lectures and learned the stuff. But it is when I need to go through it again by myself I need the time pressure".*

Another factor that appears in the interviews is how to structure the work. Several students said that they need help in structuring the work. *"I'm getting a little frustrated over the fact that I am not structured enough to read the literature before the lecture – I have always been like this…".*

Another student said: *"I wish I had known a little more about how to structure my work…"* Students we have interviewed experience themselves as relatively effective when they work, but several mention some factors that are crucial for them to be able to be effective, for example, the importance of having an office or a desk where they can sit down to work. This applies both to work at the college and at home. "So now, when I have got myself a desk and an office, it's much easier to do the homework".

Some students point out that they need to have a place to work where there is no TV or that they are most effective when the other family members are gone. Again, as in the previous questions, the students talk about structure and pressure. They are most

effective when they work under pressure and they need to learn to be more structured. "I can be really effective. I can get something done very quickly. But I work best under pressure as many others do." Or as another student said: "I could have worked more efficiently if I knew more about structuring myself ".

As expected, the responses to questions about work satisfaction differ quite a lot. Some students are very satisfied and some say they could have worked and read a lot more. Again, some students mention a need for structure in their work. Pressure is often related to the exam. They read before the exam, when they have to. Because exams appear in various subjects at different times, exams control how much they read and what subjects they concentrate on. "About the exam - I am much more aware of it now, and manage in a way to face that the exam draws closer - I think a little more strategically about it just then. I actually read and try not to fool myself".

Others compare themselves with other students: "Like I said, when I compare myself to the other students, I feel satisfied with my own efforts."

When it comes to answers to the question whether there are factors in society that affect the work effort, we can divide the answers into the factors that affect in a positive direction and those that affect the more "negative" direction. The positive factors are first and foremost that they have set themselves goals for the programme. One student says that he has had so many bad teachers during his time in primary school that he wants to be a good teacher. "And now, I have seen the goal and want to reach it." One student mentions the teacher practice period during his education as a very positive factor that gave him extra motivation. Others point out that study groups, if they work well, are an important factor to help students make a progress in their studies. As we see from the responses regarding issues that positively affect work effort in the programme, they are linked to the university college and not to other arenas. When we look upon the factors that hinder increased work effort, we find that they are related to home conditions; partner and children. "Relationships at home are important." Or: "No, it's the kids - I have kids at home that must be transported to various activities"


**Risk of dropping out**


In one of our main questions, we focus on the drop outs. We were interested in finding out if our students had ever thought of quitting, and the causes which may be the basis

for such a decision. When they do not quit, it was important for us to get information about why they did not quit, and how sure they were about completing the programme. Among the twelve students that we follow, there were three who had considered quitting, but for completely different reasons.

One of them did not want to drop the teacher training programme, but wanted to change the education institution because she felt dejected. But she chose to stay because: *"my husband likes it here, he likes his job, and we see the value of staying here."* The other student who had considered quitting had two different reasons. The first concern was whether he really wanted to become a teacher:

> First, I ask myself - is this the correct way - is it teacher I really want to be? – I do not know that for sure - I consider if bringing up other people's children is what I want to do, or do I want to work with grown- up people?.

The second uncertainty for this student has to do with whether he is able to meet requirements of the programme. At the same time, the student responds that he is 110% certain that he will complete the studies. The third student who has considered quitting says that it's hard to have as many commitments. There is a great transition from doing nothing to studying full time.

> I've had a year off and done exactly what I wanted - now there are suddenly limits. In a way, it's very pleasant to have something around me that set times and stuff like that, but on the other hand it's slightly more difficult - a little more pressure than not having anything to do.

This student responds that it is 100% certain that he will complete the 1. year, but only 20% certain that the entire programme will be completed.

Many of the students said that it is hard to start studying. We quote one of the students who may represent several of the others:

> But I think it was pretty hard in the beginning - to start with all the tasks: a lot to read and stuff like that - and I know others who have said the same. I actually did not understand how I should manage to get through.

Another factor that appears in several of the answers is the feeling of duty and that they do not give up that easily. *"And I do not want to give it up. Although I may have had a bad period and have wanted to quit school and stuff like that, I have continued. It will work to the end".*

Most of the students have not considered dropping out. When we asked what would be the reasons for thinking about quitting, the reason could be their economic situation or not passing the exams. But they are sure that they will complete. Some of the students are also concerned that the education they take can provide more opportunities than just

school and kindergarten. *"But the teaching profession might be used for other things than just being a teacher"*. Or: *"And there are more opportunities than becoming a pre-school teacher"*.

Teaching practice during the education is also mentioned as a something that can be experienced as difficult: *"After the first week in the practice period I was really wondering if this was the right thing for me to do."*


**What are the reasons why students abandon the teaching today?**
**The drop-out group**

We have in this section chosen to focus on the drop-out students' reasons why they have stopped. All the students agree about one thing: there is nothing the university college could have done to prevent them dropping out. The students say something about some weaknesses of the study, but stressed that they were not decisive for their dropping out. This corresponds well with an internal survey that was conducted on Pre-school Teacher Education in the academic year 2004-05 at Hedmark University College (unpublished). Here the majority of the students say that they chose to discontinue the study for private reasons.

The same result is also presented in the Norwegian Institute for Studies in Innovation, Research and Education's (NIFU STEP) report where the students enter private reasons, such as the desire to work instead of studying, transition to other programmes, etc. as the reason for dropping their studies (Hovdehaugen, Frølich and Aamodt 2008). This means that the reasons why students stop may seem to be of a personal / private nature. And it means that the universities can do nothing to prevent students dropping out when it comes to a large number of the drop-out students. The conclusion to this must be that if a teacher education programme wants to improve students' completion rates, then there is no point in introducing a lot of general measures in order to keep them. It seems much better to narrow down and focus on those who are lagging behind in their production of credits and find good methods to make these students complete their studies. Therefore, it is important for the college to initiate targeted measures that will help this group of students to manage their programmes.

**What can the college do to prevent students from dropping out from the teaching?**

The control group has given us important information about what may prevent students from resigning from the programme. Elements we have chosen to emphasize on here relate to what the college can provide and not to the students' private needs. Teachers should have a pedagogical education.

- Help to structure the reading

- More guidance

- Positive Teachers

- More variation in teaching

- Smaller classes

Or as one of the informants said with laughter in the voice: *"Yes - take the exam for me"* When it comes to guidance, one of the students responds: *"When we receive the task and we have questions - we have a place to go."* The teacher must be: *"Positive and gentle – you must not feel stupid when you meet the teacher"*. One student, who recently became single, focuses on having someone who will listen…: *"I want to be open and tell the teacher about my situation in relation to the fact that I have become single ..."*

An issue that several of the students point out is the need for smaller classes. One student highlights the good cooperation and social interaction in their class and says she believes it is one of the reasons why students in this class have better attendance than in the parallel classes. These observations were made in joint lectures with 3 classes present. NIFU STEP's report also says that: *"Academic and social integration and attempts to create a positive feeling for the group are important"* (Hovdehaugen, Frølich and Aamodt 2008, s.7).

We felt after the first interviews that the students wanted a closer relationship to the teachers and a somewhat closer follow-up. Based on this assumption, we added a question in the next interview period.

We asked the students to consider two initiatives in relation to their own student situation. The first initiative was that we organized the classes into small groups that had regular contact with one teacher, for example, two to three times per semester. The second initiative was that each student had regular individual conversations with "his" teacher throughout the programme. All the students we interviewed assessed both individual and group conversations as very important for their student situation. The

individual conversations were still rated as most important. These responses match again with the survey that we have previously referred to from the pre-school teacher education. Among other things, students want a closer relationship to the teachers.

**Conclusion**

We have interviewed two groups. One group consists of those who have dropped out from the education and the other group is the control group that should be interviewed each year. When it comes to the students who have chosen to quit, there is little that the college could have done to make them remain on the programme. The reasons for quitting are private and vary greatly.

Results from the survey suggest that there is little risk of students dropping out in the control group, but as mentioned, there are two reasons that emerge: problems with economy and failing exams.

Compared to previous surveys on the same topic, the results show that students in the control group in our project spend more time on their studies and they also have a higher attendance in the classroom.

We find that many of the students have a reflective attitude to their own hard work and efficiency. The majority says that both the work and efficiency could be better, but they are largely satisfied. However, there are two topics that are over-represented in the information we have received from our students when we discuss their work and efficiency, namely "pressure" and "structure". Both of these concepts are largely specified in the context of the exam and exam preparation. For the university college, it is therefore important to consider what they should do to help students through the programme and thus prevent them dropping out. On the basis of our survey, we will focus on two main areas:

1. **Closer contact between the student and teachers**. A method for achieving this may be that the maximum number of students in the classroom should be 30 students instead of the whole student group (60 or 90). Then it will be easier for teachers to find the students who are struggling with the programme and may be in danger of dropping out. In general, we should use more resources on getting a closer relationship to each student. Specifically, we therefore suggest that two weeks in the autumn semester and two weeks in the spring semester

are free of lectures and set aside for individual and/or group tutorials with the students. Both in groups and individual conversations, we should focus on how students experience their life as a student and the external causes for interruption of their studies that are disclosed in the survey. Support material with question guides to help both student groups and teachers with structuring individual conversations should probably be produced in order to ensure that the most relevant topics are dealt with. These weeks should be on the semester plan. In this way, we believe that our students will feel that they will be taken care of and included in a community.

2. **Help to structure the reading**. Study habits should be a topic early in the programme, and repeated later in the programme. There is reason to believe that students need to learn different techniques in different disciplines in the different academic years. Moreover, we can increase the use of study groups in relation to working with academic material. Students can present lessons for each other, discuss and reflect together in study groups. This may be mandatory work requirements that can be implemented without a teacher present. Moreover, we should spend more time on adapting and clarifying the subject matter being taught, which should be done in cooperation with the lecturer. Through the introduction and training in such work in the beginning of the programme, there is reason to assume that the students will benefit from this throughout the whole study. This is a topic that may be repeated, and studied at the beginning of each semester. By using such methods in the beginning of a programme, we believe students can learn a work method that they will benefit from the rest of the programme.

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# MODELLING PRACTICAL KNOWLEDGE AS A MENTORING APPROACH IN SCHOOL-BASED TEACHER EDUCATION

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ABSTRACT
*This paper describes a mentoring approach aimed at explicitly modelling practical knowledge. We investigate whether and how this approach helps daily mentors to model their knowledge and thereby become knowledge resources for student teachers. The core activities in this approach, based on the collaborative apprenticeship model (Glazer and Hannafin, 2006), are three collaboratively planned, taken and evaluated lessons.*
*Our participants consider the approach very helpful. During lesson conversations the mentors supported their students with their knowledge on specific teaching questions and challenges. In the lessons taught by the mentors, teaching behaviour was explicitly demonstrated and student teachers were advised during collaborative teaching.*

Key words: explicitly modelling; practical knowledge; school-based teacher education; mentoring

## Introduction

Student teachers are slowly growing into a *community of practice*, a community that acts as a living curriculum for the apprentice (Lave and Wenger, 1999). Hence becoming a teacher is seen as a form of modern apprenticeship ((Fuller, Hodkinson, Hodkinson, and Unwin, 2005; Guile and Young, 1998), an apprenticeship which allows them '*to acquire the knowledge and skill, both conceptual and practical, which the community of practitioners has built up over time and which define each profession'* (Sullivan, 2004, p.7) while transforming their participation in this community (Edwards, Gilroy, and Hartley, 2002).

We asked ourselves whether reflective conversations of the school-based teacher educator together with the mentoring activities of the daily mentor, who is the most close to actual practice, can provide potentials to realize such an 'modern cognitive apprenticeship'. Can these experienced teachers become a 'learning source' for their 'apprentices' by transforming their knowledge into explicit statements (modelling) while mentoring activities directly related to the work and practical experiences of their student teachers (e.g. Haggar and McIntyre, 2006; Tynjälä, 2008)? A kind of modelling which offers student teachers opportunities to compare their ideas and activities with those of experienced teachers by mentors providing them with 'reflective instruction'

aimed at focussing student teachers' attention on critical decisions or actions and post-mortem analysis (Collins and Brown, 1991). In order to find answers to these questions we formulated the following question: *'(How) do school-based mentors explicitly model their professional knowledge within a designed pedagogical approach aimed at modelling?'*

## Explicit modelling of practical knowledge, theoretical backgrounds

Guided workplace learning of student teachers can be analysed with the help of a specified Cognitive Apprenticeship Model (Van Velzen and Volman, 2009). The category Practical Knowledge and in the category Methods: explicit modelling are particular school-based activities related to actual teaching experiences of educators . Here these two aspects are further itemized.

## Practical knowledge

Since 1888 efforts are made to see teaching as an unique enterprise involving special forms of knowledge and skills (Bullough, 2001). In 1987, Shulman claimed the unique body of knowledge, pedagogical content knowledge as the province of teachers, their own special form of professional understanding' (Shulman, 2004). In the following years characteristics of the concept of teachers' knowledge were defined and discussed by a number of different researchers. They all agree that this knowledge is strongly intertwined with the person of the teacher and it is based on and rooted in their (reflected) daily experiences, aimed at problem solving in the context of classrooms (Eraut, 1994). Other well known characteristics are: deep; sensitive; situated; implicit or practical theory; tacit; fragmentary; knowledge in, for and from practice, involving (superstitious and inaccurate) opinions, values and beliefs, wisdom of practice, functional action competence (e.g Black and Halliwell, 2000; Calderhead, 1991; Cochran-Smith and Lytle, 1999; Hagger and McIntyre, 2006; Leinhardt, 1990; Marland, 2001; Shulman, 2004; Verloop, Van Driel and Meijer, 2001; Weinert, 2001; Zanting, 2001). This 'wisdom of practice' functions as practical theory helping teachers to describe, explain and predict their practice offering them guidelines on what will

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probably be the most effective activity in particular situations and contexts (Eraut, 1994; Marland, 2001). It can be seen as products of reciprocal and interpretive construction arising from individuals engagement in social practice (Billet, 2001). Being idiosyncratic, situated and personalized means there is no such thing as one set of knowledge which would identify the professional knowledge base of teachers (Billet, 2001; Edwards, et all, 2002), although many features will be common across teachers (Haggar and McIntyre, 2006).

Black and Halliwel (2000, p. 104) described practical knowledge as: *'knowledge that is assembled in forms that makes it possible to manage teaching practicalities'* emphasizing it is 'knotted knowledge' in a way which makes it possible to construct and interpret practice and react on its complexity (e.g. Edwards, 2002; Hagger and McIntyre, 2006; Verloop, Van Driel and Meijer, 2001). In the Cognitive Apprentice Model (Collins and Brown, 1991) it is called 'heuristic knowledge' in order to distinguish it from conceptual knowledge. Brown (1995) in her (related to the apprenticeship model) research on how teachers construct their own teaching uses the phrase *'professional craft knowledge'*, *a metaphor for the relatively routine and familiar aspects of what teachers do spontaneously in classrooms, and with how they do the things they regularly do well'* (Brown, 1995, p.28). The word 'routine' and 'familiar' is used here to point out the daily practice of teachers, not the nature of the professional craft knowledge which underpins these aspects (Hagger and McIntyre, 2006).

In this study we are not looking for the practical knowledge of the mentors as such but whether and how these mentors can model their practical knowledge. That is to say how these teachers in their mentoring practice (re-) construct their vocational expertise in order to support their student teachers becoming knowledgeable teachers (Billet, 2001).

It is known that it is not easy for teachers to make their knowledge base explicit, let alone share and discuss it with their student teachers (Edwards and Protheroe, 2003; Brown and McIntyre, 1993, Eraut, 1994; Loughran, 2006). Besides, most methods that could help student teachers gaining access to this knowledge require considerable expertise facing them with major difficulties (Marland, 2001, p.171). We designed a pedagogical approach which would help school-based teacher educators and student teachers to talk about professional craft knowledge in a way which proves helpful to explicitly model knowledge which in their opinion is useful and necessary in their work

in classrooms (e.g. Hagger and McIntyre, 2006) and provide student teachers with opportunities to learn from them.

**Modelling**

Modelling, the practice of intentionally displaying certain teaching behaviour with the aim of promoting student teachers' professional learning (Tharp and Gallimore, 1992) is one of the methods in the Cognitive Apprenticeship Model. It is strongly related with methods as scaffolding and fading like Brown, Collins and Duguid (1989) stated. They argued that modelling not only involves the observation of an expert performing task but also the externalization of usually internal processes and activities-specifically, the heuristics and control processes by which experts apply their basic conceptual and procedural knowledge.

We found ourselves in agreement with Loughran who stated:

> "modelling should conceptualized as embracing the possibilities for critique and interrogation in learning about teacher experiences, no matter how they arise; be planned or unplanned. Modeling of this form means that teaching itself is continually being questioned so that both the subtleties and complexities might be viewed and reviewed in order to shed light on pedagogical reasoning, thoughts and actions' (Loughran, 2006 p. 39).

Mentors using explicit modelling in their mentoring practice are acting as inspiring role models who show and discuss their own practice and pedagogical reasoning in a way that helps student teachers tapping this insights and behavioural possibilities. Explicit modelling is meant to be a resource for student teachers' learning by providing a range of models, blue prints or images, which are realized by means of a range of classroom techniques (Hockley, 2000, p.118)

But, showing, explaining and giving meta commentary is not enough when we want practical teacher knowledge to become a resource for student teachers' professional learning. Getting socialized into a particular school is seen as an unwanted result of the one-way movement from the expert to the novice (Wang and Odell, 2002). To prevent this and the danger of mimicry mentors need to critically discuss their activities, their thoughts, convictions and authority with their student teachers and have to initiate experiments (Lambert, 2003; Verloop, 1989).

Modelling is a frequently used intervention in teacher education but little systematic research has been done (Grossman, 2005). Most research on modelling has been executed with institute based teacher educators (e.g. Hockley, 2000; Loughran, 1996; Loughran and Berry, 2004; Lunenberg, Korthagen and Swennen, 2007; Wood and Geddis, 1999; Zanting, 2001). Tigchelaar and Melief (2007) actually used modelling as a principle during team teaching in the classroom. Hagger and McIntyre (2006) investigated modelling by mentors in the classroom in a way which was derived from the work on teachers' practical knowledge by Brown and McIntyre (1993). They taught student teachers to interview their mentors in post-lesson conversations and hence tap their mentors' practical knowledge. Achinstein and Barrett (2004) describe how mentors support new teachers to diagnose challenges and develop alternative approaches by reframing situations, behaviour and considerations.

In this article explicitly modelling practical knowledge is seen as the planned or unplanned mentoring activity of experienced teachers who demonstrate their experience during class room practice. Next to this they critically discuss the underlying pedagogical reasoning with their student teachers in order to share their knowledge and to provide them with possibilities for new teaching behaviour and/or teacher thinking.

In order to help mentors to realize this activity we listed possible modelling actions which are based on the above mentioned literature. Based on these features a pedagogical mentoring approach was designed.

**The designed mentoring procedure**

An incremental mentoring procedure (e.g. Ben-Peretz and Rumney, 1991), based on the Collaborative Apprenticeship Model by Glazer and Hannafin (2006) was designed. This model aimed a professional teacher development with an emphasis on collaboration between the expert and the novice. The core educational activities in this approach are three lessons taken by the mentor and a student teacher. All lessons are collaboratively planned and evaluated in pre and post lesson conversations. The first lesson is enacted by the mentor, in the second lesson student teacher and mentor are teaching together (with possibilities to consult each other) and in the third lesson the student teacher is the teacher. This approach allowed mentors to show and discuss situation- and - context specific solutions to real problems in real classrooms which emerge during cumulative

experiences (Haberman, 1991). One of the post lesson conversations in cycle 2 is based on a video taped lesson which allowed the participants to reframe the situation, to comment by thinking out loud on what they see and take reflective pauses (e.g. Leinhardt, 1990; Zanting, 2001).

We provided the mentors with an overview of modelling activities:

- Explicitly demonstrating their teaching in classroom practice.
- Reflecting and discussing their teaching before and after this practice.
- Discussing alternatives by reframing situations or/and by presenting alternative approaches.
- Providing suggestions and considering how and why these suggestions should work out.
- Illustrating their suggestions with specific situations in which these suggestions can probably work or not.
- Asking the student teachers for suggestions and ask them how and why they think their ideas will be effective.
- Explicitly underpinning their feedback with tier professional knowledge.
- Teaching together and providing, if necessary, for advice.
- Discussing reflective journals written by the student teacher and themselves with special attention to the arguments used.

To complete the procedure concerns and learning needs of the student teachers are incorporated in the approach (e.g. Eraut, 1994; Hagar and McIntyre, 2006; Verloop, 1989). At the start of each lesson cycle the school-based teacher educator, responsible for monitoring the overall development of the student teacher, is having a conversation in which student teachers' concerns and learning needs are established and related to the competencies formulated by the teacher education institute . The chosen learning need becomes the focus of all lesson-based conversations, the activity of the mentor during lessons and the observation of the mentor in the last lesson encouraging mentors and student teachers to process practice components in more depth (Leinhardt, McCarthy Young and Merriman,1995).

**Research design**

After designing the mentoring approach a multiple case study was designed to investigate the following research question: *'(How) do school-based mentors explicitly model their practical knowledge within the designed pedagogical approach?'*


**Research context and participants**

Since 2002 the teacher education institute of VU University in Amsterdam is educating teachers in collaborative partnerships with schools. (Van Velzen, Bezzina and Lorist, 2008). This school-based teacher education project was build on five different types of activities in school which together realize a learning environment within the workplace of student teachers:

1. Sessions based on parts of the institutional curriculum enacted by the school-based teacher educator.
2. Teaching pupils and other teacher related activities.
3. Individual and group conversations between the school-based educator and the student teachers.
4. Daily mentoring through observation and lesson conversations by a subject teacher.
5. Portfolio discussions and (final) assessments by the institute-based and school-based teachers educators together.

The research focuses here is on the teaching activities in the classroom and the pre and post lesson conversations and knowledge use in the classroom context (Eraut, 1994). In a secondary school, two school-based teacher educators, three student teachers and three subject teachers (daily mentors) were involved. All student teachers had a temporary appointment which covered time to teach and to study. All mentors and the school-based teacher educators were experienced teachers (age: 40 to 64; teaching experience:10 to 37 years) and trained mentors. The school-based teacher educators had had additional training. Mentors and student teachers are referred to by pseudonyms: Ria and Rosa (chemistry); William and Marla (English) and Charles and David (geography).

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**Data collection**

In order to realise data triangulation the data base was compiled using different types of data (Denzin, 1978, p. 291). The introductory sessions with the school-based teacher educator and the mentors, the lesson-based conversations with the mentors, the evaluations and all interviews were audio taped. Next to observation in real practice, all lessons were video taped. Mentors and student teachers made a reflective journal after each cycle and were separately interviewed.

Field notes also were used during data collection to reveal and make helpful adjustments (Eisenhardt, 1989). At the end of cycle two the student teachers were interviewed. as was the whole educational team (school-based teacher educators and mentors). Focus here was on the mentoring approach, its advantages and the usefulness in school. Next to this interview the mentors were interviewed separately on their ideas of explicit modelling and practical knowledge.

**Data analysis**

All audiotapes were transcribed. Each lesson based conversation was analysed using an open coding to find the subjects in the discussion (Strauss and Corbin, 1990). First fragments related to the learning needs of the student teacher were identified then the parts related to other aspects of teaching. A simplified scheme of the modelling possibilities mentioned in section 1.2 (suggestions and statements, feedback and explanations, and reframing) served as initial sensitizing concepts. Behaviour mentors intended to show in practice in the pre lesson conversations and statements on this behaviour during the post lesson conversation were added. The utterances of the mentors within the identified fragments were analysed with the help of this matrix made of the issues discussed and the modelling aspects. (Miles and Hubermann, 1994).

In the analysis of the interviews a distinction was made between statements about the mentoring procedure, explicit modelling and practical knowledge. The results in this paper are based on statements about the mentoring procedure in the interviews with the mentors and the student teachers. The modelling results are based on the first and single analysis of the first and second lesson and the pre and post lesson conversations in the two cycles.

Next to the data triangulation more quality safeguards were built into the study. The interviews at the end of cycle two were partly based on the first findings presented by the researcher and acted a first member check (Merriam 1998). A research group of 'critical friends' discussed the data gathering, the data, the emerging analysis and interpretation, and the conceptualization of the article.

**Results**

**The mentoring approach**

All participants were very satisfied with the chosen mentoring approach. Like the mentors in Hagger and McIntyre (2006) they enjoyed talking about teaching and their own expertise very much. Ria even called it '*a present*'

Preparing lessons and teaching together was seen as a very helpful, an instantaneous support:

> Teaching together for me is a real enrichment. It is no longer seen as a 'violation' when a mentor is telling things from a sideline position. Now you know we are in it together, we do it together and it feels safe when you interfere (Ria).

Also the post lesson conversation based on the recorded lesson was seen as very helpful because of the possibility to actually see and discuss what was happening and repeat some crucial scenes.

Next to this mentors learned form this approach not only an improved way of mentoring but also new possibilities as a teacher:

> I do not know whether the student teachers development goes faster but doing it in this way is very nice. It supports the student teacher, it supports me as a mentor and as a teacher (Charles).

All mentors intend to make this approach a part of their mentoring practice although it is a time consuming approach which asks a lot of planning and deliberation.

**Modelling professional knowledge in the three teams**

**Overall aspects of teaching which are modelled**

Observation and the interviews with the three mentors revealed the overall aspects of teaching which they modelled. Ria, the chemistry teacher uses a manual which she likes

and thinks it very important to connect subject content with the daily life of her pupils. She prepares each lesson by thinking about examples and making all assignments with a special eye for the possible problems pupils may meet. Charles wants to incorporate actual things in his geography lessons and is not satisfied with his manual therefore he develops his own teaching materials. The same subject is taught on different levels consequently the material has to be adapted. William focuses on teaching and learning strategies also with the help of self developed materials.

All mentors give attention to diversity and variation in learning activities and the relations with pupils are a very important aspect of teaching. Based on the learning needs of the student teachers and the things which come up in practice the modelling by these three mentors is further coloured and refined. Every mentor speaks from the explicit conviction that in the end each student teacher has to develop a teaching style of its own, related to personality and own teaching values and emphasises this belief several times. Another common issue in all conversations has been the well being of the teacher in his classroom and different considerations and perspectives on why this well being is important and how it is related to pupil understanding and pupil learning. The conversations themselves were different, dependant on the learning needs of the student teacher, the content of the lessons involved and the personalities of the individual mentors.


*Modelling by showing and discussing mentors' teaching behaviour*
Rosa wanted to see how Ria makes the transition from one lesson part to another. During the first lesson Ria showed how she uses a specific place in the classroom as a kind of 'anchor'. Every time she is going to stand there pupils know she wants their attention. She uses it when she has to give instruction or information but also when during individual or team work a pupil make an interesting remark or question and she wants to share this with the other pupils. As a result transitions become more smoothly without much saying.

The observation and reflection on non verbal behaviour was very important in all lessons enacted by the mentors. All three student teachers came up with the problem of a class not listening to them. And all three could not live with the suggestion not to talk while pupils were talking *'if I do that it will last the whole hour..'*. All mentors showed during their lesson different ways of *'not talking when pupils are not listening'* and after that they discussed the issue of 'silence' as a part of working order in classrooms related

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to the person of the teacher. Charles, the geography teacher, had a very hard time in his first lesson with a class full of pupils he did not know. Consequently he also modelled how hard work it can be even for an experienced teacher. Afterwards he and David discussed what happened, what may have caused it (in terms of pupil and teacher behaviour) and which alternatives were thinkable.

William explicitly told and showed Marla to stop talking in the middle of a sentence and how to play with her voice and her body language. Next to this he describes for her his behaviour during the first lesson

> '…First telling something than something else, asking questions, using the blackboard and than coming back to the first item…This going backwards and forwards based on pupils' signals is very deliberate and very structured behaviour of mine in order to keep their attention'.

*Teaching together*

During the second lesson of the cycle both the mentor and the student teacher were responsible in the classroom. They all made some agreements on the way they wanted to divide roles. Ria taught the pupils in turn with Rosa. Both of them were in front of the classroom. Once Rosa became a bit uncertain on what to do during instruction, Ria became the teacher educator. She asked the pupils for a time out and whispered in Rosa's ear what to do and why, standing literally behind her, helping her through a difficult teaching episode by sharing her expertise as a kind of 'voice over'. Pupils reacted by patiently waiting till Rosa continued the lesson. Charles and David also divided the lesson but Charles did not interfere during David's teaching. During pupils' groups work they consulted each other and it was Charles, the mentor who was responsible for time management. William was at the sideline almost during the whole lesson. Sometimes Marla asked him a better example or to take over a small part of the lesson.

*Post lesson conversations*

During post lesson conversations the mentors discussed what they did and why. For instance the time out for Ria was a reason to talk further about involving pupils in teaching and communicating with them what you do, what you want from them and why. William brought up the workload of pupils and the possibilities you have as a teacher to spread out the things pupils has to learn over the year as part of your time management. Ria, William and Charles emphasised the way they relates themselves to

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pupils and the way the are dealing with rules and discipline. Their first perspective is their own well being, they want to feel safe and at ease in their own classroom and they explains what this mean for them. Ria does not really mind pupils coming late but she does not want them come in during the Thought for the Day because for Ria this is an important moment to get into contact with herself as a teacher and with her pupils. William had to accept three pupils sitting in his classroom who need to go to another school. He does invest in personal contact with them but not their learning. All mentors can manage the noise related to group work and the absence of the absolute silence during class. Charles explicitly shows to David the lesson structure based on 'learning in safety' (a school-based instruction strategy) and explains how and why this structure helps his pupils to maintain their attention. They all use school rules when pupils are behaving badly and based on their shown teaching behaviour they discuss when and how pupils are overstepping their limits and how they (non) verbal react. But, *'whatever I do, a pupil must have the possibility to come back in my classroom and make a new start and so do I..'* (David).

*A new look: reframing as a modelling activity*
Next to telling, showing and discussing, reframing is one of the possibilities to model practical knowledge. All mentors talked about alternative behaviour given the situation. Reframing the situation itself by taking another perspective was also used, especially related to student teachers ideas on pupils and their behaviour. For instance Ria talked with Rosa about the way she reacted on pupils and the relation with Rosa's thoughts on what and why a certain pupils was doing. Several ideas came up and were connected with possible behaviour. Ria explained in her journal this was an important issue because the reaction of a teacher on pupils behaviour is also dependent on the way you look at pupils. William was told by Marla that she had a 'very demanding class' but when he came to observe them they were very quiet. Marla thought it was Williams reputation but discussing this they came up with the idea it was out of respect from her pupils who really liked her and did want her to fail.

In short, all possibilities to model practical knowledge were used but always embedded in the dialogue with the student teacher. Personal experiences, ideas and convictions are part of a discourse in which questioning (both by the mentor and the student teacher) is a salient feature. The conversations are mainly about 'doing'. The arguments used by the mentors are often related to the necessity 'to go on' with their lesson, with their

pupils and with the learning possibilities for these pupils (in that order). Arguments used in discussions on topics as learning strategies, learning activities or subject matter and instruction are related to (in-) effectiveness in given situations in the past.

**Conclusion and discussion**

In this case study we asked ourselves *'(How) do school-based mentors explicitly model their practical knowledge within the designed pedagogical approach?'* As stated before it is not easy to explicitly model practical knowledge. In the beginning even talking of what they are doing is not easy for these mentors. Like almost all teachers for them idiosyncrasy and self-sufficiency are strong professional norms. Exchanging experiences is possible but telling and imitation is almost unacceptable for them (e.g. Eraut, 1994). Slowly, during the two cycles they begin to acknowledge the value of this new approach. New also because no one is familiar with teaching together nor with discussing their experiences so close to reality.

All our participants are using more or less the different modelling activities mentioned in section 1.2, except the exchange of the reflective journals. Although Charles and David read each other journals they do not discuss them. The conversations also showed the character of this knowledge used in the context of *hot* decision making and problem solving in classrooms (e.g. Eraut, 1994), which is hard to generalize, hardly conscious and not measurable with traditional test instruments. The opportunity to systematically discuss and underpin (shared) experiences with student teachers and to show what they are trying to say gives our participants the possibility to (re-) construct their practical knowledge. Practical knowledge not being 'something you posses' but 'something you discuss' (e.g. Billet, 2001). That is to say they can talk with their student teachers on teaching aspects they value and think important within the context of actual classroom practice, the problems which come up and the solutions they developed throughout the years. They can explain which aspects they think are important and others far less and why. Not from a theoretical point of view but based on the consequences for there actions as a teacher. And last but not least they can tell how long it took them to learn what they do now. Subsequently the talking is far more about what they are doing than what they are thinking.

*Discussion*

It is obvious that the presented findings are provisional and not applicable to other mentoring conversations. Not only because of the small group of participants and the global analysis but also because researching these mentors and student teachers meant playing a double role. By becoming so close to everyday practice the researcher was also seen as the institute based teacher educator they miss in this 'professional development school'. All participants had to learn a lot during these lesson cycles. The researcher acted as an active role model for these mentors especially during pre and post lesson conversations in the first cycle. A role model helping them to become more aware of what they are saying and doing and thus grow to be more explicit.

During this project the awareness of the importance of their own professional knowledge of the participating mentors grew. However, during the interviews and in the journals it became clear that, although they knew why something is important they nevertheless forgot to tell their students. We noticed 'explicitly' is hard to define when it comes to modelling in real class room practice. Maybe we have to accept there is a kind of scale of 'more or less explicit' related to this modelling activity dependant not only on what mentors actually say to their student teachers but also on how they can legitimize their mentoring activity for themselves. Reflection on this kind of awareness maybe can help them to develop more explicit modelling behaviour.

Most mentor training activities are aimed at pure observation and student centred feedback. If we want other types of mentoring conversations like those in which practical knowledge can be (explicitly) modelled within the professional development of mentors attention must be paid to this possibility. By becoming aware of this knowledge and its value for (student) teachers, by developing a shared language with which experiences can be discussed and by developing tools (as mentioned in this paper) which can mediate this discussions.

Further analysis of the material has to shed more light on nature and the quality of the conversations in order to get a better understanding of the way practical knowledge was re-constructed. And last but not least the effect on student teachers has to be examined. What do they hear and see and how to they use the opportunities offered by their mentors.

## Acknowledgements

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# Knowledge creativity in teacher education

# THE EFFECTS OF STUDENT-ACTIVE LEARNING ON THEORETICAL AND PRACTICAL KNOWLEDGE: A STUDY OF TWO DIFFERENT TOPICS IN PHYSICAL EDUCATION IN THE TEACHER EDUCATION PROGRAM

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ABSTRACT

*The purpose of this study was to evaluate the effect of student active learning in two different topics in physical education for teacher students at the teacher education programme. The practical topic was dance, while the theoretical topic was physiology. The results are based on oral feedback and written logs from 76 students in the practical topic, while the theoretical topic was evaluated based on oral feedback and a questionnaire from 14 students. Results indicate that a variation between theory and practical exercises are stimulating the student's creative thinking and facilitating learning in both topics.*

Keywords: student active learning; physical education; teacher education

## Introduction

The concept of student active learning has existed for a long time (O'Sullivan, 2004). It is a concept with many labels, e.g. learner-centred education, active learning, and student-centred learning. Student active learning is an approach considered to be the antidote to the teacher-centred learning, where the teacher is dominant over passive learners (O'Sullivan, 2004). It is often claimed that a teacher-centred learning prevents critical and creative thinking whereas student active learning promotes it (Silberman, 1999). Although there is a considerable amount of research on student active learning in general, to date there is a lack of research on what effects student active learning have on student physical education (PE) teachers.

Active learning has its rationale based on theories within constructivism and Multiple Intelligences (Biggs, 1999; O'Sullivan, 2004). Constructivism is a theory which has long history within cognitive psychology, and it also has been dominant within teacher education. Cognitive theories suggest that learning occur only through active processing, and not through passive reception of information (Michael, 2006). Jean Piaget is a significant scholar in this perspective, but also theories based on John Dewey's thinking are influential. The theory of constructivism takes today many forms; individual, social, cognitive, and postmodern (Steffe & Gale, 1995). The theory of Multiple Intelligences has its origin in the work of Howard Gardner. The theory is based on the assumption that people contain several, or multiple, intelligences (Gardner, 2006). This means that the intelligence of a person do not exist of one "IQ" measure,

because that would be an insufficient measure of a person's intelligence. People possess of different intelligences in different topics, e.g. linguistic intelligent learners are comfortable learning new languages, while others cannot distinguish one dialect from another (Moran, Kornhaber & Gardner, 2006). People with a bodily kinaesthetic intelligence prefer using their kinaesthetic and tactile senses in a learning situation, e.g. using practical exercises and demonstrations in order to understand how a muscle contraction takes place. It is necessary to emphasis that people possess of all the nine intelligences, but to a different degree (Gardner, 2006). However, there is no need to create nine different lessons. The focus should be to create a learning environment which nurtures each student's combination of intelligences (Moran, Kornhaber and Gardner, 2006).

Related to the theory of Multiple Intelligences is the concept of Approaches to learning, first introduced by Marton and Säljö (1976). The Approaches to learning describes the nature of the relationship between the student, the context, and task (Biggs et. al., 2001), and is by many educators viewed upon as a powerful model for student learning and quality of learning outcomes (Duff, Boyle & Dunleavy, 2002). Marton and Säljö's (1976) experiment has its origin in student learning and it describes the ways people adapt to a learning situation. They gave students a text to read, and told them they would be asked questions from that text afterwards. Students responded in different ways, categorized in either a *surface* learning approach or in a *deep* approach for learning. The surface learners were engaged in finding details they could be asked for without getting the big picture. The deep approach learners scanned the text in order to comprehend the meaning and objectives of what's being introduced in the text. It is believed that use of a deep learning approach is associated with higher quality of the learning outcome than the surface approach to learning (Gijbels, Dochy, Van den Bossche & Segers, 2005; Zeegers, 2001).

In addition to the Approaches to learning, Biggs (1987) came up with the theory of an achievement theory. The theory emphasizes that students learn due to motives for learning. If a student decides that passing is sufficient for his outcome, it would lead to rote learning of those facts and memorising details which are judged, or guessed as most likely to be tested (Biggs, 1987). If a student is interested in a particular subject, Biggs (1987) claims that the student will find out as much as possible about this subject, regardless of any testing, due to motivation and interest of that subject.

Student active learning is based on that the students create their own understanding of a phenomenon due to active construction of experience and prior knowledge (Michaels, 2006). It requires that the student raises questions and reflects about the actual issue, that the student generates solutions and is creating an understanding to a certain occurrence (Biggs, 1999). Active learning such as Problem-based learning and group-based tasks are common within physical education, and these are methods reported to facilitate student engagement and enthusiasm (Duncan & Al-Nakeeb, 2006). In one study, a comparison of student performances and perceptions in a lecture-based course with the same course utilizing group discussions was made (Lake, 2001). It was found that student performances in terms of grades were higher with group discussion than with lecture-based teaching. However, the group discussion students perceived they had learned less than the other group receiving traditional lecturing (Lake, 2001). In an ordinary lecture students tend to forget what they hear (Silberman, 1996). Adding visual display, such as illustrations or video increases the retention of information with 24 % (Silberman, 1996). Research concludes that students being actively involved in the learning process remember concepts or physiological phenomena for longer periods (Woodhull-McNeal, 1992). With student active learning it is reported increased student autonomy, independent thoughts, critical thinking skills and greater acquisition of practical/employability-related skills compared with traditional lecture-type activity (Duncan & Al-Nakeeb, 2006; Duncan, Lyon & Al-Nakeeb, 2007). These cognitive and motivational arguments for student active learning are interesting because the students are mentally constructing an understanding of a phenomenon. Additionally, Merleau-Ponty argues that learning also has to occur through bodily experiences since the body and mind cannot be separated (Rasmussen, 1996). The use of Merleau-Ponty's philosophy can strongly be argued into a physical education perspective since bodily experiences plays a fundamental part of the subject and therefore a central role in learning (Thorburn, 2008).

In physical education in school, the questions regarding the importance of active learning are irrelevant since learning-by-doing is inseparable from the physical activity. For student PE teachers, however, the questions regarding active learning is relevant. Our aim is to train the students to become better teachers in physical education. The activities and objectives of the physical education course reflect the objectives in the National curriculum for education for elementary school in Norway (Norwegian Directorate for Education and Training, 2006). Our concern as teachers to these students

is how can a teacher student effectively learn the didactics, the skills and the objectives, and at the same time have an understanding of learning. Some of the topics in physical education are theoretical and falls within the domain of traditional lecture-style course, for example muscle physiology.

Dancing is one topic of interest since it is one out of three main subject areas in the National Curriculum in physical education in Norway. According to previous research, dance is one topic where student PE teachers perceive lack of competence (Capel, Hayes, Katene & Velija, 2009). Improvement of skills by specific training is well-documented, but does an improved physical skill improve the didactical component of teaching that specific skill? The aim of this study was to evaluate the effects of student active learning in two different topics; one theoretical and one practical topic in a physical education course.

## Method

The data was collected on students attending the physical education course at the teacher education programme at the Sør-Trøndelag University College. The study lasted for two years and the students in this course were in their third and fourth year. It is the first time they attend to dance lessons in connection with teacher education.

The effects of student-active learning were evaluated on one practical activity and one theoretical activity for these teacher students. Practical activity plays a dominant part of the physical education in the teacher education in Norway. The theoretical topic was physiology. In both topics a theoretical list in the beginning of the course was made, giving the students the ability to prepare themselves in advance of the lesson. Objectives for each lesson were clearly postulated in the beginning of the lesson, and a group discussion was carried out after each lesson.

### Practical topic

Data from two different classes of students, one class each year, was collected during and at the end of the dance course. Both classes were attending the 60 credit course which means they have physical education for one year. In total 76 students participated in discussions and oral feedback, while 34 students wrote logs about their learning process, distributed on 17 male and 17 female students.

Dancing was performed according to the existing curriculum and reflections were carried out in groups after every lesson. The data is based on conversations and discussions after each lesson, together with a larger discussion at the end of the course. The comments were written down. Students had to write a log about the learning process. The data was analysed and categorised.

*Theoretical topic*

In the theoretical lessons, practical exercises were made, and videos and animations related to theoretical concepts was shown, e.g. animations of muscular contractions, the reflex arc etc. The purpose was to concretise the physiology which often is perceived as abstract theory by the students (Capel, Hayes, Katene & Velija, 2009). Data was collected through oral feedback in groups after each lesson and a questionnaire about learning processes and objectives at the end of the course. There were 14 students attending the course, 6 males and 8 females.

The questionnaire should give information about the student perception of having practical exercises in theoretical issues, and to what degree the students thought this was helping them in the learning process. As a part of the student active learning the students had to <u>perform</u> the theory. For example, the students had to show a performance to the other students how action potentials are propagating down the axon of a nerve cell, how membrane potentials are generated and so on. As a result of this, students had to understand how action potential propagates and how to demonstrate it actively to peer-students. Students had a lot of equipment available for the demonstration, for example different ball sizes demonstrating different molecules.

Data from oral discussions and feedback about student active learning was written down and analysed. The questions about teaching in the questionnaire were formulated as statements, and the students was answering them in 5 graded scale (Strongly agree – Strongly disagree). Data from the questionnaire was analysed in SPSS 16.0, but due to few participants only descriptive statistics are presented.

**Results and discussion**

*Practical topic*

The results in the practical topic of dance are based on written logs and the oral feedback. The analysis of the results revealed that the students repeatedly described some characteristics as important for their learning. These characteristics was labelled as engagement of the teacher, choice of progressions and methods, and variation of teaching and exercises. In the following these characteristics will be presented and discussed separately and in relation to student active learning.

*Engagement*

The students find it very important that the teacher have go-ahead-spirit and a drive in the teaching situation of dance. Students are aware of that their profession requires them to be confident in their own skills, and the importance of having faith in the presentation. As Brian expresses it:

> "I have learned the importance of involvement and engagement of the teacher, since she is functioning as a motivator for my learning. Showing pleasure and engagement in what you do, is crucial!"

Lisa also pinpoints this very clearly in her log:

> "Engagement and positivity are important means to obtain good dance lectures in the way I see it."

The engagement of the teacher was an important factor for learning dance. Dancing as activity can have low priority among teachers due to poor experience and lack of the required skills (Capel, Hayes, Katene & Velija, 2009). To learn this skill, it is important to create a positive atmosphere, which allows doing activities in a personal way. This positive atmosphere makes it easier for the students to learn new things. The logs from the students indicate that they appreciate a relaxed, but at the same time positive and energetic teaching atmosphere. Many students write about "transfer of energy" from teacher to student, which pinpoints the importance of interactions and communications taking place in dance. Research has found that the most important indicators of success for beginners in physical education and dedication and enthusiasm, and the teachers ability to interact and communicate with the learners (Beveridge et al., 1986). Based on the student's own reflections, enthusiasm and engagement plays an important role for their motivation to learn dance.

**Progression and methodological approach**

A playful approach to all kinds of dancing has been of priority for the teacher. Students find a playful approach helpful because they feel comfortable, and consequently aiding their learning process. The students expressed the importance of starting the lesson with something familiar that everybody can join.

> "This approach has done dancing harmless to many of us, also created motivation to teach dance in school." (Roger).

The playful approach made the students open up, join, experience and obtain competence in dance, a subject they had no faith in mastering before the course started, as student Alan expressed it:

> "You know what: even I would consider using dance in my teaching!"

It is important that teaching in dance makes it possible to obtain both knowledge and skills. At the same time it has to support the student's development and create an interaction towards these dimensions. An aim of the teaching in dance is to build self-confidence in the students in such a way that they feel free to move based on their personal skills. Each student should be able to make personal choices about content and to create their own teaching.

The method of intertwining theoretical and practical activities has also made the students more reflective about the topics in school, as expressed by student Joe after one dance lesson:

> "Putting the theoretical knowledge into a practical situation is something I have learned at most, not only for this specific teaching in dance, but generally through the teachers education programme. "

**Variation**

The students express an appreciation of variations in dance type. At the same time, they express the importance of having enough time to learn the dances as shown in the following quotes:

> "The teaching in dance has been diverse, but at the same time we have had the opportunity to learn some specific dances at a higher level. This is important for my confidence as teacher when it comes to teaching situations in the future". (Mary).

"I have enjoyed the more specific dances at most. I have not liked the so-called creative dancing to the same extent." (James).

The variation between traditional dance, dance from youngster cultures and creative dance has obviously created a sense of well-being. Everybody has found something within dance which they master at a certain level. Some students perceive a pressure and discomfort when the creative dance is too dominant, while others experience the same discomfort when they are not mastering the dance moves. The learning process is very individual. The teacher should be sensitive to these variations, and let the group's competence determine the content and the elements in the lesson. The content should reflect the dancing skills and reflection of the group. This pinpoints the necessity to teach simple elements that everybody can manage first. One challenge is to make this approach to dancing interesting, also for those who are familiar with dancing.

**The characteristics influence on student active learning**

The results in the practical topic indicate that it is important to give the students assignments and exercises that they have to solve and to reflect upon. The students report that it is valuable to physically experience the learning situation themselves. At the same time, students perceive it important to have support from their teacher in the learning process. This support helps the student to take responsibility for their own learning situation, and that they can influence their own learning situation. This helps the student to think about the progressions in dance. In such a way, the student active learning has an effect on both the students' reflections and skills.

Some important aspects are reported to contribute positively to the learning process. Amongst them are variation, which is important in sense of ideas and examples of exercises, as well as variations in methods and progressions. The students indicate that variation gives them a varied view upon teaching dance and how dance can be used in different settings and situations in school. The use of different methods is also important in means of stimulating different intelligences. The students become aware of methods that work well for some students, while others need a completely different strategy to learn the exact same exercise. The logs emphasise the importance of group discussions to understand the connections between variation, learning style and teaching. In such a

way the students construct a better understanding for learning generally, and dancing specifically.

It seems like the student active learning stimulates both the students' dancing skills and the reflection concerning dance in school. Drilling of standard dances and specific dancing steps alone may result in a surface learning towards dance, because there is no reflection about the learning process. Combining different dancing skills and approaches to dance activities, *together* with reflections and group discussions, appears to result in a deeper understanding towards dance. As result of the student active learning in dance, it seems like a greater reflection regarding methods in dance and reflections regarding the profession of physical education teachers have occurred. Student active learning seems to contribute to a better learning process, and to open eyes towards unfamiliar areas of physical education. However, students emphasise the importance of the *teacher* since personal characteristics such as motivation, engagement, variations and skills are important in learning. The teachers influence is in accordance to previous research (Beveridge et al., 1986).

Student active learning motivates the students to a larger extent. The results indicate that they find it important to influence their own education. For the students it is easier to achieve the objectives when the activities and methods are organised in a motivating and positive manner. According to Biggs (1987) the motivation is related to what the learner wants to achieve. It is previously found that the assessment dominates the students' focus and thinking during their time at university (Entwistle, 1991). The results in this study indicate that the motivation to learn dance alters during the learning process. Being active in their own teaching process enhances their motivation for theoretical understanding and practical skills in dance.

*Theoretical topic*

The main issue within the theoretical subject was to evaluate the effect of student active learning in the understanding of physiology. Most of the students agreed to a different extent that student active learning has taken place during the course. While 42,9 % was strongly agree and 42,9 agreed in the statement, 14,2 % was not sure if they have participated (table 1).

Table 1 Student active learning in the theoretical topic

| Answers are in % | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| Student active learning was used | 42,9 | 42,9 | 14,3 | 0 | 0 |
| We had an opportunity to be active in the learning situation | 50 | 50 | 0 | 0 | 0 |
| Practical exercise was important to understand theoretical aspects | 78,6 | 21,4 | 0 | 0 | 0 |
| The theory has contributed to a better understanding of practical exercises | 14,3 | 64,3 | 21,4 | 0 | 0 |
| More theory could have been applied | 0 | 0 | 28,6 | 57,1 | 14,3 |
| Animations and video has made the theory more accessible | 35,7 | 64,3 | 0 | 0 | 0 |

Most of the students report that they have experienced student active learning. At the same time, students find it important since it contributes to their understanding of theoretical knowledge. Students report that the process of actually demonstrating something for co-students has revealed an understanding of the subject to a large extent. They express that they actually have to understand the physiological processes and the abstract theory because they had to teach and explain the theory to other students, indirectly "forcing" students to understand the theory. A positive effect of bodily movement incorporated this understanding of the theory. This is an argument which supports the thinking of Mearleau-Ponty, in which knowledge is created and understood with bodily movement as well cognitive processes. Since all students find it important that practical movements were performed in order to understand theory, it may be because teacher students in physical education are more "bodily" expressive than other parts of the populations. However, in one study it was found that dancers do not exclusively prefer learning through active bodily learning (Gravenhorst, 2007). This study was based on dancers who should learn anatomy, and the findings of this study challenges the popular notion that dancers should only be exposed to an active learning style. It suggests that the visual stimulus in the classroom should also be considered as playing an important role in dancers' education (Gravenhorst, 2007).

One reason for the positive feedback in our study is that we have mixed different approaches to learning. There is a mix of theory, together with practical exercises and reflections concerning the theoretical content into physical education. In addition, demonstrations and video have also had a positive effect on the learning process. Since some physiology, like the propagation of an action potential can be quite abstract, the practical demonstration was helping the student to understand theory in a better way.

Based on oral feedback and written logs, students appreciate variations in methods. The variations are valuable in practical situations because it gave specific ideas and information. But, as teachers, it is very useful and necessary with an additional reflective process. Variation nurtures the student reflections towards physical education in school because the students have been introduced to different exercises. But most important of all; the students themselves must create and actively generate an understanding for what's being learned. According to theoretical perspectives that origins in constructivism this should be optimal. Another argument for this kind of learning is that having diverse approaches to learning, different learning styles are triggered due to different premises for learning, or Multiple Intelligences as Gardner (2006) puts it.

In addition to the profession and employability use of theory in physical education, the student's report of a motivation to learn more about the subject, the students wrote that they would like more teaching in the topic because they had gained interest. The interest has increased because the students become aware of the use of a theoretical foundation in their practical activities. In that sense, maybe we have helped the student to dig deeper into the theory and to obtain a deep approach to learning like the study of Marton and Säljö (1976).

**Conclusion**

The results show that the students perceive a better understanding of both topics when using student-active learning. In dancing lessons, students feel much more prepared to teach pupils in this kind of activity. This is due to better skills and a better apprehension of dance as a phenomenon and knowledge of how to create a good learning environment. The results show that the students perceive student active learning to be useful also in the theoretical topic. This can be explained by the more specific experience, which makes abstract theory easier to comprehend.

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# FROM GLOBAL WARMING TO CLOUDS AND RAIN: AN ANALYSIS OF 9$^{TH}$ GRADERS' REASONING

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ABSTRACT
*Global warming has been causing climate changes that lead to extreme weather conditions. Rainfall regime has been changing and heavy rain may be expected at any time of the year. In school, students learn about issues like rainfall, clouds and climate changes.*
*This study investigated how 94 ninth graders attending schools in the Braga district conceptualise clouds and rain and how they relate them to global warming.*
*Data obtained by means of a questionnaire indicate that students use a few analogies to describe clouds and rainfall. In addition, it shows that students hardly relate clouds and rain to global warming.*

Keywords: global warming, rainfall, clouds, analogical reasoning, science teaching

## Introduction

Opposite to what may be thought, climate is a term that does not refer to the weather at a given moment. The term climate rather "represents the total experience of weather at any place over some specific period of time." (Dawson, 1995, p.9). Recently there has been great concern about climate change. According to Dawson (1995), there are many factors that influence climate changes being the sun the most fundamental one. However, "climate changes are also greatly influenced by the gases in the earth's atmosphere that absorb, scatter, and reflect solar radiation. Some of the gases are crucial to life on earth, and subtle changes in their relative proportions in the atmosphere can lead to drastic changes in climate." (Dawson, 1995, p.11). Some of those gases (see Kyoto protocol) are the so-called greenhouse gases and they are a cause for concern with regard to global warming (IPCC, 2009).

A consequence of global warming is that extreme weather conditions are getting more and more common (Smithson, Addison & Atkinson, 2002), with dry periods becoming longer and rain, storms and hurricanes more and more frequent. Thus, in south European countries the four previous well-marked seasons can hardly be identified. In addition to a change towards two seasons, the weather conditions are getting more and more "unpredictable" at least for the lay citizen.

Hence, opposite of what was happening until a few years ago, rainfall can nowadays be observed in almost every year period. The blue sky and the summer sunny days can no longer be taken for granted in south Europe. Thus, on one hand, clouds became a

frequent company in summer. On the other hand, the probability of having a rainy day in summer is almost as large as it is in winter. Beyond that, summer temperature may be expected to be as mild as it was used to be in spring or as high as in an equatorial country.

In the compulsory education level, Portuguese students learn about weather, namely about rain and clouds. As a matter of fact, Physical and Natural Sciences, as well as Geography are supposed to deal with these issues. In addition, in Physical and Natural Sciences they learn about sustainable development and about how man's action may interfere with the equilibrium of the planet. This is important for them as citizens, so that they can become aware of how the man's action may interfere with the earth climate and contribute to changing the weather conditions. Nevertheless, in order to be able to do so, students need to understand phenomena like clouds and rainfall, as well as about how global warming may interfere with rainfall and lead to climate changes.

**Objective**

This study aims at investigating how students conceptualise clouds and rain and how they relate them to global warming by the time they complete their compulsory education that is, their 9th grade.

**Theoretical Framework**

*Clouds and Rain*

A cloud is an heterogeneous milieu with: dry air and saturate water vapour; water drops of divers dimensions, at positive or negative temperatures; ice crystals associated to water or on their own; solid state particles (like smoke, dust, etc.) coming from industry, and liquid state substances, including acids (Daniel, 2000). Clouds are placed in the troposphere, which is the lowest earth atmosphere layer, with a thickness of 15 to 16km over the equator and 5 to 6km above the poles (Dawson, 1995).

The clouds characteristics depend on the zone of the troposphere they are placed in (Daniel, 2000) and on the characteristics of the earth surface they are above of (Smithson, Addison & Atkinson, 2002). In addition, the number of droplets per unit

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volume of cloud depends on the cloud origin, namely on the availability of condensation nuclei in the air (Smithson, Addison & Atkinson, 2002). As a matter of fact, over continents and polluted areas there is a larger availability of such nuclei that leads to larger concentrations of smaller droplets; over oceans, the lower availability of condensation nuclei leads to small concentrations of larger droplets.

"Clouds are a vital element of earth energy budget" (Smithson, Addison & Atkinson, 2002, p. 62). Although, water vapour does not absorb short-wave solar radiation or radiation in the visible spectrum, it nevertheless absorbs a considerable amount of solar radiation at longer wavelengths (0.8 to 20 microns) as well as radiations emitted from the earth's surface, leading to greenhouse effect (Dawson, 1995). However, clouds do not absorb much incoming solar radiation. "In general, solar radiation either passes through clouds or is reflected by them, indeed some clouds may reflect up to 80 per cent of incoming solar radiation." (Dawson, 1995, p.15). High reflectivity of clouds is also responsible for dark sky (Anthis & Cracknell, 2004).

Despite the importance of clouds from an energy-balance point of view (Smithson, Addison & Atkinson, 2002), and the fact that they are under permanent evolution (Dawson, 1995), their features are "one of the least observed climate variables" (Smithson, Addison & Atkinson, 2002, p.62). However, according to Smithson, Addison & Atkinson (2002), two genera of clouds can be considered: stratiform clouds that are layered clouds; and nimbostratus clouds that are clouds with a vertical development. Thus, clouds that may be observed from almost all places on earth and that can be found in the different troposphere layers have been classified into a limited number of types, based on their characteristic forms (Daniel, 2000). At the upper part (negative temperature between -25º and -55ºC) there can be found ice clouds, namely: cirrus, cirrocumulus and cirrostratus. At the medium part of the troposphere (temperature between 2º and -30ºC), one can find clouds made of liquid state water and ice, as follows: altocumulus, altostratus and nimbostratus. At the lower part of troposphere (where the temperature is usually positive) there are: stratocumulus, stratus, cumulus, and cumulonimbus.

Due to vertical air motions that take place in the Earth atmosphere, water that evaporates from the Earth surface is raised and as it goes up, it becomes cooler and cooler and then it condensates to form clouds (Smithson, Addison & Atkinson, 2002). In addition, as temperature decreases with highest, as the air ability to hold moisture in the form of water vapour decreases. A consequence of this is that condensation may

take place and water droplets may be formed. Hence, raising air motions and temperature decrease are important conditions for saturation of the air with regard to water vapour to occur and this is a necessary condition for clouds to appear (Smithson, Addison & Atkinson, 2002). Further air motions and temperature changes may lead to an increase of the size of some water droplets and to their free fall under the effect of gravity.

Contrary to what is often argued, "unpolluted rainwater has a pH close to 5,6, as a result of the raindrops being in equilibrium with the atmospheric concentration of $CO_2$" (Bashkin, & Radojevic, 2003, p. 205). Rather than being pure distilled and de-ionized water. However, acid rain is generally defined as having a pH lower than 5,6 and the so-called extremely acidic rainwater has a pH lower than 3,5

*Analogies and sense making: the case of clouds and rain*

An analogy is a comparison of a familiar object or event to an unknown entity (Treagust, Harrison & Venville, 1996; Harrison & Treagust, 1993; Coll, France & Taylor, 2005; Oliva, Azcárate & Navarrete, 2007) usually named as target (Harrison & Treagust, 1993; Oliva, Azcárate & Navarrete, 2007). Thus, analogies are tools for thinking and communicating (Harrison & Treagust, 1993) as they enable the subject to build bridges between the known and the unknown, and help him/her to model a part of the unknown world by relating it to an already familiar object, event or phenomenon.

Analogies may also be powerful tools for teaching and learning (Coll, France & Taylor, 2005). As a matter of fact, students may generate analogies in order to make sense of the new phenomena that they should learn about (Middleton, 1991; Fabião & Duarte, 2005). In addition, teachers can also use analogies in order to facilitate students' understanding of some physical or natural phenomena that their students cannot easily observe (Black & Solomon, 1987; Harrison & Treagust, 1993). However, to succeed in playing this valuable educative role analogies have to be fully understood and accepted by the students (Harrison & Treagust, 1993). Otherwise, they may impair learning or even originate unintended alternative ideas about the part of the world that in under question. In fact, it cannot be taken for granted that an analogy that makes sense for one person makes also sense for another or that every person accepts the similarities that underlie a certain analogical reasoning.

Nevertheless, some research studies have shown that if analogies are appropriately handled they may be of particular educational value when abstract or non-accessible

domains or phenomena are at stake. These are the cases of both "the too small world", which includes sub-microscopic entities or phenomena, and the "too large world" or the "too far world" (Harrison & Treagust, 1993), that cannot the observed due to the astronomic distance that mediates between the observer and the reality to be observed. In the former case, as students cannot access entities nor their behaviour, they have to imagine as they probably behave, based on the macroscopic effects of their behaviour that can be observed in the accessible world. In the latter case, as students cannot see a planet or a galaxy they imagine and model them based on their previous knowledge about earth and other accessible objects.

Clouds are not too distant objects but they are distant enough and made of particles that are small enough for students to be impaired of observing them into detail. Therefore, students build mental models on the behaviour they imagine that clouds should have (Dove, 1998; Henriques, 2002). Some of those models seem to be based on combinations of familiar objects (vessels and sponges) and the observed consequences of the existence of clouds (water falling). Thus, instead of imagining clouds as mixtures of water droplets, ice crystals, gases, etc (Dawson, 1995), students conceptualise clouds as a sponge or a vessel or a sort of ill-defined framework that may retain water up to a certain point and release it when it surpasses the limit of its capacity (Dove, 1998; Gören & Leite, 2004). As a consequence of this sort of model for clouds, students conceptualise rain as water that falls from clouds, which were so full of water that could not retain more water (Gören & Leite, 2004). Hence, for students holding such a model, clouds do not vanish with rainfall; they rather become empty and then prone to receive more water (Dove, 1998; Henriques, 2002).

**Methodology**

*Sample*

In Portugal, compulsory education is nine year long. Therefore, every citizen is supposed to attend school at least up to completing the 9th grade. Thus, to fulfil the objective of this study, a sample of four 9th grade classes was drawn from the schools running 9th grade in the Braga district. As the study focuses on issues that are supposed to be taught in schools, it was assumed that as much spread the sample was, as much better it could represent the population. The reason for this is that teachers and schools

might make a difference in terms of participants' previous learning about the issues that are at stake. Therefore, the four classes come each one from a different school, and the schools sample includes a large city school, two small city schools and a village school. The total number of students that participated in the study is 94.

Table 1 shows the characteristics of the sample in terms of gender, and age. Data indicate that the numbers of girls and boys are quite similar, as expected in a compulsory education grade level that is supposed to be attended by every child. They also indicate that most of the participants have the appropriate age for attending the 9th grade level, as expected. However, there are a few participants that are a bit older, meaning that they had to re-sit for at least one school grade.

Table 1
Characteristics of the participants in the study

*(N=94)*

| Characteristics | Categories | f | % |
|---|---|---|---|
| Gender | Female | 45 | 47,9 |
| | Male | 49 | 52,1 |
| Age (years) | 14 or 15 | 80 | 85,1 |
| | 16 | 14 | 14,9 |
| | 17 or more | 0 | 0,0 |

*Instruments*

In order to attain the objectives of this study a questionnaire was developed based on a previous one (dealing with clouds and rain) used by Gören & Leite (2004). Questions on global warming and its relationship to rainfall were added. Hence, the questionnaire used for the purpose of this study includes questions focusing on clouds, rainfall, and global warming as well as on the relationships among them. It includes open questions so that students can express their own ideas without suffering any external influence. A first version of the questionnaire was content validated with two science educators in order to test the consistency of the questions with the specific objectives to be attained. The adequacy of the questionnaire to 9th grade students was also tested with a ninth grade class. As no changes were needed, the questionnaire was considered as read to be used for data collection purposes.

*Data collection*

One of the science teachers of each class was asked to apply the questionnaire to his/her chosen class. Science teachers were invited to collaborate in the application of the

questionnaire because, as they deal with these issues in their classes, students were expected to take the task of answering to the questionnaire more seriously if done in a science class than if it were done in another school subject class. These teachers were given specific instructions on the required conditions for administering the questionnaire, namely: science information should not be given to the students; time for filling in the questionnaire was unlimited; answering to the questionnaire should take place under examination conditions; students should be made aware of the importance of answering to the questionnaire as better as they could.

*Data analysis*

Students' answers were content analysed in order to identify the students´ correct answers as well as the main alternative conceptions that underlie the answers given when answering to the questionnaire. Some of these alternative conceptions deserved special attention in the analysis, as they include analogies that were used by the students when describing or explaining the issues under question. Unfortunately, due to space restrictions they will not be documented with quotations from students' answers that would better illustrate students' reasoning.

**Results**

Table 2 shows that no student gave a scientifically accepted definition of cloud. A few students gave incomplete definitions, as they did not explain how they imagine water in the clouds to be. The majority of the participants gave answers that seem to be based on alternative conceptions. In fact, some of them either mentioned water or gases, meaning that they do not accept clouds as a multi-component entity. A considerable number of students seem to differentiate water from clouds, as they conceptualize them as a sort of structure, vessel or sponge that either contains water (four students) or acts as a nesting place for rain formation (five students).

Table 2 Students' conceptions about clouds

*(N=94)*

| Type of answer | | Conceptions about clouds | f | % |
|---|---|---|---|---|
| Scientifically accepted answer | | ---- | 0 | 0,0 |
| Incomplete answers | | A mixture of water and gases | 6 | 6,4 |
| Answers containing alternative conceptions | Focusing on the clouds material | A mixture of water and pollutant gases | 3 | 3,2 |
| | | An amount of water (either in the gaseous state or in the liquid state) | 43 | 45,7 |
| | | A high concentration of gases | 16 | 17,0 |
| | Focusing on a structure for the clouds | A thing full of water | 4 | 4,3 |
| | | An entity where rain is formed | 5 | 5,3 |
| Non-understandable answers | | | 11 | 11,7 |
| No answer | | | 6 | 6,4 |

Students are almost equally divided between two ideas about the existence of clouds. As a matter of fact, table 3 shows that about one half of the participants believe that clouds are permanent entities even though they cannot be seen at any time; the other part believes that clouds alternate between being formed and destroyed.

Table 3 Students' ideas about the existence of clouds

*(N=94)*

| Ideas | f | % |
|---|---|---|
| Clouds are always 'there' even though we seldom can see them | 48 | 51,1 |
| Clouds are not always 'there'; sometimes they are formed and sometimes they are destroyed | 46 | 48,9 |

More than 30% of the 48 students that believe that clouds are permanent entities were unable to explain their reasoning or to do it an understandable way (table 4). The others explained the permanent nature of clouds based on several different elements. As it should be expected, some of these ideas seem to be dependent on students' alternative conceptions about clouds and vision. Others seem to be based on students' experiences of observing other objects, namely at different distance or under diverse conditions.

Students' explanations for the idea "Clouds are always 'there' even though we seldom can see them"

(n=48)

| Explanations based on: | Ideas included | f | % |
|---|---|---|---|
| The material nature of the clouds | As there is always water in the atmosphere, there are always clouds | 5 | 10,4 |
| | Clouds need to be concentrated in order to become visible | 7 | 14,6 |
| The behaviour of the clouds | Clouds motion may make them (in)visible | 3 | 6,2 |
| | The highest of the clouds can enable or unable their observation | 1 | 2,1 |
| | Clouds can be seen only when it is raining | 2 | 4,2 |
| The existence of material obstacles to vision | Polluted atmosphere impairs clouds from being observed | 1 | 2,1 |
| | Fog impairs clouds from being observed | 1 | 2,1 |
| The existence of sun light | Sun prevents clouds from being observed | 11 | 22,9 |
| The necessity of light | Light is required for clouds to be observed | 1 | 2,1 |
| Non-understandable answers | | 10 | 20,8 |
| No answer | | 6 | 12,5 |

More than 21% of the 46 students that did not accept the permanent nature of the clouds did not give an explanation or an understandable explanation for it (table 5). Again, the remaining students gave several different explanations. Some of the conceptions underlying these explanations seem also based on students' conceptions of clouds, being a few of them nearer from the scientifically accepted view than others. Other explanations seem to be based on everyday facts that students take for granted and therefore do not feel the need to explain. This is the case of the idea based on the visibility of the clouds – it is just natural that we cannot see clouds everyday!

Table 5: Students' explanations for the idea "Clouds are not always 'there'; sometimes they are formed and sometimes they are destroyed"

*(n=46)*

| Explanations based on: | Ideas included | f | % |
|---|---|---|---|
| Rain | Clouds are destroyed when it rains | 14 | 30,5 |
| | Clouds are formed when it is rainy | 1 | 2,2 |
| Clouds composition | Water droplets are not always clustered | 2 | 4,3 |
| | Gases are not always concentrated | 2 | 4,3 |
| Water cycle | Water evaporation is not a permanent phenomenon | 5 | 10,8 |
| Visibility of the clouds | We cannot see them at every moment | 12 | 26,2 |
| Non-understandable answers | | 8 | 17,4 |
| No answer | | 2 | 4,3 |

Students´ explanations of clouds formation are very incomplete (just mention a part of the whole process) or are consistent with the idea of cloud as an entity or a sponge that can absorb water up to a certain limit (table 6). The existence of several students relating clouds formation to an accumulation of gases is in agreement with the idea of cloud as a high concentration of gases (see table 2).

Table 6: Students' ideas about clouds formation

*(N=94)*

| Causes associated with: | Factors mentioned | f | % |
|---|---|---|---|
| Water cycle | Evaporation of water | 40 | 42,6 |
| | Evaporation and condensation of water | 4 | 4,3 |
| | Condensation of water vapour | 1 | 1,1 |
| Gases | Accumulation of gases | 15 | 15,9 |
| Mixture of water and gases | Evaporation of water and combination with gases | 3 | 3,2 |
| Clouds | Absorption of water | 8 | 8,5 |
| Fog | Evolution of fog | 2 | 2,1 |
| Non-understandable answers | | 14 | 14,9 |
| No answer | | 7 | 7,4 |

The majority of the students gave scientifically accepted definitions of rain (table 7) even though some of these students focused just on the nature of the material of the rain and others also on the rainfall phenomenon. Along with this type of answer, a few incomplete definitions were also obtained. They are due to the fact that students focused on the phenomenon but did not fully explain it. Several answers revealing alternative conceptions were also obtained. These conceptions have to do with the idea of cloud as a vessel´ or sponge that gets full of water and then releases all or part of the exceeding water under the form or rain. Other alternative conceptions are consistent with the idea of cloud made up of gases or with ideas that are often mentioned in the mass media, namely acid rain. The percentages of students that were unable to give an answer or that did not give an understandable answer are a bit lower than they were in the previous issues probably because rain is a much more familiar phenomena for the students than the other issues were.

Table 7: Students' conceptions about rain

| Type of answer | Conceptions on rain | f | % |
|---|---|---|---|
| Scientifically accepted answer | Rain is water | 17 | 18,2 |
| | Rain is water that falls from clouds | 38 | 40,4 |
| | Rain is water that falls when cloud water droplets become big enough | 5 | 5,3 |
| Incomplete answers | Rain is water that falls from clouds when the water vapour turns into liquid state water | 6 | 6,4 |
| | Rain is water that falls from clouds when solid state water turns into liquid state water | 2 | 2,1 |
| Answers containing alternative conceptions (focusing on the clouds material) | Rain is water released by clouds that are too full | 7 | 7,4 |
| | Rain is water that falls from clouds when clouds gases turn into the liquid state | 3 | 3,2 |
| | Rain is water that falls from clouds when clouds water becomes acid rain | 2 | 2,1 |
| Non-understandable answers | | 10 | 10,6 |
| No answer | | 4 | 4,3 |

The majority (95,7%) of the students stated that there is a relationship between rain and clouds. Although the remaining 4,3% (four students) stated that there is no such relationship, they nevertheless did not explain why.

The majority of the 90 students that believe in a relationship between rain and clouds explained their beliefs in an incomplete way, as they just stated that clouds originate rain (table 8) but did not explain how they do it. In addition, the idea of cloud as an entity (a vessel or a sponge) that can accumulate or absorb water was again used by a considerable number of students.

Table 8: Students' explanations for the relationship between rain and clouds

| Type of answer | | Relationship between rain and clouds | F | % |
|---|---|---|---|---|
| Scientifically accepted answer | | ---- | 0 | 0,0 |
| Incomplete answer | | Clouds originate rain | 45 | 50,0 |
| Answers containing alternative conceptions | Focusing on the clouds material | Clouds as well as rain are water | 4 | 4,4 |
| | Focusing on the structure of the clouds | Clouds accumulate rain | 18 | 20,0 |
| | | Rainfall occurs when clouds get full | 5 | 5,6 |
| | | Clouds absorb water that later on falls under the form of rain | 7 | 7,8 |
| | Origin of clouds | Dark clouds originate rain | 3 | 3,3 |
| Non-understandable answers | | | 2 | 2,2 |
| No answer | | | 6 | 6,7 |

Table 9 shows that almost a quarter of the students did not explain why rain is not a permanent phenomenon. Along with a few incomplete explanations, the students put several alternative explanations for rainfall not being a permanent phenomenon. A large

parte of them is based on the idea that rainfall takes place when clouds become full/saturated of water. This means that the idea of cloud as a vessel or a sponge was used by a larger number of students when they were thinking about the rainfall than when they were asked to describe their conceptualizations of clouds or rain.

Table 9: Students' explanation for rainfall not being a permanent phenomenon
*(N=94)*

| Type of answer | | Reasons for rainfall | f | % |
|---|---|---|---|---|
| Scientifically accepted answer | | ---- | 0 | 0,0 |
| Incomplete answer | | Clouds are required for rainfall to occur | 10 | 10,6 |
| | | Rainfall requires enough evaporated water | 7 | 7,4 |
| | | Rainfall requires water in the atmosphere | 6 | 6,4 |
| | | Rainfall requires condensation of water | 1 | 1,1 |
| | | Rainfall is due to the water cycle | 2 | 2,1 |
| Answers containing alternative conceptions | Based on the nature of clouds | Rainfall takes place when clouds become full/saturated of water | 29 | 31,0 |
| | Based on the existence of taken for granted things | Weather is either sunny or rainy | 7 | 7,4 |
| | | There are different seasons | 2 | 2,1 |
| | | Climate is like that | 3 | 3,2 |
| | Based on deterministic reasons | There has to be sunny and rainy days | 3 | 3,2 |
| Non-understandable answers | | | 10 | 10,6 |
| No answer | | | 14 | 14,9 |

Students were asked about the existence of a relationship between the rain regime in a certain place and global warming. About one fifth (19,1%) of the students did not answer to this question. The majority (54,3%) of the subjects stated that global warming has to do with the rain regime in a certain place while the remaining 26,6% stated the opposite. However, subjects in these two subgroups showed difficulties in explaining their ideas about that relationship. As far as the subgroup that stated that there is a relationship between global warming and the rainfall regime is concerned, if a few students (seven) have based their reasoning on the idea that global warming increases rainfall, other six stated that global warming leads to a decrease in rainfall. These ways of reasoning can be illustrated by the following answers:

"As global warming has to do with temperature increase; water evaporates and water vapour raises faster to the atmosphere, leading to a faster formation of clouds and afterwards to rainfall."
"If temperature raises, the rain regime will decrease and it may lead to desertification."

As far as the subgroup that rejected the relationship mentioned above is concerned, the few students that gave understandable answers based their reasoning on the idea that global warming has different causes from rain. The former is conceptualized as having to do with gases or sun and the latter with clouds. This reasoning is illustrated as follows: "Global warming is due to gases and rain is due to surface water."

**Conclusions and implications**

Due to imposed space restrictions the results of this study cannot be fully analysed and discussed. However, they indicate that by the time they complete compulsory education, students can hardly define clouds and rain and many of them hold a few alternative conceptions about these phenomena as well as about the relationship between them. In addition, and as it could be expected based on previous studies, some of them use analogies to describe clouds and to explain rainfall. The most frequent analogies take clouds as vessels that can get full and empty or as sponges that can absorb water up to a maximum and then release it. However, students can hardly relate clouds and rain with climate global warming.

The differences in terms of students' analogical reasoning found among the different issues analysed in this paper suggest that further research is needed in order to better understand students' understandings of the natural phenomena that were at stake by the time they complete their compulsory education in order improve the teaching of these science and everyday issues.

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# KNOWLEDGE CREATIVITY OR KNOWLEDGE CONTROL – INDUCTION OR REDUCTION IN EDUCATION.

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ABSTRACT

*It is unsurprising that in the current era which follows hotly on several decades of successful economic rationalism, reductionism and instrumentalism that all of a sudden we wonder where creativity has gone. Creativity does not flourish in times of sorting, ranking and measuring, competency and credentialing, or staffing and resource cut-backs. We are told, however, by governments such as the recently elected Rudd government in Australia that "the future will belong to the nations with the best human capital and the most inclusive societies" (Australian Parliament speech, 4 April 2008). Notions of human capital, social capital and cultural capital are experiencing resurgence in the discourse of policy.*

Key words: Knowledge creativity, induction, ongoing learning, dialogic space, change.

## Introduction

Where has knowledge creativity gone? In the current era, which follows hotly on several decades of successful economic rationalism, reductionism and instrumentalism it is unsurprising that all of a sudden we wonder where creativity has gone. Creativity does not flourish in times of sorting, ranking and measuring, competency and credentialing, or staffing and resource cut-backs. We are told, however, by governments such as the recently elected Rudd government in Australia that "the future will belong to the nations with the best human capital and the most inclusive societies" (Australian Parliament speech, 4 April 2008). Notions of human capital, social capital and cultural capital are experiencing a resurgence in the discourse of policy. In this paper the authors examine examples of graduate teachers' experiences of induction programs in two states in Australia and interrogate the teachers' experiences in the light of the literature and also in view of an imperative for knowledge creation for a new era.

## Theoretical ideas

A number of studies of teacher induction are drawn upon for this paper as well as data which have been gathered by the authors within their own research studies. The concept and practice of induction of teachers is linked here with notions of knowledge creativity,

social and cultural capital as well as with attempts to entrench the *status quo* and preserve existing hierarchies of power.

Drawing predominantly on the work of Giddens and Smyth, induction is addressed as a process with inherent tensions between the preservation of the *status quo* which involves viewing induction as a technicist exercise aimed at entrenching current accepted practices or conversely viewing induction through a critical or post-structuralist frame of challenging and interrogating current accepted practices in order to critique and/or change society. Current practices occurring in the name of induction may be interpreted as a form of teacher enculturation which may also involve a covert form of local surveillance. Alternatively induction practices in other instances may be seen as creative, critical, reflective and flexible activities, involving supported, professional knowledge creation leading in turn to autonomous professional action.

Education is seen as the key to the creation of a knowledge society and the ability of teachers to be innovative, creative and entrepreneurial, is central to this. With regard to the need for entrepreneurial action in a knowledge society Giddens (2000) observes that Successful entrepreneurs are innovators because they spot possibilities that others miss, or take on risks that others decline, or both. A society that doesn't encourage entrepreneurial culture won't generate the economic energy that comes from the most creative ideas (p. 75).

Teachers themselves need to be entrepreneurial. As well, teachers need to develop in learners, entrepreneurial and innovative aspirations and skills if they are really to focus upon a future which is about knowledge creativity.

Giddens (2000) claims that "economic policy needs to concern itself with education, incentives, entrepreneurial culture, flexibility, devolution and cultivation of cultural capital" (p.73). If education and schooling are to meet these challenges and be, as Giddens also suggests, a "key force in human capital development", it will be necessary to change what is currently meant by induction. The perpetuation of the *status quo*, the entrenching of existing cultures in an unquestioned manner and the uncritical passing on of official knowledge will not bring about the radical change and creativity that is needed in a glocalised and cosmopolitan world.

However, in an era of economic rationalism with the neo-liberal and neo-conservative ideologies that co-exist within the New Right Movement, what constitutes the "official knowledge" of teaching will be narrowly defined and constrained by those ideologies. We know that the kind of knowledge most prized is that which can be easily quantified,

measured, graphed and credentialed against measures that seek to deem people as either "competent" or "not competent".

Parker (1997) reflects upon the technicist approach to teaching claiming that

> For technical-rationalists, the curriculum is seen through the metaphor of a delivery system; teachers become operatives in education's factory. Knowledge of whatever kind is seen as a commodity to be packaged, transmitted or sold to others. The commodity metaphor supports and is reinforced by a network of other metaphors which picture knowledge as something that can be assembled and acquired in a purely linear addictive manner (p.15)

Neophyte teachers undergoing a process of induction are also often seen as needing to acquire this technical-rational approach to their own knowledge creation. Induction can take on the characteristics of inspection in the hands of a technical-rationalist manager. Thus in this model, where induction can be confused with inspection, "…systems of advice and support will necessarily embody a vocabulary of therapy" (Parker, 1997, p.19).

Graduate teachers leave university with new ideas and approaches, theories to inform decisions and choices that they will make in their professional practice, the latest cutting edge knowledge about curriculum, methods of teaching and assessment. They are potentially the agents for change and renewal in the school culture and system. There is a risk of them being 'knocked into shape' through induction programs that ask technicist questions and give technicist answers rather than allowing for new thinking to confront the existing culture of teaching. It is of course what governments need and want to happen in order for their policies to work and for their control to be exerted at every level within the system.

Apart from the potential of induction programs to be technical-rationalist exercises, another note of caution can be injected in terms of how induction relates to concepts of collegiality. The term 'induction' has overtones of wanting to control and manage the kinds of perceptions and experiences that neophytes have in the work culture into which they are being inducted. It implies that there is an 'official knowledge' that must be passed on and that there is a culture into which they must be inducted. Both of these are of course true in many ways but whether both the official knowledge and the culture can be treated as 'given goods' to be transmitted through induction is another issue. In line with this notion of control and observation Smyth (2001) examines the notion of collegiality and claims that it has become corrupted in its meaning and intent. Smyth writes:

> My argument is that the notion of collegiality is coming to be intricately bound up with the nature of teachers' work (Connell, 1985), and questions about who exerts the predominant influence in shaping it at particular historical moments. Collegiality, therefore, is much more than a desirable teacher-to-teacher relationship. It is a policy option being wielded very effectively at the moment to dramatically redefine what is meant by the notion of skill and competency in teaching in light of national economic imperatives (p.101)

The literature for mentors and graduate teachers is focused around the technical, recipes and prescriptions for practice level, rather than asking the bigger questions that may assist new teachers to move the culture forward and to engage with some of the issues that face teachers and learners within a "glocalised world" in this century. Urry (2002) refers to this merging of local and global contexts as "glocalisation".

> … There are parallel irreversible and mutually interdependent processes by which globalisation – deepens – localisation – deepens globalisation and so on. The global and the local are inextricably and irreversibly bound together through a dynamic relationship, with huge flows of "resources" moving backwards and forwards between the two. Neither the global nor the local exists without the other (p.84)

As a way of thinking about the bigger questions Smyth (2001) suggests some questions that should be asked.

> Who defines what constitutes the work of teaching?
>
> How is that definition fought over and resisted in various ways?
>
> Who makes concessions and accommodations and over what?
>
> How are the labor relations of teaching actually played out?
>
> In what ways are the issues of skill, competency, professionalism and autonomy expressed in the social relations of teaching?
>
> What forms of "surveillance "and "discipline" (Foucault, 1977) are used to focus the power relations that are embedded in the texture of teaching? (p.109)

These are questions that provide the framework for a new approach to induction of teachers which we outline here as a Third Way Model of Teacher Induction.

**Background context**

The authors examine examples of graduate teachers' experiences of induction programs in two states in Australia. Firstly the results of some studies recorded in the literature of teacher induction are discussed here.

In Australia and in some other countries, additional release time is offered to inductees so that in their first year of teaching they have a reduced teaching load. The notion of increased release time was studied by Dinham in 1992 and even at that time within the education system he noted that

> While reducing teaching responsibilities for beginning teachers and release times for meetings, to observe others teaching appear to be worthwhile and desirable and have been widely advocated, only a minority of schools and teachers have access to such measures, which of course have financial implications for schools and educational systems (Dinham, ACEA, 1992

Dinham (1992) also found that there needs to be closer links between schools and teacher education institutions during the induction and mentoring process, that mentors need training and support, and that schools and school systems need to provide funding support for induction and mentoring programs. In 1992, Dinham claimed that only one half of Australia's teachers underwent induction programs. However, in most states, induction programs are now mandated through the registration process for beginning teachers. Research such as that undertaken by Dinham as well as many other studies and reviews into teacher education and into induction have thus brought about a change in policy across Australia.

In the Australian context another factor which has diminished the process of induction programs for teachers has been the increasing trend towards the casualisation of the teaching workforce so that many more beginning teachers are in short term contract positions. In a submission to a Senate Inquiry into the teaching profession in 1998 in Australia, it was claimed

> Teachers, I am afraid are really out on their own at a very early stage, often having to move up to the country to take up initial appointments for just one term. They bounce from one school to the next school to the next school. These are schools that unfortunately often simply do not find time to provide proper support and induction to a teacher who is not likely to be there next term. That is a problem (A Class Act – Inquiry into the status of the teaching profession, 1998, p.206)

This same inquiry found that in many cases new teachers were sent to the most difficult schools and were focused on survival and not on reflection about their practices or those of others. In addition to this, in secondary schools it is increasingly common in Australia for subject experts to be directed to teach outside of their subject expertise due to shortages in some subject areas, especially mathematics and science. Teachers leaving the education system within the first 5 to 7 years frequently give as the major reason for their shift, the fact that they are being required to teach outside of their own

areas of expertise. This has emerged from various surveys that teacher education institutions have conducted and has been discussed regularly by the Victorian Council of Deans of Education. One respondent to the Senate Inquiry cited above claimed of new teachers,

> Frequently they are allocated to subject areas outside their specialist preparation in the secondary sector, and are often relegated to teach the "left over" classes – the students that experienced teachers have chosen not to teach (A Class Act – Inquiry into the Status of the Teaching Profession, 1998, p.208)

One of the goals of teacher induction programs cited by OECD is the high level of attrition and turnover rates (OECD 2005). Mentoring by expert mentor teachers is a frequently cited form of teacher induction with some countries, including Australia, offering various incentives to teachers to become mentors – these may include a monetary loading or promotion prospects for example (OECD 2005).

**The study**

The authors have undertaken extensive data collection regarding the experiences of graduates from teacher education programs (1 to 3 years after graduation) in two Australian states. The two Australian states are Queensland and Victoria. The Queensland project, Induction – Professional Alliances in Learning (I-PAL), was developed by the Centre for Professional Development at Griffith University, Gold Coast Campus in partnership with the Queensland, Department of Education Training and the Arts (DETA) offering opportunities for graduate teachers to reflect on their teaching practice and develop as quality teachers. The Victorian focus concentrated on the partnership between the University of Ballarat, Mount Helen campus and the Victorian Department of Education and Early Childhood Development. The study has drawn upon five case studies utilizing the experiences of new teachers from both states.

**Methodology**

This research is grounded within the interpretive paradigm and utilises a qualitative research methodology. We employed a case study approach where the narratives of

graduate teachers from participating schools were explored.  The ways that new graduates interpret and negotiate the teaching challenges in their own contexts, exploring and developing ideas of becoming professionals is a main focus. The data were collected through surveys, interviews and observations.  The interviews were each audiotaped and transcribed. Our interpretations and conclusions were shared with other researchers.  For the purpose of this paper we explore the narratives of five of the graduate teachers from schools involved in University and school partnerships in Victoria and Queensland

## Data

The data are presented to show the strength of the voices of the graduate teachers themselves in the first three years of their teaching. The data will be presented here using the voices of the respondents (in italics) to exemplify key themes that have emerged in this study and which are also addressed in the theoretical framework presented in this paper.  The themes are: enculturation, observing and working with others; self knowledge; ongoing learning; dialogic space; positive and negative experiences of induction; the place of teacher education and universities in teacher induction.

### Enculturation, observing and working with others

The dilemmas reflected in the narratives discussed here revolve largely around the tension between autonomy and dependence and the balance which is necessary if induction as a process is not to become enculturation into the *status quo*, or worse, an entrenching of existing power structures such that the neophyte is placed in a dependent relationship with the so called mentor.

> 'Autonomy' connotes the capacity of human beings to reason self-consciously, to be self reflective and to be self determining.  It involves the ability to deliberate, judge, choose and act upon different possible courses of action in private as well as public life (Giddens, 1992, p.116)

The dilemma here is that no induction at all and feelings of anxiety and isolation will on the one hand militate against the development of real autonomy as a teacher, whilst on

the other, a mentor who exerts power and control over the mentee and stifles their attempt to be creative and innovative is also militating, perhaps deliberately and manipulatively, against teacher autonomy. Isolation without induction is the focus of the following narratives.

> Last year I was in a very small country school – two teachers - and I found that to be isolated and quite daunting.
> It was all a little daunting at first but I was well supported by the staff and the administration.
> I was in an isolated building with grade 5 and 6 students, it was an old staff residence and I taught in the dining room….there was a lack of resources and added to that I had an 'Asperger' child….

The notion of working with others and observing others was seen by some of the respondents to be a comforting experience.

> Even though I feel better this year, I still feel that there is a lot to learn, especially looking at other teachers that have been teaching for so long.
> It [induction] definitely would have helped because it was a nightmare in the first year…..
> [after discussions with other teachers]….I discovered it was okay to hate your first year of teaching…

We could, however query whether this is leading to a questioning and critical approach or an acceptance of the way things are done in a given context. This may be seen as being told it's okay to hate your first year of teaching rather than to critically reflect upon this experience and reflexively monitor actions to ensure that the oppressive experiences are not repeated.

> I was meant to have a mentor in my first year but there was a mismatch, he was new to the school as well, he had a [different] wrong approach because he bullied and belittled me…
> I am not particularly happy about the person allocated to me as my mentor. I don't find his manner of advice to be helpful but as a new member of staff I have to be careful.

Thus in these narratives we see that if an induction process creates a dependent relationship, which is destined to entrench existing power structures, it is potentially worse than no induction at all.


**Self Knowledge**


In the following narratives we see the dilemma that neophyte teachers face when they are confronted with the challenges of classrooms of diverse learners and also with the culture of schools in a real world context. They struggle between needing to find their own way and between needing a safety net where they rely on tried and tested ways of

doing things in these early stages of their professional life.  The voices of these neophytes need to be heard within the schools in which they are placed if they are to develop self knowledge.  Smyth (2001) in discussing the process of capturing silenced and marginalised perspectives in schools claims that we need to be conscious of certain principles.

> The importance of "honouring" voice which means listening to and responding to that listening of portrayals of self-knowledge, so that those who make utterances know they have a voice; that groups who have historically been subjugated by dominant discourses need to be listened to in multiple ways as they penetrate and puncture those stifling discourses (p.159)

The voices of the graduate teachers demonstrate the developing sense of self knowledge.

> I suppose I had a philosophy about my behaviour management before I started teaching and probably because of that [difficult] child I had to sort of modify my philosophy a little bit. And I had to be more assertive than I wanted to be.
> Yes I have learnt to be patient and how strong I am as a person, and that I can teach with nothing… [no resources]
> Well… a critical incident from my first year of teaching, without going into a whole lot of detail, was me having a girl come to me that was being abused and I think that was critical for me in understanding the power that I have, for want of a better word, or the relationship that I have with those children, that I was the only safe person that child felt she had to speak to. So, that gave me a sense of, you know, boy this is a real responsibility I have here.

Here then these graduate teachers are gaining self knowledge and in so doing, are learning to reflect critically upon the contexts in which they work and are not just accepting the culture as a *fait accomplis.*.

**Dialogic Space**

Many of the graduate teachers have been provided, through the I-PAL program, with a space which is safe, supportive, and open.  In this space they have been able to reflect on their work as new teachers and to speak with others who are experiencing the similar issues. Smyth (2001) refers to the work of Schneekolth and Shibley, 1995 who claim that there is need for

> … a dialogic space: a place for conversation (Schneekolth and Shibley, 1995, p.7) [where they] collectively created, transformed, maintained and renovated the places in which they lived (pp 5 & 7)

Smyth (2001) elaborates on this by claiming that the creation of this dialogic space requires "setting aside the time and the context within which the pedagogical conversation could occur and not leaving it up to chance" (p.166). The I-PAL program provided such a dialogical space and is clearly necessary for all teachers but especially for beginning graduate teachers. This provides a form of induction which allows for reflection, interrogation, and the ability to confront issues openly and in a supported context with others. It is also exemplified by the comments of the interviewees in the following section where the concept of dialogic space is addressed.

> I reflect that it (IPAL) was one of the best things I did last year… it was just great to sit down and just relate to so many people who were feeling exactly the same and not knowing what was going on. It was really fantastic and I still reflect about it now. I think it's why we got so involved in the newly-qualified teachers' network – just trying to go out and talk to other people, and sharing an idea and trying to help each other out
>
> I'm doing what I should be doing. I know that. I love it. It's a joy. I come to school inspired every day, …I think what the I-PAL program gave me was this forum to express doubts, to express concerns, to be able to be mentored by somebody, to have someone that I could go and talk to. And the professional standards, I liked reading them and thinking about them and writing down how I was meeting them because it made me think about teaching and about the process of teaching.
>
> I really love in-services and courses that you go on with other teachers that are really based on getting together and discussing and talking to other staff. I find it really helpful with learning new skills, and even watching other teachers and how they interact and looking at their classroom programs. I think that is where I've learned the most in the past, is through observing other staff and talking with other staff. Because I had my older staff at my other school and they were so supportive, and they would come in and watch me teach and give me feedback as well, which is really good.

In some respects these first year graduates are attempting to "penetrate and puncture" discourses, practices, barriers and silences and the need for them to feel they have a voice which is heard and respected is critical to their own self knowledge and professional and pedagogical growth as teachers. Dialogic space has the potential to support the development of self knowledge or alternatively has the potential to stifle it.

**Ongoing Learning**

Teacher education cannot be expected to provide to graduates all of the skills, knowledge, values and attitudes they will need throughout their careers any more than formal schooling can be expected to provide learners with all they need for the rest of the lives.

The skills all learners will need in future eras cannot at this stage even be imagined and thus lifelong learning is not an option but rather is an imperative.

> I have also realized that I need to keep studying and to ensure that I have learning challenges. …I have already enrolled in the University of New England this year and I am studying French. It is a challenge but I am enjoying it. I have a strong need to learn and improve. I want to keep moving forward
> When I got there I had a lot of trouble with my class, and with behaviour management, and it wasn't really until the end of the first term where I was really starting to think "what am I doing wrong?" but I investigated a lot more about the children and found out a lot more about them and knew that I needed lots of extra support teaching them. So now I know just go straight for help, and get that [support] happening straight away

One cannot expect or logically reason that all of the skills needed in a classroom can be gained through any teacher education course no matter how good it may be. At this point the graduates could unthinkingly revert to recipes and prescriptions but if creation of knowledge especially self knowledge is to occur it will not be through the application of technicist recipes and prescriptions. It is also likely that student teachers cannot fully appreciate the need for sound theoretical underpinnings and philosophies to ground their teaching until they have been placed in a real life situation where they are required to make decisions and judgements as a professional. Therefore the opening up of dialogic spaces and partnerships with universities and school communities becomes important.

**A Third Way Approach of Teacher Induction**

Following the impact on education of the Old Democratic Left and the New Right, we discuss here a "Third Way" approach to education in general and induction in particular. We propose a radical centre model for teacher induction where the key stakeholders in the education sector engage in open and critical dialogue in order to redefine what constitutes the work of teaching in the current era.

Education in a Third Way approach needs to be redefined to focus on capabilities that individuals will be able to develop through life. Orthodox schools and other educational institutions are likely to be surrounded, and to some extent subverted, by a diversity of other learning frameworks…

> In the old economic order, the basic competencies needed for jobs remained relatively constant… A worker creating novel multimedia applications can't succeed by using long standing skills – the tasks in question didn't even exist a short while ago (Giddens, 2000, p.74)

This would of course necessitate trust and transparency, debates and contests, compromise and negotiation such that the result could be pervasive and creative change and renewal. Teacher professionals and government policy makers need to unfreeze their current practices and ideologies, undergo a period of creativity and critical action, and then move into a period of risk taking, innovation and flexibility which is informed by the needs and demands of a glocalised world, where knowledge creativity is desperately needed.

Some of the key values which underpin the "Third Way" movement are "equality, protection of the vulnerable, freedom as autonomy, no rights without responsibilities, no authority without democracy, cosmopolitan pluralism, philosophic conservatism" (Giddens, 1998, p.67). In the Third Way innovation, novel approaches to old issues and taking advantage of the knowledge society and all of the technological opportunities that affords, are central concepts. These are seen as the key to productivity.

Third way economic policy needs to concern itself with education, incentives, entrepreneurial culture, flexibility, devolution and the cultivation of social capital… the key force in human capital development obviously has to be education. It is the main public investment that can foster both economic efficiency and civic cohesion (Giddens, 2000, pp.73-4).

If education and schools are to meet these challenges and be innovative, entrepreneurial, flexible, and to be the "key force in human capital development" it will be necessary to change what is currently meant by induction. It would seem appropriate to make the new era goals of education and schooling the focus and then to develop and expand the practices, approaches and strategies for being excellent teachers, in order to achieve the goals. This will enable the experienced teachers and the graduate teachers to work together to recast, reshape and reconstruct what it means to be a teacher and a learner. In a Third way movement rather than working against the policies of governments, this approach would work with the policies. We can see a period of contest and struggle as we develop what induction means into a new conceptual space.

The next few years are crucial in terms of setting directions for the teaching profession into an era of cosmopolitan pluralism and glocalisation. Induction programs currently on offer may not have what it takes to make this shift but with some empowered educational leadership and risk taking, some leaders will emerge who have the courage to debate, contest and critique what we have and then make the leap that needs to be made. This will crucially involve universities and school communities in creating and

supporting the dialogic spaces for graduate teachers and experienced teachers alike to critically reflect on their work and to address the challenging questions about their work as professionals in a new era.


**Radical Centre Model**


As a way to provide a framework for a model to assist in making the changes in teacher induction we hark back to Smyth's (2001) questions discussed earlier.

In a Third Way model of induction, the question of, "Who defines what constitutes the work of teaching?" could be addressed through close liaison at policy and process levels between the teaching professionals (experienced teachers, at school and university level, and new teachers) and the policy makers at the government and systems level. The new teachers bring to the table innovative ideas, the latest theoretical understandings, novel and contemporary teaching and learning approaches, enthusiasm and drive, as well as a critical and reflective approach to both the system and to their own work. The experienced teachers bring a wealth of knowledge and skill in the schooling system and in the ways that learners learn, as well as knowledge of what works well in various contexts and a working knowledge built up over time, with regard to policy and schooling cultures. The government representatives and policy makers bring to this dialogue some imperatives regarding strategic directions, funding priorities, voter expectations, global trends and benchmarks, accountability for spending public funds and an overall responsibility for quality and outcomes. Open dialogue between all these groups and stakeholders has the potential to redefine what constitutes the work of teaching.

Smyth's (2001) question pertaining to how the definition of what constitutes the work of teaching is fought over and resisted can be addressed through the same parties again entering into a dialogue which results in policy outcomes for induction processes. Here the teaching professionals as described above can be seen as the agents for change, proceeding from a basis of evidence, theory and research gathered in the course of their work as professionals. Educators at all levels, including classrooms teachers will need to collect not only qualitative data but also to inject a quantitative dimension into their studies of their work, which provides compelling and clear data for governments to use.

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Governments as we have noted, see that they need to develop human and cultural capital and the schools and education system are central to this. Teacher professionals and governments want to achieve the same goals. And with an open, ongoing and appropriate dialogue between these groups, involving trust and transparency, debates and contests, compromise and negotiation, the outcomes for teaching induction could signal a way forward which results in pervasive and meaningful change and renewal. This would of necessity involve concessions and accommodations which is the basis of Smyth's (2001) third question where he asks who makes concessions and accommodations and over what. It would seem that all parties need to make concessions and accommodations if the system is to change toward a glocalised and Third Way future. As to what these concessions and accommodations will be about there will be many different aspects. These may include such things as sharing of power and control, reciprocal responsibility and accountability for outcomes of student learning, and developing flexibility to allow for innovation and risk taking and creative knowledge making which is informed by the needs and demands of the era.

Smyth (2001) poses his next question how are the labor relations of teaching actually played out? Teacher professionals and policy makers need to work together to recast and reshape the traditional hierarchical education systems, especially in terms of progress and promotion, setting the standards for the profession, laying down codes of ethics for the profession, building mutual trust rather than an adversarial culture where employer and employee are seen on opposite sides of the fence. This is important where governments and professionals work together rather than against each other to raise the status of teaching in the community and to acknowledge the value of teachers in developing human and cultural capital. The relationship of collaboration described here will also be necessary in order to address Smyth's (2001) question regarding the issues of skill, competency, professionalism and autonomy and how they are expressed in the social relations of teaching. All of these elements will be incorporated into the dialogue which surrounds the control the professionals have of the standards, skill, competencies and autonomy in their own profession. Teaching has historically been controlled by outsiders rather than insiders, and in many instances these elements of skills, competencies, professionalism and autonomy, have been decided by outsiders rather than the teacher professionals themselves. This serves to deprofessionalise teachers and reduces their ability to raise the status of teaching. With a collaborative

relationship to define these elements between the policy makers and the professionals, the social relations, as well as the industrial relations of teachers will inevitably change. Finally Smyth (2001) raises the issue of surveillance and discipline in terms of the way collegial programs such as mentoring and induction may serve to entrench the existing power relations in teaching. Smyth claims

> We are experiencing a dramatic shift of the boundaries of control from direct, overt, and bureaucratic forms of surveillance, to much more covert forms that take expression in the nature of the way in which work itself is being structured (p.35)

The concept of induction and mentoring could be seen, against this comment, as a form of covert, work-structured surveillance where we all keep each other under constant surveillance and thus discipline each other and ultimately ourselves, without a central bureaucratic machine having to do this. This pushing of responsibility down the line can be seen as a means for governments to implement the panopticon type of surveillance to which Foucault (1977) refers, whereby for example, in a prison from a single point of surveillance, a guard is able to view all of the prisoners in their cells from that one vantage spot. As no one prisoner knows at any given time whether he is the subject of surveillance or not, prisoners become self regulating and discipline themselves at their level. Smyth sees collegial programs as being akin to this where we all keep each other in constant check. In terms of gaining accountability without the heavy overtones of surveillance within the teaching profession, again government policy makers and the teacher professionals would work together to set up genuine, mutually beneficial and potentially reconstructive programs which provide for staff at all levels, experienced teachers and newly graduated teachers, to work together for mutual learning and mutual benefit. The sense of such programs being a two-way street where both the experienced teachers and the new graduates learn from each other and assist each other can result in dynamic and innovative outcomes in curriculum programs, teaching and learning approaches, school organisation and in the general professionalism of teachers who are not merely technicians passing on the existing culture without question or critique. Policy makers would need to be attuned to the new approaches and directions which result from these relationships between professionals and to see how these can benefit their imperative to develop human and cultural capital. Whilst none of these ideas is new in the sense of not having been written about and researched before, they can be framed in light of the Third Way movement and be seen as taking some of the positive aspects of the Old Democratic Left and putting them with

some of the positive aspects of the New Right to form a new model which may be termed a "radical centre model". Smyth (2001) flagged the need to devise such a model when he claimed

> What must not be overlooked is that unequal power relations in schools (between individuals and groups) are established and constructed through the lived experiences of people in schools. As such they can be "disestablished" and "deconstructed" in the way people choose to live, work and ultimately penetrate the object of their struggles (p.247)

Induction could be a force for change for the teaching profession. It could not only work to change new graduates in light of the profession of teaching into the future but also to change experienced teachers to develop a new era of teaching and professionalism. With a radical centre model in place, policy makers and governments can also be central to innovation and renewal in terms of the policies they promote. In this way induction may focus more on knowledge creativity than knowledge control and hence may herald a new and exciting era of renewal, innovation and change.

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# SPEAKING TIME VS CONTENT: REFLECTIVE PROCESSES IN MENTORING DIALOGUES

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ABSTRACT

*The present study examines the reflective processes actively performed by students during mentoring dialogues. The authors investigate (1) whether there is evidence that students engage in different active processes of reflection during preparatory dialogues with a mentor, and (2) whether less mentor speaking time is a prerequisite for greater reflexivity and improved reflective processes on the part of the student. Based on an analysis of 12 recorded mentor-student dialogues, the authors found that students tend to engage in three distinct types of reflective process and that no automatic correlation exists between reduced mentor speaking time and the quality of the reflective processes performed by the student during the mentoring dialogue.*

Keywords: Mentoring dialogues, active process of reflection, speaking time, theory to practice link.

## 1. Introduction

Lecturers in Swiss teacher training colleges are responsible for ensuring that student teachers are able to link theory with practice. Given that mentors in our colleges also have teaching obligations, the time they have at their disposal for student mentoring dialogues is limited.

This, in turn, has a bearing on the behaviour they adopt during these sessions. To date, most analyses of mentoring dialogue analyses have been exclusively dimensional (Hennissen et al. 2008). The present study is somewhat pioneering in that it examines whether dialogue differs according to the prevailing circumstances in which it takes place. Our starting assumption is that in addition to the features of the educational setting, the students' own characteristics and the issues to be addressed during the mentoring dialogue can greatly influence these sessions.

The initial study, which was launched during the 2009/2010 academic year, is structured according to the CIPP model developed by Stufflebeam (1972) (cf. Fig. 1).
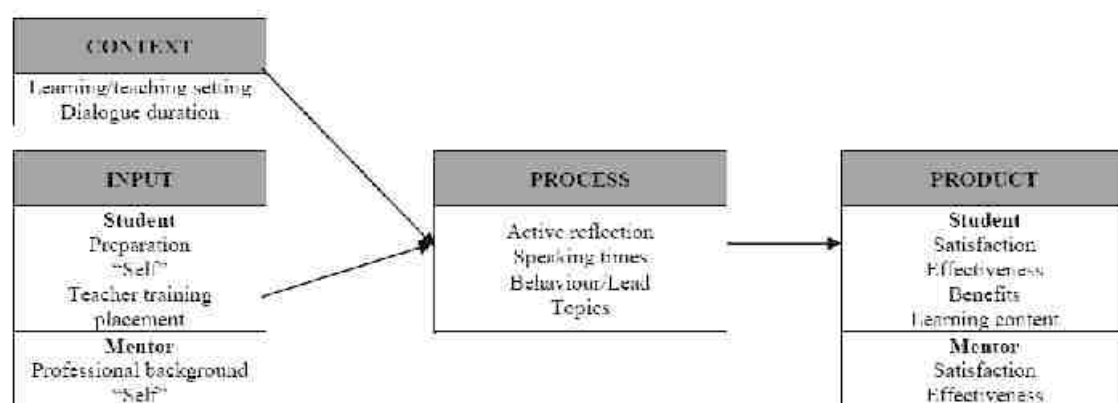
Fig.1: CIPP model developed by Stufflebeam (1972)

The present study focuses exclusively on two process components: speaking times and the active process of reflection.

## 2. Questions

Dialogue between a mentor and a student can be deemed a success if the student manages to engage in an active process of reflection at some point during the session. However, this process of reflection is contingent upon the individual characteristics of the student. The key factors here are conceptual reflection on the part of the student, preparation for the mentoring dialogue preparation and lesson plan documentation (artefacts). This raises the first question:

**Question 1:** Is there evidence that students engage in different active processes of reflection during preparatory dialogues with a mentor?

Crasborn et al. (2005) observed that mentors' speaking time during mentoring dialogues decreased considerably after they received coaching. However, it still remains unclear whether less mentor talk means better dialogue quality. This raises the second question:

**Question 2:** Is less mentor speaking time a prerequisite for greater reflexivity and improved reflective processes on the part of the student?

## 3. Methodology

### 3.1 Setting and participants

Our study is structured around the finding that lesson planning is the ideal moment for student teachers to put into practice the theoretical concepts they have learnt at training college (Futter & Staub, 2008). The setting was as follows: 12 preparatory dialogues were conducted in the Pädagogische Hochschule Freiburg during the 2008/2009 academic year as part of the General Didactics course, specifically within the module on lesson differentiation according to the phase plan approach (cf. Niggli, 2000). The dialogues are as standardised as possible:

- all last 15 minutes;
- most deal with the teaching of German and Maths in primary school (3rd-6th class);
- all address the issue of matching learning content according to basic and advanced learning objectives and according to minimal and mean standards;
- all were conducted by the same mentor, with whom the students were already familiar in his capacity as the General Didactics course leader.

The majority of participating students are female and in their final year of the three-year teaching training programme at the Pädagogische Hochschule Freiburg (PHF). The mentoring dialogue was held shortly before the students embarked on a four-week placement, during which time they would be expected to carry out lesson differentiation according to the phase plan approach in one subject (German or Maths), followed by a self-assessment of their work.

This is the fifth and penultimate placement that trainee teachers from the PHF must undertake. Prior to the placement, students spent two days with their prospective class and the supervising teacher to whom they had been assigned. Figure 2 provides an overview of the educative setting. It should be noted that the placement involves both theory and practice.
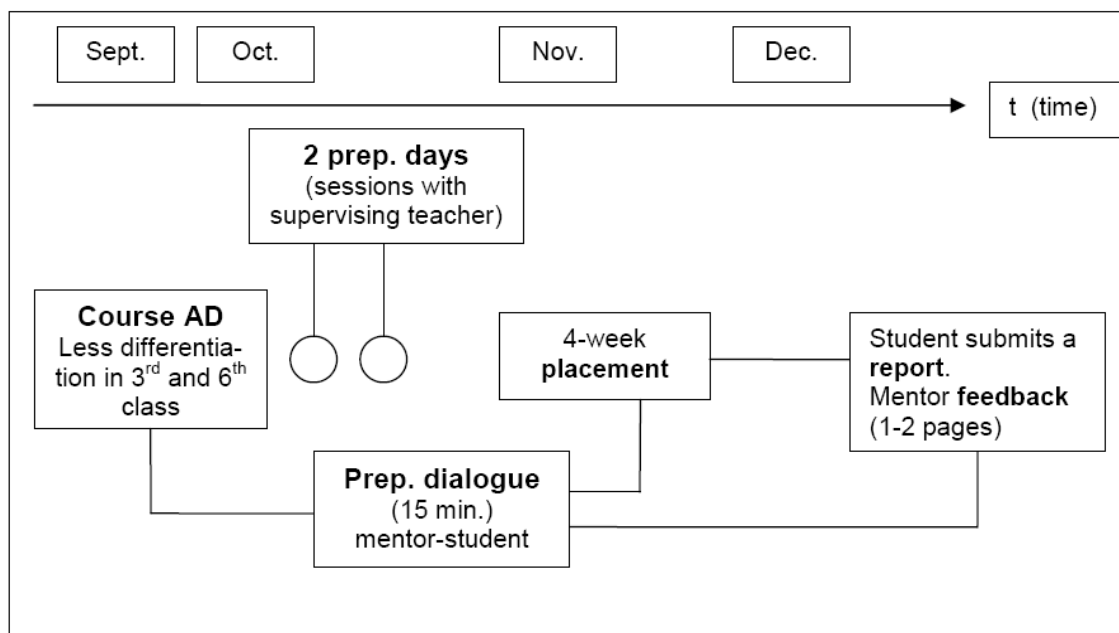
Fig. 2: Educative setting

## 3.2 Design

First, recordings were made of all dialogues, from which written transcripts were made. The dialogues were then evaluated by means of qualitative content analysis (Mayring). The first set of categories was established based on the theoretical findings from the preparatory dialogues. These were later adapted and refined during the coding process. After analysing only a few of the dialogues, we were already able to generate a selective categorisation system thanks to the fact that each category had also been defined and the necessary rules had been set. This meant that our approach took into account the quality criteria for qualitative social research (cf. Lamnek, 2005). Moreover, coding was performed by a three-member team.

## 4. Results

## 4.1 Types of reflective processes

With regard to the first question "Is there evidence that students engage in different active processes of reflection during preparatory dialogues with a mentor?", the

Mayring qualitative content analysis was used to evaluate the students' active process of reflection. This allowed us to categorise the mentor-student units of speech as follows:

**1) Student alone, basic**

The student speaks, asks questions, finds answers, without any high degree of cognition involved (e.g. analysis and synthesis).

**2) Student alone, advanced**

From the student's statements, it is clear that (s)he has given considerable and careful thought to the problem.

**3) Mentor alone, instructive**

The mentor makes a presentation.

**4) Mentor leads the student, basic**

The mentor sets out a problem, the student does not react by engaging in an active process of reflection, but for the most part simply agrees with what the mentor has said.

**5) Mentor leads student, advanced**

Two-way thinking process reflected in the student's reactions and statements.

**6) Co-construction**

Joint problem-solving. Co-construction is characterised by an interactive two-way exchange between the mentor and the student.

From this, we were able to map three types of mentor-student dialogue, which are summarised in Table 1. These will be briefly described below and illustrated by two contrasting examples of mentor-student dialogue.

| | Type I | Type II | Type III |
|---|---|---|---|
| Lead | Together (Student tends to lead) | Mentor | Mentor tends to lead |
| Active process of reflection | Advanced | Basic | Basic |
| Monologue/Dialogue | Dialogue | Monologue | Dialogue |

Table 1: Three types of mentor-student dialogue
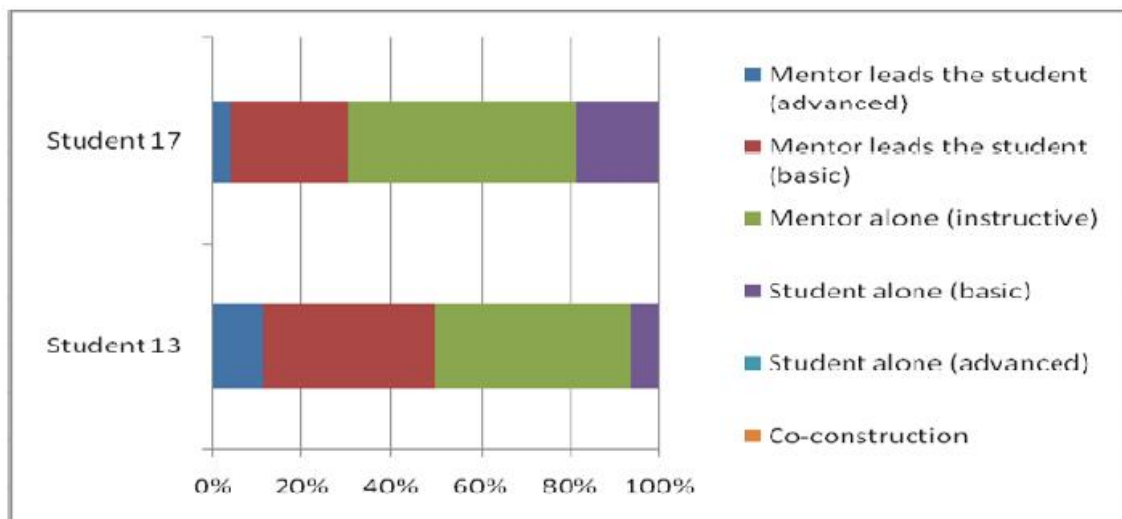
**Type I**

Type I is characterised by the presence of co-constructive elements in the dialogue. Students who were able to co-construct during the dialogue also tend to engage in advanced reflective processes (e.g. the mentor leads student, advanced).
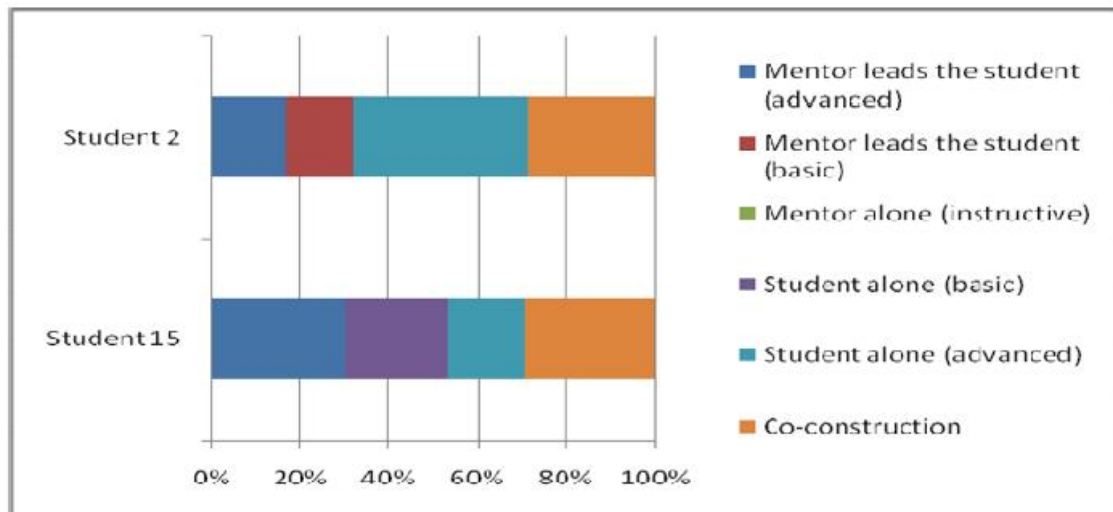
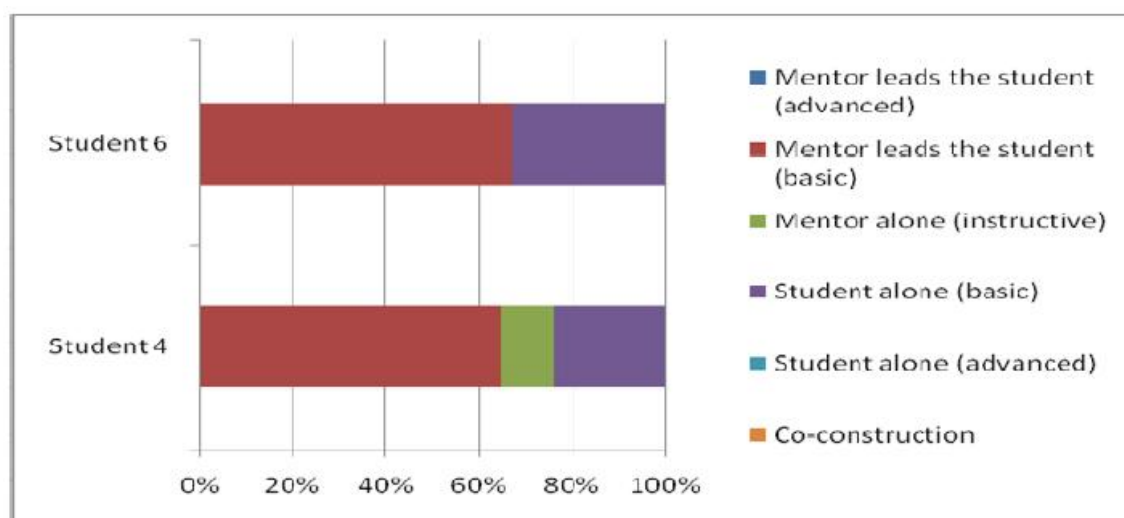**Figure 3: Active process of reflection – Type I**

**Type II**

Type II is characterised by the fact that the mentor continually offers the student guidance to help the latter engage in an active process of reflection, yet the solutions proposed by the student remain "basic". The mentor then presents a possible solution as part of an instructive monologue. The outcome is sub-optimal in that an active process of reflection is performed, but it is achieved via the mentor and not via the student.



**Figure 4: Active process of reflection – Type II**

**Type III**

Type III is characterised by the fact that even though more than half of the dialogue is led by the mentor, the student's active process of reflection remains "basic". Furthermore, the "student alone" units of speech are characterised by a low level of reflexivity.



**Fig. 5: Active process of reflection - Type III**

**4.2 Influence of speaking time**

With regard to the second question "Is less mentor speaking time a prerequisite for greater reflexivity and improved reflective processes on the part of the student?", we compared the time which the mentor and the student each spend speaking to the actual processes of reflection in which the student engaged. We found that there was no correlation between the mentor's speaking time and the quality of the reflective processes performed by the student.

This result is presented in Figure 6 and is based on two contrasting examples of mentorstudent dialogue.
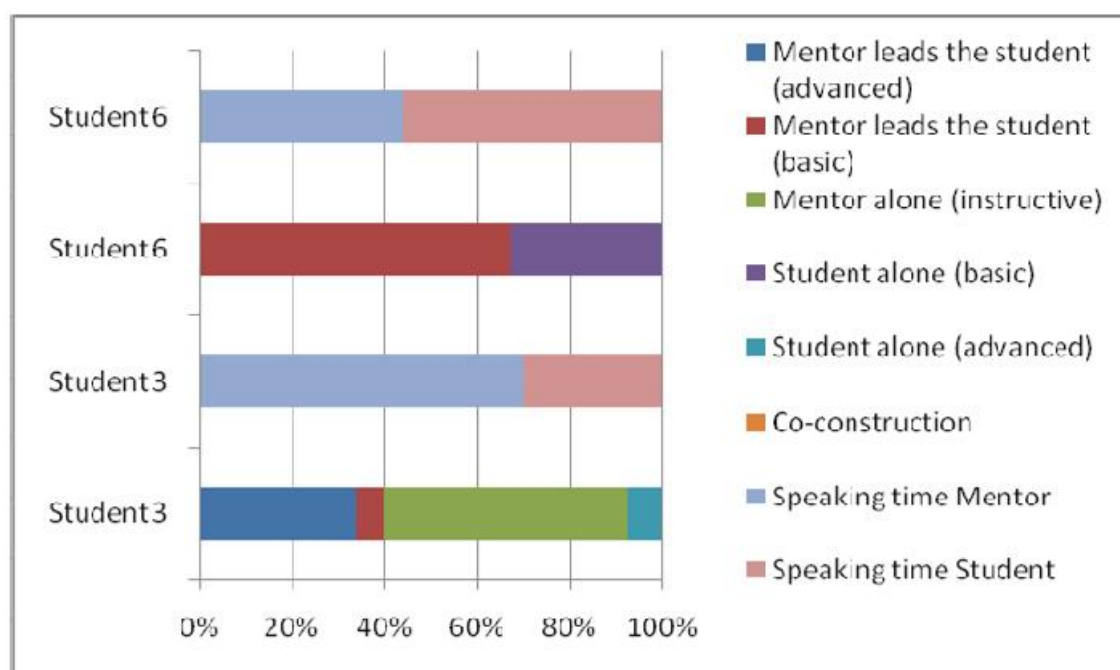
Fig. 6: Influence of speaking time

Total talk contributed by Student 6 was 56 percent, yet the level of her reflective processes remained basic throughout the dialogue. In contrast, Student 3 spoke for only 30% of the time, yet the active process of reflection in which she engaged was almost always advanced.

## 5. Discussion and future research

The present pilot study found that students engage in three distinct types of reflective process during a preparatory mentoring dialogue. However, a larger sample would be needed to verify whether other types also exist. Furthermore, we were able to show that there is no correlation between reduced mentor speaking time and the quality of the mentoring dialogue. It is thus misguided to believe that minimising mentors' speaking time would positively influence both the dialogue and the quality of its content.

The study also demonstrated that the quality of preparatory dialogue depends, first and foremost, on how well the student prepared for the session, followed by the behaviour adopted by the mentor and student respectively, and how they subsequently interact. Our data raise doubts about one-way causality as regards the behaviour of the mentor during the dialogue influencing that of the student. In fact, the student may influence the

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mentor, causing the latter to adapt his/her behaviour according to the student's individual characteristics. A more comprehensive study would be needed to map additional factors that may have a bearing on the preparatory dialogue. Our study was unable to reach any conclusion on the possibility of generating more advanced reflective processes in the shorter term by correcting the behaviour of the mentor and on whether some of the student's individual characteristics are likely to change in the longer term. A more comprehensive study would be needed to examine preparatory dialogues that are carried out within the same learning setting but by different mentors. A further focus of future research could also be the question of whether it is possible to train students to engage in an active process of reflection or at least to influence their reflective processes.

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# TEACHERS' THINKING ON PUPILS' KNOWLEDGE AND ITS ORIGIN  – FRAGMENT OF PHENOMENOGRAPHICAL  RESEARCH

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ABSTRACT
*This article deals with the knowledge of early school pupils seen from the point of view of their teachers. Thus, the key issue here is what meanings teachers give to the concept of knowledge, not measuring knowledge in terms of its quantity, extent, frequency, saturation or analyzing and explaining its reasons and effects. The discussion presented in the article aims at finding an answer to the questions what meanings teachers give to the concept of knowledge and what features of thinking accompany their experiencing of knowledge.*

*The above questions locate my explorations in an area of interpretative school of research, allowing symbolic interactionism as its context. This point of view is connected with  a will to present the nature of knowledge as social construct and reveal  teachers' ways of thinking about knowledge in an area of everyday school reality. For the latter affect the type and quality of knowledge which pupils acquire in school education.*

## Knowledge at school

Solutions of this type are accompanied by the model of closed, unambiguous stable knowledge resistant to any changes. Knowledge is understood as a relatively stable system of scientific concepts found in textbooks and is usually associated with a collection of facts transmitted by a teacher to be acquired by pupils. An amount of memorized information becomes a measure of school success – the more a pupil remembers the higher grades he gets. Knowledge in this understanding is 'a package', hard for a pupil to be unwrapped, containing various facts, data and information learned by heart without thinking and understanding what is being learned. This school knowledge is described as static, designed only to be reproduced, not related to intellectual strategies of pupils' independent reaching knowledge or possibilities of applying it in the future. This knowledge is fragmentary insular and hard to be united with the personal knowledge of an individual. K.-J. Tillmann describes school applying this model of knowledge as structural and functionalistic, where pupils are only 'viewers' (Tillmann, 1996, p. 142) not able to affect the course of their education, as it is planned and predicted in advance by the curriculum and teacher and pupils are only expected to follow obediently a fixed methodological path.

A different way of understanding knowledge – usually absent at Polish schools – is the way originating from symbolic interactionism (Blumer, 2007; Hałas 2006; Tillmann,

1996). According to symbolic interactionism "development is an effect of exchange between an individual and his environment (in particular exchange between an individual and other people) and its effects do not depend only on what potential the individual has but also on resources of the environment, and thus on activities done by people around him" (Brzezińska, 2005, p. 65). Consequently, pupils, just like their teachers, can give meanings to what they see and these meanings cause their actions, which are accompanied by interpreting, defining situations, forming knowledge on objects and then communicating it  and acting towards objects to which the meanings were given (Dudzikowa, 2001, p. 134). From this theoretical perspective understanding of knowledge changes dramatically. It stops being a series of facts memorized on teachers' commands and becomes a system of subjective meanings that can be constructed by an individual or read again, but in different contexts. Thus it is a kind of knowledge derived from an individual's personal experience. Acquiring this kind of knowledge requires an active research attitude, high level of personal cognitive control over own thinking and acting and independence from outer instructing (Piaget, 1977; Bruner, 1978). This knowledge is much more stable and involves a high level of understanding and an individual's involvement in its creation.


**Concepts of knowledge**


The literature usually points two concepts of knowledge: positivist and  anti-positivist, also called phenomenological. For the purposes of this article both concepts have been presented in two aspects of their experiencing: static, showing the components of knowledge, and dynamic, illustrating the way knowledge functions in school reality.

The positivist concept of knowledge refers to the ideal of reliable knowledge, found in the opinions of modern rationalists, first empirists, and then  positivists. Knowledge seen in this way comprises of data, facts, information, definitions transmitted from generation to generation, overgeneralizations, rules and theories which are not to be thought over, deconstructed or personally reflected, but are treated as material to be learned. Thus knowledge are imposed 'objective' meanings which are supposed to be exactly copied and followed. This, in turn, is followed by schematisation of an individual's thinking to so called the only right model of the world and surrounding reality.

Applying this concept of knowledge by teachers has clear consequences for the course and realization of the process of teaching and learning. For education becomes a mere act of 'depositing knowledge' (Freire, 2000) accompanied by collective thinking which focuses on knowledge resources and not on different ways of acquiring or understanding it (Bernstein, 1990). This type of knowledge is described as a collection of information which develops through accumulation, that is adding new information to the one already acquired and memorized. Memory and memorizing mechanism connected with blocking processes such as creative and critical thinking, so important for understanding and active learning, are given the dominant role in learning processes. Accepting the positivist model of knowledge makes teachers not create conditions to reveal many ways of understanding reality in the process of learning and teaching, it makes them not refer to the cultural definitions and meanings that pupils have acquired in their lifetime, it makes them not show pupils methods of creating knowledge which became the basis of school curriculum, but it makes teachers limit education only to giving and transmitting facts (Rodziewicz, 1995).

The above concept of knowledge becomes part of the adaptative type of rationality, where understanding of the world is based on fundamentalism, interventionism and pragmativity (Kwaśnica, 2007, p. 96). All these features cause specific cognitive unambiguity and closing within one interpretative perspective without any possibilities of going beyond it. Therefore this attitude is expressed in accepting only the facts that belong to and support the old structure, whereas facts which question this attitude are rejected.

The phenomenological concept assumes that knowledge is nothing objective, absolute or outer in relation to social consciousness. It is a collection of socially and historically constructed meanings. It is a product of an informal agreement negotiated between members of an organized intellectual community (Sawisz, 1989). The structure of knowledge understood in this way is described in terms of "a collection of possible and changeable interpretations of reality, a collection of points of view each of which needs to be analyzed, justified, even reviewed and changed before they are accepted" (Kwaśnica, 2007, p.101). Knowledge is not understood as a ready-made tool but as an infinite process of learning the world. It is not 'an operation manual' which instructs what and how needs to be done but it is reflexion on human activities which shows their conditions and possibilities (Kwaśnica, 2007, p. 102). It is assumed that processes of acquiring knowledge by an individual involve social creation and systematization of

knowledge as well as active interpretation of the world by a human who gives meanings to objects observed, and who arranges mediations between environment and his/her own self-awareness (Goffman, 1981; Klus-Stańska, 2004). In educational perspective the pupil's role changes from a passive observer to an active participant who needs dialogue partners to broaden their own understanding of the world. Knowledge transmission then is replaced by giving subjective senses in the course of social interactions. Thus, not only does pragmatic sufficiency decide the value of knowledge but also justifications which it refers to (Kwaśnica, 2007, p. 102).

This concept of knowledge becomes part of emancipative rationality, and emphasizes how important it is to popularize various visions of the world and create for an individual conditions to develop freely their personality taking an individual's needs and aspirations into account. Thus, an idea of emancipation is the central motive of this interpretation.

## Phenomenography as research perspective

Phenomenography is a type of qualitative research (Miles, Huberman, 2000). M. A. Dahlgren defines it as "an empirical study of a limited number of qualitatively various methods of conceptualizing, understanding, perceiving and experiencing different phenomena and aspects of the world around us" (Dahlgren, cited in A. Męczkowska, 2002, p. 18). The essence of this research attitude is connected with the cognition of subjective senses given to phenomena of the world around us.

Phenomenographical analyses aim at describing the methods of giving by individuals meanings to a certain phenomenon and then depicting similarities and differences in subjective perception of reality and giving a notional shape to it (Szkudlarek, 1997). Phenomenographical research searches for the answer to the question how a given phenomenon is experienced so this research does not explain as it does not question why it is so.

As far as presented research is concerned its aim was to learn about teachers' thinking about knowledge, methods of understanding and creating it as well as their thinking about knowledge sources. Thus, research activities aimed at revealing teachers' concepts of knowledge and describing their thinking of knowledge and its sources.

The research material, which became the subject of analysis, was obtained during open interviews, also described in the literature as anthropological or journalistic or free interviews with a standardized list of information wanted (Marody, Nowak, 1983) or semistructured interviews (Męczkowska, 2002). This type of interviews was used to get a wide picture of the respondents' thinking and not just to confirm the researcher's own theory.

Four teachers of early education were interviewed using an interview questionnaire specially designed for this research. The questionnaire contained two groups of questions: basic questions directly aiming at making the respondent describe and conceptualize experiencing of the concept of 'knowledge', and a list of additional questions which could but did not have to be used during the interview. All the questions focused on the issue of knowledge, its nature and origin.

**Teachers on knowledge and sources of its origin – research results**

Phenomenographical analysis aims at constructing categories of description that is "generalized and structured descriptions of understanding phenomena present at the respondents' experience" (Męczkowska, 2002, p. 18; Marton, 1981). They emerge after condensing the topics which appear while analyzing the respondents' answers. The categories of description create the result space and then can, but do not have to, go through the process   as a result of which the structure of a description category is formed.

The result space of the project described comprises of a few categories which emerged as a result of the research procedure. The first category refers to the method of defining knowledge by teachers and giving it senses marked with their personal experience. The majority of the teachers described knowledge as a state of possession. When answering the question what knowledge is and how they understand it the respondents said that: *knowledge is something I am able to acquire, understand, keep and first of all lots lots lots of information.*

A few features can be found in teachers' definitions of knowledge. Firstly, they perceive knowledge in a linear way (Klus-Stańska, 2002, p. 212). It means that teachers assume that increase in knowledge is acquiring information 'step by step' during educational processes. Secondly, according to teachers knowledge seems to be

mainly of cumulative character and it is associated with summative growth. According to the teachers surveyed 'good knowledge' is *a lot of knowledge, a lot of facts and data memorized.* However, research on knowledge carried out in the past (Materska, 1978; Stemplewska, 1994) does not confirm the regularity which can be summarized as 'plenty equals well'. But what the research provides is data to prove that the effect of linear learning is mainly factographical, nomenclatural and scholastic knowledge and the process of education is based only on reproductive and mnemonic mechanisms.

Another feature of thinking about knowledge is presenting it in terms of teachers' transmission. It is called transmissivity and it is often accompanied by a belief that the teachers' task is to transmit solid justified and effective knowledge. The respondents often said:

> My task is to provide pupils with knowledge. I am also supposed to show them how to look for knowledge and how to use it. I am to offer pupils a certain model of knowledge. A teacher is to direct, show, indicate, explain. He/she is like a road sign.

The above statements reveal a specific kind of cognitive interventionism towards pupils, which is often found at Polish schools. Teachers are of the opinion that their job is to teach, cause certain changes so that pupils' knowledge is shaped identically as its model defined in the curriculum. In this way teachers' thinking about school and education becomes part of traditional behaviouristic patterns and leads to propagating the model of objective stable unchangeable one-dimensional knowledge.

Another description category revealed in teachers' thinking about knowledge is interpretative fundamentalism. It manifests in the fact that teachers do not accept an interpretative option other than the one imposed by the curriculum and textbooks. Of course, some of them claim they could work without textbooks or curriculum but they do not want to as it would be much harder. Here are some of their comments:

> - I think I could work without exercise books but not without textbooks. I need some texts. A textbook just makes a teacher's work much easier. You don't have to look for anything.
> - Let's face it textbooks are really useful. They contain texts and poems which are ready to be used. If I tried I could work without textbooks but I don't really want to

The above comments confirm how much Polish teachers are attached to their own solutions used for years. It is often accompanied by unwillingness to 'new', and inability to liberate from knowledge which they have settled in for years. One of the teachers says: *I don't want to change present textbooks to other ones because the ones I use I*

*know very well.*    Thus, teachers' thinking about education and knowledge is dominated by numerous   habits and can be summarized in one sentence: 'it can't be different' or 'it should be like it is now because it is great'.

 Difficulties to liberate teachers from the solutions they feel most familiarized with bring other consequences. For they often apply the strategy of p r a g m a t i v i t y  o f j u s t i f i c a t i o n in their approach to knowledge, for example *I work this way because that is something imposed by the curriculum, because it is right, because it is effective.* Using this argument by teachers proves how low their level of reflexivity is and how much they are enslaved by methodological patterns which limit their activity to giving instructions and implementing the mnemonic teaching techniques. Efficiency becomes then the basic criterion to assess the value of knowledge and pedagogical work, whereas its sense is  less important. Teachers do not question teaching contents or goals which they are supposed to reach as they never give a thought to them and regard the model of knowledge imposed by the curriculum as *sacrum*, that is knowledge which is good and proper for pupils at a given stage of education.

P r a g m a t i c  s u f f i c i e n c y is another strategy used by teachers in their approach to knowledge. It is expressed in uncritical approval of the knowledge included in the curriculum. Meanwhile the analysis of educational materials for early school pupils reveals that their content is infantile, boring and it gives a fake image of the modern world and its relations (Nowicka, 2005). Unfortunately teachers do not notice that and in their comments they only say that *the curriculum is overloaded.*  But when it comes to implementing the curriculum they reproduce its whole content and are not able to imagine school work without curriculum. They usually say that

> without curriculum there is a danger that one will run wild and do something spontaneously, without consideration or something not necessary. It will somehow get blurred but curriculum requires some consequence from us, makes us keep within some frame

 This statement clearly shows that Polish teachers are afraid to be spontaneous and creative. They prefer to serve knowledge limited by the frames of curriculum as it gives them a feeling of causativeness and effective acting. At the same time they do not realize that limiting pupils' activity only to the content of curriculum without referring to pupils' personal experiences and current events leads to cognitive unilaterality and conventional understanding of the world.

Another description category of teachers' thinking about pupils' knowledge, which emerged while analyzing the research material collected is lack of belief in children's

knowledge. Teachers realize that pupils come to school with 'some' knowledge. But their attitude to it is patronizing and quite sceptical. In their opinions this knowledge is simple, tiny requiring school ordering, grinding, and extending by what teachers know better. Detracting the value of children's personal knowledge and glorifying teachers' knowledge is typical in teachers' attitudes. Teachers often listen to pupils' versions of reality in a paternalistic way but only as a factor to introduce 'good atmosphere' (Klus-Stańska, 1999) and they never become an important argument in a discussion run in a transmissive method. Teachers are afraid of pupils making mistakes as they can get preserved therefore they find presenting one model as the best and most proper to be copied and exercised to be the best method of acquiring knowledge.

Sources of knowledge are another issue which reveals incoherence and schizophrenity in teachers' thinking. Teachers regard television, the Internet, peer contacts, observing reality, books, library, cinema, theatre, trips, etc as sources of knowledge. But when it comes to practical solutions they cannot really get free from inertial workbench and the corset of methodological habits. They usually say that they are the main source of knowledge themselves, as their knowledge is wider, richer, and years of working at school have given them the right to use it uncritically. This attitude proves teachers' distrust in children's cognitive and knowledge generating competences. For they often think of a pupil as a little incompetent human, not resistant to reality, who needs help from more experienced individuals, that is their teachers.

The second place on the teachers' list of sources of knowledge is taken by educational materials that is textbooks and reading texts, which teachers do even if they have only moralistic values and stimulate only non reflexive conduct. What strikes most in teachers comments is their lack of criticism towards the issues appearing in textbooks and complete affirmation of suggested solutions and problems to be discussed. Teachers often comment on the textbooks they have chosen that they are nice, have interesting layout, good-quality paper and cover. They focus mainly on outer features of a textbook. Rarely do they think of the sense of its content or possibilities of affecting children's development and knowledge.

The research results presented in this paper are only an introduction to a much wider qualitative analysis. They reveal the model of knowledge which Polish teachers propagate. The model seems to be founded mainly on positivist and behaviouristic concepts which have been criticized for years due to their negative effects such as blocking children's activity and tamining them only within the basic school skills like

reading, writing and counting taught according to the minimal requirements of the curriculum. Other areas of life, for example moral, racial, demographic, ecological problems or other children's vast interests belong to the area of 'undue' knowledge that is a type of knowledge that cannot be 'transmitted' to children due to their developmental competent intellectual deficiencies.

Therefore, changing teachers' thinking about knowledge and its sources shall become a priority. And the change should be based on emancipative concepts, which emphasize the need to liberate from oppressive and instrumental education of structural and functional type.

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# POSTER PRESENTATIONS

# PDP A TOOL FOR ASSESSING TEACHERS COMPETENCES AND SKILLS

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ABSTRACT

*The objective is to realize a tool (Personal Development Plan – PDP) that helps define learning objectives and personal development based on the acquisition of competences.*

*The PDP wants to show learning goals, to develop aims based on the acquisition of competences and skills and to give the opportunity to personalize teachers training. Moreover, the PDP will contribute to monitoring in itinere personal courses and paths, giving the possibility to make some changes.*

*Expected impact. To enable PDP users to reflect on their own learning, developing metacognition abilities; to promote self-led learning in a lifelong and lifewide learning framework; to give input and suggestions to develop a PDP supported by an e-portfolio.*

Key words: PDP, lifelong learning, metacognition, skills and competences

## Introduction

The necessity to learn along all the life appears essential in a complex, mobile, "liquid" context in constant change (Baumann, 2003). It is necessary to obtain continuously new abilities and skills in order to answer as better as possible to the complexity of the society and to avoid risks of illiteracy return. In this context the metacognition, the self formative ability and the sense of self efficacy seem very important (Albanese, 1998; Cornoldi, 1995; Bandura, 1996 and Zimmermann, 2000). The metacognitive ability turns out fundamental as a reflection about the learned competences and to learn. Teachers, are called to contribute to the objective of the Lisbona Strategy: "Make Europe the most dynamic and competitive knowledge-based economy in the world"; and in order to achieve this aim, it is necessary to form them, to give them a better continuous training and effective competences. In this context a Personal Development Plan (PDP) could help to define learning objectives and personal development based on the acquisition of competences. PDP wants to show learning goals, to develop aims based on the acquisition of competences and skills and to give the opportunity to personalize their training. Moreover, the PDP will contribute to monitoring in itinere personal courses and paths, giving the possibility to make some changes.

**Objectives and results**

PDP is "a structured and supported process undertaken by an individual to reflect upon their own learning, performance and / or achievement and to plan for their personal, educational, and career development". Guidelines for Progress Files (QAA, 2001). PDP main objective is to improve the capacity to understand what and how they are learning and to review, plan and take responsibility for their own learning. It could enhanced self-awareness of strengths and weaknesses and directions for change to:

- understand how they are learning and relate their learning to a wider context;
- improve their general skills for career management;
- articulate their personal goals and evaluate progress towards their achievement.

PDP is made by 4 steps:

- **self audit**: during this step teachers carry out an analysis of personal competences and define a SWOT analysis;

**- definition of the plan**: during this step of development teachers could define their personal plans of improvement based on the areas of improvement and the competences to develop;

- **diary activities and monitoring**: teacher register the activities made in order to improved the skills and competences underline during the self audit and the definition plan. there's also in this step a monitor of the activities

- **definition of the report**: with the annual report it possible to turns out the obtained progresses and it is the base for the plan of the following year.



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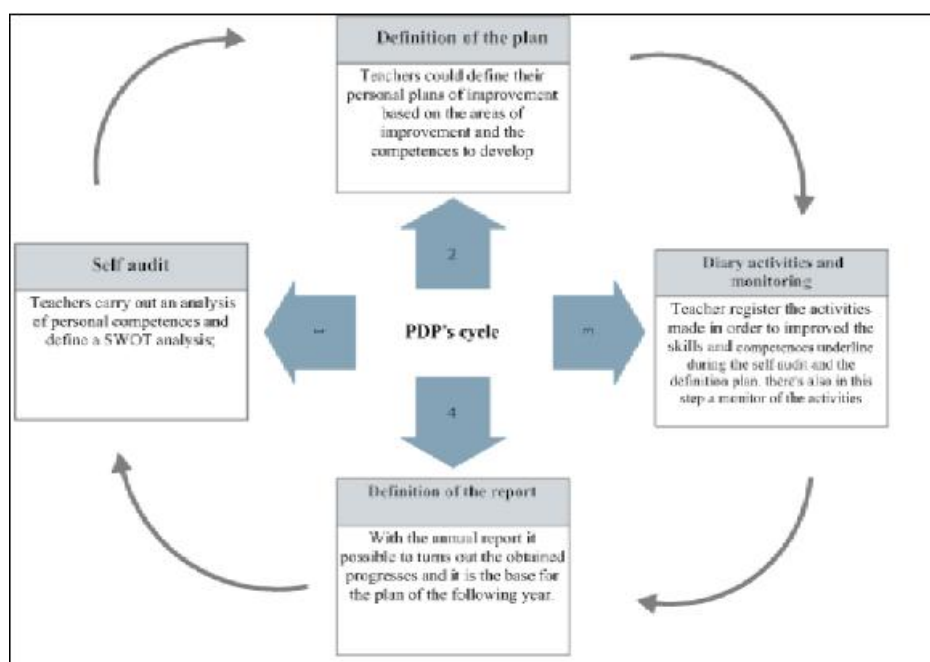
# (AUTO)BIOGRAPHIES@COM.SCHOOL – MEMORIES AND NARRATIVES

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ABSTRACT

*This study aims to organize and develop an online community – (Auto)biographies@com.school - to promote the development of personal and professional educators through narratives – educational autobiographies.*
*The learner has an active role: 1) as an author or narrative writer; 2) as a listener or reader*
*The project has two main dimensions: 1) collection of narratives 2) analysis and interpretation of narratives . The use of ICTs – DidaktosOnline - as tool is privileged in this process of building educational experiences and the development of new ways of learning..*

Key words: constructivism, educational autobiographies, DidaktosOnline

## Introduction

The constructivist epistemology considers the subject responsible for the development of knowledge and imply engagement with practice, personal experiences, indispensable for the building of an identity.

Narrative constitutes an essential way of knowing, of representing what is known, of thinking, and so of learning or building knowledge from experience (Beattie, 2000).

Self - making narrative is a balancing act and, as Bruner states "is a narrative art" that is "from the inside and the outside. The inside of it [...] is memory, feelings, ideas, beliefs, subjectivity. [...] But much of self-making is based on outside sources as well – on the apparent esteem of others, and on the myriad expectations that we early, even mindlessly, pick up from the culture in which we are immersed" (2003, 210).

Educational autobiographies - because they describe real and complex situations of teaching, which require a diligent analysis of problems aiming to its solution – can afford opportunities in order that future educators examine and reflect about their or of others' knowledge, experience or beliefs, and at the same time they constitute a privileged instrument of reflection about one's self or educative experience.

ICTs are privileged tools in this process of building educational (auto)biographies and share meanings and personal and professional identities.

**The constructive perspective**

The aim of educational training will not be just memorize a few pedagogic concepts or procedures which emphasizes the teacher as "transmitter or translator of knowledges" (Richert, 1992, 156) and the pupil as someone without voice.

It's also important to emphasize the reflexive construction of knowledge (to know, to do and to be) in which the educator is considered more like an architect of human development , or like an artisan – an artisan of affections.

The figure of the tutor as a technician is now confronted with another one, that of a reflexive professional. We more and more notice the importance of changing of the intellectual mediation to an affective one.

**The reflective dimension of learning**

To learn in a reflective way requires dialogues with practice or several educational situations building senses and meanings and so learning.

It is not enough to accede to practice to get learning or construction of knowledge. It is important, too, to have time to think on experiences (Richert, 1992). Time, the inevitable distance to consider experiences, will be an important condition to the development of reflexive thought (Dewey, 1910). This distance - pause/ time -  is indispensable because it represent the possibility of searching other points of view required to problem construction.

**Learning and writing**

Writing will lead students think in their own learning experience (Kleinfeld, 1996) and, in case this process is supported, it will be an opportunity to help them undertake or experiment successfully the difficult task of learning their own way of thinking as the pupils they have been till then, and learning how to think in a flexible and reflexible way, like educators they want to become (Kleinfeld, 1996; Laboskey, 1992). On the other hand, the very circumstance or demand of writing is by itself a challenge because it doesn't only oblige them to write, which requires time to reflect and a subject about

which they must write (Richert, 1992) and will allow these pupils to understand practice's wisdom from inside point of view (Shulman, 1991, 1992).

**The flexible dimension of learning**

Thinking in a *flexible* way is to deal with a variety and plurality of perspectives, is thinking in a contextualized way which is based in an educative practice, uncertain, ambiguous and complex by its self nature.

Learning how to think implicates teaching-learning methodologies which sometimes are in contradiction with others used in some easier or well-structured fields (Spiro et al. 1988), as for example, contextualized learning: narratives, cases, stories, multiple representations of knowledge, and non linear presentation of information.

**Collaborative dimension of learning**

Collaboration means the mutual engagement of the participants in a coordinated effort to solve together. Collaborative learning reveals further important aspects: a) interactivity among the various members; b) synchronic (dialogues in real time) and assynchronic interaction (that is important to development or reflexive construction of knowledge); c) negotiation – process in which various elements try to get an agreement about ideas, themes, tasks and problems.

The use of **Auto)biographies@com.school** by processes involving, in particular those concerning the writing itself and, secondly, those involved in successive collaborations, conversations or dialogues with others and consistent sharing of views and perspectives, represent with certainty promising strategies in building and use flexible and reflective of knowledge or skills involved in learning to think.

**Educational (Auto)Biographies**

The writing and reading of autobiographies by the process which involves, such as those which refer to the particular writing and, on other hand, those which are involved

in consecutive dialogues with their own educative experience will certainly, represent promising strategies on the reflective construction of knowledge.

## Narratives and (educational)biographies

Narrative constitutes an essential way of knowing, of representing what is known, of thinking, and so of learning from experience (Beattie, 2000).

Writing constitutes a privileged means "to create a record of what teachers know about their work and how they know it" (Richert, 1992, 156)  and above all because it involves an analysis and articulation of experiences, students "become creators and definers rather than simply dispensers of knowledge" (Richert, 1992, 173). Every time he analyses the educational autobiography, the student takes part in the story, he remembers other stories; he will making classes of analysis "that connect stories to one another conceptually" (Shulman, 1996, 209). If he just gets into a reasoning about a autobiography will allow to the student an "integration of self in the role of a developing educator every time he articulates, shares or rebuilds opinions or ways of view" (Merseth,1991,18).

## (Auto)biographies and the educational task

Supposing the educational task is also a biographical process (Carter, 1992) we think, then, that is a strategy that involves a students' reflection on their own cause, very useful because they are going to take place just on the other side as educators: who/what was I as a pupil?, who were the teachers?

The educational task is then a balancing act: the learner I was and the educator I want to be! The educational task is an important self-making narrative. As Bruner says

> A self-making narrative is something of a balancing act. It must, on the one hand, create a conviction of autonomy, that one has a will of one's own, a certain freedom of choice, a degree of possibility. However, it must also relate one to a world of others – to friends and family, to institutions, to the past, to reference groups. But there is an implicit commitment to others in relating oneself to others that, of course, limits our autonomy. We seem virtually unable to live without both, autonomy and commitment, and our lives strive to balance the two.(2003, 218)
>
> Telling others about oneself's educational experiences – Educational (auto)biographies – is our principal means of  developing our uniqueness that comes "from distinguishing

ourselves from others, which we do by comparing our self-told accounts of ourselves with the accounts that others give us of themselves[....] (Bruner, 2003, 211)


## (AUTO)BIOGRAPHIES@COM.SCHOOL

The greatest challenge of new media will then be, as Dias Figueiredo says, "that of building communities rich in context where individual and collective learning is built and where pupils take responsibility not only in building self learning but also in building occasions of identity where collective learning takes place" (2001, 74).

The online platform *DidaktosOnLine* (http://didaktos.ua.pt/), [fig.1,2] designed as a case-based learning environment, promoting critical reflection and professional development, supports the process of narrative development *(Auto)biographies@com.school*, is a developing work we expect build up in an online environment. The project has two main dimensions: 1) collection of narratives – through a online script / questionnaire, 2) analysis and interpretation of narratives - other technological tools will be used here, especially the forum - which enables a reflective and collaborative analysis of information collected.



Figure 1 (Auto)biographies@com.school and DidaktosOnline


We are in the very beginning, just starting with the implementation of the online platform - *DidaktosOnline* - and with the content analysis of some educational narratives: flavours/ (dis) pleasures/ knowledge of me/you him/her, of school, of teachers (fig.1).

**Flavours and knowledge of myself**

## Flavours

"I keep thankful memories from that stage of my life and each time I remember the things that I have passed I can feel the same happiness that I felt when they had happened!"
"My eyes were shining of happiness, I was glorious because I was going to primary school…."

## (Dis) pleasures

" In the beginning I felt alone, I knew nobody, subjects were of no interest to me…"
"The most traumatic memory was the day when I was running downstairs fell and had broken my two front teeth, which were already definitive, and my lip had opened: I still have marks from that day."

## Knowledge

"However, I feel that I had a good preparation to the future, I had got the notion of responsability, respect to others, self-esteem and the need to work."
"Teachers have told me that I was good in telling stories, writing and dancing. In primary school I have liked very much Portuguese language, dance and environment study."

**Flavours and knowledge from school**

## Flavours (fig.2)

"I keep very good memories from when I was at the primary school"
"I remember my first day at school, I was excited, not really because the classes but because of the possibility of endless fun."

## (Dis) pleasures

"One of the images that I keep is when I had to read, I was classified by colours (red, yellow and green)which suited to bad, reasonable and good I always was afraid of not giving my best, but I always did."
"I remember crying on the first week and even throw up every morning before going to school!"

## Knowledge

"During playtime we used to play "hide-and-seek", " Simon says ", " catching" etc."
"Every time I arrived home I used to do my homework…."

Figure 2. Auto)biographies@com.school – Flavours of My school

### Flavours and knowledge of teachers

#### Flavours

"My teacher who has followed me during all primary school, her name was Isabel. I respect and admire her."

"My teacher was magnificent. She was my teacher during my four years of primary school"

#### (Dis) pleasures

" I remember that the slaps on my hand didn't leave any mark .I remember moments and a very bad teacher who has chided me a lot and has slapped the "children who had bad behaviour."

"Since the first class day we got used to a ritual - every day when the teacher entered we had to stand up and say together "good morning teacher" …"

#### Knowledge

" The new teacher was professional  but different. She didn't put much affection in teaching. She taught the arithmetical tables because it was necessary, taught the letters because we must know how to write and not because with them  we could transmit passion, rage...she gave us the milk because she had to, not because she wanted to see us with energy to jump, to leap, live new games..."

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# HE UPENA O KE A'O (THE NET OF LEARNING) PROFESSIONAL DEVELOPMENT

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ABSTRACT
*The He Upena o ke A'o (Net of Learning) focuses on graduate level professional development (PD) courses offered through distance learning at the University of Hawai'i. Courses provided the knowledge and skills needed for general and special education teachers to design culturally responsive, inclusive classrooms resulting in effective cultural pedagogy, which addressed the teaching and learning needs of a board range of learners, including students with disabilities. University faculty in partnership with Hawaiian cultural experts developed courses which incorporated Universal Design for Learning, Differentiated Instruction, Hawaiian values and effective pedagogy. PD cultural WebQuests complimented online instruction.*

Keywords: Professional Development, Hawaiian culture, distance learning, WebQuests, Cultural Experts

## Introduction

He Upena o ke A'o, the Hawaiian phrase for the Net of Learning, is the name of a professional developmental project at the University of Hawaii, Center on Disability Studies. The purpose of the project was to provide graduate level professional development (PD) training to teachers working in Hawaii Department of Education schools that focused on designing culturally responsive curriculum within inclusive classrooms. The PD was targeted for teachers working in failing schools with high concentration of Native Hawaiian (NH) students. The purpose of PD was to provide teachers with the knowledge and skills to interact with and teach NH students in a way that gives them dignity and cultural connection in the school setting while achieving high standards. The focus of this paper is to describe background information, the resulting professional development training offered through distance education, and highlight the cultural aspects and involvement of cultural experts as co-instructors.

*Needs of Native Hawaiian Students*
Almost half of the 49 Hawaii Department of Education (DOE) schools with an enrollment of NH students of 50-92% are on the most recent list of schools as failing to improve student achievement and subject to state takeover. Educational challenges faced by Hawaiian and Part-Hawaiian students are well documented (Hawaii DOE, 2003, Kanaiaupuni & Ishibashi, 2003). For example, despite comprising only 26% of its

overall school-aged population, Hawaiians and Part-Hawaiians make up over 37% of the State's special education students (Hawaii DOE, 2003). Hawaiians and Part-Hawaiians were suspended in percentages significantly higher than their percent of the general education and special education populations (Schrag & Johnson, 2000). From 1996-2000 and in every district (7), with few exceptions, a higher percentage (approximately double the percentage) of special education students than general education students were suspended (Schrag & Johnson, 2000). Native Hawaiian students have higher rates of absenteeism, grade retention, and dropouts across socio-economic settings. Too many NH students are not engaged in learning, lack access to general education curriculum, or not in school.

NH students are also more likely to attend low-quality schools than their non-Hawaiian peers. Only 17 % of predominantly non-Hawaiian schools are in corrective action, compared to 79 percent of predominantly Hawaiian schools. Schools with greater concentrations of NH students tend to have teachers with less experience and tenure. Generally, this relationship between size of NH enrollment and teacher qualifications is statistically significant, even after controlling for differences in the student body's economic background, English proficiency, and special education.

Schools with high concentrations of NH students most often have few teachers who are Hawaiian. And, schools with high concentrations of Hawaiian children are those in the poorest neighborhoods, the ones that teachers transfer out of as soon as they gain sufficient seniority to do so. The newest and least experienced teachers are routinely assigned to these schools. Many of these fresh-out-of-college teachers are not from Hawai'i and therefore are the least likely to be aware of the cultural differences in behaviors/body language. These non-verbal miscommunications are compounded for the at-risk students who have too many other stresses on them to respond positively to teachers who tell them daily (non-verbally) that they do not respect them (Ke Ala Ho'olokahi Project, 2000). These teachers are just not aware of, or prepared for, the cultural differences and how that impacts their teaching and student learning.

*Teachers Unprepared*

One of the major problems faced by failing schools is the preparation of general educators who are responsible for educating all students, including students of different cultures and with disabilities. Teachers are not prepared to provide a culturally responsive learning experience within a standards-based curriculum to a broad range of

learners. The addition of many new teachers each year from the mainland with no knowledge of the host culture has further exacerbated the problem. For example, this has created an unspoken cycle in schools where teachers refer students "out" for services or placement due to their lack of knowledge and skills in working with culturally diverse learners. Specifically, it has contributed to the over representation of NH students in special education and 504 programs. Special education teachers, on the other, hand are skilled in delivering specific strategies but tend to use 1) separate/different curriculum; 2) different materials; 3) a remedial approach to instruction; or 4) pull-out approach to serving students. These four factors, in isolation or combination, make it incredibly unlikely that students with disabilities will ever catch up or perform well on formal achievement tests. In addition to this problem, many special educators lack the knowledge needed to assist students with disabilities to access the general education curriculum. The result is that many NH students spend their entire educational career as "lifers" in special education, with special education teachers who mean well but are often more sympathetic with low expectations than empathetic with high expectations, students who may have been inappropriately placed in special education in the first place.

*Limitation in Professional Development for Hawaii DOE Teachers*

Effective professional development requires sustained, continuous training, which 1) incorporates mentoring; 2) includes assessment mechanisms for student learning; 3) promotes high student achievement; 4) models effective practices, and 5) incorporates valid research and proven theory. Professional development opportunities for Hawaii DOE teachers are typically a one or two day workshop with no follow-up support by mentors to scaffold the application of newly acquired knowledge. A recent workshop entitled "Understanding Poverty" is one example where an out-of-state consultant presented knowledge about poverty that did not reflect the host (Hawaiian) culture, nor provide transferable skill-based professional development for Hawaii's students. In addition, workshop presentations typically are delivered in a didactic format and do not model actual practice so that teachers can live through content to acquire initial understanding and then apply it within their particular content area. The Hawaii DOE also supports the train-the-trainer model in which curriculum specialists receive professional development and are asked to implement the new ideas in their complex areas. Specialists often do not feel knowledgeable about the new strategies nor skilled in

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delivering the professional development. In addition, many are not comfortable conducting workshops and/or they lack the skills in follow-up/ technical assistance. As a result, these ideas never reach the teachers who need them. In failing schools, the Hawaii DOE has required schools to contract with one of the state educational agencies or an out-of-state company. This approach is problematic because these outside support providers are not here long enough, nor frequently enough to actually provide support (coach and provide technical assistance) to teachers who are being asked to make changes. In some (unforgiving) cases the outside agencies are attempting to correct the curriculum packages (e.g., America's Choice) that they previously sold to the school to improve student outcomes.

*Lack of culturally responsive curriculum*

Native Hawaiian Studies as taught in Hawaii Department of Education schools has and continues to be delivered as a discrete subject separate from reading, math, science, and career education. Separation of indigenous and Western knowledge system is an old and out dated paradigm. Also at issue is the content and focus of the Native Hawaiian Studies Program for K-12 which many in the Native Hawaiian community believe inaccurately represents Hawaiian history, and how place and genealogy are linked to an individual's knowing of the world (Kaomea, 2000). The disconnection between Native Hawaiian cultural knowledge and academic subjects has resulted in a teaching/learning approach that teaches NH students *about* NH culture rather than *through* Native Hawaiian culture (Alaska Network, 2000).

Topics in academic curricula adopted in Hawai'i schools emanate from a western experience base and raise additional concerns for the academic success of NH students. Topics lacking a connection to the local culture and physical surroundings increase the challenges for NH students to engage in learning and to be valued for the knowledge and experience they bring with them. Evidence is mounting that teaching practices and curriculum that links schooling to the surrounding cultural and physical environment produces positive results on all indicators of student and school performance (Stephens, 2000). Kūkulu Nā Uapo, a 6th grade culturally responsive, standards-based physical science curriculum, is an example of a curriculum that teaches through the NH culture and is differentiated across readiness, interest, and learning preferences. (Center on Disability Studies and ALU LIKE, Inc, 2005). Consistent with the traditional Hawaiian world view, as well as the revelations of modern science, this curriculum teaches

students they are embedded in, and dependent upon, a network of relationships. These relationships are shaped by <u>place</u> and also extend through space and time to the origin of the universe.

*Professional Development to Increased Knowledge and Effective Strategies*

Different approach that supports NH students to engage or re-engaged in teaching/learning and assures cultural well-being and the attainment of achieving high standards was created through a professional development project funded through the United States Department of Education/Native Hawaiian Curriculum. Hawaii DOE teachers working with NH students were provided with graduate level professional development (PD) training that focused on designing culturally responsive curriculum within inclusive classrooms and integrated Hawaiian values and knowledge and Western knowledge systems which were aligned to standards in academic curriculum. The PD was targeted for teachers working in failing schools with high concentration of NH students.

The name of the PD Project was entitled Ka 'Upena O Ke A'o (Net of Learning). Teachers were offered one to three graduate level courses focused on designing culturally responsive curriculum and learning research-based strategies to effectively improve teaching and learning for NH students, NH students with disabilities, and all students. Onsite (Island of Oahu) and distance education training (across the islands) was offered to teachers over a 3 year period.

*Professional Development Courses*

The PD courses were developed based on competencies delineated as necessary for teachers to acquire to impact upon program improvements for NH students.

1. Knowledge and application of critical elements for Hawaiian Learning (Kawakami & Aton, 2001) grounded in Sense of Self, Sense of Place and Interconnections.
2. Skills in creating effective learning environments through culturally responsive teaching and learning;
3. Knowledge and application of Universal Design for Learning principles;
4. Knowledge and ability to differentiate curricula that are aligned with Hawai`i Performance Standards and incorporate multiple intelligence;

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5. Skills in accessing cultural and academic support within the school and community to impact upon practices in the classroom.

Two university professors and two Hawaiian cultural experts collaborated to design and teach the PD courses. The move from onsite delivery of PD to the distance learning format was particularly challenging for integrating cultural components of the PD curriculum. The Hawaiian cultural experts were more comfortable engaging students in a hands-on cultural activity while embedding Hawaiian cultural knowledge within the experience. For example, cultural experts taught students how to make an "ipu" which is a percussion instrument made from gourds and used to provide a beat for hula dancing. As the cultural experts modeled and supported the making of the ipu, they shared Hawaiian history and connections to specific places and people. The move to distance education with no face-to-face meetings or opportunity to engage students in a cultural, hands-on experience created multiple challenges. Online instruction also created challenges for modeling research-based practices effective for NH students and all students due to the technology available. One solution to integrating cultural knowledge and thinking was through the development of PD WebQuests focused on different aspects of cultural knowledge. WebQuests, originally developed by Bernie Dodge (1995) at San Diego State University for K-12 students can be described as:

- A structured, student-centered, inquiry-oriented online tool that allows students to learn about a particular subject or to tackle a particular project or problem.
- A web-based research strategy that uses links to essential resources on the World Wide Web and an authentic task to motivate students' investigation of an open-ended question.

Six WebQuests were created and offered in conjunction with the online course. The WebQuests are entitled: 1) Webbing the Quest, Questing the Web, (to increase your knowledge about using the world wide web as an instructional strategy.); 2) Are You Culturally Akamai? (to increase your knowledge about cultural sensitivity); 3) What's My Kuleana? (to increase your understanding of Hawaiian values to build a more culturally responsive classroom); 4) Who Am I? (to recognize one's own identity in a world of different cultures and lifestyles); 5) Na Kai 'Ewalu (to increase your knowledge about how Hawaiian history is expressed through music); and 6) 'Ohana (to increase understanding of culturally responsive parent/school meetings). WebQuest 2-6 resulted in artifacts developed by each student.

One of the WebQuests entitled Na Kai ʻEwalu (Hawaiian history expressed through music) provides an example of an online cultural activity to deepen understanding and knowledge of the Hawaiian culture. The WebQuest begins with the following introduction:

> Did you know that Na Kai Ewalu, the eight Hawaiian Islands, is preserved in mele (song) and oli (chant)? Have you ever heard a Hawaiian song that stirred your emotions or reminded you of something special? Why might a place in Hawaiʻi become the subject of a priceless song? How might the message of the song preserve a moment in time?
> In Hawaiʻi, past and present places, events, and people are preserved through na mele (songs), and oli (chants) and express much more than just words. Hidden deep in these verses are poetic descriptions of nature and its relationship to the people. Also, special events and where they took place connect the senses into each word expressed. Embedded in a mele we may find a paradise lost and new inspirations found. Hawaiian contemporary music continues this tradition with the addition of global musical influences and instruments.

The Na Kai ʻEwalu WebQuest outcome required students to write lyrics to a mele (song), or poem about a place in Hawaiʻi that was special to them. An example of one student created poem about her connection to a special place in Hawaiʻi is in Appendix A.

An additional resource was created through this project to support teachers through a website focused on culturally responsive research-based practices and available at http://www.cds.hawaii.edu/heupena/

The PD WebQuests were assigned as out-of-class activities with follow-up discussion and sharing of student artifacts or products (see, Figure 1). In addition to the PD WebQuests, students were assigned readings or activities to deepen their awareness and understanding of the Hawaiian culture. Students were also guided by the cultural experts in the design of this unit of instruction using Understanding by Design (Wiggins and McTighe, 2005). An additional resource, a website focused on culturally responsive evidenced-based strategies, was created through this project to support teachers and is available at http://www.cds.hawaii.edu/heupena/

*Student Learning Outcomes*

A quantitative survey was designed to assess knowledge and skill acquisition in addition to the utilization of skills acquired that resulted for trainees related to their participation in the *Ka ʻUpena O Ke Aʻo (Net of Learning) Project*. An anonymous on-line survey was developed and implemented using Survey Monkey. The Survey

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Monkey website allows individuals to develop quick and user-friendly on-line surveys tailored to meet the developer's unique needs (www.surveymonkey.com). Students were able to access and complete on-line assessments and results were available and summarized for immediate feedback. Areas assessed included:

- Recruitment
- Current Professional Role of Trainees
- School Level Where Teaching Occurred for Trainees
- Participant Satisfaction
- Knowledge Acquisition of Culturally Responsive and Inclusive Practices
- Skill Acquisition of Culturally Responsive and Inclusive Practices
- Attitudes and Beliefs toward Educating Students with Diverse Abilities
- Knowledge Acquisition of Various Instructional Strategies and Procedures
- Skill Acquisition of Various Instructional Strategies and Procedures
- Frequency of Utilization of Various Instructional Strategies and Procedures

All 40 trainees recruited were invited to participate in the on-line survey designed to assess the goals of the *Ka 'Upena O Ke A'o (Net of Learning) Project*. Two invitations were undeliverable to trainees and two trainees declined to participate in the survey. Therefore, a total of 23 trainees completed the survey, representing 58% of the students who participated in the *Ka 'Upena O Ke A'o (Net of Learning) Project*. As outlined in the table below, the majority of survey respondents reported that the *Ka 'Upena O Ke A'o (Net of Learning) Project* significantly increased or increased their knowledge and skills in numerous instructional strategies and procedures that could be used to develop culturally conscious classrooms to reach all learners:

| Percentage of Respondents Who Reported that the He Upena Project Significantly Increased or Increased their Knowledge and Skills in the Following Instructional Strategies/Procedures | | |
|---|---|---|
| **Instructional Strategy or Procedure** | **Knowledge** | **Skill** |
| Integrate Culture into Curriculum | 70.0% | 60.0% |
| Tier Instruction | 60.0% | 65.0% |
| Community Building | 65.0% | 55.0% |
| WebQuests | 85.0% | 75.0% |
| Understanding by Design (Unit Planning) | 85.0% | 70.0% |

| | | |
|---|---|---|
| Understanding by Design (Lesson Planning) | 85.0% | 70.0% |
| Cognitive Manipulatives/Hands-on Learning Activities | 70.0% | 70.0% |
| Active Learning | 75.0% | 70.0% |
| Choice Boards | 80.0% | 75.0% |
| Performance-based Assessment | 65.0% | 60.0% |
| Rubrics | 55.0% | 65.0% |
| Graphic Organizers/Advance Organizers/Thinking Maps | 70.0% | 65.0% |

In terms of trainees utilizing the above instructional strategies and procedures, the majority of respondents also indicated that they frequently use the above-mentioned strategies and procedures when working in their professional environments. However, 50% of the survey respondents reported that they rarely or never use WebQuests in their professional work.

| Percentage of Respondents Who Reported Frequency of Utilization of the Instructional Strategies or Procedures Learned During the He Upena Project | | |
|---|---|---|
| **Instructional Strategy or Procedure** | **% Reporting "Always Use" or "Frequently Use"** | **% Reporting "Sometimes Use"** |
| Integrate Culture into Curriculum | 50.0% | 45.0% |
| Tier Instruction | 55.0% | 35.0% |
| Community Building | 70.0% | 30.0% |
| WebQuests | 25.0% | 15.0% |
| Understanding by Design (Unit Planning) | 30.0% | 45.0% |
| Understanding by Design (Lesson Planning) | 30.0% | 45.0% |
| Cognitive Manipulatives/Hands-on Learning Activities | 55.0% | 35.0% |
| Active Learning | 65.0% | 35.0% |
| Choice Boards | 40.0% | 30.0% |
| Performance-based Assessment | 45.0% | 30.0% |
| Rubrics | 55.0% | 35.0% |
| Graphic Organizers/Advance Organizers/Thinking Maps | 65.0% | 25.0% |

In addition to learning various strategies and procedures to improve instructional practice and student learning, the survey also asked respondents to report on their ability to share the knowledge and skills acquired in the *Ka 'Upena O Ke A'o (Net of Learning) Project* courses with other professionals in their respective schools. The results of the survey indicated that 80% of the respondents reported that they had shared the knowledge and skills learned in the *Ka 'Upena O Ke A'o (Net of Learning) Project* courses with a fellow colleague; however, only 45% had shared this information with school administrators.

Based on the results from the quantitative survey, the trainees reported high levels of satisfaction in relation to their participation in the *Ka 'Upena O Ke A'o (Net of Learning) Project*. Approximately, 95% of the survey respondents reported that they believed the *Ka 'Upena O Ke A'o (Net of Learning) Project* courses gave them the knowledge and skills on how to integrate Native Hawaiian culture into existing curriculum. Additionally, based on survey results, an overwhelming majority of respondents believe that their participation in the *Ka 'Upena O Ke A'o (Net of Learning) Project* resulted in the following:

- Positive attitude and belief changes in regards to educating students with diverse abilities;
- Improved teaching practices while educating children in the Hawaii educational system;
- Implementation of the ideas and practices to develop lessons for classrooms that address the learning needs of Native Hawaiian students; and
- Increased recognition that the concepts of "Sense of Self," "Sense of Place," and "Interconnections" as critical elements for Hawaiian learning.

Trainees overwhelmingly reported that the *Ka 'Upena O Ke A'o (Net of Learning) Project* resulted in significant personal and professional change through learning and understanding how to integrate Native Hawaiian culture into existing curriculum.


**Summary**

The goal of providing PD to increase teachers' understanding and appreciation of the cultural backgrounds of students in their classrooms and at the same time impact teaching and learning can be daunting. The He Upena o ke A'o project was an attempt

to provide PD to general and special education teachers to improve teaching and learning for Native Hawaiian students and all students. While many of the goals were achieved, there remain questions on the most effective way to integrate culture with existing curriculum.

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