

OFFICIAL PROCEEDINGS

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Never Stand Still

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PROCEEDINGS EDITORS

Dr. Kyle Higgins

Dr. Randall Boone

University of Nevada Las Vegas

Research-to-Practice: Writing to Inform Innovative and Effective Teaching Practices

Kyle Higgins, PhD & Randall Boone, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Special education has called for the use of evidence-based practices within all educational environments. Yet a gulf of execution persists between the pedagogical *intentions* identified through research, and the *actions* of educators in classrooms. This presentation will discuss the translation of intervention research into practice-based teaching and its subsequent journal dissemination.

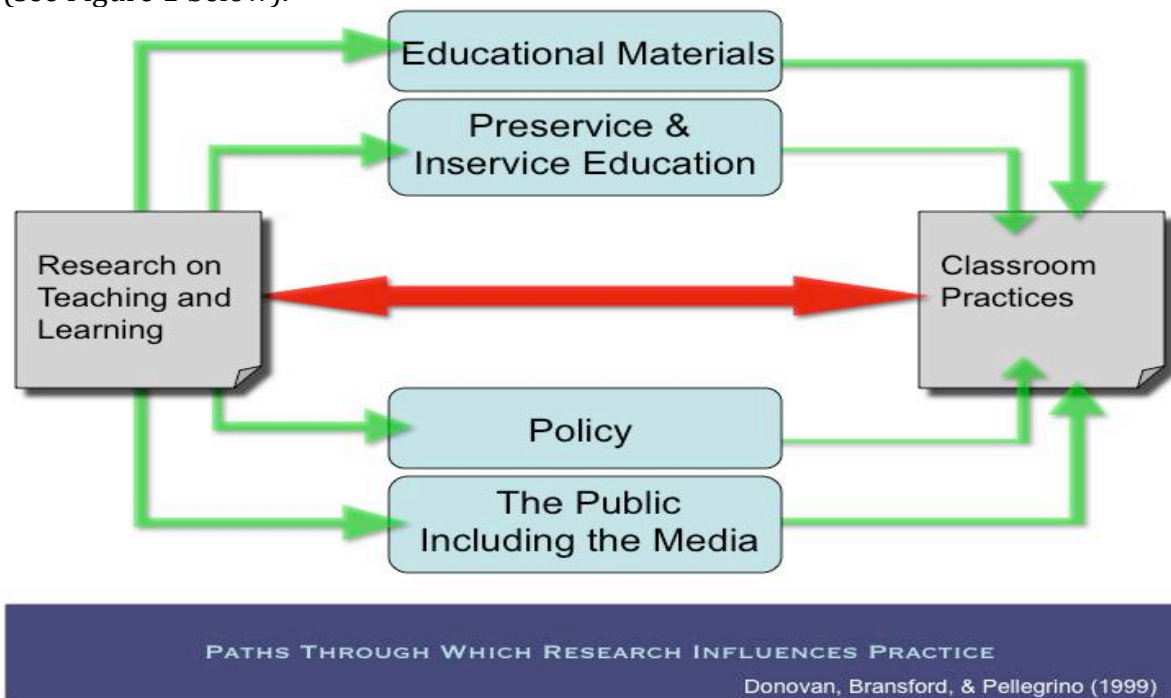
For many years, special education literature has focused on the translation of research into classroom practice (Boudah, Blair, & Mitchell, 2003; Carnine, 1997; Earles-Vollrath, 2012; Lovitt & Higgins, 1996; Warby, Greene, Higgins, & Lovitt, 1999). Researchers ask the question: Why does it take so long to incorporate results from educational research into classroom practice? While educators ask: How do I use this research in my classroom?

Donovan, Bransford, and Pellegrino (1999) discuss this disequilibrium as a system that moves in one direction, that is from researchers to educators with no input from educators or others in the field. Stokes (1997) maintains that research is one dimensional, that is, designed only for researchers. Several researchers have examined the need to translate research into practice in inclusive settings and offered suggestions to institute *use-inspired* research (Stokes, 1997), research that flows from the field to researchers as well as from researchers to the field (Donovan, Bransford, & Pellegrino, 1999), research that provides a structured system for the translation of research to practice (Lovitt & Higgins, 1996; Warby, 1998), and research that provides specific training techniques for accessing and incorporating research-based practices into the classroom (Warby, 1998).

However, with the exception of a very few cases in which educators and researchers work together on the design and implementation of studies, the arrows between research and practice are one way. Educators have very few opportunities to shape the research agenda and contribute to an emerging knowledge base of learning and teaching. And, researchers do not explore the real world they believe their research will impact.

Educators who accept the challenge to discover new knowledge through primary research instead of waiting for the research to be translated into *how-to* books and other secondary sources of information will be one step closer to meeting the requirements of quality-based instruction. The use of research-based knowledge provides a foundation for educators to justify the use of certain strategies and teaching interventions in inclusive environments. It also provides a basis from which educators can gain a better understanding of the application of research in their own inclusive classroom.

Researchers who accept this challenge begin with the conceptualization of a research problem by thinking: Will this work (and be used) in the real world of education? And, if the answer is yes, they begin their research with the understanding that the strategy or intervention must be understandable to the user, fit within the constraints and culture of the classroom or school environment, and must produce powerful outcomes that are seen by the end user in a relatively short period of time. This allows for a direct flow from the research to classroom practices as well as considers the reciprocal flow from the classroom to the research conceptualization as described by Donovan, Bransford, & Pellegrino (1999) (see Figure 1 below).



The Research-to-Practice Quandary

The research-to-practice quandary underpins how practice-related questions will be addressed in the research and subsequent products (e.g., curricula, strategies, interventions). However, the timeline involved in research to practice is often long so that research, once disseminated, no longer reflects current conditions in the field. For example, the population of students in a study no longer reflects the actual students in today's schools (e.g., diversity, languages spoken, disabilities). Conversely, the real world may limit the transference of the research into practice, as sometimes the intervention explored in the research does not fit the real world conditions or education philosophy. This dissonance results in a lack of alignment among researchers and stakeholders (e.g., administrators, educators, parents) and, ultimately, hurts children and youth.

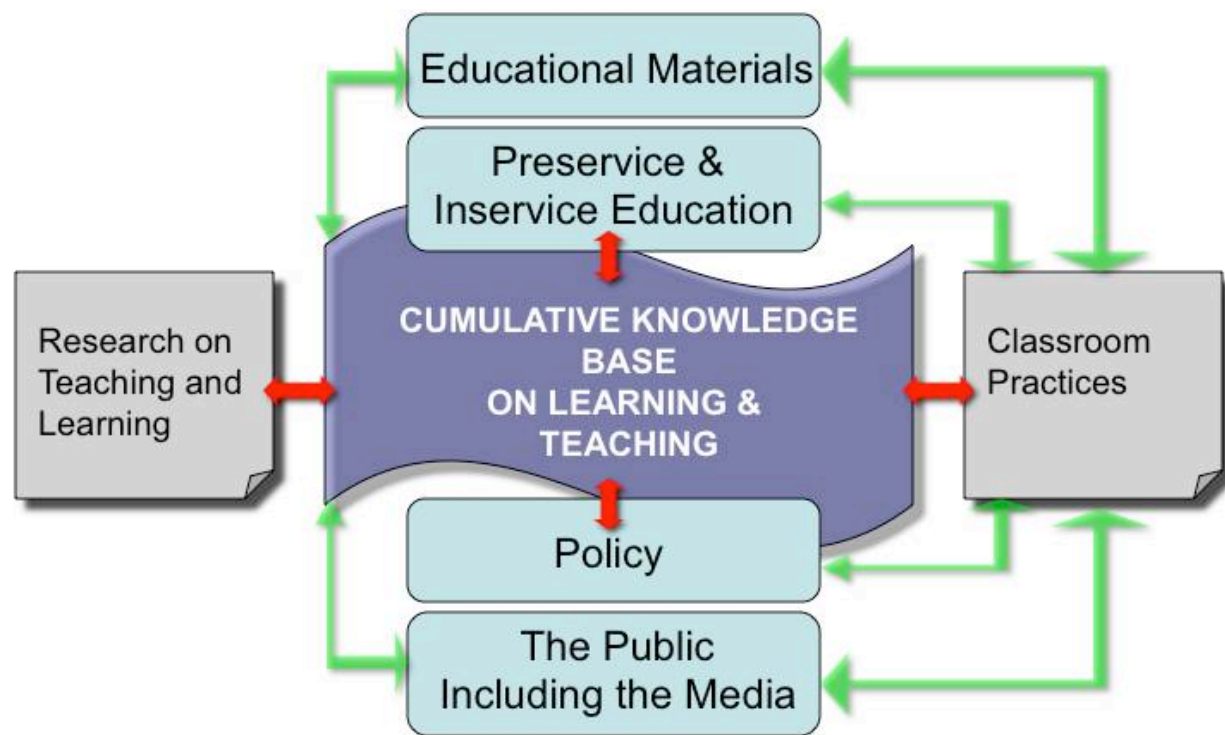
Use-Inspired Research

Research must be *use inspired* if it is to impact classroom practice. Stokes (1997) in his book *Pasteur's Quadrant* maintains that research tends to be limiting in nature. That is, designed by researchers for other researchers. He calls this one-dimensional research and he argues for two-dimensional research that is driven and strategic. Stokes (1997) charges

that the goal of research from conception to design to data gathering to dissemination must be focused on improving classroom learning and teaching.

Use-inspired research addresses the complexity of the real world educational issues and has as its focus solving the problem of classroom practice. This means including educators and/or administrators on the research team as well as translating the research findings into a usable format for practitioners.

At the lowest level of use-inspired research, educators are involved in the formative evaluation of the strategy or intervention in real-world contexts prior to conducting full-blown research on the strategy or intervention. The formative feedback is a critical element that is a missing component in much today's research. Because of this missing link, the field sees much research that will never be used by practitioners as they find the strategy or intervention too cumbersome, time consuming, or out of pace with the typical classroom environment. For teachers to teach differently and policy makers to support innovative methods of teaching, they need opportunities to learn about the research and to understand what the research is designed to achieve. The model must change to include flow in all directions (see Figure 2 below).



PROPOSED MODEL FOR STRENGTHENING THE LINK BETWEEN RESEARCH & PRACTICE

Donovan, Bransford, & Pellegrino (1999)

Disseminating Use-Inspired Research

There are two formats through which research can be disseminated and impact classroom practice. The first is through the researchers. This involves the research being conceptualized from beginning to end with educators in mind and with educator input. Once completed, it is the responsibility of the researcher to (a) publish their work in a data based journal (for other researchers), and (b) translate their research into a practical *user-inspired* journal (for practitioners). The second format is through pre-service teacher education or in-service professional development. These two venues provide opportunities for educators to translate the data-based journal article into classroom practice with their own educational contexts in mind.

Research-to-Practice Journals

Journals that focus on the translation of research into daily classroom practice do not contain data, but rather focus on the *how-to-implement* a strategy or intervention that has been shown by the research to be effective with a certain population of children/youth. Typically, these journals emphasize strategies and techniques that can be easily implemented in a school or clinic setting (see Table 1 below). These often have curricular, instructional, social, behavioral, vocational, or assessment foci that have direct application in the classroom. The field now identifies these as evidence-based strategies.

Table 1. Research-to-Practice Journals

Journal	Publisher	Internet Address
<i>Beyond Behavior</i>	Council for Children with Behavioral Disorders	http://www.ccbd.net/publications/beyondbehavior
<i>Intervention in School and Clinic</i>	Sage Publications; Hammill Institute on Disabilities	http://isc.sagepub.com
<i>Teaching Exceptional Children</i>	Council for Exceptional Children	http://www.cec.sped.org
<i>Special Education Perspectives</i>	Australian Association of Special Education	http://aase.edu.au/about-us/publications/perspectives

The Universal Format for Research Translation

While the field waits for more and more researchers to translate their work for practitioners, there is a need for a simple yet powerful format for educators to use in the translation of research into classroom practice. Such a format should allow educators to easily identify the important facts from the research and interpret the ensuring intervention or strategy for their classroom. The *Universal Format*, adapted from the work of Lovitt (1991, 1995), provides a simple and easy-to-use method for translating research into practice. In this format, the various elements of a typical research article are identified, and the educator is provided with a guide for understanding, evaluating, and using the research findings.

The format provides a framework for the educator to synthesize a research article into a short reference for use in the classroom. The goal of the translation format is for the educator to translate the research into research-based strategies or interventions. The

preliminary steps in the process include: (a) identifying the problem or concern to be addressed, (b) searching for a variety of sources, (c) reading, reviewing, and evaluating the information found, (d) selecting primary sources, (e) distinguishing between theory, research, and opinion, (f) reviewing the parts of the research article, and (g) translating the research into practice (see Table 2).

Table 2 *The Universal Format Step-by-Step Process*

1. Identify the problem or concern to be addressed.
2. Seek a variety of sources.
3. Read, review, and evaluate the information found.
4. Select primary sources, those with data.
5. Distinguish between theory and opinion.
6. Review the parts of a research article (e.g., abstract, introduction, hypothesis, method, participants, procedure, research design, results, discussion).
7. Translate the research into practice.

The key component of the Universal Research-Translation Format is the translation of the identified research into classroom practice. This involves the educator in a step-by-step process. This process includes: (a) identifying the article, (b) writing an abstract of the article, (c) identifying the evidence of research conducted in the article (e.g., statistics conducted), (d) describing the method of the research, (e) identifying the consumer of the research (e.g., who would benefit from this intervention or strategy), (f) providing a synopsis of the researcher's conclusions, (g) interpreting the findings of the research, and (h) brainstorming modifications to the strategy or intervention for a particular classroom or student. The key element in this process is the *interpretation of the findings* as this should be a step-by-step procedure for implementing the intervention or strategy with students. It is this interpretation process that is the heart of the Universal Research-Translation Format (see Table 3).

Table 3 *Universal Format for Translating Research into Practice*

Procedure	Explanation
Title	Examine the title for an immediate indicator of the article's content.
Abstract	Look at the abstract, which is a brief summary of the article, for the purpose and outcomes.
Evidence of Research	Scan the article for some evidence of data collection and focus on key words (e.g., models, interventions, methods, strategies, or comparisons).
Method	Look for the sampling procedures (e.g., criteria for and selection of participants), data collection procedures that identify instruments (e.g., questionnaires, tests), and the steps followed in collecting the data. This will assist you in evaluating the appropriateness, reliability, and validity of

	the results of the research and in eliminating material that is not empirically sound.
Identification of Consumers	Identify the students who participated in the research. It is important to ascertain the similarities and/or differences between these students and the target population in the teacher's own classroom. The following will be indicated: (a) sample population that was used, (b) age of the participants, (c) disabilities, and (d) selection criteria used.
Concluding Statements	Identify any limitations (e.g., sample or setting) in the study. Write a short overview of your findings.
Interpretation of the Findings	Translate the research into a step-by-step classroom procedure. The intervention is broken down into its sequential components so that it can be applied in the educational setting exactly as the researcher applied it in the research setting. This is the <i>translation of the research</i> , not a modification of the research. The reader should translate what needs to be done, but in this section will not modify the procedure to suit his/her environment or student population.
Procedures	Write out the procedures used; if possible, translate into discrete behavioral terminology to develop clear, measureable objectives for the purpose of classroom application.
Modifications	Identify any modifications needed to adapt this research to the identified classroom or individual student. It is here that the translated research from the <i>Interpretation of the Findings</i> section is modified for specific classrooms or students. It is possible that no modifications will be necessary.
References	Record the name of the author(s), the date published, the title of the article, the journal, the volume number of the journal, and the page numbers. This provides back up documentation of the research article used. It may be necessary to revisit the research at a later day.

Conclusion

Research-based knowledge can contribute meaningfully to the enhancement of the skills and professional knowledge of all educators. With the increasing diversity in classrooms, researchers must be responsible for translating their research into a usable format for educators. Conversely, educators must be responsible for and capable of implementing research-based interventions that meet the needs of all students. This multi-dimensional flow of research from researchers to educators and from educators to researchers provides a synergistic platform with which to close the research to practice

gap. In short, researchers must write for practitioner-based journals and translate their own research and educators must be trained to translate research into a usable format for the classrooms in which they teach.

References

- Boudah, D.J., Blair, E., & Mitchell, V.J. (2003). Implementing and sustaining strategies instruction: Authentic and effective professional development or “business as usual”? *Exceptionality*, 11(1), 3-23.
- Carnine, D. (1997). Bridging the research-to-practice gap. *Exceptional Children*, 63, 513-521.
- Donovan, M. S., Bransford, J.D., & Pellegrino, J.W. (1999). *How people learn: Bridging research and practice*. Washington, DC: National Academy Press.
- Earles-Vollrath, T. L. (2012). Research to practice: Closing the gap. *Intervention in School and Clinic*, 47, 135-138.
- Lovitt, T.C. (1991). *Preventing school dropouts: Tactics for at-risk, remedial and mildly handicapped adolescents*. Austin, TX: PRO-ED.
- Lovitt, T.C. (1995). *Tactics for teaching*. Englewood Cliffs, NJ: Prentice Hall.
- Lovitt, T.C., & Higgins, K. (1996). The gap: Research into practice. *Teaching Exceptional Children* 28, 64-68.
- Stokes, D.E. (1997). *Pasteur’s quadrant: Basic science and technological innovation*. Washington, DC: The Brookings Institution.
- Warby, D.B. (1998). *Formative evaluation: An instrument to measure the effects of using the universal format*. Unpublished doctoral dissertation: University of Nevada, Las Vegas.
- Warby, D.B., Greene, M.T., Higgins, K., & Lovitt, T.C. (1999). Suggestions for translating research into classroom practices. *Intervention in School and Clinic*, 34, 205-211, 223

Mailing address: Kyle Higgins, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: Higgins@unlv.nevada.edu

Embedding Reflective Practices into Clinical Field Experiences

Nancy B. Brown, MEd
Joseph J. Morgan, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: This proposal will address the importance of observation protocols and reflective practices in clinical field experiences. A description and requirements of each of the clinical field experiences at UNLV will be provided. The creation and current use of the Critical Concept Protocols (CCPs) and Student Reflective Surveys in the clinical field experiences at UNLV will be thoroughly discussed. The data from the CCPs and Student Reflective Surveys form how courses and the clinical field experiences were restructured. The use of Professional Learning Communities in the clinical field experiences where student engage as they triangulate data from their supervisors and mentor teachers evaluations and CCPs will be described. The implementation of a culminating Field Experience Assessment Team will be explained. *Keywords:* observation protocols, reflective practices, clinical field experiences.

In teacher preparation programs, clinical field experiences are essential components (Eisenhardt, Besnoy, & Steele, 2012; Wyss, Siebert, & Dowling, 2012). Clinical field experiences provide the opportunity for preservice and inservice teachers to practice and apply concepts, strategies and theories, while receiving necessary feedback from observation and supervision. To be able to provide effective feedback, highly structured observation protocols assist preservice and inservice teachers in their ability to pay careful attention to the interactions of theory and practice within a classroom environment and allow for detailed and high quality reflective practices to occur (Burant & Kirby, 2002; Scherff & Singer, 2012). Along with the reflective practices, preservice and inservice teachers must also analyze the data from their observation protocols. The use of data is critical during the clinical field experience process (Burant & Kirby, 2002; Lambe, 2011). The high quality data from the observation protocol should assist preservice and inservice teachers in understanding their areas of strength and also allow them to recognize and understand areas of concern or disconnect in their teaching practice. Finally, the use of high quality data should assist preservice and inservice teachers in analyzing patterns of data within their practice and determine whether or not they are making necessary improvements to their teaching.

The clinical experiences at UNLV begin with the Resource Room Practicum for both Undergraduate and Master's students. Students are required to go to their clinical field experience site for two sessions per week for two consecutive hours for 12 weeks. Students will complete 48 total hours in a resource room setting. When students first begin the Resource Room Practicum, they will observe their assigned mentor teacher during the first two weeks of the clinical experience. Once students have become familiar with the students and understand how the teacher presents lessons, they will then teach one lesson per week for the remaining ten

weeks. The first three lessons are based on the Mentor Teacher's materials and then next seven lesson plans must be lesson the students create. A three-hour seminar is attached to the Resource Room Practicum.

The next clinical experience is Pre-student teaching. Only Undergraduate students are required to enroll in this experience. During this experience students can be assigned to a resource room classroom or if they choose they can be assigned to a self-contained classroom for students with autism or intellectual disabilities. Pre-student teachers spend two consistent hours per day for 15 weeks in their assigned placement. Twelve weeks are completed in the special education setting and three weeks are spent in general education. Students begin this experience by observing their mentor teacher for two weeks and then begin teaching three lessons using the Mentor Teacher materials and lesson plans. The students then write 45 lesson plans they create. A one-hour seminar is attached to Pre-student teaching.

The final clinical experience is Student Teaching. Both Undergraduate students and Master's students are required to enroll in this experience. Student teaching is a fifteen-week experience in a Resource Room classroom. In student teaching, students must keep the same contracted hours as their assigned Mentor Teacher. Students begin by observing and assisting for the first two weeks, and then slowly take over the entire classroom including all the teaching and responsibilities of the Mentor Teacher. A two-hour seminar is attached to student teaching. The seminars attached to each clinical experience are designed to review topics that are essential to the field of special education, allow preservice and inservice teachers the opportunities to ask questions, and share ideas about what is working in their clinical experience placements. Seminars are structured around the professional learning community model (PLCs). The preservice and inservice teachers meet in smaller PLC groups to analyze data from the observation protocols, determine trends, and develop action plans to improve student outcomes or teaching practice based on the data.

Some areas of concern in the clinical experiences and attached seminars were identified by the 325T Program Improvement Personnel Grant steering committee. There was a lack of gradation in the expectations in the Field Experience Rubric used for all students in their field experiences. The College of Education Field Experience rubric based on Charlotte Danielson was considered subjective and global. The behaviors on the rubric were not observable and measurable. Students in clinical experiences were not engaging in reflective practices to help them better identify their strengths and weaknesses in their teaching practices. These lead the 325T steering committee to develop the Critical Concept Protocols.

Development of the Critical Concept Protocols

The 325T Steering Committee met and identified six critical concepts from the literature that reflected best practices of special education teachers. These include the following: assessment, behavior management, collaboration, effective instructional practices (e.g., lesson planning, differentiated instruction, and technology), multicultural perspectives, and the use of evidenced-based practices. To begin developing the Critical Concept Protocols (CCPs), graduate assistants hired on the 325T grant were tasked with connecting course syllabi and objectives in the generalist program to the CCPs. They also identified research related to the CCPs to help determine research-based practices related to the CCPs. The graduate assistants then wrote 10-12 observable, measurable statements that could be observed in a special education classroom environment.

After the initial development, all CCPs were formatively evaluated by 325T project directors and their fellow graduate assistants. Edits were made to the CCPs based on these formative evaluations. Two tools were developed based on the CCPs. One is the observation protocol for resource room practicum students and the other an evaluation protocol for all clinical experiences connect to the current Field Experience Evaluation used in the College of Education.

The observation protocol was designed for Resource Room Practicum students to complete observation protocols in their mentor teacher's classrooms and to capture whether or not students were observing the critical concept in the classroom environment and to take notes on its implementation. Topics of observation protocol are assigned based on the lecture sequence in the attached seminar.

Triangulation of Data in Professional Learning Communities

Using the PLC structure, the observation protocols are also discussed in class during PLC time. Students analyze the CCP and Field Experience rubric evaluation data from their university supervisor and mentor teacher.

Through analysis, students will look for trends in their data related to what is working and areas of concern. A vital component of the PLC is the feedback received from peers to assist in this process. Student then set observable and measurable goals to meet by their next supervision visit and create plans of action to meet these goals. Students also identify needed resources and next steps to be taken in order to be more effective. Students then track progress towards these goals in their weekly Student Reflection Survey.

Student Reflection Survey Development

The Student Reflection Survey replaced the weekly field summaries that students were handwriting at the conclusion of each week. The Survey asks students to respond to 15 statements related to the CCPs using a Likert scale of 1-5. Students also respond to questions related to implementation of instructional practices and critical concepts, their feelings about the lessons taught, and their commitment to teaching as a profession. The Survey asks students to write any additional comments that they may want to remember related to their experiences that week. The Survey is distributed weekly on Friday afternoon through the use of Qualtrics to students e-mail accounts and are due back by Sunday at midnight. Students analyze their weekly reflection survey data in their PLC groups. 325T project directors can see data from the Surveys. This allows for the directors to see trends in student perceptions of their field experience and identify feedback related to field experience placement sites. By analyzing data, the 325T directors could determine areas of program refinement in courses and clinical experiences.

Field Experience Assessment Team

As the culminating experience in Student Teaching, students are required to do a professional presentation for the Field Experience Assessment Team. There the teacher candidate discusses where they completed their student teaching experience. The candidate then will discuss their learning and experiences with six critical areas of special education: assessment, behavior management, collaboration, effective instructional practices (e.g., lesson planning, differentiated instruction, use of technology), multicultural perspectives, and the use of research-based practices. The teacher candidate will discuss a lesson that they think went

extremely well during their student teaching experience and support the discussion of this lesson with a brief clip of them teaching the lesson.

The teacher candidate will reflect on area of strengths, areas to address in the future and how they will address those areas and what they learned throughout their field experience. The teacher candidate should review their weekly summaries and the field-based observations completed by their university supervisor and mentor teacher to address these points. The Field Experience Assessment Team will also evaluate the teacher candidates Student Teaching Notebook. These presentations allow for the Field Experience Assessment Team and the 325T steering committee to evaluate the program and clinical field experiences as well as the preparation of our teacher candidates.

References

- Burant, T. J., & Kirby, D. (2002). Beyond classroom-based early field experiences: Understanding an “educative practicum” in an urban school and community. *Teaching and Teacher Education*, 18(5), 561-575.
- Eisenhardt, S., Besnoy, K., & Steele, E. (2012). Creating Dissonance in Pre-Service Teachers' Field Experiences. *SRATE Journal*, 21(1), 1-10.
- Scherff, L., & Singer, N. R. (2012). The preservice teachers are watching: Framing and reframing the field experience. *Teaching and Teacher Education*, 28(2), 263-272.
- Wyss, V. L., Siebert, C. J., & Dowling, K. A. (2012). Structuring Effective Practicum Experiences for Pre-Service Teachers. *Education*, 132(3).

Mailing address: Nancy Brown, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: Nancy.brown@unlv.edu

Evidence-Based Practices to Improve Achievement in Computation With Regrouping and Word Problems

Bradley J. Kaffar, PhD
St. Cloud State University, St. Cloud, MN, U.S.A.

Abstract: Mathematics is one of the most challenging aspects of the school curriculum for many students, particularly multi-digit computation with regrouping and word problems. The results of research reveals increased math achievement when teachers use explicit instruction, a graduated sequence of lessons, and cognitive strategies to teach computation and problem-solving skills. The results of research to investigate the effects of these evidence-based practices to teach second- and third-grade students are provided. The instructional materials for the treatment groups included scripted lessons, base-ten blocks, learning sheets, and mnemonic devices. The comparison groups received lessons from their basal mathematics program. Practical implications from the research are briefly summarized.

Mathematics is one of the most challenging aspects of the school curriculum for many students, and a concern is the lack of achievement in multi-digit computation with regrouping and word problems. Specifically, out of 29 mathematics difficulties, special education teachers ranked word problems as the most problematic, multi-step problems as second most problematic, and regrouping as the seventh most problematic area for students with learning disabilities (LD) (Bryant, Smith, & Bryant, 2008). The literature on mathematics interventions reveals increased math achievement when teachers use explicit instruction, a graduated sequence of lessons, and cognitive strategies to teach computation and problem-solving skills (Carmack, 2011; Ferreira, 2009; Flores, 2009; Flores, 2010; Mancl, Miller, & Kennedy, 2012; Miller & Kaffar, 2011a; Miller & Kaffar, 2011b; Montague, 2008). The results of research to investigate the effects of these evidence-based practices to teach second- and third-grade students are provided.

Addition With Regrouping

Addition With Regrouping (Miller, Kaffar, & Mercer, 2011a) was field tested in a study that included a total of 24 students with math difficulties. The students were attending a summer remedial math camp and had just completed the second grade. The treatment group included 10 students (four females and six males). Two students had identified disabilities (i.e., one with a learning disability and one with an emotional/behavioral disability). The instructional materials included scripted lessons, base-ten blocks, learning sheets, and mnemonic devices (i.e. RENAME, FAST RENAME) (see Figure 1). A comparison group included 14 students (five females and nine males). Four students had identified disabilities (i.e., three with learning disabilities and one with a

traumatic brain injury). The comparison group received lessons from their basal mathematics program that involved computation with regrouping and word problems.

Figure 1

RENAME Strategy, FAST RENAME Strategy, 10 or More Sentences, and BBB Sentences

RENAME Strategy for Computation With Regrouping

Step 1: Read the problem.

Step 2: Examine the ones column.

Step 3: Note ones in the ones column.

Step 4: Address the tens column.

Step 5: Mark tens in the tens column.

Step 6: Examine and note hundreds; exit with a quick check.

FAST RENAME Strategy for Word Problems

Step 1: Find what you're solving for.

Step 2: Ask yourself, "What are the parts of the problem?"

Step 3: Set up the numbers.

Step 4: Tie down the sign.

(RENAME steps remain the same)

"10 or More" Sentences for Addition With Regrouping

Adding the Ones:

If adding the numbers in the ones column results in 10 or more, regroup to form a ten (10 or more, go next door).

Adding the Tens:

If adding the numbers in the tens column results in 10 or more, regroup to form a hundred (10 or more, go next door).

"BBB" Sentences for Subtraction With Regrouping

BBB Sentence for Ones:

Bigger number on Bottom means Break down a ten and trade.

BBB Sentence for Tens:

Bigger number on Bottom means Break down a hundred and trade.

A two-way mixed ANOVA, with one repeated measure (pretest/posttest) and one between-subjects effect (treatment and comparison) revealed a significant difference between the students' scores on the computation pre- and posttest, $F(1, 16) = 11.14, p = .004$. There also was a significant interaction effect (i.e., Trial X Group), $F(1, 16) = 6.49, p = .021$. Thus, both treatment and comparison groups improved significantly from pre- to posttest, but the gain made by the treatment group was significantly greater than the gain made by the comparison group. The students' mean percentage computation scores increased from 49% (9.86/20) to 90% (18/20) for the treatment group and from 66% (13.27/20) to 72% (14.36/20) for the comparison group. Additionally, there was a significant difference between the students' scores on the word problem pre- and posttests, $F(1, 15) = 19.46, p = .001$. The interaction effect approached significance [$F(1, 15) = 18.70$,

$p = .063$] in favor of the treatment group. The students' mean percentage scores on word problems increased from 41% (4.13/10) to 89% (8.88/10) for the treatment group and from 51% (5.11/10) to 69% (6.89/10) for the comparison group. See Table 1 for pre- and posttest means and standard deviations.

Table 1
Pre- and Posttest Means and Standard Deviations for Dependent Measures

Measures	Treatment Pretests M (SD)	Treatment Posttests M (SD)	Comparison Pretests M (SD)	Comparison Posttests M (SD)
Addition (Computation)	9.86 (6.04)	18.00 (2.23)	13.27 (6.21)	14.36 (4.2)
Addition Word Problems	4.13 (3.44)	8.88 (.835)	5.11 (2.66)	6.89 (2.31)

Note. Addition Computation scores and Addition Word Problem scores represent means and standard deviations on an untimed curriculum-based assessment.

Subtraction With Regrouping

Subtraction With Regrouping (Miller, Kaffar, & Mercer, 2011b) was field tested in a study that included a total of 23 students with math difficulties. The students were attending a summer remedial math camp and had just completed the third grade. The treatment group included 11 students (five females and 6 males). Three students had identified disabilities (i.e., one with autism, one with a learning disability, and one with other health impairments). The instructional materials included scripted lessons, base-ten blocks, learning sheets, and mnemonic devices (i.e., RENAME, FAST RENAME) (see Figure 1). A comparison group included 12 students without identified disabilities (nine females and three males). The comparison group received lessons from their basal mathematics program that involved computation with regrouping and word problems.

A two-way mixed ANOVA, with one repeated measure (pretest/posttest) and one between-subjects effect (treatment and comparison) revealed a significant difference between the students' scores on the computation pre- and posttest, $F(1, 16) = 5.57, p = .03$. The interaction effect approached significance [$F(1, 16) = 3.93, p = .07$] in favor of the treatment group. The students' mean percentage computation scores increased from 60% (12/20) to 86% (17.11/20) for the treatment group and from 76% (15.22/20) to 78% (15.67/20) for the comparison group. Additionally, the difference between the students' scores on the word problem pre- and posttests approached significance [$F(1, 17) = 3.92, p = .06$]. There was a significant interaction effect (i.e., Trial X Group), $F(1, 17) = 7.97, p = .01$ in favor of the treatment group. The students' mean percentage scores on word problems increased from 45% (5.40/12) to 77% (9.20/12) for the treatment group, whereas, the mean comparison

group scores decreased slightly from 62% (7.44/12) to 57% (6.78/12). See Table 2 for pre- and posttest means and standard deviations.

Table 2
Pre- and Posttest Means and Standard Deviations for Dependent Measures

Measures	Treatment Pretests M (SD)	Treatment Posttests M (SD)	Comparison Pretests M (SD)	Comparison Posttests M (SD)
Subtraction (Computation)	12.00 (6.57)	17.11 (2.84)	15.22 (5.51)	15.67 (4.79)
Subtraction Word Problems	5.40 (3.68)	9.20 (3.36)	7.44 (2.60)	6.78 (4.05)

Note. Subtraction Computation scores and Subtraction Word Problem scores represent means and standard deviations on an untimed curriculum-based assessment.

Summary

The results revealed increased achievement when teachers used explicit instruction, a graduated sequence of lessons, and cognitive strategies to teach computation and problem-solving skills. Moreover, the increased percentage scores were socially significant (i.e., grades improved). An important practical implication emerged from this investigation; when evidence-based practices were used, students with math difficulties improved achievement in computation with regrouping and word problems.

References

- Bryant, D. P., Smith, D. D., & Bryant, B. R. (2008). *Teaching students with special needs in inclusive classrooms*. Boston: Allyn & Bacon.
- Carmack, C. M. (2011). *Investigating the effects of addition with regrouping strategy instruction among elementary students with learning disabilities*. (Unpublished doctoral dissertation). Las Vegas, NV: University of Nevada.
- Ferreira, D. (2009). *Effects of explicit subtraction instruction on fifth grade students with learning disabilities*. (Unpublished doctoral dissertation). Las Vegas, NV: University of Nevada.
- Flores, M. M. (2009). Teaching subtraction with regrouping to students experiencing difficulty in mathematics. *Preventing School Failure*, 53(3), 145-152.

- Flores, M. M. (2010). Using the concrete-representational-abstract sequence to teach subtraction with regrouping to students at risk for failure. *Remedial and Special Education, 31*(3), 195-207.
- Mancl, D. B., Miller, S. P., & Kennedy, M. (2012). Using the concrete-representational-abstract sequence with integrated strategy instruction to teach subtraction with regrouping to students with learning disabilities. *Learning Disabilities Research and Practice, 27*(4), 152-166.
- Miller, S. P., & Kaffar, B. J. (2011a). Applying evidence-based practices to subtraction with regrouping instruction. In N. L. Gallenstein & D. Hodges (Eds.), *Mathematics for All: Instructional Strategies to Assist Students with Learning Challenges* (pp. 51-63). Olney, MD: Association for Childhood Education International.
- Miller, S. P. & Kaffar, B. J. (2011b). Developing addition with regrouping competence among second grade students with mathematics difficulties. *Investigations in Mathematics Learning, 4*(1), 24-49.
- Miller, S. P., Kaffar, B. J., & Mercer, C. D. (2011a). *Addition with regrouping*. Lawrence, KS: Edge Enterprises, Inc.
- Miller, S. P., Kaffar, B. J., & Mercer, C. D. (2011b). *Subtraction with regrouping*. Lawrence, KS: Edge Enterprises, Inc.
- Miller, S. P., Stringfellow, J. L., Kaffar, B. J., Ferreira, D., & Mancl, D. (2011). Developing computation competence among students who struggle with mathematics. *Teaching Exceptional Children, 44*(2), 38-46.
- Montague, M. (2008). Self-regulation strategies to improve mathematical problem solving for students with learning disabilities. *Learning Disabilities Quarterly, 31*, 37-44.

Mailing address: Bradley J. Kaffar, St. Cloud State University, School of Education, Department of Special Education, 720 Fourth Avenue South, St. Cloud, MN 56301-4498, USA
Email: bjkaffar@stcloudstate.edu

Teaching Secondary Level Mathematical Concepts to Students with Math Disabilities

Kim Paulsen, EdD
Vanderbilt University, Nashville, TN, U.S.A.

Abstract: Secondary students with Mathematical Disabilities often struggle with high-level math concepts such as fractions, algebra and geometry because they lack the needed basic skills (e.g., basic fact retrieval, place value). Although many of these students receive their core mathematical instruction in the general education classroom, they often need supplemental support from special education teachers. This support may be in the form of intensive intervention in deficit skills or through pre-teaching concepts. Regardless of the approach special educators must explicitly implement the interventions selected and developed. This paper provides an overview of seven principles to consider when developing and implementing interventions for students with math disabilities. It also provides suggestions for teaching academic vocabulary in the area of mathematics, a description of the concrete/representational/abstract method of teaching mathematical concepts, and an explanation of how graphic organizers may be used to teach algorithms.

The National Assessment of Education Progress (NAEP) indicated that 65% of eighth grade students with disabilities scored below the Basic level in mathematics (National Center for Education Statistics, 2011). Gesten, Clarke, & Mazzocco (2007) stated there is little agreement as to the causes of mathematical difficulties students encounter. However, if students have one or more of the following difficulties they may increase the likelihood of having mathematical difficulties: (a) information processing difficulties; (b) oral language difficulties; (c) cognitive factors; (d) cultural differences; (e) organizational issues, and (f) emotional factors (Bryant, Bryant, & Hammill, 2000). In addition to the possible areas of difficulty, Kotering, deBettencourt, & Brazier (2005) found that 55% of secondary students identified math as their least favorite course. Moreover, Maccini and Gagnon (2006) found that a majority of secondary special education teachers lack sufficient content in the area of mathematics. Taken as a whole, these statistics do not bode well for students with mathematic disabilities (MD) as they enter into higher-level mathematical courses.

The 2004 Individuals with Disabilities Education Act mandates that students with disabilities have access to the general education curriculum and be educated with their typically developing peers as much as possible. Because of this mandate, many middle and high school students receive their mathematics instruction in the general education classroom with qualified math teachers. The issue is that many students have not mastered the basic skills (e.g., basic facts, place value, fractions, etc.) needed to be successful in these upper level mathematical courses. If students are to be successful in these higher-level mathematics courses, special educators may need to provide their students with intensive interventions in the deficit skill areas

or provide them with pre-teaching activities. These extra teaching activities will likely occur while students are, at the same time, receiving instruction in the higher-level mathematics courses in the general education setting. This paper provides suggestions for explicitly teaching students to use academic vocabulary strategies, the concrete, representational, abstract (CRA) method for understanding concepts, and graphic organizers to develop their knowledge and skills in the areas of fraction, algebra, and geometry.

Intensive Intervention

Fuchs et al. (2008) provides seven principles of effective intensive intervention to keep in mind when planning for and implementing lessons for students who are struggling with math. First, the instruction must be provided in an explicit manner, providing students with good models and ample guided practice opportunities prior to completing activities independently. Second, the design of the instruction should minimize the learning challenge by carefully sequencing lessons. Third, students must conceptually understand the concepts being taught. Fourth, some drill and practice is necessary to increase fluency within the concepts. Fifth, in order to maintain the skills taught, cumulative review is necessary. Sixth, identifying a motivator to help students regulate their behavior is needed. Finally, the use of progress monitoring to continually assess student growth is important. It is beyond the scope of this paper to detail each of these steps, but it is important to follow them as lessons are prepared and implemented.

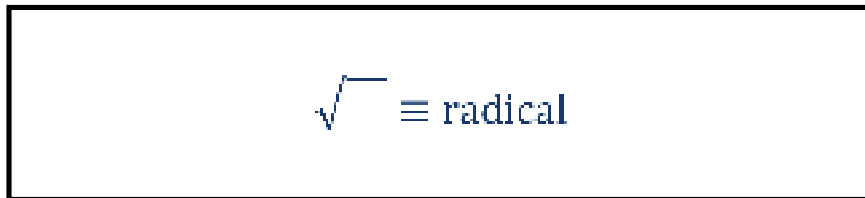
Academic Vocabulary

Many students with MD also have difficulty with reading that can lead to a limited vocabulary. In recent years there has been a stronger focus on explicitly teaching academic vocabulary in mathematics and this is supported by the Common Core State Standards (CCSS) (Common Core State Standards, 2010). Academic language is divided into three tiers. Tier 1 consists of words that are commonly used everyday, familiar to most students and primarily learned through conversation. Tier 2 words are academic terms that are used in many contexts and across all subject areas (e.g., expand, explain, defend). Tier 3 words are domain-specific vocabulary that must be understood to successfully navigate the content. Tier 3 words in the areas of fractions and algebra include, but are not limited to denominator, numerator, unit, mixed number, reduce, variable, integer, exponent. Three strategies for explicitly teaching Tier 3 academic vocabulary words include: (a) word banks, (b) vocabulary cards, and (c) identifying characteristic charts. Word walls and word banks can be used in two ways. First, instructors can create the cards with vocabulary terms or symbols and their definitions written on them. Second, students can create their own cards. Once the cards are created they are either placed on the wall or students can keep their own notebook of the terms. When organizing the word wall or student notebook, it is best to have the words placed in meaningful sections. For example have one section for fractions, another section for fractions, another for geometry terms, etc. It is also important to note that simply putting the word cards on the wall or in their notebooks will not increase student understanding of the terms/symbols. Instructors explicitly teach these terms/symbols and their definitions and then relate them to student learning. Second, vocabulary cards may be helpful for terms that students must memorize. These cards may have the same terms/symbols as those in the word wall or word bank. If using these cards to teach definitions, instructors would write the term on the front of the card and its definition on the back. When using these cards to teach symbols, the instructor would put the symbol on the front of the card

and its name on the back. The terms and symbols used are ones that require students to recognize them automatically in order to be able to solve problems. The cards can be used as a “drill and practice” type activity where students quickly say the word and its definition or identify a symbol and its purpose. Finally, characteristic charts can be used to teach mathematical terms/concepts that are more complicated and require further explanation as well as examples and non-examples. Using a characteristics table allows students to have a great deal of information organized in a way that is easy to access. Instructors and students should complete these together as they learn about the term/concept. In the first box characteristics of the term are listed. In the second box examples are provided and in the third box non-examples are provided. For some concepts it may be helpful to provide pictures of the examples and non-examples. Figure 1 provides an example of each of these strategies.

Figure 1: Vocabulary Strategies

Word Wall Example:



Vocabulary Card Example:

Denominator	The bottom number of a fraction – the number of parts into which one whole is divided.
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Characteristic Chart Example:

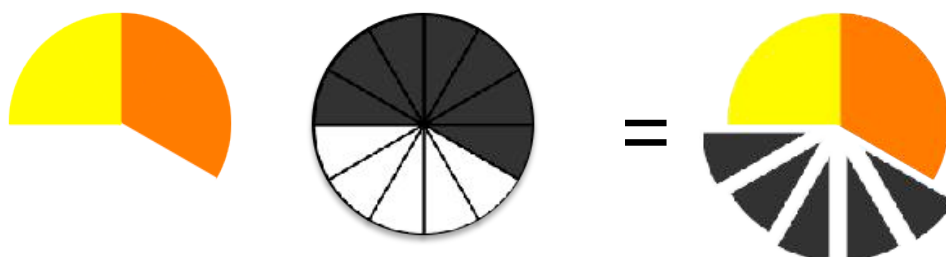
Polygons: A simple, closed, plane figure made up of three or more line segments		
Characteristics	Examples	Non-Examples
Closed	Triangle (3 sides)	Circle
Plane figure	Quadrilateral (4 sides)	Cube
3 or more sides	Pentagon (5 sides)	Sphere
No curved sides	Dodecagon (12 sides)	Cone
No intersecting lines	Icosagon (20 sides)	
	Trapezoid	
	Rectangle	

Concrete, Representational, Abstract Method

At the core of many mathematical disabilities is the lack of conceptual understanding of concepts. Concrete manipulatives have been shown to be effective in teaching students fraction skills (Butler, Miller, Crehan, Babbitt, & Pierce, 2003). The use of the CRA method of teaching mathematical concepts is often used at the elementary level, but can also be effective with students at the secondary level (Witzel, Riccomini, & Schneider, 2008). This model of teaching mathematics allows students to understand a concept conceptually prior to moving onto algorithms, rather than simply memorizing facts and algorithms. Students use three-dimensional manipulatives (i.e., Fraction Tiles or Algeblocks) to solve problems and gain a better conceptual understanding of the concept during the concrete phase. Two-dimensional pictures, drawings, or diagrams are used during the representation phase to solve problems. These pictures, drawings, or diagrams may be given to the students, or they may draw them when presented with a problem. These representations should be used to solve the same concepts previously taught using concrete objects. As with concrete phase, two or three lessons should be sufficient for students to understand the concept. During the abstract phase, students are expected to solve problems without the use of concrete objects or visual representations. Students solve problems with numbers and symbols. Students are often expected to memorize facts and algorithms during this phase, as well as build fluency. Figures 2 and 3 provide examples of manipulatives that can be used when teaching fractions and algebra concepts.

Figure 2: Concrete Materials for Teaching Fractions and Algebra

$$\frac{1}{4} + \frac{1}{3}$$



Start with $\frac{1}{4}$ and $\frac{1}{3}$ pieces.

Place on whole circle

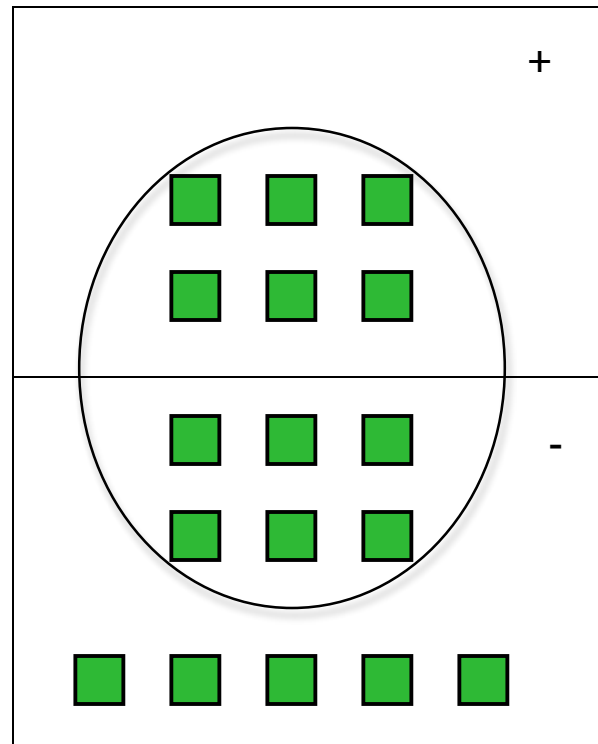
Determine that $\frac{1}{12}$ pieces need to be used.

Show that $\frac{5}{12}$ of the whole are left – showing that $\frac{1}{4} + \frac{1}{3}$ equals $\frac{7}{12}$.

Figure 3: Concrete Materials for Teaching Fractions and Algebra

Algeblocks™

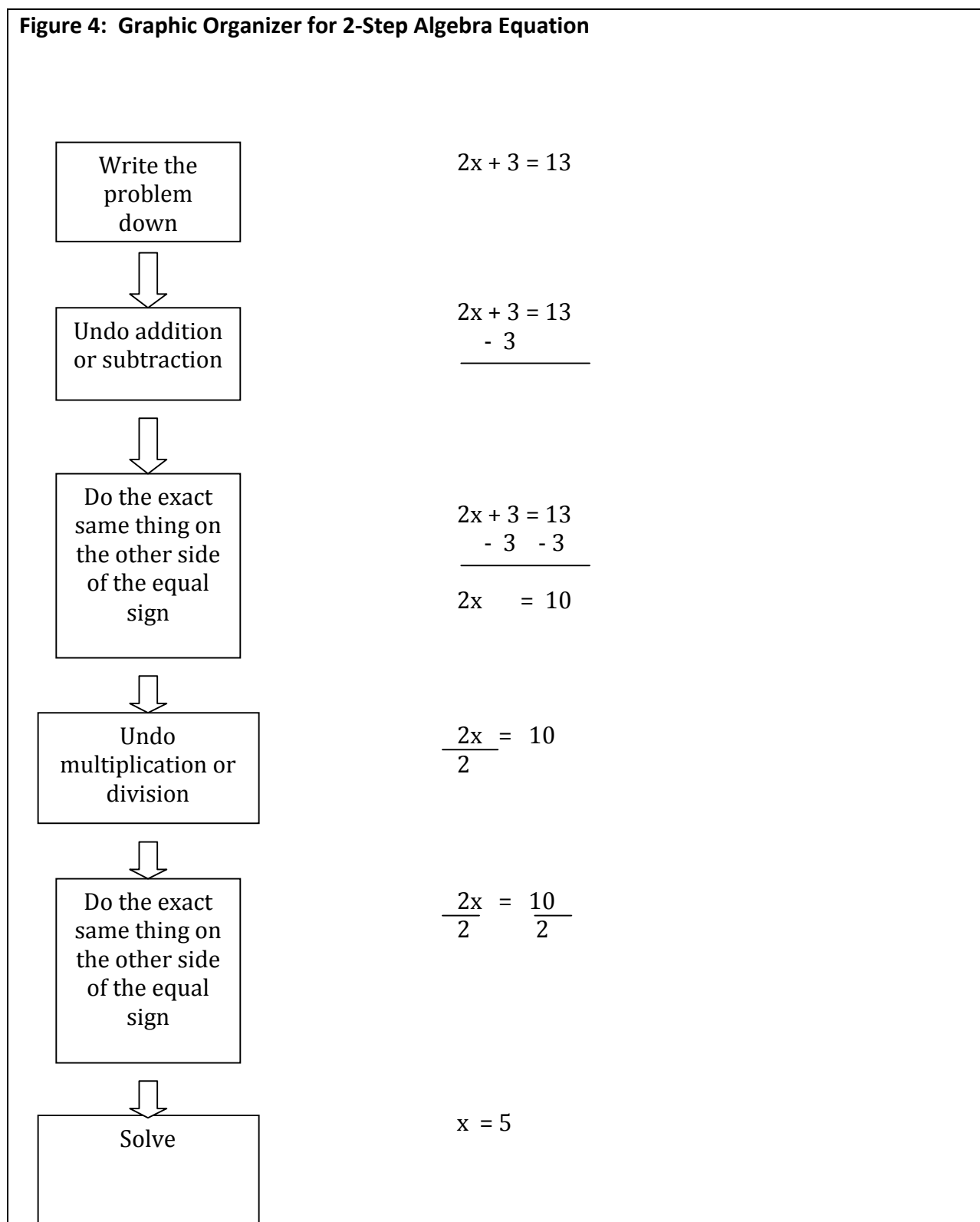
$$-5 - 6 =$$



Graphic Organizers

The use and effectiveness of using graphic organizers are well documented in the literature (Hughes, Maccini, & Gagon, 2003; Dexter & Hughes, 2011; Anderson, Yilmaz, & Washburn-Moses, 2004), but as with vocabulary, are not often effectively used in mathematics. Graphic organizers are helpful in the area of mathematics, as they allow a large amount of information to be organized in one place. They may be used in place of extensive note-taking or to show the step-by-step process of an algorithm. It is important to note that graphic organizers must be explicitly taught to students so they fully understand the value of using them. Once completed, teachers should check for correct answers. Figure 4 is an example of using a graphic organizer to show the algorithm of a 2-step algebra equation.

Figure 4: Graphic Organizer for 2-Step Algebra Equation



Conclusion

The current state of mathematical performance of secondary students with high incidence disabilities is worrisome. The purpose of this paper is to provide three methods for increasing the mathematical knowledge and skills for students in secondary settings. While this paper focused on fraction and algebra, the strategies can be generalized to most mathematical concepts. We must do a better job of preparing these students to be successful in higher-level mathematics courses and obtain the skills needed to be college and career ready. Having students receive their mathematical instruction by qualified general education teachers and their deficit skills addressed by special educators may ensure that students increase their knowledge and skills.

References

- Anderson, S., Yilmaz, O., & Washburn-Moses, L. (2004). Middle and high school students with learning disabilities: Practical academic interventions for general education teachers: A review of the literature. *American Secondary Education*, 32(2), 19-38.
- Bryant, D.P., Bryant, B.R., & Hammill, D.D. (2000). Characteristic behaviors of students with LD who have teacher-identified math weaknesses. *Journal of Learning Disabilities*, 33(2), 168-177.
- Butler, F.M., Miller, S.P., Crehan, K., Babbitt, B., & Pierce, T. (2003). Fraction instruction for students with mathematics disabilities: Comparing two teaching sequences. *Learning Disabilities Research and Practice*, 18, 99-111.
- Common Core State Standards Initiative. (2010). National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington, DC.
- Fuchs, L., Fuchs, D., Powell, S., Seethaler, P., Cirino, P., Fletcher, J. (2008). Intensive intervention for students with mathematics disabilities: Seven principles for effective practice. *Learning Disability Quarterly*, 31(2), 79-92.
- Gersten R., Clarke B., Mazzocco M.M.M. (2007). Historical and contemporary perspectives on mathematical learning disabilities. In Berch D. B., Mazzocco M.M.M. (Eds.), *Why is math so hard for some children? The nature and origins of mathematics learning difficulties and disabilities* (pp. 7-27). Baltimore: Paul H. Brookes.
- Hughes, C.A., Maccini, P., & Gagnon, J.C. (2003). Intervention that positively impact the performance of students with learning disabilities in secondary general education classes. *Learning Disabilities*, 12(3), 101-11.
- Individuals With Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400 *et seq.* (2004).

Kortering L. J., de Bettencourt L. U., Braziel P. M. (2005). Improving performance in high school

algebra: What students with learning disabilities are saying. *Learning Disability Quarterly*, 28, 191–203.

National Center for Education Statistics. (2011). *The Nation's Report Card Mathematics 2011*. (NCES 2012-458). Institute of Education Sciences, U.S. Department of Education: Washington, DC.

Maccini, P., & Gagnon, J.C. (2006). Mathematics instructional practices and assessment accommodations by secondary special217-234.

Witzel, B.S., Riccomini, P., & Schneider, E. (2008). Implementing CRA with secondary students with learning disabilities in mathematics. *Intervention in School and Clinic*, 43, 270-276.

Mailing address: Kim J. Paulsen, GPC Box 228, Vanderbilt University, Nashville, TN, USA
Email: kim.paulsen@vanderbilt.edu

Academic Discourse in the Content Areas

Tracy Griffin Spies, PhD

University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: The Common Core State Standards (CCSS) were developed to establish nation-wide criteria for college and career ready students by the end of high school. There is both an explicit and implicit understanding that in order for students to demonstrate mastery of the CCSS and be identified as college and career ready, students must demonstrate ever-increasingly sophisticated language skills. Essential to the language mastery of the standards, students must have a deep understanding of the larger bodies of language, or the academic discourse related to the academic discipline. The purpose of this paper is to: (a) to examine the role of discourse within the development of academic language in the content areas; and (b) to provide educators with guiding questions to analyze content-area discourse to identify high priority areas for explicit language instruction for learners with exceptional language needs.

High quality instruction of the Common Core State Standards (CCSS) is meant to produce independent, flexible learners with a wide-knowledge content base able to analyze and critique the thoughts and assumptions of others. Specifically, the Council of Chief State School Officers (CCSSO) and the National Governors' Association (NGA) characterized college and career-ready students as being able to:

- comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information
- read purposefully and listen attentively to gain both general knowledge and discipline specific expertise. They refine and share their knowledge through writing and speaking
- adapt their communication in relation to audience, task, purpose, and discipline. They set and adjust purpose for reading, writing, speaking, listening, and language use as warranted by the task
- work diligently to understand precisely what an author or speaker is saying, but they also question the author's or speaker's assumption and premises and assess the veracity of claims and soundness of reasoning
- actively seek to understand others perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds (CCSSO, 2010, p.7)

There is both an explicit and implicit understanding that in order for students to demonstrate mastery of the CCSS and be identified as college and career ready, students must

demonstrate ever-increasingly sophisticated language skills. The standards clearly outline expectations for language development and growth in the areas of listening, speaking, and vocabulary development. However, it is also important to examine the language demands related to the cognitive processes within the standards. Thinking does not occur in isolation; thinking processes require language to articulate thoughts (Vygotsky, 1962). In order for students to be able to understand and articulate learning at higher levels of cognitive processing, they also need to acquire the corresponding academic language skills. This requires explicit instruction for students with exceptional language need such as students with disabilities and English language learners.

Academic language refers to language used for a specific purpose, audience, and within a particular context (Gottlieb & Ernst-Slavit, 2013, Scarcella, 2003). Traditionally, educators refer to academic vocabulary when referencing academic language. While academic vocabulary is critical to academic achievement, in order for students to meet the criteria for college and career ready, students must be proficient in the overall language of the discipline. Academic language, as opposed to academic vocabulary, encompasses all of the linguistic and literary components used to effectively communicate the content. In addition to academic vocabulary, these components include the discourse as well as grammatical and sociolinguistic features specific to the discipline.

Critical to the language mastery of the standards, and to be college and career ready, is for students to have a deep understanding of the larger bodies of language related to the academic discipline – the academic discourse of the discipline. It is critical that students know the structures, conventions, and complexities distinct to each discipline (Snow, Burns & Griffin, 2005). Academic discourse is frequently ignored in the development of content area instruction. Without intention planning for language instruction, the focus is on content learning rather than language instruction (Mackey, Polio & McDonough, 2004; Short, 2002). While it is impractical for all teachers to be linguists, it is important that teachers are aware of the elements of academic language in the disciplines they teach and explicitly teach those elements to support students with exceptional language learner needs in reaching academic and linguistic levels associated with college and career ready. Teachers first need to be aware of the overall larger bodies of language related to the discipline – the academic discourse. The purpose of this paper is two-fold: (a) to examine the role of discourse within the development of academic language in the content areas; and (b) to provide educators with guiding questions to analyze content-area discourse to identify high priority areas for explicit language instruction that develops deeper understanding of the content.

Academic Discourse

Academic discourse includes the larger bodies of language specific to a discipline. Each discipline has a distinctive language and manner of communicating its content (Zarcarian, 2013). The discourse of the discipline refers to the organization of the language of the discipline. In reading, understanding the discipline's discourse helps the reader in determining relationships, gaining perspective on what is read, and following logical lines of thought (Scarcella, 2003). It is understood that comprehension accumulates and evolves over the course of the text (Derewianka, 2003). In writing, a thorough understanding of the discourse supports the writer with the development and communication of ideas. It establishes norms for organization and structures that transition ideas that support the development of coherent and cohesive writing.

Discourse encompasses awareness of genre or text type, its corresponding purpose, text structures, language demands, and cohesion as they relate to the overall organization and communication of ideas.

Genre or Text Type and Purpose

Genre refers to the manner in which texts are groups based on how writers' typically used language to respond to recurring situations (Hyland, 2004). Each genre is characterized by a particular pattern of structure, style, content, and intended audience. Because of the specific patterns within the genre, this makes them easily identifiable text types. Table 1 lists the various genres students are expected to read by grade level as presented in the CCSS.

Table 1

Genres Presented by Grade Span in Common Core State Standards

Elementary School	Middle School	High School
Short stories	Short stories	Short stories
Mysteries	Drama	Drama
Adventure stories	Poetry	Poetry
Fables	Myths	Religious works
Fairytales	Religious works	American drama
Dramas	Biography	Shakespearean drama
Poetry	Memoir	Political documents
Folktales	Political documents	Technical text
Myths	Technical text	Multimedia text
Mythology	Multimedia text	
Fiction		
Graphic novels		

The unique patterns of structure, style, and content are intentional in communicating the purpose for the writing. Initially focusing on a text's purpose helps readers to discern why a text unfolds in a particular way (Derewianka, 2003). The CCSS expect that students are able to "comprehend and evaluate complex texts across a range of text types" and "work diligently to understand precisely what an author is saying" (CCSSO, 2010, p.7). Through explicit instruction in the genre's style, pattern, and purpose, student will be able to relate the genre's identifiable elements, understand how they support the purpose of the text, and ultimately have greater comprehension and ability to understand the author's message. Table 2 displays to the purposes of various text types as indicated in the CCSS.

Table 2

Purposes of Text Types in Common Core State Standards

Argument/Persuasion	Informational/Explanatory	Narrative
• to change reader's point of view • to bring about action on reader's part • to ask reader to accept the writer's explanation or evaluation of a concept, issue, or problem	• to increase reader's knowledge of a subject • to help readers better understand a procedure or process • to enhance comprehension of a concept	• to convey experience – real or imaginary • to inform • to instruct • to persuade • to entertain

Instructional decisions about the elements of genre or text type that need to be explicitly taught should focus on the components that support the text's purpose and the overall comprehension of the text. For example, a fable is a narrative written to demonstrate a useful truth, frequently demonstrated through animals as characters. A fable's purpose is to instruct, to leave readers with a moral or a lesson revealed in the story. This purpose serves as a frame for teachers to make instructional decisions about the elements of genre that should be taught. In this example, the moral or lesson in fables is the central element to the overall purpose of fables – to instruct. The moral or lesson also plays a significant role in the overall understanding of the text. While it is important that most fables utilize animals as characters and should be taught, consistent, explicit instruction should focus on the use of a moral or lesson to develop the overall purpose of the text, which is to instruct.

Structures

Structures refer to the different types of writing within a single written text purposefully chosen to communicate the content and support the overall purpose of the text. Examples of structures can include connected text, headings, stanzas, tables, figures, diagrams with captions, questions to be answered, key concepts, or essential vocabulary. Students need to not only understand how the structures are used to support the overall purpose of the text, but also how to read and understand the structures within the text. For example, when students are reading connected text and are referred to a table, students need explicit instruction in how the table provides an example or further expands upon a point demonstrated in the connected text. Table 3 provides a preliminary list of structures students might encounter.

Table 3

Structures within Specific Text Types

Math	Science	Social Studies
Connected text	Connected text	Connected text
Headings	Headings	Headings
Tables	Tables	Tables
Figures	Figures	Figures
Diagrams	Diagrams	Diagrams
Questions	Questions	Questions
Key concepts	Key concepts	Key concepts
Essential vocabulary	Essential vocabulary	Essential vocabulary
Procedures	Procedures/Explorations	Timelines
Glossary	Advanced organizers	Political cartoons
	Glossary	Advanced organizers
		Glossary

Similar to genre or text type, instructional decisions about which structures within a text need to be taught should focus on the structures that directly support overall text comprehension. A science textbook, an informational text, has the purpose of increasing or enhancing a reader's comprehension of a subject or concept. Most science texts highlight key concepts through either tables, charts, or bulleted points at the beginning or ending of a chapter. This structure is very useful in helping readers identify the critical ideas of the reading. Explicitly teaching readers how to utilize these structures in comprehension aides their understanding not only in that particular chapter, as well as in subsequent chapters and in texts with similar structures.

Language Demands

Language demands refer to how students are expected to use language. For example, in a science textbook, students might be required to read connected text that explains a particular phenomenon. In this circumstance, students would need the necessary language skills related to reading reasoning, causes, and relationships. In language arts, students might be reading an opinion piece that would require language skills supporting the identification of the author's intent on creating agreement.

It is essential that students understand the individual language demands within the text and understand how they are used to communicate the content and support the overall purpose of the text. Within an individual text, there may be multiple structures with differing language demands that require students to shift their thinking as well as how they use language. Table 4 displays the primary language demands for consideration when analyzing reading texts.

Table 4

Core Language Demands of Reading Materials

Language Demand	Application to Reading Material
Sequence	Requires the reader to understand the order of information
Organize	Requires the reader to understand relationships between characters, objects, actions, events or ideas.
Compare/contrast	Requires the reader to understand similarities and differences between characters, objects, actions, events or ideas.
Inquire	Requires the reader to solicit information.
Describe	Requires the reader to understand the how words are used to express attributes or properties of characters, objects, events, or ideas.
Define	Requires the reader to understand how words are used to express the meaning of an object
Explain	Requires the reader to understand how phrases and sentences are used to express rationale, reasons, causes or relationships.
Retell	Requires the reader to understand how phrases and sentences are used to repeat information.
Summarize	Requires the reader to understand how phrases and sentences are used to express important facts, events or ideas.
Argue	Requires the reader to understand how phrases and sentences are used to express a point of view with intent of supporting a particular position
Persuade	Requires the reader to understand how ideas, opinions, or principles are presented.
Synthesize	Requires the reader to understand how phrases and sentences are used to express, describe, or explain relationships among two or more ideas.
Evaluate	Requires the reader to understand how phrases and sentences are used to express judgment.

It is important first that teachers identify the language demands of a text, connect the demands back to the text's overall purpose, and then explicitly teach the linguistic elements that relate to the demand. For example, if students are required to read a set of procedures in a math book, the language demand requires student to sequence and the overall purpose of the text is to explain the process. Essential to readers is the understanding of how the words, sentences, and phrases are connected to develop a logical set of procedures that thoroughly explain how to complete the identified procedure.

Cohesion

Cohesion is the flow of sentences and paragraphs. Specifically it is how the author ties old information to new information. This intentional link improves a reader's understanding of the text or an audience's understanding of the speaker. Elements of cohesion include organization, repetition and transition.

Authors use repetition to focus a reader on the understanding of the message or to highlight what is important. Many times authors use words or phrases repeatedly in consecutive sentences to enhance reader's understanding. Authors use pronouns, synonyms, or different variations of the word to emphasize repetition.

Transitions pull text together. They are used to link the meaning of one sentence to the next. Understanding transitions can signal readers to better understand text development as well as changes in the text over time. Effective use of transitions can support speakers in delivering messages that are coherent and comprehensible to an audience.

The text's purpose remains the focus in determining the elements of cohesion requiring explicit instruction. For example, if students are reading a compare/contrast essay, transitions play a critical role in comprehension as they support the reader in the identification of the similarities and differences. In an opinion piece, the repetition of ideas may be central in the overall development a text's purpose to persuade.

It is important to remember that teaching the discourse of text should focus on the most critical elements that support the text's purpose and overall comprehension. Table 5 displays a set of sequential guiding questions to support teachers in identifying key elements of discourse requiring explicit instruction. It is important to note that the first and last set of guiding questions relate to students' current levels of performance. Student strengths and needs should frame decisions about what elements require explicit instruction.

Table 5

Steps in Analyzing Text Discourse

Step	Guiding Questions
Identify students' current level of performance.	What do I know about my students' current level of performance on this topic? What instructional goals need to be introduced or met? What are my students' current levels of language proficiency?
Identify the primary materials and activities associated with the unit of study and aligned with the standards.	Which reading materials support the content to be covered and my students' individual learning goals? Do the materials and activities move students toward mastery of the standard?
Identify the genre of the text.	What genre am I presenting to students? What elements of the genre should I highlight to support overall comprehension? Are there unique patterns of style, structure, or content that I should teach to support better comprehension?
Identify the overall purpose of each text.	What is the overall academic purpose of this piece of text or listening opportunity? How does the purpose impact overall text/listening comprehension?
Examine the organizational structures of the text.	What structures are used to support the overall purpose of this piece of text or listening opportunity? Which structures will be particularly challenging for students? How do the structures require students' to shift their thinking? Are there structures that require a response from students? Are there any additional structures that would support students in their overall understanding?
Determine language demands of the text.	What type of thinking is required to understand the text or listening opportunities? What corresponding language demands are placed on the student that must be taught? Do the thinking/language demands build upon one another? What scaffolds need to be in place to support students with the thinking demands?
Examine the text for cohesion. Pay attention to the language used to connect ideas and transition topics	Is the text/listening opportunity organized in a particular way to support comprehension? Is there a clear repetition of ideas that would support comprehension? What language is used to unite the text and transition between ideas? What language is used to demonstrate relationship?

Conclusion

In order for students to demonstrate mastery of the Common Core State Standards, it is critical that they develop the corresponding language skills. Discourse knowledge is essential in helping students comprehend and evaluate various text types. Additionally, discourse knowledge is fundamental in students' ability to effectively communicate their understanding, their argument, and their evaluation. In order to prepare college and career ready students, all teachers must be prepared to teach not only the academic vocabulary of their discipline, but its corresponding larger bodies of language as well.

References

- Council of Chief State School Officers (CCSSO). (2010). *Common core state standards For English language arts & literacy in history/social studies, science, and Technical subjects*. Retrieved from http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf
- Derewianka, B. (2003). Trends and issues in genre-based approaches. *REL C Journal*, 34, 133-154.
- Francis, D.J., Rivera, M., Lesaux, N., Kieffer, M., & Rivera, H. (2006). *Research-based recommendations for instruction and academic interventions*. Portsmouth, NH: Center on Instruction. Retrieved from <http://www.centeroninstruction.org/files/ELL1-Interventions.PDF>.
- Gottlieb, M., & Ernst-Slavit, G. (2013). *Academic language in diverse classrooms: Promoting content and language learning*. Thousand Oaks, CA: Corwin Press.
- Hyland, K. (2004). *Genre and second language writing*. Ann Arbor, MI: University of Michigan Press.
- Mackey, A., Polio, C., & McDonough, K. (2004). The relationship between experience, Education, and teachers' use of incidental focus on forms and techniques. *Language Teaching Research*, 8, 301-327.
- Scarcella, R. (2003). *Academic English: A conceptual Framework*. Technical Report 2003-1. Santa Barbara: University of California Linguistic Minority Research Institute.
- Short, D. (2002). Language learning in sheltered social studies classes. *TESOL Journal*, 11, 18-24.
- Snow, C., Griffin, P., & Burns, M.S. (2005). *Knowledge to support the teaching of reading: Preparing teachers for a changing world*. San Francisco, CA: Jossey-Bass.
- Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: MIT Press.

Zwiers, J. (2007). Teacher practices and perspectives for developing academic language.
International Journal of Applied Linguistics, 17(1), 93-116.

Mailing address: Tracy Spies, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas,
NV, 89154 USA
Email: tracy.spies@unlv.edu

Teacher Portfolios: An Effective Way to Assess Teacher Performance and Enhance Learning

Jeffrey I. Gelfer, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Administrators routinely seek alternative methods of evaluating staff while staff are frequently searching for methods to represent the breadth and quality of their efforts. One method proving to be effective for gathering and organizing products of teacher activity is the portfolio. This paper will discuss the procedures that teachers can apply in developing their own portfolio assessment to help generate data for making decisions about teaching performance and effectiveness of their performance. The development of teacher portfolio requires planning, time organization, and cooperation from students, colleagues, parents and supervisors. The format of the portfolio may vary from individual to individual and be based upon personal choice. Portfolios provide a convenient insight into both the content and methods of instruction used by the teacher and by doing so, add a significant qualitative dimension to many existing teacher evaluation systems.

One fundamental purpose of assessment and evaluation is to examine the effectiveness of a program. In the area of special education, assessment and evaluation not only has been used to investigate the appropriateness of the program by looking at an individual student's progress, but also used to check teacher performance. Assessment and evaluation of teacher performance provides essential information that can be used to improve the quality and application of educational programs (Decker & Decker, 2012). Teachers spend significant amounts of time (30%) engaged in assessment related activities (Stiggins, 2005). Nonetheless, they tend to take a very minor role in the assessment of their own performance. This paper will discuss an assessment technique that can be used by teachers and administrators to generate data useful for making decisions about teaching performance.

The overall goal of assessment is to collect information regarding a targeted program or performance. Traditionally, formal assessment such as standardized tests, questionnaires, or surveys were used as the assessing instruments because of administrative convenience and/or efficiency. Evaluation is the identification, clarification and application of defensible criteria to ascertain a target objects value, quality, utility, effectiveness or significance in relation to those criteria (Gronlund, Linn, Miller, 2008).

More than convenience and efficiency, accuracy should be the fundamental factor to assessment. In order to ascertain accurate information, authentic assessment is preferred compared with other forms of standardized assessment and evaluation.

One of the general principles of evaluation is that it should be an ongoing process (Gronlund, Linn, Miller, 2008). A continuous process can provide: 1) information on how well the philosophy and goals of the program are being achieved; 2) information as to the effectiveness of instruction; 3) information pertinent to the knowledge of methods and materials used; and 4) information pertinent to an assessment of personal attributes, enthusiasm, poise and ability to adapt to frustrations, ability to work as a member of collaborative teams, and to accept constructive criticism. It is essential for Principals and supervisors to be aware that both—which are dependent on the evaluator's feelings, opinions, and attitudes and objective information are useful. Personnel evaluation should be anchored in processes that result in informed, rational and insightful decisions and that provide a firm basis for helpful constructions for change

Immediate feedback and access to recorded evaluation of performance have been found to be helpful and meaningful (Decker and Decker, 2012), including exchanges between principal and faculty as well as faculty and faculty. A teacher portfolio permits and allows for the process of evaluation to be continuous. The Joint Committee on Standards for Educational Evaluation (2011). identified four attributes that are essential for sound education evaluation: utility, feasibility, propriety, and accuracy (Yarbrough, Shulha, Hopson, & Caruthers (2011). These imperative components can also be served by the portfolio approach.

The Teacher Portfolio

Portfolios are one component of authentic assessment. All portfolios share a common set of characteristics. Most approaches to teaching portfolios define them as a collection of materials assembled by a faculty member that document or reflect teaching performance. Portfolios can include a record of achievement, samples of work, observations of others (colleagues and supervisors), personal evaluation, curriculum development, and any other relevant data. Their goals include organization, demonstration of achievements and stimulation for reflective redirection.

Current literature on teaching portfolios implies that the portfolios can provide a practical technique to document both the characteristics of the instructional environment and the outcomes of teaching. It is a factual description of a teacher's strengths and teaching achievements (Seldin, Miller, & Seldin, 2010). It can also stimulate reflection upon improvement. Teacher portfolios not only provide teachers the tools for self-assessment, but also serve as tools for teacher's own professional development (Seldin, Miller, & Seldin, 2010).

Additionally, teacher portfolios can be structured around the national and state standards to help teachers and administrators evaluate teacher's performance by providing evidence that competencies have been met (Campbell, Melenyzer, Nettles, & Wyman, 2012, Klecker, 2007). For example, (Campbell, Melenyzer, Nettles, & Wyman, 2012) offered a step by step approach to the development of a professional teacher portfolio). This approach provided guidelines that help teacher how to demonstrate competence established by the Interstate New Teacher Assessment and Support Consortium (INTASC) standards. The portfolio included artifacts to

show knowledge, skills, and dispositions and meet the INTASC standards. Another example was the Teacher Education Portfolio of a standards-based teacher education program in Kentucky (Klecker, 2007). During the internship year as a teacher certification requirement, eight New Teacher Standards were used as evaluative criteria for the Kentucky Teacher Internship Program (KTIP) and these standards served as the content guides for the Teacher Education Portfolio (Klecker, 2007).

A teaching portfolio is an organized collection of evidence of a teacher's best work that is selective, reflective and collaborative. The items in the portfolio are chosen to demonstrate a teacher's achievements over time and to document the variety of contexts in which the achievements occur (Scriven, 1996). Principals and supervisors responsible for evaluating the performance of teachers can assess a lucid and comprehensive picture of a teacher's work. As Seldin, Miller, & Seldin (2010) identify, when portfolios are used to make personnel decisions the contents should be scrutinized much more thoroughly than if the purpose is personal professional growth alone.

One goal of the teacher portfolio is to describe through documentation over an extended period of time, the full range of abilities and effectiveness of teaching. Each included document should represent some cogent and definitive aspect of the teacher's development and sustain a "paper trail" or record of achievement. Samples of work, observations made by the supervisor, a colleague or him/herself including personal evaluations are suggested items for inclusion.

Additional elements of the portfolio can include schedules, class size, IEP's and or IFSP's, planning committees and student, demographic information. Information relevant to the activities that do not directly involve teaching may also be included. Each of these activities constitutes important aspects of what is currently expected of educators.

The development of a teacher portfolio requires planning, time, organization and cooperation from students, colleagues, parents and supervisors. The physical portfolio is often no more than an expandable file folder or an electronic portfolio that includes sample of an individual's work, documenting performance and professional growth over a period of time, often 1 year.

Notebooks, three-ring binders, and even hanging files may serve as the medium for organization. In fact, the very form that the portfolio takes may provide the teacher with an opportunity to be creative. The format of the portfolio may vary from individual to individual and be based upon personal preference. Some may choose to embellish with art work, photographs of the classroom, and original statements or quotations that exemplify personal philosophy; others may elect to use technology to create electronic portfolios that include audio files, picture files, video capture and scanned writing (Quigley, Rhodes & Nowak, 2003). The electronic portfolios in multiple types of media can be linked to a teacher's Web site that allows other teachers and administrators to view the portfolios via the Internet.

The Organization of A Teacher Portfolio

The portfolio can be organized to include the following distinct sections:

Planning: Planning is the thinking about its content, its purpose, strategies and how they fit characteristics of the learners. It is from the planning process that organization and, eventually evaluation will emerge. Schedules and outlines of learning strategies are inherent out comes of the planning process (e.g., a lesson plan, a unit plan, support plans, weekly lesson plans, etc.)

Organization of instruction: Organization determines when and how the teacher will support learning. It is an expression of the teacher's understanding of the relationship between content, materials, physical settings and the students' learning characteristics. Such strategies as task analysis may be employed to help determine the elements (including prerequisites) and sequence of the instruction that will best enable the learner to be successful.

Presentation of Knowledge: Those strategies that are most appropriate for the range of individual needs of each learner are described. Included are centers, individual direct instruction, peer models and tutors, the use of adaptive and assistive equipment.

Teacher-student Interaction: The methods that are used for communicating with students are discussed in some detail. For example, the teacher may provide records of initiated questions about a lesson, elicited performances, discuss immediate feedback, or an analysis of the child's progress over time.

Teacher-parent Interaction: The methods that teachers and parents communicate with each other relative to student progress, program characteristics and other matters are described. Included may be examples ranging from newsletters, student notebooks, teacher parent notes of meeting and phone contacts and home visits.

Assessment and Evaluation: The variety of assessment procedures that are used to document student progress and suggest revisions in approach are addressed. Descriptions of the traditional techniques (e.g., standardized tests, teacher-made tests, criterion referenced tests) and less traditional but, perhaps, more functional tests (e.g., environmental inventories, discrepancy analyses, interest inventories and self critique) may be included.

Classroom Management: The approach that the teacher uses to establish discipline deal effectively with the challenging behaviors of individual students, and provide for opportunities to practice choice making and the attendant experience of consequences for choices is described. A list of class conduct rules, behavior support plans, strategies for rewarding outstanding behavior and description of methods the teacher uses

to foster a sense of individual as well as group responsibilities for behavior may be included.

Curriculum Development: Included in this section are any supplements or modifications that have been made to individualize the curriculum provided by the district or program. Examples of modified curriculum with an accompanying rationale may be appropriate.

Non-instructional Professional Assignments/Responsibilities and Professional Development: Documentation is presented that indicates successful completion of professional workshops, district sponsored seminars, university courses and other professional development activities.

Teacher portfolios exemplify the teacher's management, creativity, organization and effectiveness. Each teacher should select samples of daily work experiences to put into the portfolio. The contents may include observation made by the principal and other faculty, written lesson plans, progress reports, pictures of bulletin boards and innovative projects. There might be samples of written communications, graphs of individual student progress, generic notes from representative parent conferences and notes of appreciation from parents.

Conclusion

A portfolio can serve as a potentially effective method to encourage teachers to evaluate their own abilities and enhance their skills. Portfolios are used as a means to stimulate self-study and as the basis of communication between teachers and principals and supervisors. A significant advantage to teachers is the opportunity to describe the teaching process from their own perspective. Also, in the process of building the portfolio teachers gain insight into their own strengths and identify areas that need improvement.

Using portfolios to help ascertain teacher growth, development and performance can build confidence, commitment, and enthusiasm among faculty. Portfolios provide a lucid picture of how professional staff is developing and improving. They are a means to augment positive work attitudes and ameliorate the quality of the program.

References

- Campbell, D. M., Cignetti, P.B., Melenzyer, B. J., Nettles, D. H., & Wyman, R. M.(2013). How to develop a professional portfolio: A manual for teachers (6th ed.) Needham Heights, MA: Allyn and Bacon
- Decker, C. A. and Decker, J. R. (20112). *Planning and administering early childhood programs*.(10th ed.). Upper Saddle River, NJ: Prentice Hall

- Gronlund, N.E., Linn, R. L., & Miller, D. M. (2008). *Measurement and assessment in teaching*. Upper Saddle River, NJ: Prentice Hall
- Klecker , B. M. (2007). Comparing the impact of online assessment alternatives on student learning. *Journal of Instructional Psychology*, 34(3), 161-165.
- Quigley, M., Rhodes, C., & Nowak, J. (2003). Literacy portfolios in the electronic age. In J. H. Cohen & R. B. Wiener (Eds.) *Literacy Portfolios* (pp. 86-88). Upper Saddle River, NJ: Prentice Hall
- Scriven, M. (1996). Types of evaluator and types of evaluation. *Evaluation Practice*, 17, 367-382l
- Seldin, P., Miller, J. E., & Seldin, C. A. (2010). *The teaching portfolio: A practical guide to improved performance and promotion/tenure decisions*. San Francisco, CA: Josey-Bass
- Stiggins, R. (2005). From formative assessment to assessment for learning: A path to success in standards-based schools, *Phi Delta Kappan*, 87(4), 324-328.
- Yarbrough, D. B. Shulha, L. M. Hopson, R. K. & Caruthers, F. A. (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd ed.). Thousand Oaks, CA: Sage

Mailing address: Jeff Gelfer, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: gelfer@unlv.nevada.edu

Preparing Teachers to Unwrap Content Standards to Differentiate Instruction for All Learners

Joseph J. Morgan, PhD
Nancy Beyers Brown, MEd

University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Students with disabilities are increasingly being included in the general education environment, particularly in secondary content classrooms. Simultaneously, educational reform initiatives in the United States are calling for increased rigor in relation to college- and career-readiness. However, students with disabilities are not showing increased academic achievement. Research indicates this could be due to two main reasons: (a) students with disabilities lack the foundational skills needed for academic content mastery and (b) teachers in content area classrooms are not prepared to meet the needs of students with disabilities. This paper reviews a process developed to train teachers to unwrap standards using a lattice task analysis to provide access to the curricula, as well as create standards-based assessments to track progress. The implementation of the professional development will be discussed, as well as analysis metrics to determine effectiveness. Implications for the achievement of students with disabilities will be discussed.

In the United States, the inclusion of students with disabilities in the general education classroom is occurring at the highest rates since the inception of special education (Mastrioperi, Scruggs, & Graetz, 2003; McLeskey, Landers, Williamson, & Hoppey, 2010; Scruggs, Mastropieri, & Okolo, 2008; Vannest et al., 2008). This increase is of particular note in secondary content classrooms, where the placement in general education has increased by more than 191% in the past 15 years (McLeskey et al., 2010). Simultaneously, there has been a movement in educational reform to increase the rigor and expectation of student learning within general education content areas. This has led to the adoption of the Common Core State Standards (CCSS), a set of college- and career-ready academic content standards that have been adopted by 45 states across the United States and the District of Columbia (Common Core State Standards Initiative [CCSI], 2012).

Amidst these reforms and initiatives calling for increased expectations and quality, the academic achievement of students with disabilities has not increased dramatically (Hamilton et al., 2009; Schroeder, Scott, Tolson, Huang, & Lee, 2007; Vannest et al., 2009). This could be due to a variety of variables. For one, the CCSS are vertically aligned standards that focus on mastery of content at high levels of cognitive complexity and students with disabilities may struggle with this due to a lack of foundational skills related to the academic content (Graham & Harris, 2013; Haager & Vaughn, 2013; Morgan et al., 2014; Powell, Fuchs, & Fuchs, 2013). Another reason could be that teachers (both special

and general education) lack the training needed to analyze academic content standards and determine differentiated instructional plans to support students in the general education classroom environment (Haager & Vaughn, 2013).

Therefore, it is important for educators to have appropriate training relevant to analyzing academic content standards to determine the foundational skills necessary for mastery and be able to plan appropriate adaptations to instruction to support student mastery (Haager & Vaughn, 2013). To address these issues, an interdisciplinary team comprised of faculty members from special education and life sciences at an urban research university, school district teachers and professional developers from a large urban school district, and doctoral students in special education developed a professional development series and curricular planning tools to help special and general education teachers engage in a process of unwrapping academic content standards. The focus of this training was to train educators working with students in general education settings to (a) teach students at their current level, anchored in grade level instruction, (b) track progress towards mastery of the standards, and (c) make high quality instructional decisions based on the analysis of student achievement data (Morgan et al., 2014). Three professional development seminars for special and general education teachers were held over a one-year period to train teachers in these skills. Pre- and posttest data were collected on teachers' ability to analyze an academic content standard, as well as their perceptions of the skills learned within the professional development seminar.

Structure and Content of the Professional Development Series

The professional development series that was developed to provide educators' with skills related to unwrapping standards, assessing academic content mastery, and planning instruction based on student achievement data spanned across two days and lasted for a total of 16 hours. Participants spent seven hours working with the unwrapping standards process, seven hours working with standards-based assessments, and two hours discussing adaptation strategies that can be made to instruction based on analysis of assessment data. The professional development series was designed to allow participants multiple opportunities to practice the skills being taught and receive structured support and feedback from the professional development team. The content area experts (e.g., faculty members from life sciences) and representatives from the school district formatively evaluated each component of the professional development series and provided feedback prior to implementation. Additionally, the special education faculty and doctoral students validated the tools by completing the unwrapping standards process prior to implementing the professional development and revising the tools to meet the identified objectives of the series: (a) unwrapping the standard at grade level, (b) creating a lattice task analysis of the unwrapped standard, and (c) developing assessment techniques for tracking student mastery (Morgan et al., 2014).

Unwrapping the Standard at Grade Level

The first component of the professional development series was to train teachers to unwrap the standards at grade level. One major issue with standards, specifically as they relate to students with disabilities, is that they are general statements of learning

outcomes. These statements lack specificity and a discussion of prerequisite knowledge needed to access content (Morgan et al., 2014). The process of unwrapping a standard allows teachers to analyze and classify the skills expected of students within the standard and to identify the prerequisite skills that may be needed in order for students to master these targeted objectives. This allows teachers to see what needs to be taught to students in order to support their mastery.

Within the professional development, teachers were taught to unwrap the academic content standard at grade level. This involved coding the standard (Ainsworth, 2003), where teachers analyzed the wording of the standard and identified the verbs and the nouns found within the standard. Teachers were taught that the nouns within a standard were the concepts that needed to be taught to students; the verbs were the skills that students needed to display in order to have mastery of the academic content (Ainsworth, 2003; Morgan et al., 2014). Teachers were then taught to classify these skills in tabular format so the content of the standard was obvious.

Creating a Lattice Task Analysis of the Unwrapped Standard

The grade level unwrapping process allows educators to figure out the expectation for grade level mastery; however, it does not provide information that would allow for systematic and explicit instruction of foundational skills to support struggling students, or methods for enhancing instruction to support high-achieving students (Lovitt, 2011; Morgan et al., 2014). Therefore, the second component of the professional development series focused on creating a lattice task analysis (Smith, Smith, & Haring, 1977). Smith et al. (1977) suggested that students with disabilities often struggled to master specific behaviors and skills because they had deficits in the foundational skills required for the behavior that may not be readily apparent in the teaching process. They developed the lattice task analysis as a process for task analyzing (or unwrapping) the behavior and skills, and then conducting a task analysis of each step to identify the foundational skills (Smith et al., 1977). This process then allowed educators to identify small components of a behavior or skill that need to be mastered in a stepwise fashion to gain overall mastery of a specific behavior (Smith et al., 1977).

This professional development series adapted the methods of creating lattice task analyses to make them applicable to academic content standards (Morgan et al., 2014). The interdisciplinary team created a revised version of Smith et al.'s (1977) lattice task analysis to account for foundational skills needed at lower levels of cognitive complexity relative to the standard, as well as for enhanced skills needed to extend learning beyond grade level (Morgan, Higgins, Brown, & Norton, 2012; Morgan et al., 2014). See Figure 1 for a blank version of the lattice task analysis.

In order to develop the lattice task analysis, teachers were instructed to develop both concept maps and an educational framework of cognitive complexity anchored in the Depths of Knowledge (DOK) framework (Webb, 2007; Wyse & Viger, 2011). Teachers took individual concepts found within the standard and created graphic organizers that broke the concepts down into the individual parts that needed to be mastered in order to gain conceptual mastery. Typically, the break down of a concept map included determining (a) what the concept is, (b) what the concept looks like, and (c) how to identify the concept through practical experience (Morgan et al., 2014). Teachers were then taught that they could use these concept maps to connect targeted concepts to students' previous experiences.

The DOK framework is designed to measure the amount of cognitive processing needed for students to complete an educational task (Webb, 2007; Wyse & Viger, 2011). Teachers were then taught to identify the targeted cognitive complexity (via DOK) of the identified standard. Once the expectation was identified, teachers were provided with a framework of DOK verbs to determine how to break cognitive complexity down to its lowest level and build a framework of moving students to a higher level of thinking about the concepts and ideas being presented in the standard. This framework provided a guide for creating differentiated instructional objectives to increase students' level of complex thinking related to the targeted skill or idea.

Teachers then worked to pair the piecemeal concepts and the framework of cognitive complexity together within the lattice task analysis to write a series of differentiated instructional objectives that could be taught to students within the general education environment. These objectives became the basis for standards-based mastery assessment to determine a student's level of understanding of content material, as well as the basis for differentiated lesson planning to target the needs of students in the classroom (Morgan et al., 2014). Through teaching these objectives in a systematic and explicit way, teachers were taught they could show growth in relation to the academic content standards.

Developing Assessment Techniques for Tracking Student Mastery

The final major component of the professional development series was training teachers to develop assessment techniques to (a) identify baseline knowledge related to the academic content standard and (b) track student growth related to academic content learning (Morgan et al., 2014). According to Webb (2007), standards-based assessment should measure at least 50% of the objectives that are taught within the classroom environment in order to provide a complete understanding of student learning. Teachers within the professional development series were trained to write, or identify from previously created assessments, 2-3 questions per DOK level within the lattice task analysis (8 to 20 questions total) to use for tracking of student mastery of academic content within the general education environment.

The lattice task analysis was the guide used to develop these mastery assessments, as objectives written at each DOK level identified the skills needed to understand the content at a variety of cognitively complex levels (Morgan et al., 2014). Teachers were

encouraged to use their resources, as there are several standards-based assessment programs being used within the school district that may provide a foundation for the development of these assessments. However, teachers were encouraged to revise questions to fit within the framework developed in the lattice task analysis. Once these assessments were developed, educators were taught to develop a timeline for assessments so that they could regularly monitor student progress (Morgan et al., 2014). The professional development also covered skills related to tracking and analyzing the data from these standards in order to make targeted instructional decisions to support student learning within the general education environment.

Data Analysis Procedures

At each professional development series, participants completed a pre- and posttest related to the knowledge taught during the professional development. These assessment asked participants to unwrap an academic content standard, develop standards-based assessment frameworks to track progress towards mastery, and suggest differentiation techniques to support students based on assessment data. Additionally, teachers completed a survey related to their thoughts about the professional development and ways they could implement the skills within the classroom environment. Currently, these assessments are being scored and data is being organized in order to run analysis to determine the effectiveness of the professional development. For the pre- and posttests, a 2 x 2 ANOVA will be completed to determine if there are any differences in teacher knowledge across time or between groups (i.e., general education or special education teachers). When data analysis is completed, implications for teacher practice and preparation will be discussed.

References

- Ainsworth, L. (2003). *"Unwrapping" the standards: A simple process to make standards manageable*. Englewood, CO: Lead + Learn Press.
- Common Core State Standards Initiative (CCSI; 2012). In the states. Retrieved from <http://www.corestandards.org/in-the-states>.
- Graham, S., & Harris, K. R. (2013). Common Core State Standards, writing, and students with LD: Recommendations. *Learning Disabilities Research & Practice, 28*, 28-37.
- Haager, D., & Vaughn, S. (2013). The Common Core State Standards and reading: Interpretations and implications for elementary students with learning disabilities. *Learning Disabilities Research & Practice, 28*, 5-16.
- Hamilton, L., Halverson, R., Jackson, S. S., Mandinach, E., Supovitz, J. A., & Wayman, J. C. (2009). *Using student achievement data to support instructional decision making* (NCEE 2009-4067). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from <http://ies.gov/ncee/wwc/publications/practiceguides/>

- Lovitt, T. C. (2011). Applied behavior analysis: A method that languished but should be restored. *Intervention in School and Clinic, 47*, 252-256.
- Mastropieri, M. A., Scruggs, T. E., & Graetz, J. E. (2003). Reading comprehension instruction for secondary students: Challenges for struggling students and teachers. *Learning Disability Quarterly, 26*, 103-116.
- McLeskey, J., Landers, E., Williamson, P., & Hoppey, D. (2010). Are we moving toward education students with disabilities in less restrictive settings? *Journal of Special Education, 36*, 131-140.
- Morgan, J. J., Brown, N. B., Hsiao, Y. J., Howerter, C., Juniel, P., Sedano, L., & Castillo, W. L. (2014). Unwrapping academic standards to increase the achievement of students with disabilities. *Intervention in School and Clinic, 49*, 131-141.
- Morgan, J. J., Higgins, K., Brown, N. B., & Norton, R. (2012). Lattice task analysis. Unpublished.
- Powell, S. R., Fuchs, L. S., & Fuchs, D. (2013). Reaching the mountaintop: Addressing the Common Core State Standards in mathematics for students with mathematics difficulties. *Learning Disabilities Research & Practice, 28*, 38-48.
- Schroeder, C. M., Scott, T. P., Tolson, H., Huang, T. Y., & Lee, Y. H. (2007). A meta-analysis of national research: Effects of teaching strategies on student achievement in science in the United States. *Journal of Research in Science Teaching, 44*, 1436-1460.
- Scruggs, T. E., Mastropieri, M. A., & Okolo, C. M. (2008). Science and social studies for students with disabilities. *Focus on Exceptional Children, 41*(2), 1-24.
- Smith, J. O., Smith, D. D., & Haring, N. G. (1977). A model for the development of instructional materials for the handicapped. *Peabody Journal of Education, 54*, 174-180.
- Vannest, K. J., Mason, B. A., Brown, L., Dyer, N., Maney, S., & Adiguzel, T. (2009). Instructional settings in science for students with disabilities: Implications for teacher education. *Journal of Science Teacher Education, 20*, 353-363.
- Webb, N. L. (2007). Issues related to judging the alignment of curriculum standards and assessments. *Applied Measurement in Education, 20*, 7-25.
- Wyse, A. E., & Viger, S. G. (2011). How item writers understand depth of knowledge. *Educational Assessment, 16*, 185-206.

Mailing address: Joe Morgan, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: morgan57@unlv.nevada.edu

Strategies for Increasing the Effectiveness of Co-Teaching Partnerships

Nancy Beyers Brown, MEd & Joseph J. Morgan, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: A large percentage of students with disabilities are being educated in the general education environment for a majority of the academic day. Many educators have chosen co-teaching as the most appropriate method of educational service delivery to meet the needs of this population of students. To ensure the success of this delivery method, co-teaching teams should engage in active communication, co-planning and preparation, shared instructional delivery and assessment, and conflict resolution. This presentation discusses a variety of tools and resources that co-teaching teams can use to establish a successful classroom environment for all students.

The placement of students with disabilities in the general education environment has been greatly increasing in the United States over the past 15 years (McLeskey, Landers, Williamson, & Hoppey, 2010). In fact, data indicate that more than half of all students with disabilities in public schools throughout the country spend at least 80% of their school day in the general education environment (Brown, Morgan, & Howerter, 2013; U.S. Department of Education, 2011). To address the needs of students with disabilities in the general education environment, a variety of instructional delivery models have been attempted to increase the academic achievement of this population. One increasingly popular model is *co-teaching*. Co-teaching, or collaborative teaching, is a service delivery model where two educators (typically one general education and one special education) plan, deliver, and assess instruction to a diverse group of students in a single classroom. Teachers strive to develop a classroom community in which all students are valued and included (Friend & Bursuck, 2012; Friend & Reising, 1993; Salend, 2011, Murawski, 2009).

In order to make co-teaching work effectively, it is important that both educators involved in the delivery of services coordinate their methodological and pedagogical practices to best meet the needs of all students in the classroom environment. This often requires extensive collaboration and communication between the two professionals (Brown et al., 2013). Ploessl, Rock, Schoenfeld, & Blanks (2012) identified four main research-based activities that can be implemented by collaborative teams to ensure that co-teaching is effective. These activities are (a) communication, (b) co-planning, (c) shared delivery of instruction and assessment, and (d) conflict resolution (Ploessl et al., 2012). Brown et al. (2013) developed specific tools and techniques that educators could implement in the classroom environment to ensure that co-teaching teams are adequately addressing each area. A discussion of these techniques follows.

Communication

Communication is essential to the success of any collaborative partnership, as it ensures that co-teaching teams are on the same page and that their philosophies of education are clearly understood. As with any partnerships, time should be scheduled specifically for co-teaching teams to communicate. These scheduled times should have a clear objective and purpose, and co-teaching teams should work to hold each other accountable to communicate about things that are directly related to their shared classroom environment. This structured time allows teachers to focus on what is happening in the classroom, and ensures productivity during the collaboration.

One strategy found to be effective is having co-teaching partners complete and analyze a belief survey and a responsibilities checklist (Brown et al., 2013). This way, co-teaching partners will better understand each other's perspective and teaching style. By completing these forms, communication can begin on expectations and responsibilities for each educator's role in the classroom. Additionally, any discrepancies or disconnects can be identified and teachers can problem-solve ways to incorporate differences in pedagogies into the classroom instructional experience. Teacher talk is important to the success of co-teaching teams, such as saying "our" students and "our classroom". Both teachers should take responsibility for the co-teaching environment and the students in the classroom. In an effective co-taught classroom, one might not be able to know which teacher is the general education teacher or special education teacher. This is only possible if co-teaching teams have communicated prior to beginning their partnership.

Co-planning and Preparation

Lesson planning is essential for the success of any lesson, and is extremely important for the success of co-taught classrooms. Different co-teaching lesson plan formats are available for use (see Figure 1 for one example; Brown, et al., 2013). High quality lesson plan formats should allow for co-teachers to indicate the type of co-teaching model being used and to delineate the responsibilities of specific partners during the co-taught lesson. Co-teachers should commit to a schedule of collaborative planning to ensure the effectiveness of instruction. However, finding adequate time to plan and develop lessons together may be difficult within the constraints of the school day. With increasing incorporation of technology into classroom environments, co-teachers can find asynchronous ways to collaborate as it relates to lesson planning (e.g., e-mail, Dropbox). The administrative support of co-teaching is crucial in making sure co-teachers have adequate time to meet and prepare lessons in advance and allowing time to discuss concerns or responsibilities.

When considering which co-teaching model to utilize, both teachers should consider first the lesson objective that will be taught. Different models will better lend themselves to mastering specific objectives (e.g., differentiated objectives might be best met using station teaching, varied assessment outcomes might lend itself to alternative teaching or parallel teaching; Brown et al., 2013). The lesson activity and its implementation should also be taken into consideration when determining the best co-teaching model to use. Co-teachers should consider the different activities that will take place and determine what types of grouping or environmental changes might need to occur

(e.g., group work, rearranging classroom furniture). These are all factors that will determine which co-teaching model to use. Another variable to consider when selecting a co-teaching model is assessment. Co-teaching teams should consider the types of assessments that will be used and which model of co-teaching might lend itself to that assessment most effectively.

The physical environment may also inform the type of co-teaching model selected. If classrooms are overcrowded or have large amounts of furniture, it might not be conducive to use some of the co-teaching models such as parallel teaching. Some classrooms such as science classrooms have lab tables or permanent seating that can affect the co-teaching model chosen. Student needs also need to be addressed in when choosing the model, and co-teachers should carefully consider the assessment data of individual students. The model chosen should address the diverse learning needs of all students in the classroom; some students will require more support and other students will need more enrichment. Understanding the diverse needs of students allows co-teachers to determine the model that will best meet the needs of this group.

The content knowledge of co-teaching teams is another variable to consider, as familiarity and comfort with content is essential to clear and explicit teaching. Current practice suggests that it helps to assign special educators one content area in which to become proficient at co-teaching versus a variety of different content areas in different co-taught classrooms. Finally, it is important to realize that in any given lesson, there may be more than one co-teaching model used. Group instruction may use one model and then guided practice or independent practice may require other models. The ability to be flexible and respond to the needs of the student and the lesson is a skill that is acquired through practice and is essential to the impact of this delivery model.

Shared Instructional Delivery and Assessment

When delivering instruction, it is important that both educators share the educational environment by jointly teaching and engaging in activities that are integral to the success of the classroom environment (Brown et al., 2013). This shared ownership goes beyond teaching, however. Both teachers should maintain responsibility of classroom structures and procedures, including grading, contacting parents, etc. One of the most critical roles both teachers should share is in analyzing student data to guide further lesson development and decision-making. Both educators should monitor student progress to help students to make academic growth. At the end of the lesson, teachers should reflect on how well students achieved and how well the lesson was delivered, and then make changes to their instructional techniques to ensure student growth.

Conflict Resolution

Before a conflict arises, both teachers should create a conflict resolution and put into writing what will occur during the process (Brown et al., 2013). According to Sinclair (1998), conflict resolution begins by both teachers identifying the issue and then developing alternative courses of action. As a team, both teachers should analyze the consequences of any choice of action, and then mutually determine the best option for moving forward to ensure that their partnership remains strong (Brown et al., 2013). After

the course of action has been tried, evaluate as a team the effectiveness. It is important to assume responsibility for consequences, correct potentially negative consequences, or re-engage in the decision-making process.

As co-teachers, it is important to discuss instructional-related issues before you begin to teach. Make sure to have a plan in place on how to address conflict if it should arise. It is best practice to put this plan in writing at the beginning of the year and make sure to address any issues early instead of harboring issues that need to be addressed. Use effective communication skills when discussing conflict (Conderman, 2010). Remember that both educators share the common goal of student success. By being proactive and building a solid plan for the delivery of content, teachers can work to ensure high-quality academic success for all students in a co-teaching classroom.

Lesson Component	Teacher Notes	
Date of Lesson		
Co-Teachers		
Lesson Subject		
Content Standards Addressed		
IEP Goals Addressed		
Lesson Plan Objective		
Instructional Sequence		
Assessment of Student Learning		
Adaptations for Diverse Learners		
Co-teaching Model	One Teach-One Observe Station Teaching Alternative Teaching	One Teach-Assist Parallel Teaching Team Teaching
Classroom Set-Up		
Materials Needed		
Assigned Responsibilities		
Reflection		

Figure 1: Co-Teaching Lesson Plan Format

References

- Brown, N. B., Howerter, C. S., & Morgan, J. J. (2013). Tools and strategies for making co-teaching work. *Intervention in School and Clinic, 49*, 84-91.
- Conderman, G. (2011). Methods for addressing conflict in cotaught classrooms. *Intervention in School and Clinic, 46*, 221-229.
- Friend, M., & Bursuck, W.D. (2012). *Including students with special needs: A practical guide for classroom teachers* (6th ed.). Upper Saddle River, NJ: Pearson Education Inc.
- Friend, M. & Reising, M. (1993). Co-teaching: An overview of the past, a glimpse at the present, and considerations for the future. *Preventing School Failure, 37*(4).
- McLeskey, J., Landers, E., Williamson, P., & Hoppey, D. (2010). Are we moving toward education students with disabilities in less restrictive settings? *Journal of Special Education, 36*, 131-140.
- Murawski, W.W. (2009). *Collaborative teaching in secondary schools: Making the co-teaching marriage work*. Thousand Oaks, CA: SAGE Company.
- Ploessl, D. M., Rock, M. L., Schoenfeld, N., & Blanks, B. (2010). On the same page: Practical techniques to enhance co-teaching interactions. *Intervention in School and Clinic, 45*, 158-168.
- Salend, S.J. (2011). *Creating inclusive classrooms: Effective and reflective practices* (7th ed.). Upper Saddle River, NJ: Pearson Education Inc.
- Sinclair, C.(1998). Nine unique features of the Canadian code of ethics for psychologists. *Canadian Psychology/Psychologie Canadienne, 39*(3), 167-176.
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs (2011). *30th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2008*. Washington, DC.

Mailing address: Nancy Brown, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: Nancy.brown@unlv.edu

Conceptual Acquisition of Problem-Solving Skills Among Young Children with Disabilities

Lindsay Lile Diamond, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: The purpose of this study was to identify a method to teach young children with developmental disabilities to recognize the steps needed to solve a problem. A total of 57 children across two groups participated in the study. Two interventions were compared across two groups of children. Group 1 implemented Literacy-Based Structured Problem-Solving instruction and Group 2 implemented Literacy-Based Structured Problem-Solving followed by Center-Based Direct Instruction. Results of this analysis indicate a significant difference between both groups from pretest to posttest. Although significant, very few students were able accurately recall the steps. However, further analysis of student responses indicated an understanding of the concept of problem solving.

Problem solving is a cognitive and behavioral skill that begins to develop in the early years of life and continues throughout adolescence and into adulthood (Keen, 2011; Smith, 2003). The ability to successfully recognize and solve problems is a skill impacted by cognitive, intellectual, and verbal ability (Gagné, 1980). As children learn and grow, problem-solving skills evolve through natural interactions within the environment (Britz, 1993; Smith, 2003). Throughout the day, young children encounter situations in which they must solve a variety of problems to learn, play, and interact with their peers.

Problem solving is defined as a process that occurs when an unfamiliar situation is present and in which an individual does not have an immediate response (D’Zurilla & Goldfried, 1971; Gagné, 1959). This process incorporates the application of a set of skills to resolve the situation encountered. Throughout the problem-solving process, a sequential set of rules is followed to solve the problem. This includes the ability to: (a) recognize the problem, (b) generate possible solutions to the problem, (c) apply the best solution, and (d) evaluate the effectiveness of the solution (D’Zurilla & Goldfried, 1971).

Although research has been conducted to demonstrate the learning of problem-solving skills in elementary and secondary settings, there is limited research with young children with developmental disabilities (Joseph & Strain, 2010). However, because problem solving is a skill that impacts reading, writing, and math, as well as social behaviors, it should be a critical instructional component in the early childhood environment (Keen, 2011).

Purpose of the Study

This study investigated problem-solving instruction, specifically with young children with developmental disabilities. The goal was to determine the impact of structured problem-solving instruction on this population of students and their ability to recall the three steps in the problem-solving process. Through a comparison of two types of problem-solving instruction (i.e., whole group, Literacy-Based Structured Problem-Solving instruction and small group Center-Based Direct Instruction using problem-solving picture cards) a specific question regarding problem-solving instruction was addressed. Does the ability of pre-school aged children with developmental disabilities to name the three steps needed to problem solve (e.g., what is the problem, what is the solution, and evaluate the solution) differ with the use of Literacy-Based Structured Problem Solving combined with Center-Based Direct Instruction when compared to Literacy-Based Structured Problem Solving alone?

Problem-Solving Step Measure

The research question in this study was addressed using one data collection measure. The assessment selected for this study was designed and validated by Glago (2005) and Cote (2009) to measure the knowledge of problem solving vocabulary among young children with developmental disabilities. The assessment was adapted for use with young children with developmental delays with permission from the authors. The problem-solving assessment was designed to measure the three steps of the problem solving process: (a) identify the problem, (b) generate a solution, and (c) evaluate the solution (Cote, 2009; Glago, 2005). During the pretest, posttest and maintenance assessments the child was asked to name the three steps needed to solve a problem. The child was given a 10-second-response time and all answers were recorded using the problem-solving step measure form.

Findings

The participants in both groups were assessed a total of three times (a) at pretest, prior to intervention, (b) at posttest, following instruction, and (c) following a 2 week maintenance period. All responses were recorded verbatim.

The problem-solving assessment was designed to measure the three steps of the problem solving process: (a) identify the problem, (b) generate a solution, and (c) evaluate the solution (Cote, 2009; Glago, 2005). Each child was given the assessment during a one-on-one session. The child was given a response time of ten-seconds and all answers were recorded on the assessment form. The scores obtained from the pretest and posttest assessments were analyzed to determine the effectiveness of the Literacy-Based Problem-Solving lessons and the Center-Based Direct Instruction lessons on the acquisition of problem-solving skills among young children with developmental disabilities. Descriptive and inferential statistics were used to compare the scores on the problem-solving step measure. At pretest none of the children were able to name any steps to problem-solving. Group 1 did not have any children who were able to name the three steps to problem-solving resulting in both groups scoring zero. However, the participants in Group 2 did demonstrate some ability, however minimal, to name the steps in the on the problem-solving step measure, indicating some growth over time.

The data collected using the problem-solving step measures were analyzed using a 2 x 2 (group x time) ANOVA with repeated measures on “time.” An alpha of .05 was set for this analysis. The test for interaction was significant [$F(2,110) = 7.312, p=.001$]. The interaction was significant due to identical means across all three measurement times for Group 1 (Literacy-Based Structured Problem-Solving) and significantly different means across measurement times for Group 2 (Literacy-Based Structured Problem-Solving followed by Center-Based Direct Instruction). Simple main effects analysis revealed a significant “time” effect for group 2 [$F(1,55) = 8.954, p = .004$] (see Table 26). Pairwise comparisons for Group 2 revealed that the children’s ability to generate the steps needed to problem solve significantly increased from pretest to posttest ($p = .007$), and from posttest to maintenance ($p=.05$).

Further analysis using Independent *t*-tests was used to test for group differences at posttest and maintenance. Group 2 scored significantly higher at posttest [$t(55) = -3.165, p = .003$] but not at maintenance [$t(55) = -1.784, p = .080$]. This suggests that the children in Group 2 (Literacy-Based Structured Problem-Solving followed by Center-Based Direct Instruction) demonstrated an increased ability to name the three steps needed to problem solve, significantly greater than did the children in Group 1 (Literacy-Based Structured Problem-Solving).

Summary

Even though research in the area of problem solving among young children with developmental disabilities is limited, research supports the use of literacy-based instruction as a critical tool for instruction when working with young children with developmental disabilities (Konrad, Helf, & Itoi, 2007). Through the use of literature, children can be taught a step-by-step approach to deficit skills (Sridhar & Vaughn, 2000). Using explicitly designed direct-instruction methods, researchers have noted the ability to teach young children to problem solve (Cote, 2009; Glago, 2005; Agran, Blanchard, Wehymeyer, & Hughes, 2002; Palmer, 2010). This study incorporated the use of literacy-based instruction and direct teaching methods to determine effective methods for teaching young children with developmental disabilities to identify key vocabulary concepts needed to problem solve. Prior to this study, research has not been conducted using problem situation cards.

Results from this study indicated that preschool-age children with developmental disabilities who received the Literacy-Based Structured Problem-Solving paired with Center-Based Direct Instruction were able to learn the three steps of the problem solving process (problem, solution, and evaluation). Although the children did not identify the three steps word for word, children demonstrated a conceptual understanding of the problem-solving process. While limited research has been conducted on the acquisition of problem-solving skills of young children with developmental disabilities, the interventions included in this study were effective tools for problem-solving instruction.

References

- Agran, M., Blanchard, C., Wehmeyer, M., & Hughes, C. (2002). Increasing the problem-solving skills of students with developmental disabilities participating in general education. *Remedial and Special Education, 23*, 279-288.
- Britz, J. (1993). Problem solving in early childhood classrooms. *Eric Digest*.
- Cote, D. L. (2009). Increasing skill performances of problem-solving in students with intellectual disabilities (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Database. (AAT 3383975).
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78*, 107-126.
- Gagne', R. M. (1980). Learnable aspects of problem solving. *Educational Psychologist, 15*, 84-92.
- Gagne', R. M. (1959). Problem solving and thinking. *Annual Review of Psychology, 10*, 147-172.
- Glago, K. D. (2005). The effect of problem solving self-determination instruction on elementary students with learning disabilities and emotional disabilities (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Database. (AAT 3163727).
- Joseph, G. E., & Strain, P.S. (2010). Teaching young children interpersonal problem-solving skills. *Young Exceptional Children, 13*(3), 28-40.
- Keen, R. (2011). The development of problem solving in young children: A critical cognitive skill. *Annual Review of Psychology, 62*, 1-21.
- Konrad, M., Helf, S., & Itoi, M. (2007). More bang for the book: Using children's literature to promote self-determination and literacy skills. *Teaching Exceptional Children, 40*, 64-71.
- Smith, D. C. (2003). Problem solving as an element of developmental well-being. 321-330.
- Sridhar, D. & Vaughn, S. (2000). Bibliotherapy for all enhancing reading comprehension, self-concept, and behavior. *Teaching Exceptional Children, 33*, 74-82.

Palmer, S. B., (2010). Self-Determination: A life-span perspective. *Focus on Exceptional Children*, 42, 6.

Mailing address: Lindsay Diamond, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: Lindsay.diamond@unlv.edu

Building Partnerships with Families of Children with Autism Spectrum Disorder

Yun-Ju Hsiao, PhD

Washington State University Tri-Cities, Richland, WA, U.S.A.

Abstract: Establishing positive partnerships among families and professionals to optimize the competence of all children with and without disabilities is important in education. These partnerships support the child in achieving equal opportunity, independent living, full participation, and economic self-sufficiency in life, and also benefit the families and professionals indirectly (Turnbull et al., 2011). The demands for educational professionals to provide services to students with Autism spectrum disorder (ASD) rises, as the prevalence of ASD increases (Stoner et al., 2005; Stoner & Angell, 2006). The purpose of this paper is to report the current status of partnerships between parents of children with ASD and teachers who provide services to them, and review previous studies related to this topic, thus, helping teachers to gain understanding of the factors that contribute to positive or negative relationships with families. Implications for practices are discussed.

Establishing positive partnerships among families and professionals is important in education (Blue-Banning, Summers, Frankland, Nelson, & Beegle, 2004; Dunlap & Fox, 2007; Summers et al., 2005). In order to provide effective services for children with disabilities, the collaborative partnering between family and professionals has been recommended for decades (Blue-Banning et al., 2004). In the United States, the provisions of the Individual with Disabilities Education Act (IDEA, 2004) are fundamental regarding the legal rights for parents of children with disabilities to be involved in their child's education (Stoner & Angell, 2006).

Turnbull et al. (2011) maintained that partnerships built among families and professionals benefit children/youth. These partnerships support the child in achieving equal opportunity, independent living, full participation, and economic self-sufficiency in life. The partnerships also indirectly benefit the families and professionals. Summers et al. (2005) defined this partnership as collaboration, service, integration, multidisciplinary, and family/parent involvement. Dunst, Trivette, and Snyder (2000) also defined family-professional partnerships as both parties working together toward a common goal in a relationship based on mutual trust, respect, and shared decision making. These mutually supportive interactions are imperative so that the needs of all participants are met (Blue-Banning et al., 2004; Summers, Hoffman, Marquis, Turnbull, & Poston, 2005; Summers et al., 2005).

Family and Professional Partnerships for Children with Autism Spectrum Disorder

It is important for professionals to build partnerships with families of children with autism spectrum disorder (ASD) (Gray, Msall, & Msall, 2008; Murray, Ackerman-Spain, William, & Ryley, 2011). As the prevalence of ASD increases, the demands for educational professionals to provide services for this group of students rises as well (Stoner et al., 2005; Stoner & Angell, 2006). Through efficient parent-professional partnerships, there is a reduction in parental fears and stresses (Gray et al., 2008). However, parents of children with ASD usually believe that they are viewed as adversarial, demanding, and hostile by the educational system (Stoner & Angell, 2006). Therefore, to understand parental perceptions concerning their experiences and relationships with educational professionals as well as to explore the factors that contribute to positive or negative relationships becomes extremely important.

Parent Perceptions Regarding Their Partnerships with Teachers

To this end, a survey study was recently employed to investigate parents' perceptions of their partnerships with teachers who serve their children with ASD (Hsiao, 2013). The *Beach Center Family-Professional Partnership Scale* (Summers et al., 2005) was used to examine the perceptions of the parents concerning their satisfaction with their relationships with teachers. The scale contains a total of 18 items that measure two domains of relationships (child-focused relationships and family-focused relationships), with nine items in each domain. Each item is rated on a 5-point Likert scale, ranging from 1 (very dissatisfied) to 5 (very satisfied). The questionnaire was implemented on-line. A total of 236 participants were recruited from an autism center at a state university, a state autism organization, a regional autism organization, and a local autism service provider located in a large, southwestern city in the United States.

Hsiao (2013) found that parents were about satisfied with their partnerships with teachers (averaged at 3.66). Parents of children with ASD rated "your child's teacher uses words that you understand" with the highest satisfaction (averaged at 4.12), and rated "your child's teacher helps you gain skills or information to get your child's needs" with the lowest satisfaction (averaged at 3.15). A dependent t-test was used to examine parental satisfactions concerning partnerships with teachers between child-focused relationships (mean = 3.53) and family-focused relationships (mean = 3.82). Results showed that parents were more satisfied with family-focused relationships. Overall, parent responses averaged at 3.15 or higher; however, there is definitely room for improvement, especially for the child-focused relationships.

The study of Hsiao (2013) provided an overview of parental perceptions of their partnerships with teachers who serve their children with ASD. Additionally, several qualitative studies are reviewed below to provide more details in how parents of children with ASD see their roles in their child's education, which could help teachers to gain more in-depth information regarding building partnerships with families of children with ASD.

Fish (2006) conducted a case study with seven families to investigate how parents of students with autism perceived meetings for Individualized Education Program (IEP). The parents believed that their child did not receive quality service and as parents they had negative experiences in the initial IEP meeting. Most parents did not agree with educators

regarding the services to be provided for their children. They also believed that their children would be better served through periodic interaction with their general education peers. The parents did not feel the IEP team members treated them as an equal partner as they felt blamed for their child's behavioral problems and academic deficits. Parents felt educators lacked knowledge and understanding of disabilities.

Stoner et al. (2005) conducted a study with eight parents of four young children with ASD to explore the perceptions concerning their interaction with educational professionals. Results revealed that struggling to obtain a diagnosis of their child, intense self-education, external problem-focused behavior, transitions between interventions, and fighting to obtain services for their child influenced the interaction between parents of children with ASD and educational professionals. This struggle negatively impacted the trust parents felt toward educators. The parents also expressed a need for frequent, open, and honest communication from teachers.

Stoner and Angell (2006) designed a qualitative study with four married couples with children with ASD to explore the roles these parents played in school and their interactions with school professionals. Four categories of parental roles in their child's education were consistently reported by the parents: (a) negotiator; (b) monitor, (c) supporter, and (d) advocate. All parents negotiated at IEP meetings regarding issues of placement, related services, and individual assistance for their child. The parents reported that they supported the school system, just as parents of typically developing children did. The parents tended to trust the educator when they perceived professionals as competent and having best interests of children in mind. Parental trust in educational professionals impacts their engagement in their roles of negotiator, monitor, and supporter.

Spann, Kohler, and Soenksen (2003) conducted a study with 45 parents of children with ASD and related pervasive developmental disorders to examine the involvement of families and their perceptions regarding special education services received by their child. Approximately half of the parents (51%) reported that they communicated with school personnel daily with the communications focused on sharing information, discussing information, or solving conflicts. The parents believed they had a moderate or higher level of knowledge of their child's needs than did their child's teacher. They indicated that they had a moderate or higher level of parental involvement and a moderate or higher level of satisfaction with IEP process. However, many parents also reported that the school did not do enough to address the most pressing needs of their children.

Starr and Foy (2012) designed a study to investigate 144 parents' satisfaction with the education their child with ASD was receiving. It was shown that a total of 15 % of the children with ASD had been suspended from school. All parents believed that this was due to the inability of school personnel to address the child's behavior. Many parents reported they or their child had experienced fear, resentment, or prejudice from school personnel and other professionals. Nearly half of the parents were "somewhat satisfied" or "dissatisfied" with their child's education. The overall themes identified across the questions focused on the ability of school personnel to effectively address behavior, teacher training, and understanding of disability as well as effective communication and collaboration between families and school.

Implications for Building Partnerships with Families of Children with ASD

Resulting from previous studies, families continue to express dissatisfaction with the school services provided to their children and had negative experiences in the IEP meeting (Fish, 2006; Starr & Foy, 2012; Stoner & Angell, 2006). These factors may influence the education of children with ASD and the partnerships among families and education professionals. Therefore, it is important for teachers to address these factors and develop positive partnerships with these families.

Building Partnerships Starting with Frequent Communications

Teachers can start developing partnerships with families of children with ASD by initiating frequent communications. Parents expressed that they would like to have frequent and open communications from teachers (Spann et al., 2003; Stoner et al., 2005; Stoner & Angell, 2006). Teachers should communicate with parents daily concerning their child's progress, performance, and problems. When contacting with parents regarding the child's academic or behavioral problems, teacher should focus on the problem and discuss possible solutions avoiding blaming these problems on the parents. It is better that teachers report the child's performance based on data collected, and thus provide a more objective picture to the parents.

Consulting Parents about Their Child's Needs

Parents believed they had better knowledge of their child's needs than their child's teachers (Spann et al., 2003). However, parents also reported that school did not address their child's needs (Spann et al., 2003). Therefore, teachers who work with these families should always consult parents about their concerns regarding their child's needs and take parents' concerns into serious considerations.

Previewing the IEP Meeting with Parents and Following up After the Meeting

Parents indicated that they did not feel they were treated as an equal partner in the IEP meetings (Fish, 2006; Stoner & Angell, 2006; Starr & Foy, 2012). It is recommended that teacher take some time before the IEP meeting to contact with parents. It is better that teachers can discuss with parents about their thoughts regarding placement, services, and individual assistance for their child before the meeting, especially for the initial IEP meeting. Meeting the whole IEP team could be intimidating for parents attending the initial IEP meeting. Parents might not be able to absorb all information and express their concerns in the meeting. Therefore, a discussion in advance could better prepare the parent(s). Also, teacher can conduct follow-ups with parents. The first follow-up should considering what happened in the meeting. The rest of the follow-ups could be conducted through daily communication and provide information on the implementation of goals or services discussed in the IEP meeting.

Updating Knowledge and Enhance Competent to Implement Evidence-Based Practices

If parents perceived a professional as competent and having best interests of their child in mind, they tended to trust the professional more (Stoner & Angell, 2006). Therefore, teachers should continue learning about evidence-based practices for students

with ASD and implement in their classrooms. Teachers can subscribe practitioner-oriented journals that provide hands-on evidence-based practices (e.g., *Intervention in School and Clinic*, *Beyond Behavior*, *Teaching Exceptional Children*, etc.). Teachers can share this information with parents to help them gain information and skills to address their child's needs at home.

Planning an Autism-Awareness Workshop for Other School Personnel

In addition to special education teachers or team members who work with families and their children with ASD, other school personnel or staff should have an understanding of characteristics of these students. Their understanding of characteristics of disabilities and ability to address behavior effectively are identified by parents as important factors influencing partnerships between families and the school. Many parents reported that they or their child experienced resentment or prejudice from school personnel and/or other professionals (Starr & Foy, 2012). Therefore, to increase autism awareness of the whole school community is important. It is critical that school administrators support this professional development and require attendance of the whole school. Teachers could invite families of children with ASD to share their experiences with school personnel. If possible, this activity could be open to public and invite people in the community to attend.

Conclusion

Establishing positive partnerships among families and professionals is important. However, there is still room for improvement for building the partnerships with families of children with ASD. The practices proposed in this paper can enhance both child-focused relationships and family-focus relationships. They are not an exhaustive list, but great initial strategies for teachers and schools to foster partnerships with families of children with ASD.

References

- Author, A. A. (2013). *Title of dissertation*. Unpublished dissertation.
- Blue-Banning, M., Summers, J. A., Frankland, H. C., Nelson, L.L., & Beegle, G. (2004). Dimensions of family and professional partnerships: Constructive guidelines for collaboration. *Exceptional Children*, 70, 167-184.
- Dunlap, G., & Fox, L. (2007). Parent-professional partnership: A valuable context for addressing challenging behaviours. *International Journal of Disability, Development and Education*, 54, 273-285.
- Dunst, C. J., Trivette, C. M., & Snyder, D. M. (2000). Family-professional partnerships: A behavioral science perspective. In M. J. Fine & R. L. Simpson (Eds.), *Collaboration with parents and families of children and youth with exceptionalities* (2nd ed., pp. 27-48). Austin, TX: PRO-ED.
- Fish, W. W. (2006). Perceptions of parents of students with autism towards the IEP meeting: A case study of one family support group chapter. *Education*, 127, 56-68.

- Giovacco-Johnson, T. (2009). Portraits of partnership: The hopes and dreams project. *Early Childhood Education Journal*, 37, 127-135.
- Gray, L. A., Msall, E. R., & Msall, M. E. (2008). Communicating about autism: Decreasing fears and stresses through parent-professional partnerships. *Infants & Young Children*, 21, 256-271.
- Hsiao, Y.J. (2013). *Parental stress, family-professional partnerships, and family quality of life: Families of children with autism spectrum disorder*. Unpublished dissertation.
- Individuals with Disabilities Education Act Amendments of 2004, P.L. 108-446. (December 3, 2004). 20 U.S.C. §1400
- Murray, M. M., Ackerman-Spain, K., Williams, E. U., & Ryley, A. T. (2011). Knowledge is power: Empowering the autism community through parent-professional training. *School Community Journal*, 21, 19-36.
- Spann, S. J., Kohler, F. W., & Soenksen, D. (2003). Examining parents' involvement in and perceptions of special education services: An interview with families in a parent support group. *Focus on Autism and Other Developmental Disabilities*, 18, 228-237.
- Stoner, J. B., & Angell, M. E. (2006). Parent perspectives on role engagement: An investigation of parents of children with ASD and their self-reported roles with education professionals. *Focus on Autism and Other Developmental Disabilities*, 21, 177-189.
- Stoner, J. B., Bock, S. J., Thompson, J. R., Angell, M. E., Heyl, B. S., & Crowley, E. P. (2005). Welcome to our world: Parent perceptions of interactions between parents of young children with ASD and education professionals. *Focus on Autism and Other Developmental Disabilities*, 20, 39-51.
- Summers, J. A., Hoffman, L., Marquis, J., Turnbull, A., & Poston, D. (2005). Relationship between parent satisfaction regarding partnerships with professionals and age of child. *Topics in Early Childhood Special Education*, 25, 48-58.
- Summers, J. A., Hoffman, L. Marquis, J., Turnbull, A., Poston, D., & Nelson, L. L. (2005). Measuring the quality of family-professional partnerships in special education services. *Exceptional Children*, 72, 65-83.
- Turnbull, A., Turnbull, R., Erwin, E.J., Soodak, L. C., & Shogren, K. A. (2011). *Families, professionals, and exceptionality*. (6th ed.). Boston, MA: Pearson.

Mailing address: Yun-Ju Hsiao, College of Education, Washington State University Tri-Cities,
2710 Crimson Way, Richland, WA 99354, USA

Email: yhsiao@tricity.wsu.edu

Inclusive Early Childhood Environments: Using Instructional and Assistive Technologies to Promote Play and Learning

Catherine D. Lyons, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Internationally young children are growing up in a digital age exposed to technologies in their homes, schools, and community. Technology and interactive media use are increasing in early childhood programs to supplement the curriculum and support young learners. For these interventions to be effective, educators must be informed and intentional in their use of technology and interactive media. Planned and purposeful use of technology can enhance play and learning. If needed, assistive technologies must be available for children with disabilities to access the physical environment and curriculum and to fully participate in play and learning activities with their same age peers. Implications for practice are discussed to use instructional and assistive technologies in inclusive early childhood programs to promote independence, play and learning.

Increased national and international attention on the use of technologies in early childhood programs in the last decade have included research on embedding technology in curriculum planning, technology knowledge and understanding (both instructional (IT) and assistive technology (AT)), and professional development. Young children are growing up in a digital age where they are exposed to technologies in their homes, schools and community. Early childhood programs are now using a variety of technologies to supplement learning of all children and to improve the functional performance of a child with a disability (Edyburn, 2003). Research supports the use of instructional technology to increase social and academic skill development with computer use (McManis & Gunnewid, 2012), abstract reasoning, visual-motor coordination, visual memory, and planning behavior when computer use is facilitated by an adult (Primavera, Wiederlight, & DiGiacomo, 2001, Nir-Gal & Klein, 2004). Additionally, young children with disabilities may benefit from assistive technologies to communicate their wants and needs and to access the environment and/or curriculum.

The National Association for the Education of Young Children (NAEYC) and the Fred Rogers Center (FRC) for Early learning and Children's Media at Saint Vincent College (2012) developed a joint position statement on *Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8* suggesting that technology including assistive technologies and interactive media should be used intentionally to extend play and enhance social and cognitive abilities (NAEYC & FRC, 2012). Technology and interactive media use should be well planned to support and enhance children's activities, materials and interactions in early childhood programs becoming part of the classroom routine (NAEYC & FRC).

Play and Learning in Early Childhood

National Association for the Education of Early Childhood (NAEYC) along with the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) (2003) and the Division for Early Childhood of the Council for Exceptional Children (2007) merged two documents with recommendations for curriculum, assessment and program evaluation. Both documents recommend a curriculum that is educationally and developmentally appropriate, coordinated systems, supports for children as individuals, respect for children's abilities and differences and shared accountability for all children to reach their full learning potential. These recommendations require well planned learning activities using a variety of materials. Designing a developmentally appropriate early childhood environment includes the selection of materials or tools to be used by children in classroom centers (e.g., blocks, writing/journals, dramatic play, math, science, art, snack). Materials selected should be developmentally appropriate and selected to support play and learning. Materials selected for the block center might include wooden blocks; Styrofoam blocks; ramps; vehicles' culturally, linguistically, and ability diverse block people; maps; variety of creative items (recycled materials such as boxes) for building a car wash or other projects. In the writing center you might find a variety of types and sizes of paper, markers, colored pencils, crayons, table easels, tape, and scissors.

Digital equipment or technologies are tools too (Sharapan, 2012). Technology use in early childhood programs should be a planned and intentional or purposeful addition to the early childhood curriculum to support play and learning. In other words, is the selected technology developmentally appropriate (including age and individually appropriate), and does it assist young children master pre-k standards and/or IEP goals.

Instructional Technology to Support Play and Learning in ECE

Instructional technologies can be used to plan and deliver the curriculum to young children (Parette, Blum, & Quesenberry, 2013) and to support and increase instruction (as cited in Newby, Stephich, Lehman, & Russell, 2006; Parette, Blum, & Quesenberry, 2013) and to scaffold play and learning. IT includes computers, iPads, iPods, SMART boards, and digital audio and video recording devices. Software, Microsoft PowerPoint, mobile telephones, text messaging, e-mail, copies, word processing blogs, wikis, and the internet are information and communication technologies (Parette, Blum, Quesenberry (2013). Prior to selecting instructional technologies for use in early childhood classrooms, early childhood professionals should consider how the technologies will benefit the child and the early childhood professional. In other words, will the technology enhance play and learning and improve instruction.

For young children, instructional technologies should: be developmentally appropriate (individually and age appropriate), promote play and learning, be accessible for all children, offer auditory and visual supports and feedback (Travers & More (2013) and be embedded into daily routines and activities. Additionally, early childhood educators should consider how the instructional technology will help them document student's learning, assist them in planning and implementing daily activities, and how they

communicate with families (Travers & More) children, and the IEP planning team. The IT/AT Planning Guide (see Table 1 at the end of this article for ECE instructional considerations) may be useful to teachers as they plan what, how and where they will embed instructional and assistive technologies in the classroom routine, center by center and during outside play. The IT/AT Planning Guide forces teachers to think about whether or not the technologies are enhancing play and learning.

Assistive Technology and Instructional Technology

The Tech Act defines assistive technology as...any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability [P.L. 100-407, 29 U.S.C. 2201, 3(1)]. "...assistive technology is anything that improves the functional performance of an individual with a disability" (Edyburn, 2003, p. 2). Assistive technology devices range from low tech to high tech and mobility devices. Low tech devices are inexpensive and easier to use (e.g., picture schedule) where high tech devices are more expensive and complex, electronic and they typically require training (see Table 2 at the end of this article for a list of assistive technology devices). The Individuals with Disabilities Education Act (IDEA) Amendments of 2004 (P.L. 108-446) requires Individualized Education Plan (IEP) and Individualized Family Service Plan (IFSP) teams to consider the need for an assistive technology device or services for all students with disabilities during the IEP or IFSP process.

The newly updated DEC Recommended Practices (DEC, 2014) environmental section covering the physical, social, and temporal environment recommend that educators, families, and other professionals work together to identify AT needs of young children with disabilities to promote access and participation in learning (E4). Additionally, they recommend that these same professionals work together to acquire or create these assistive technologies (E5).

Assistive Technology to Support Play and Learning in ECE

High quality early childhood programs provide all young children and their families access to a wide range of learning opportunities, including individualized accommodations and assistance if needed, and a system of supports including professional development to be successful (DEC/NAEYC, 2009). "...AT offers the potential for young children to more effectively explore, learn, and play, allowing previously unavailable learning opportunities to emerge ." (Parette et al., 2013, p. 173). A preschool age child who is immobile can explore his classroom or playgroup environment with peers using a walker, a stamp will allow a child with limited fine motor skills to sign-in and out alongside his peers upon arrival and dismissal each day, a slant board will allow a child to manipulate materials during block play and outside sandbox play, an environmental control unit (ECU) will allow a child to operate a blender to create a special snack with his peers, and an augmentative and alternative communication (AAC) device will allow a child who is non-verbal to communicate his wants and needs, and respond to questions of his peers and teachers. Yet, quite often early childhood professionals have had limited exposure or training in using assistive technology devices.

The Assistive Technology Action Cycle (ATAC) (see Figure 1) is an action plan designed to aide educators in the planning and selection process of AT to ensure successful implementation of devices for children in early childhood environments and the home. The intent of the action cycle is for the child's planning team to consider the needs of the child, the family and the professionals working with the child including needed AT in-service training on usage.



Figure 1. Assistive Technology Action Cycle (AT)

Conclusion

Early childhood educators have an opportunity to prepare young children with and without disabilities for K-12 years and the 21st century using instructional and assistive technologies to promote play and learning. Although there is a major focus on technology and interactive media in early childhood programs preschool teachers often have negative feelings about technology use due to a lack of knowledge on the topic (Tokmak, 2013). Both pre- and in-service professional development is needed for these same educators in order

for them to gain the necessary skills and knowledge required to successfully embed technology into the early childhood curriculum to enhance play and learning for all children (e.g., instructional technology) and for children with disabilities to be able to access and manipulate the ECE environment and curriculum (e.g., assistive technology).

References

- Division for Early Childhood. (2014). *DEC recommended practices in early intervention/early childhood special education: The Division for Early Childhood (DEC) of the Council for Exceptional Children*. Los Angeles, CA: DEC
- Division for Early Childhood. (2007). *Promoting positive outcomes for children with disabilities: Recommendations for curriculum, assessment, and program evaluation*. Missoula, MT: Author.
- DEC/NAEYC. (2009). *Early childhood inclusion: A joint position statement of the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC)*. Chapel Hill: The University of North Carolina, FPG Child Development Institute.
- Individuals with Disabilities Education Improvement Act of 2004, 20 U.S. 1401 et seq. (2004).
- McManis, L. D., & Gunnewig, S. B. (2012). Finding the education in education technology with early learners. *Young Children*, 67(3), 14-24.
- NAEYC & Fred Rogers Center for Early Learning and Children's Media. (2012). "Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8." Joint position statement. Washington, DC: NAEYC; Latrobe, PA: Fred Rogers Center at Saint Vincent College. 222.naeyc.org/files/naeyc/file/positions/PS_techology_WEB2.pdf.
- Newby, T. J., Stepich, D. R., Lehman, J. D., & Russell, J. D., (2006). *Instructional technology for teaching and learning: Designing instruction, integrating computers, and using media* (3rd ed.). Upper Saddle River, NJ: Pearson Merrill Prentice Hall.
- Nir-Gal, O., & Klein, P. S. (2004). Computers for cognitive development in early childhood- The teacher's role in the computer learning environment. *Information Technology in Childhood Education Annual, 2004*, 97-119.
- Parette, H. P., Blum, C., & Quesenberry, A. C. (2013). The role of technology for young children in the 21st century. In Parette, H. P., & Blum, C. *Instructional technology in early childhood: Teaching in the digital age* (pp. 1-28). Baltimore, MD: Brooks.

- Parette, H. P., Hourcade, J. J., Blum, C., Watts, E. H., Stoner, J. B., Wojcik, B. W., & Chrismore, S. B. (2013). Technology user groups and early childhood education: A preliminary study. *Early Childhood Education Journal*, 41(3), 171-179.
- Primavera, J., Wiederlight, P. P., & DiGiamcomo, T. M. (2001). Technology access for low-income preschoolers: Bridging the digital divide. Paper presented at the American Psychological Association Annual Meeting, in San Francisco.
www.knowledgeadventure.com/jumpstartworld/does/ChildTechnologyWhitePaper.pdf.
- Sadao, K. C., & Robinson, N. B. (2010). Assistive technology for young children: Creating inclusive learning environments. Baltimore, MD: Brookes.
- Sharapan, H. (2012). From STEM to STEAM: How early childhood educators can apply Fred Rogers' approach. *Young Children*, 67(1), 36-40)
- Tokmak, H. S. (2013). Changing preschool teacher candidates' perception about technology integration in a TPACK-based material design course. *Education as Change*, 17(1), 115-129.
- Travers, J. C., & More, C. M. (2013). TECH IT: Obtaining, evaluating, and using instructional technology innovations in early childhood. In Parette, H. P., & Blum, C. *Instructional technology in early childhood: Teaching in the digital age* (pp. 227-247). Baltimore, MD: Brooks.

Mailing address: Catherine Lyons, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: lyonsc@unlv.nevada.edu

Table 1

IT/AT Planning Guide: Usefulness of Instructional Technology to Promote Play and Learning

Activity/Center	Instructional Technology	DAP	Supplement Curriculum	List Pre-K Standard Addressed	Needed Assistive Technology	IFSP or IEP Goal Addressed
Arrival						
Sign-In	N/A	√	√	write name, exp. w/ writing tools	Name stamp	write and identify own name
Greeting	N/A	√	√	interact w/ peers & adults	Big Mac	Initiate verbal greeting
Circle Time	SMART Board	√	√	identify letters in own name	touch screen	Respond to questions
Snack						
Writing/Journals						
Math/						
Science						
Sensory						
Library						
Dramatic Play						
Blocks						
Outside Play						

Note. Assistive technology recommendations are for a child who is non-verbal and lacks fine motor skills

Table 2
Assistive Technology Devices

Low Tech	High Tech	Mobility or Positioning Equipment
Velcro	Electronic switches	Bean bag
Pencil Grip	Hearing devices	Slant board
Jelly Bean Switch	Electronic AAC	Floor seats
Big Mack	Computers	Mobile Standers
E-Books	Computer software	Cane/Walker
Non-electronic AAC	iPad	Sidelyers & Wedges
Page turners or fluffers	iPad apps	Crawler boards
Electronic toys	Environmental Control Unit (ECU)	bolsters
Labeling in braile	Touchscreen, trackball	Powered mobility equipment

Improving Post-school Outcomes of Diverse Youth Through Community Transition Teams

Ginger E. Blalock, Ph.D., Professor Emeritus
University of New Mexico, Albuquerque, N.M., U.S.A.

Abstract: Students with disabilities from diverse backgrounds and/or rural areas need even more strategic K-12 transition education than their nondisabled peers, in order to be ready for adulthood. This session describes community transition teams as a grounded model by which to improve postschool outcomes in ways that capitalize on community strengths, address local needs, and promote sustainability. Community transition teams are contextualized, inherently diverse, and variably productive. They require both top-down and bottom-up activities and supports in order to remain viable and dynamic for more than a start-up period. This session will describe the varied functions and potential outputs of such local or regional teams, methods for creating and maintaining them, needs assessment and action-planning procedures, and tools for evaluating accomplishments. Examples of activities, outputs, and tools will be shared during the session.

Students with disabilities from diverse backgrounds and/or rural areas need even more strategic K-12 transition education than their nondisabled peers, in order to be ready for adulthood. For example, recent U.S. data on post-school outcomes of African-American youth continue to show disproportionately lower rates of post-school employment, postsecondary education, and wages, and higher rates of incarceration and, in some locales, even death sentences than among European-American graduates (Trainor et al, 2008). Hispanic and African-American students reported much higher rates of unmet service needs than their Anglo counterparts (NLTS2 Wave 5 surveys, 2009). Rural students in the U.S. have shown lower post-school employment and postsecondary education rates than their suburban/urban peers (Baer et al., 2003; Dunn & Shumaker, 1997; Rabren, Dunn, & Chambers, 2002). In a similar vein, aboriginal students living in high and extreme isolation have shown enormous educational disadvantages compared to all Australian students (Zubrick, et al, 2006).

If we all know it takes a "whole village to raise a child," and this is not rocket science, why don't we behave that way, especially with our most vulnerable young people and when we know that interagency transition teams make a positive difference? Results of a recent study

indicated that community transition teams significantly increased indicators of high-quality collaboration among school and adult agency staff, including shared vision, variety of partnerships, time together, joint planning, shared leadership, structure, training together, minimizing duplication, and sustainability (Noonan, Erickson, & Morningstar, 2013). However, a recent article suggests that interagency transition teams are in their infancy in Australia (Beamish, Meadows, & Davies, 2010).

Community transition teams (CTTs) are local or regional groups of key stakeholders who strategically work together to improve adult life outcomes of persons with disabilities, or perhaps all youth with risk factors depending on their context. Levels of these interagency groups can be state interagency councils, regional councils, local or district-based groups, school-based teams (eg., secondary curriculum/services group), and/or individual transition planning teams (IEP-based). The benefits of CTTs make the work needed to create and sustain them worthwhile, because these traits and outcomes are very difficult to achieve without such wide-ranging representative groups. They allow key voices (especially those of marginalized groups) and critical issues to be heard; they structure members' participation and efforts for maximum effectiveness; they build on existing efforts, strengths, and needs; they afford real ownership at the local level; their successes engender greater local support and actions.

Major functions or activities that CTTs tend to proceed through include: a) Team development; b) Planning and conducting meetings; c) Community needs assessments; d) Action planning and implementation; and e) Evaluating and building on the group's progress.

Team Development

Stodden et al. (2005) discussed at some length their Nine Principles of Teaming which are extremely useful, if not essential, to position an interagency transition group for success.

- 1: A team reflects and demonstrates a shared/collective vision.
- 2: A team promotes empowerment of all members.
- 3: A team demonstrates shared decision-making.
- 4: A team demonstrates synergy – the whole is more than the sum of its parts.
- 5: A team highly regards diversity as a necessary part of creativity and collaboration.
- 6: A team fosters the full inclusion and participation of people impacted by its actions.
- 7: A team facilitates the self-determination and personal growth of itself and its members.
- 8: A team is responsive to its authentic (ecological) context.
- 9: A team reflects and demonstrates a dynamic and fluid quality.

These principles should provoke, at minimum, an informal preliminary self-assessment that regions, school districts, or schools conduct in order to address their readiness to do business differently than the institutional insularity that prevails in most secondary education in the U.S. Blalock and Benz (1999) outlined a series of "questions to assess district readiness for educational change" that may indicate whether or not transition team development should be pursued at all. A few of the most germane questions are:

- How are diverse students and families represented in district and local decisions?
- What is working exceptionally well, and not, in your overall special education program?
- What do you see as the greatest barriers to developing/improving your transition process?
- How well does the school know the community, and vice versa (eg., economy, cultural values, attitudes, inclusiveness, etc.)?
- What exists in your district to encourage teachers to make changes?

Most of the responses to these questions will also be helpful in subsequent needs assessments required to create an action plan for the transition team, should it evolve.

So ... who should be involved in your team? The notable part about this aspect of team development is that it is wide open - the more, the merrier. Those who cannot or will not contribute will cull themselves out fairly quickly. The important goal is to seek representation from *all* stakeholder groups if possible, especially those most marginalized by relevant systems. "Tool 1: Potential Member Checklist" (Stodden et al., 2005) offered a systematic way by which to evaluate the pros and cons of each possible team member and to seek other contributors.

After members have been selected (which can be somewhat open-ended, if needed), members need a systematic orientation to their challenges and charges, as well as a way to determine their "fit" with the mission of the group. Stodden et al's (2005) "Tool 2: Team Member Checklist and Roles and Responsibilities Worksheet" is an additional structure for ensuring that all are prepared, that expectations are clear, and that labor is divided.

Planning and Conducting Meetings

Important activities for planning meetings include making key contacts and providing advance communication so all feel their presence is important. This involves describing the purpose, assessing and addressing members' needs (eg., location, food, child care, etc.), creating a sample agenda and getting feedback and additions prior to the meeting, and even sending reminders. Procedures during effective meetings include establishing and communicating the facilitation, recording, timekeeping, and spokespersons for the meeting, as well as collaboratively setting ground rules.

Community Needs Assessment

In addition to data gathered during the preliminary questions on readiness for change, needs assessments are critical to ensure members have the information they need to make decisions during action planning and should be conducted with all relevant stakeholders, such as:

- General and special educators, administrators, etc. - on student data (eg., attendance, transition plans, grades, graduation and dropout rates, credit completions, and college credits or skills certificates)
- Agency personnel - referral and service rates, etc.
- Postsecondary special services staff - entries, program completions, accommodations, etc.
- Families - students' met and unmet needs, success rates, parent involvement activities, etc.
- Employers - businesses providing and students involved in work-based learning opportunities, paid positions by school/other agency and/or private business, labor needs, etc.
- Local government - economic development issues and supports, political strategies, etc.

The "Sample Program Standards Instrument" provided in Blalock and Benz (1999) structures member assessments of the *value* and *current status* of 38 transition standards across six broad categories and can help emerging teams quickly enhance their understanding of their context.

Developing and Implementing Effective Action Plans

Procedures for creating a short- or long-term action plan involve stepping back to review the results of the combined needs assessments, to collectively identify (a) major needs, (b) major supports or strengths, and, thus, (c) 3-4 priorities. These priorities should comprise the largest gaps between needs and supports that significantly impact students' postschool success. Stodden et al (2005) created "Tool 3: Resource Mapping Worksheet Procedures for Program & System Implementation" that guides participants through a helpful planning process. Following the plan through team and subcommittee structures affords a systematic way to implement the plan. Flexibility in identifying subcommittees and in problem-solving implementation steps is key.

Examples of different CTT models that have emerged in selected U.S.A. states are listed below, as a way to show their general similarities within very diverse support structures.

A number of invaluable products and outcomes are typically generated by such teams:

- Community interagency agreements or memorandums of understanding
- Interagency referral/release of information forms
- District strategic planning tools
- CTT meeting agendas, minutes, follow-up documents
- Resource guides
- Parent involvement guides
- Training materials
- Grant proposals and subsequent projects
- New transportation options
- Data collection and sharing mandates, mechanisms, and "maps"
- Enhanced employment options for youth and graduates

Common events for CTTs encompass regular CTT meetings, local transition fairs, transition training sessions for all key stakeholders, job fairs, and occasional community presentations to update school boards or city councils, among other experiences. Cross-group training in the early stages is particularly helpful for transition team members to understand each other's backgrounds and mandates so they can collaboratively create shared goals.

Evaluating and Building on Accomplishments

Numerous tools exist that can structure a team's approach to monitoring the team's progress and evaluating the achievement of each goal and objective in the action plan (for starters, see Blalock & Benz, 1999; Stodden et al, 2005). Even adding columns in the action plan for persons responsible, dates accomplished, and notes can provide a simple tool for measuring accomplishments. Along with monitoring, nurturing the team is essential for sustainability. Some sort of quarterly, mid-year, and/or annual review by major stakeholders is needed, so that team members know their progress is being monitored. Being expected to report and show outputs helps keep subcommittees and leaders on their toes, plus these regular checks provide opportunities to identify and address any problems, so that members are not held in limbo or are not facing insurmountable barriers for very long without assistance. In addition, looking back on their accomplishments is extremely motivating for team members (and often galvanizing for others "looking in"). Finally, these regular reflections allow teams to prioritize next steps and have the impetus to keep moving forward, enhancing their youths' futures.

Table 1. Examples of CTT Models in Selected States in the U.S.A. Over Time

Florida	Local/regional interagency councils (supported first by Project CONNECT and now by Project 10 Transition Education Network)
Iowa	AEAs sponsor varied transition advisory boards
Kansas	Local transition councils, supported by Kansas Dept. of Education
Maine	Regional interagency groups meet monthly to network & share info (including parents)
Maryland	10 districts participate in state's Seamless Transition Collaborative, which focuses on braiding of funds to create smooth transitions, then unbraiding for accountability
Minnesota	~45 Community Transition Interagency Committees (in state legislation)
Missouri	CTTs in some locales
Pennsylvania	State-level interagency Transition Community of Practice supports and advances the activities of 63 Local Transition Coordinating Councils
Wisconsin	County transition advisory councils
Wyoming	Local transition teams in some areas (often district-run) meet monthly (some whose membership spans more than 30 agencies)

References

- Baer, R.M., Flexer, R.W., Beck, S., Amstutz, N., Hoffman, L., Brothers, J., Stelzer, D., & Zechman, C. (2003). A collaborative followup study on transition service utilization and post-school outcomes. *Career Development for Exceptional Individuals*, 26 (1), 7-25.
- Beamish, W., Meadows, D., & Davies, M. (2012). Benchmarking teacher practice in Queensland transition programs for youth with intellectual disability and autism. *Journal of Special Education*, 45 (4), 227-241 .
- Blalock, G., & Benz, M.R. (1999). *Using community transition teams to improve transition services*. Austin, TX: Pro-Ed.
- Dunn, C., & Schumaker, L. (1997). A follow-up study of former special education students from a rural and urban county school system. *Career Development for Exceptional Individuals*, 20 (1), 43-54.
- National Longitudinal Transition Study 2, Wave 5 Surveys.
- Noonan, P.M., Erickson, A.G., & Morningstar, M.E. (2013). Effects of community transition teams on interagency collaboration for school and adult agency staff. *Career Development and Transition for Exceptional Individuals*, 36 (2), 96-104.

- Rabren, K., Dunn, C., & Chambers, D. (2002). Predictors of post-high school employment among young adults with disabilities. *Career Development for Exceptional Individuals*, 25 (1), 25-40.
- Stodden, R.A., Brown, S.E., Galloway, L.M., Mrazek, S., & Noy, L. (2005). *Essential tools: Interagency transition team development and facilitation*. Minneapolis, MN: National Center on Secondary Education and Transition, University of Minnesota.
- Trainor, A.A., Lindstrom, L., Simon-Burroughs, M., Martin, J.E., & Sorrells, A.M. (2008). From marginalized to maximized opportunities for diverse youths with disabilities. *Career Development for Exceptional Individuals*, 31 (1), 56-64.
- Zubrick, S. R., Silburn, S. R., De Maio, J. A., Shepherd, C., Griffin, J. A., Dalby, R. B., Mitrou, F. G., Lawrence, D. M., Hayward, C., Pearson, G., Milroy, H., & Milroy, J. (2006). *Western Australian Aboriginal Child Health Survey: Improving the Educational Experiences of Aboriginal Children and Young People, Vol 3*. Perth: Telethon Institute for Child Health Research and Curtin University of Technology.

Mailing address: 5802 Bob Bullock Loop C1 328C-265, Laredo, TX 78041, U.S.A.

Email: blalock@unm.edu

Author Notes: Dr. Blalock coordinated New Mexico's Statewide Transition Initiatives for the N.M. Public Education Department from 2000-2010.

An Exploration of the Alienation Experienced by Diverse Parents of Children with Disabilities

Regina R. Brandon, PhD
San Diego State University, San Diego, CA, U.S.A.

Abstract: Despite the known advantages of parental involvement, concerns still exist in terms of culturally and linguistically diverse parents of children with disabilities participation in school. Parent involvement has many positive benefits for students, the most important being that it enhances the academic and social achievement of students. This article focuses on increasing African-American parent involvement as a way to improve the achievement of African-American students. The importance of parent involvement as a vital component to the school success of their children, emphasizing the justifications for increased African-American parent involvement will be presented. The purpose of this study was to: (a) analyze the alienation experienced by African American parents of children with and without disabilities, and (b) examine the relationship of African American parents to the educational system in order to determine the degree of alienation, if any, they felt toward public education.

Researchers have begun to examine the lack of African American parent participation in school-based activities (Davis, Brown, Bantz, & Manno, 2004). This lack of participation in the educational process of their children, with and without disabilities, is proving to be detrimental to the education of the children (Bempechat, 1992). Poor communication between professionals and parents has been cited as a reason African American parents feel that their children are not receiving appropriate educational services (Thompson, 2003a). African American parents of children who have disabilities have expressed frustration and anger at policies they believe prevent them from participating in their children's education (Davis, Brown, Bantz, & Manno, 2004).

Parental Alienation from Educational Environments

The alienation of a parent from a school situation means that they feel out of place, experience real and perceived discrimination, and have a sense of estrangement when interacting with the educators of their children (Bempechat, 1992). This alienation may cause the parent to express a sense of fear, depression, and even school phobia (Bempechat, 1992). Because of this alienation, the parents may be suspect of the educational institution. Consequently, they often confuse teaching with learning, grade advancement with education, and a diploma with competence (Epstein, 1996). In addition, poor communication between parents and professionals, lack of trust by parents in the educational system, logistical constraints (e.g., telephone, transportation, and child care),

and/or disagreement with special education classification may contribute to the lack of participation (Greenwood & Hickman, 1991).

Cultural and Linguistic Diversity

The research indicates that one group at risk for becoming alienated from the education of their children is parents from culturally and linguistically diverse backgrounds (Adelman, 1994). This alienation may be due to cultural and language differences that exist between school and home (Comer & Haynes, 1991). School personnel may have the misconception that parents from diverse cultural groups are apathetic, disinterested, or indifferent to their child's education and may not work to encourage these parents to participate in school (Bloom, 2001).

A lack of connection between the culture and/or language of the home and the school may lead to the alienation of parents from ethnically and linguistically diverse backgrounds (Greenwood & Hickman, 1991). Most administrators, teachers, and staff are from Caucasian, middle-class backgrounds (Greenwood & Hickman, 1991). Thus, school customs, expectations, and experiences often do not reflect the backgrounds of the families from diverse groups.

Research Questions

Research Question 1: Is there a difference between work, personal concerns, teachers/parent relationships, lack of interest, or logistical problems in the alienation of African American parents? Research Question 2: What role does general education or special education play in the alienation of African American parents from their children's education? Research Question 3: What role does family economics play in the alienation of African American parents from their children's education? Research Question 4: What role does the family composition play in the alienation of African American parents from their children's education? Research Question 5: What role does the educational level of the parents play in the alienation of African American parents from their children's education? Research Question 6: What role does employment status play in the alienation of African American parents?

Participants

The participants in this study (n=421) were African American parents in a large southwestern city. The pastors of four churches (A, B, C, and D) agreed to allow their churches to participate in this study. The congregation of churches A, B, C and D are predominantly African American. Only parents who had or have had school-aged children participated in the study. And, only parents who signed an informed consent form participated in the study. According to the Flesch-Kincaid Readability Scale, the parent questionnaire was at the 5.9 readability level. Table 1 represents the demographics that were collected from the participants in this study.

Setting

The churches selected for inclusion of this study were located in a large, southwestern city in the United States. The typically are attended by African Americans families comprised of a wide range of educational and economic levels. Consent of each church pastor was obtained prior to the study. The churches were selected due to the vast differences among African Americans that attend each church (e.g., economic levels, education, and vocation). Data were collected on Wednesday evenings and Sunday

afternoons at a table located in a classroom in each church. Churches A, B, C, and D all had a predominantly African American congregation. The churches were located in low-income areas of the city. Church A had a membership of 900, Church B had a membership of 528, Church C had a membership of 850, and Church D had a membership of 800. The church members travel from various locations within the city to attend these churches.

Materials

The *Barriers to School Involvement Questionnaire* is designed to identify factors involved in the alienation of African American parents from the educational process. In addition to the questionnaire, a demographic survey was used to collect data that might also be involved in parent alienation (e.g., economics, family composition).

Results

The purpose of the study was to investigate the alienation experienced by African American parents from the education of their children. To investigate this alienation, a modified version of the *Barriers to School Involvement* (Reglin, et al, 2003) was created. According to the Flesch-Kincaid Readability Scale, the parent questionnaire was at the 5.9 readability level. The questionnaire was administered to 421 African American parents in a large Southwestern city. The parents also completed a demographic survey.

The data were collected at four churches attended by predominately African Americans from a wide range of educational, vocational, and economic levels. Only parents with a child currently or previously enrolled in school participated in the study. Data were collected over a five-week period (Sundays and Wednesdays). Data were collected by four trained data collectors who also were active in the four churches. The data collectors were on site to assist the parents in completing the questionnaire and demographic survey. Data were analyzed using quantitative analysis.

Research Question 1: The results of the repeated measures ANOVA indicated that there were significant differences among the five means for the problem areas [$F = 52.73, p < .0001$]. A pairwise comparison was conducted as a follow up test. The results indicated that there were significant differences among all the means ($p < .0001$) except between work and lack of interest.

Research Question 2: What role does general education or special education placement play in the alienation of African American parents from their children's education? Independent *t*-tests were conducted to compare the mean responses for parents whose children are in general education verses special education for the five problem areas. The results of the five independent *t*-tests indicated no significant differences in the alienation attitudes between parents of students in general education verses parents of students in special education for the five problem areas.

Research Question 3: What role does family economics play in the alienation of African American parents from their children's education? Questionnaire data were analyzed using a 4X5 (income level by problem category) mixed model factorial ANOVA with repeated measures on the problem category to ascertain if there were significant differences among the five problem category means in relation to parent economic status. The results of the mixed model factorial ANOVA indicate a significant income level by problem category interaction [$F = 2.624, p = .0016$]. Simple main effects analysis was

conducted as a follow up to the significant interaction. Part 1 analyzed income level differences at each problem category. Significant differences were found between income levels for the “work” problem category [$F = 5.366, p = .0012$]. The multiple comparisons test indicated that there were significant differences between the two lowest income levels (less than \$19,999 and greater than \$20,000-\$39,999) and the highest income level (greater than \$70,000).

Research Question 4: What role does the family composition play in the alienation of African American parents from their children’s education? Questionnaire data were analyzed using a 6X5 (family composition by problem) mixed model factorial ANOVA with repeated measures on the problem category to ascertain if there were significant differences among the five problem category means in relation to family composition. The results of the mixed model ANOVA indicated significant differences among the problem categories [$F=30.48, p = <.0001$], but not for the interaction between the problem categories and marital status [$F = 1.85, p = .1012$] or family composition [$F = 1.85, p = .1012$].

Research Question 5: What role does the educational level of the parents play in the alienation of African American parents from their children’s education? Questionnaire data were analyzed using a 5X5 (parent education level by problem) mixed model factorial ANOVA with repeated measures on the problem category to ascertain if there were significant differences among the five problem category means in relation to parent education level. The results of the mixed model ANOVA revealed a significant problem categories by educational level interaction [$F = 3.684, p = <.0001$].

Research Question 6: What role does employment status play in the alienation of African American parents from their child’s education? Questionnaire data were analyzed using a 4X5 (employment status by problem level category) mixed model factorial ANOVA with repeated measures on the problem category. The results of the mixed model ANOVA revealed a significant problem categories by employment status interaction [$F = 2.803, p = .0008$].

Discussion

Parents are one of the key components to school success. Research indicates that parental interest and involvement in their child’s education can improve the quality of instruction, instill a respect for learning, and inspire students and teachers to excel (Sheldon, 2002, Thompson, 2003a). Involved parents simply make the educational system better. However, in today’s world, parents work long hours, have more than one job, and have a variety of responsibilities that may limit their time. The result is that parents often are criticized by educators for their non-participation or limited participation in the school environment.

Conclusion

In this study, African American parents did not differ in their perceptions concerning the impact of the five problem categories (personal concerns, work, lack of interest, logistics, and teacher/parent relationships) on their involvement in their child’s schooling. The placement of a child in general education or special education did not

impact the involvement of African American parent in their child's education. Family economic status did not play a role in the concerns expressed by African American parents concerning their involvement in their child's educational environment. Family composition did not play role in the concerns expressed by African American parents in relation to their involvement in their child's schooling. Parent educational level did not impact the concerns expressed by African American parents in relation to their involvement in their child's school. Parent employment status did not impact the concerns expressed by African American parents concerning their involvement in their child's education.

References

- Adelman, H. S. (1994). Intervening to enhance home involvement in schooling. *Intervention in school & Clinic*, 29(5), 276-288.
- Bempechat, J. (1992). The role of parent involvement in children's academic achievement. *The School Community Journal*, 83(2), 85-102.
- Bloom, L.R. (2001). "I'm poor, I'm single, I'm a mom, and I deserve respect": Advocating in Schools as and With Mothers in Poverty. *Educational Studies* 32(3), 300-316.
- Comer, J. P., & Haynes, N. M. (1991). Parent involvement in schools: An ecological approach. *The Elementary School Journal*, 91(3), 271-277.
- Davis, C., Brown, B., Bantz, J.M., & Manno, C. (2002). African American parent's involvement in their children's special education programs. *Multiple Voices*, 5(1), 13-27.
- Epstein, J. L. (1996). Advances in family, community, and school partnerships. *New Schools, New Communities*, 12(3), 5-13.
- Greenwood, G. E., & Hickman, C. W. (1991). Research and practice in parent involvement: Implication for teacher education. *The Elementary School Journal*, 91(3), 279-288.
- Reglin, L. G., King, S., Losike-Sedimo, N., & Ketterer, A. (2003). Barriers to school involvement and strategies to enhance involvement from parents at low performing urban schools. *The Journal of at Risk Issues*, 9(2), 1-7.
- Seeman, M. (1959). On the meaning of alienation. *American Sociological Review*, 24, 783-791.
- Thompson, G. L. (2003a). No parent left behind: Strengthening ties between educators and African American parents/guardians. *The Urban Review*, 35(1), 7-23.
- Thompson, G. L., (2003b). Prediction in African American parents' and guardians' satisfaction with teachers and public schools. *Journal of Educational Research*, 96(5), 277-286.

Mailing address: Regina Brandon, San Diego State University, Department of Special Education, 5500 Campanile Drive, San Diego, CA 92182-1170 USA
Email: **rbrandon@mail.sdsu.edu**

Teacher Perceptions of the Transition Process for Students with Developmental Disabilities Who Attend Special Schools in New South Wales

Iva Strnadová, PhD
Therese M. Cumming, PhD

University of New South Wales, Sydney, Australia

Abstract: The authors examine the current state of transition for students with developmental disabilities attending special schools in NSW, Australia. Responses from 32 special schools to an open-ended survey were analyzed using inductive content analysis. The analysis revealed that although many schools have transition processes in place, there is a need for a mandated, student-centered planning and support process.

The transition pathways for students and young people with developmental disabilities¹ are “typically complex and constrained” (Davies & Beamish, 2009, 248). Students with developmental disabilities, while sharing many of the same aspirations as their peers, typically have very disappointing outcomes in the areas of employment, postsecondary education, community participation, and social relationships (Carter, Brock, & Trainor, 2014). While transition planning, supports, and services are mandated in many countries such as the U. S. and the U. K., Australia has yet to pass legislation requiring schools to implement the process. Many schools, particularly special schools for students with disabilities, have voluntarily begun to plan for the transition of their students from one setting to another. While this effort is admirable, it is difficult to determine overall if schools are planning for the future of their students with developmental disabilities, and if so, if they are adopting evidence-based practices to guide the process.

The authors conducted a research study focusing on the current state of transition from primary to secondary level, and from secondary level to post-school life for students with developmental disabilities. This paper discusses the perceptions and experiences of teachers of students with these disabilities attending special schools in New South Wales. The research questions leading the study were:

1. What supports do teachers and schools provide for students to prepare them for transitions?
2. In what ways can these transitions be better supported?
3. What are the teachers’ perceptions in regard to home-school collaboration and how can this collaboration be improved?

¹ For the purpose of the presented study, the term *developmental disabilities* refers to intellectual disability and/or autism (Ashman & Elkins, 2009).

The theoretical framework guiding the study was the ecological systems theory (Bronfenbrenner, 1994). It states that humans are influenced by different environmental systems. This allows a holistic view of transition from all of the relationships and environments the student exists in presently and will be part of in the future. When a student transitions from one setting to another, another environment is added to the existing system, understandably altering all three levels of the model. Milsom (2007) believes that in order to plan the successful transitions of students with developmental disabilities, the relationships that exist between and among these systems must be examined before the transition. This underscores the necessity of studying teacher attitudes and expectations about the transition process, including collaboration with students and families, and how it can be improved.

Method

Research design, research process, participants and data analysis

The research study was qualitative, consisting of open-ended surveys sent to all special schools in NSW. The authors obtained ethics approval from the University of New South Wales and from the NSW Department of Education and Communities.

The survey was developed by the authors, and consisted of items relating to demographic information about the participants completing the surveys and five open-ended questions. The surveys were sent to all special schools in New South Wales by post, and included pre-paid envelopes for return. The principals were asked to nominate a school representative to complete the survey. After six weeks the authors sent an email to all special schools, thanking those who completed the survey. In this email they also asked those who did not complete the survey so far to do so, either via post or electronically via Survey Monkey. All together the authors gathered 32 completed surveys from special schools.

The surveys were transcribed verbatim and analysed using induction content analyses (Elo & Kyngäs, 2008), which was also used to analyse the open-ended survey questions. For the purpose of data analysis, a coding unit was words, sentences or paragraphs “containing aspects related to each other through their content and context” (Graneheim & Lundman, 2004, 106). The authors analysed each of the five survey questions separately and derived the key sub-categories. The sub-categories were then aggregated into exhaustive categories (Graneheim & Lundman, 2004).

Results

As is common for content analysis, the results are presented question by question. (Hemmings, & Woodcock, 2011). The first question of the survey investigated the current state of transitions from the primary to the secondary level. Five special schools did not answer this question, indicating that it was not applicable to their setting. As many special schools include K-12, transition mostly happens within one school, in an environment already known to the student. With the inclusion movement in Australia, dictated by the Disability Standards for Education (2005), the student population attending special schools in New South Wales is changing from students with mild disabilities to students with moderate to profound disabilities.

The special schools generally perceived transition from a primary to a secondary level as a smooth process:

"The transition from the primary to High School (Stage 3 to Stage 4) is a smooth one with staff (class teachers) passing on IEPs to High School (ITPs). Behaviour plans, communication, health, physical management, plans are all passed on to Stage 4 teachers. This ensures continuity of student." (SSP2)

As a result of a rather minimal change for transitioning students, students were reported to cope rather well with this change:

"School has a formal assembly to mark the demarcation between finishing primary and starting secondary but I doubt that students actually recognise the difference as our students are so mixed." SSP27

The commitment of all stakeholders and the sharing of information was perceived to be an essential element for a successful transition. As one of the schools stated:

"We pass on as much info as possible eg behaviour management strategies, family background, academic levels. We talk a lot to students about their new school, who can help them, coping with change." (SSP17)

The need to focus on developing age appropriate behaviour was mentioned by a few special schools. One of them also mentioned the use of role-plays to practice expected behaviour at secondary schools.

The second question in the survey focused on recommended changes in order to improve the current state of transitions from primary to secondary level. Seventeen special schools did not answer this question or indicated that nothing needs to be improved. Given the minimal transition in terms of students in special schools usually staying in the same building and just changing classrooms, this is a non-surprising outcome.

The third question investigated the current state of transitions from secondary schools/level to post-school-life. Seven special schools did not answer this question without providing any explanation. Most of the schools highlighted the role of assistive technology during this transition, which was mostly used to create social stories or videos with examples of work placement situations.

Participating special schools also discussed the common practice of arranging student visits to different post-school sites so the students can become acquainted with the new staff and environment. They mentioned making arrangements for interested parents to also visit the post-school settings. One of the special schools described their practice in more detail:

"When families know which providers they are interested in knowing more about, the staff from those providers visit our school 5 times to get to know the student. Then the student spends 5 days of increasing time at each provider." (SSP14)

Eight special schools mentioned either the development of individual transition plans or holding transition meetings. Only three participating schools followed up with their students after graduation, either with parents or in their new setting.

Understandably, the focus on obtaining work skills was extensive for students attending special schools. The schools focused on work-skills development not only via arranging work placements outside schools, but also by incorporating these into the school environment. Some special schools mentioned running a café, school cafeterias, etc., which allowed their students to practice functional academic skills.

"In school work experience options provided. Work skills activities from K-12, which are based around functional and daily living skills. Garden Cafe run where students have the opportunity to undertake kitchen and service type roles. These roles are transferred across a range of environments and practiced at home and within the community." (SSP19)

Despite schools' efforts, transition to post-schooling life for students with developmental disabilities is not always a success, mainly due to lack of post-school placement opportunities, as well as due to change in routine. One of the schools highlighted:

"I find many students with complex needs do not succeed in PSO [post-school options] life initially. The lack of routine, structure in many of the community programs does not suit these students who require routine in their day. There is certainly a gap between CP [community participation] programs and TTW [transition to work]. It is essential for students with abilities to perform in work be allowed to be enjoyed in meaningful activities. Bowling until you are 65 is not an exciting prospect." (SSP13)

The fourth question focused on ways in which transitions to post-school life can be improved for these students. Sixteen special schools did not answer this question or indicated that nothing needs to be improved. Those schools that answered this question called for more work placements and volunteering opportunities for their students:

"Some of our students spend a day each week at an Enterprise business, but this place is so full, that they can't offer more than 2 days of meaningful work for each adult registered with them." (SSP14)

Some schools called for more funding, which would allow more support to fund individualising access to post school programs:

"Additional supports required is funds or allocation of additional staff to support transition on an individual basis, as well as support students in community placements." (SSP27)

The need for closer collaboration and information sharing with potential employers was prominent in the responses.

The last survey question targeted home-school collaboration during the transition process. Only five special schools did not answer this question. A number of schools highlighted the importance of home-school collaboration, however only four special schools indicated their satisfaction with the current home-school collaboration in their schools. The identified forms of home-school collaboration were: (a) meetings with parents, (b) updating parents frequently by phone, (c) parents being members of transition teams, (d) assisting parents with expositions' visits, and (e) running "*several parent workshops to assist parents with the difficult transition from school to post school options.*" (SSP22). Participating schools acknowledged the diverse needs of individual families. For example, the following participant stated:

"A student enrolment here means an 'enrolment' of another family: we work with as many families as we do students. And just as their sons/daughters need individualised learning programs, the families need individualised approaches. Families acknowledge the respect and voice offered them in this school." (SSP26)

The most significant barrier to improving home-school collaboration was staff time constraints. One school also mentioned difficulties in collaborating with secondary schools:

"Students from our setting are never forgetful if they are only reintegrating for one day per week as they start high school. They are generally confused, get lost, anxious, then they misbehave. When students are given 4 weeks at the start of year 7, the chances of them being successfully reintegrated is quite high. However, high schools are generally reluctant to try this model." (SSP1)

Discussion and Conclusions

The results of the presented survey study indicate a number of necessary changes to improve transition processes for students with developmental disabilities, particularly when it comes to transition to post-school life. The lack of post-school life options for students with more severe disabilities and complex needs has been discussed widely in literature (Carter, et al., 2014). This experience was also shared by the participating schools, along with a lack of coordination between services and stakeholders. This is consistent with the Standing Committee on Social Issues' transition report (NSW Parliament, 2012).

A lack of funding for students with disabilities was another problem related to transition that was acknowledged by the Standing Committee (NSW Parliament, 2012), as well as participants in the study. While the Standing Committee expressed "being hopeful that the introduction of the National Disability Scheme will alleviate many funding concerns raised by inquiry participants" (p. xiv), the authors believe that much more needs to be done, including federally acknowledged areas related to transitions which need to be financed by schools. These should include: (a) workload allocations for teachers to conduct

transition-related activities; (b) budgets to fund transition specialists to liaise with schools, parents, students, and outside agencies/employers; and (c) support personnel to accompany students on site visits and work placements if necessary.

Sharing information about students, such as their strengths, learning needs, etc., with relevant stakeholders during the transition process was called for by a number of schools. This is consistent with the Standing Committee's recommendation number 3: "That the NSW Department of Education and Communities create an ongoing electronic record of the strengths, abilities and supports required for individual students with additional or complex needs that can be accessed by relevant providers with the consent of the students (or their parents/guardian if under 18 years of age)." (NSW Parliament, 2012, xvii).

Sadly, none of the schools mentioned any kind of transition assessment, be it of the students' strengths and needs or the environments the students will be transitioning to. Very few schools mentioned any kind of structured planning process, particularly one that involves the collaboration of a team. These are the most basic of good practices in the transition process (Milsom, 2007). They are also strongly aligned with the ecological model (Bronfenbrenner, 1994), which advocates that assessment and planning should be student-centered and holistic, encompassing all environments and relationships that student is involved with now and will be in the near future. The most alarming result of this survey was the lack of the students' involvement in the transition process. While student involvement is recognised as a key element of successful transition planning (Hetherington et al. 2010), none of the schools actually recognised students with developmental disabilities as primary stakeholders in transition process.

Overall, the results of this study indicate that much work still needs to be done in the area of transition planning and support for students with developmental disabilities in NSW. The appointment of designated transition specialists would help to centralize information and enhance school-home communication and collaboration. Legislation mandating individual education plans and student-centered transition processes would possibly provide funding for these initiatives, thereby improving the outcomes for students with developmental disabilities.

References

- Ashman, A., & Elkins, J. (2009) *Education for inclusion and diversity 3*. Frenchs Forest: Pearson.
- Australian Government. (2005) *Disability Standards for Education 2005*. Attorney-General's Department, Department of Education, Science and Training.
- Bronfenbrenner, U. (1994). Ecological models of human development. In *International Encyclopaedia of Education*, Vol. 3, 2nd Ed. Oxford: Elsevier.
- Carter, E., Brock, M., Trainor, A. (2014). Transition assessment and planning for youth with severe intellectual and developmental disabilities. *The Journal of Special Education*, 47(4), 245-255.

- Davies, M.D., & Beamish, W. (2009). Transitions from school for young adults with intellectual disability: Parental perspectives on “life as an adjustment”. *Journal of Intellectual & Developmental Disability*, 34(3), 248-257.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107-115.
- Graneheim, U.H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24, 105-112.
- Hemmings, B., & Woodcock, S. (2011). Preservice teachers' views of inclusive education: A content analysis. *Australasian Journal of Special Education*, 35(2), 103–116. DOI 10.1375/ajse.35.2.103
- Hetherington, S.A., Durant-Jones, L., Johnson, K., Nolan, K., Smith, E., Taylor-Brown, S., Tuttle, J. (2010). The lived experiences of adolescents with disabilities and their parents in transition planning. *Focus on Autism and Other Developmental Disabilities*, 25(3), 163-172.
- Milsom, A. (2007). Interventions to assist students with disabilities through school transitions. *Professional School Counseling*, 10(3), 273-278.
- NSW Parliament. Standing Committee on Social Issues. (2012). *Transition support for students with additional or complex needs and their families (Report 45)*. Sydney, NSW : Legislative Council.

Mailing address: Iva Strnadová, School of Education, The University of New South Wales, Sydney, NSW 2052, Australia
Email: i.strnadova@unsw.edu.au

Program Evaluation and Improvement of Classroom Practices For Students with Emotional/Behavioral Disabilities

Douglas A. Cheney, PhD
University of Washington, Seattle, WA, U.S.A.

Abstract: For the past three decades, serious concerns have been expressed regarding the social and academic outcomes of students with emotional/behavioral disabilities (EBD) in the U.S. One shortcoming of the studies focusing on these student outcomes has been the lack of assessment of any program evaluation or professional development within the classrooms serving these students. Without knowing the overall effectiveness of a program, it is hard to predict how student success within the program. Given the lack of research relating program effectiveness to student outcomes, the author and his colleagues developed a program evaluation tool to assess special education program functioning and to provide priorities for classroom teams to improve services for students with EBD. In this article, the development, use, and findings regarding *the Participatory Evaluation & Expert Review for Classrooms Serving Students with Emotional and Behavioral Disabilities* (PEER-EBD; Walker & Cheney, 2007) are discussed.

The number of students aged 6 to 21 with emotional and behavioral disabilities (EBD) has increased to over one half million in the U.S. (U.S. Department of Education, 2006) and these students have a great degree of difficulty in their school and community adjustment. Most (75%) high school students with EBD will be suspended or expelled from school and 60% will have been arrested at least once by the age of 21 (Newman, Wagner, Cameto, Knokey, & Shaver, 2010). These data suggest that schools and community agencies are not providing effective services to assist students with EBD to be successful in school or society. Wagner and colleagues (2006) noted that the lack of effective academic accommodations, the paucity of mental health or behavioral services, and limited teacher support and training have lead to these poor student outcomes.

Teachers of students with EBD often lack the essential knowledge and skills for their challenging work. For example, fewer teachers of students with EBD are fully certified than teachers in any other of the special education category (Katsiyannis, Zhang, & Conroy, 2003). Billingsley, Fall, and Williams (2006) found that the rate of fully certified teachers is even lower (45%) for first year teachers of students with EBD, and relative to other special education teachers, more teachers of students with EBD hold alternative certification. They also leave the teaching profession more quickly compared to other teachers (Henderson et al., 2005).

Program Evaluation for Classrooms of Students with EBD

Since Grosenick, George, and George (1987) first developed *the Program Inventory*, which surveyed school district administrators about services for children with EBD, little has been done to provide frameworks and guidance for school districts serving these students. Grosenick et al. suggested that in designing effective programs, it was critical for schools to deploy a set of evidence-based standards. Subsequent to that report, only one study examining the perceptions of teachers and school staff on the effectiveness of their programs was found between 1995-2010 in a literature search conducted by Tsai (2011). An EBD program assessment approach is available in one textbook (Jones, Dohrn, & Dunn, 2004) and one other unpublished evaluation tool was found that assessed the components of an effective EBD program (Boreson, 2006). None of these tools, however, have been validated for evaluating programs for students with EBD.

Over the past five years, the author and his colleagues have developed and validated the psychometric properties of the *Participatory Evaluation & Expert Review for Classrooms Serving Students with Emotional and Behavioral Disabilities* (PEER-EBD; Walker & Cheney, 2007). A recent dissertation by Tsai (2011) assessed the PEER-EBD on parameters of internal consistency reliability, content validity and construct validity. Findings suggest that the PEER-EBD has excellent internal consistency (>.90 in each of the four domains), satisfactory content validity as assessed by an expert national panel, and quite acceptable construct validity, since the four-factor structure represents important areas of practice in classrooms serving students with EBD. Also, all of the evidence-based practices load statistically on the four domains.

The PEER-EBD is based on a comprehensive literature review of practices and a content validation by 32 national experts in the area of EBD. The instrument was organized under four domains of practices: (1) classroom foundation and philosophy, (2) classroom structure, (3) climate and group process, and (4) individual programming derived from a theoretical model of the ReEducation approach (Walker & Fecser, 2002). Under each domain, three to five practices, and a list of indicators are used to assess the research-based practices. Table 1 on the following page shows the domains and practices, which are more fully discussed in Tsai et al. (2013) and Walker et al. (2013).

The PEER-EBD is intended for use by educators to evaluate the functioning level of their school programs for students with EBD. School team members work with an expert, external evaluator to identify their strengths and challenges. Involving team members with an external evaluator influences program improvements and adoption of recommended practices. As related to organizational learning, the continuous use of data by organizations to improve their practices leads to a “learning orientation” for schools that is related to sustainable improvements (Cousins, Goh, Clark, & Lee, 2004; Senge, 2000).

Effective School Programs for Students with EBD

Since 1985, only six studies have recommended models with related elements for programs serving students with EBD (i.e., Grosenick, George, & George, 1990; Cheney & Barringer, 1999; Walker & Fecser, 2002; Neel, Cessna, Borock, & Nechard, 2003; Jones et al., 2004; Simpson, Peterson, & Smith, 2010). Each recommended practices for school programs that serve students with EBD. Grosenick et al. used a national survey to get

Table 1
Domains and Practices for the PEER EBD

Domains and Practices	
1. Classroom Foundation and Philosophy	3. Climate and Group Process
1.1 Clear Philosophical Frameworks	3.1 Effective Instruction
1.2 Consistent Referral Process	3.2 Prosocial Skill Instruction
1.3 Ongoing Professional Development	3.3 Scheduled Group Meetings
1.4 Family Involvement	3.4 Positive Responses to Feelings
	3.5 Effective Crisis Prevention
2. Classroom Structure	
2.1 Consistent Data Collection	Individual Programming
2.2 High Levels of Engagement	4.1 Individual Academic/Social Assess.
2.3 Effective Behavior Management	4.2 Effective Functional Behavior Assess.
2.4 Established Rules & Routines	4.3 Active Behavior Intervention Plan
	4.4 Individual/Family Therapeutic Supports
	4.5 Interagency/Wraparound Supports
	4.6 Culturally Responsive Practice

administrators input on their Program Inventory to determine if the districts were using important program features when educating students with EBD (Grosenick, George, George, & Lewis, 1991). Jones and his colleagues used a consultant-based model to develop program recommendations. Cheney and Barringer used their model to assist teachers in making their schools more inclusive. The other two articles cited were conceptual models. The content from these articles contributed to the development of the PEER-EBD and substantiated the four domains and 19 practices in this tool.

Using the PEER-EBD for Program Evaluation

In traditional approaches, evaluators and external experts act as the primary program evaluators (Zukoski & Luluquisen, 2002). They may collect data, review program documents, observe the program, interview staff, and analyze data, prior to writing an evaluation report. These evaluators rarely spend enough time on site to understand a program's operation. Furthermore, program staff members are often ignore many of the evaluation recommendations. Consequently, program stakeholders, such as teachers and administrators, are recommended to be more fully involved in the evaluation process (Taut, 2008). Patton (2008) recommended that involving the intended users of the evaluation in its process would contribute to the eventual use of program recommendations, and described this approach as *participatory evaluation*.

Participatory evaluation (PE) is considered a collaborative approach where stakeholders actively participate in the evaluation process and use the evaluation results

(Cousins & Earl, 1995; Zukoski & Luluquisen, 2002). The evaluators and stakeholders work as partners to understand the program and make decisions to provide information for program improvement or development. When program stakeholders are involved in the evaluation process, they tend to enhance team conversations regarding their daily work activities (McKie, 2003). These conversations set the stage for teams to develop a more open atmosphere for attitudinal improvement and organizational learning (Suarez-Herrear et al., 2010).

The PEER-EBD and Participatory Evaluation

The PEER-EBD was designed to capitalize on the PE process so that school or district teams could improve specialized programs for students with EBD. This measure consists of an individual form, a team assessment, and an expert review, which cover the four domains of classroom foundation and philosophy, classroom structure, climate and group process, and individual programming. Items on the PEER-EBD are assessed on a 5-point Likert scale, where a response of 1 indicates that the practice is not in place and a response of 5 indicates that it is fully in place. The school team determines their level of implementation of practices. For example, the area of *classroom foundation and philosophy* has four practices, and the scores given to each of these practices determines the total score for this area. The school may have high scores on this area for a number of practices, and for others a lower score for those not well established: this finding allows the school team to review the scores of all practices to identify those that are not well established. Using the PEER-EBD, school staff can set goals and develop a plan to improve specific practices. The external review provides feedback based on the same practices and has indicators based on classroom or program observations. This also provides an outside perspective for teams to consider.

Recent results regarding the PEER-EBD have been published by Tsai et al. (2013) and Walker et al. (2013). In the first, the psychometric property of content validity was verified by a panel of national experts; the construct validity of the theoretical and measurement model was established by using data from 145 educators and administrators in 23 schools, and the internal consistency of the practices was found to exceed .9 (Tsai et al.). In the second, a case study of how the tool was used in a school district was reported. The step-by-step process of using the PEER-EBD was described in Walker et al., along with a description of the items on the tool, to give the reader a better idea of how the tool can be used in schools. The district, a large, urban district in the Seattle, Washington area of the U.S. used the PEER-EBD in a three-year professional development project to improve services and outcomes for students with EBD. Over 100 staff members serving over 150 students in 15 classrooms participated in the project.

In the first year of the case study, the 15 classroom teams completed initial baseline assessment of their practices, along with two expert external evaluators. The results were aggregated across the 15 classrooms for a district assessment and displayed for individual schools so that they could see their strengths and challenges. Summer workshops and quarterly in-service workshops were then scheduled in the district for the teaching teams. Priority areas for improvement, based on the PEER-EBD assessment were identified. These included: (a) improving the content and consistency of social skill's instruction, (b)

identifying methods to work effectively in group instruction, (c) improving behavior management practices, (d) increasing daily structure and predictability, (e) improving adult collaboration skills, (f) improving the use and practices related to Functional Behavior Assessment, and (g) learning about and using the practice of Life Space Crisis Intervention.

The school district administrators scheduled workshops to address these topics and provided classroom teachers with release time to attend the workshop. In addition, monthly professional learning community (PLC) meetings were established and well attended by staff. The staff reported that having time to meet in PLCs was one of the most positive aspects of the program improvement process. Additionally staff collaboration/teaming within schools improved and affected positive student programming and problem solving (weekly team meetings were held consistently at each school). District administrators also reported a significant change in staff retention rates, with the rate between 2006-09 at 55% retention, and between 2009-11 averaging 96-100% of staff retained. Retention has been shown to be related to staff satisfaction and student outcomes, and to reduce district costs for recruitment and retention of teaching staff (Walker et al., 2013).

Finally, district administrators, teaching staff, and building administrators monitored student suspensions and expulsions, requests for alternative education settings, and graduation rates from high schools. Suspensions/expulsions of students with EBD declined by about 55% and requests for alternative settings were down by the same percentage during the three years of the professional development activities for these classrooms (2008-2011). Additionally, from 2006-08 there were no graduates in the high school classrooms for students in EBD. After the professional development began, one student graduated in 2009 and two more graduated in 2010; and several were earning credits to graduate in 2011 and 2012. District administrators attributed these important changes to the PEER-EBD process that allowed for staff ownership of yearly goals in action plans, and to the changed relationships between administrators and staff as they worked collaboratively for program improvements.

Developing or improving programs for students with EBD is therefore not only possible, but also a likely outcome if a systematic plan of action is put in place by a school district. The actions that were effective in the process described here were: (a) the use of the participatory evaluation process that is embedded in the PEER EBD, (b) the development of goals in an action plan that addressed weaknesses on the PEER EBD, (c) a school district commitment to implementing the action plan, and (d) progress monitoring through data-collection. The PEER-EBD shows promise for those classrooms or school districts that are making efforts to enhance their programs serving students with EBD. While further research is needed to connect program evaluation to student outcomes, these initial findings in one school district are promising. Ultimately, programs and students are in need of close monitoring to improve the social and academic outcomes of students and decrease their suspensions, expulsions and dropout rates. Districts that use a PE process such as the PEER-EBD are likely to enhance their system of professional development and collaboration that also improves teacher and administrator satisfaction and stabilize essential systemic features that support these classrooms and programs.

References

- Billingsley, B.S., Fall, A., & Williams, T.O. (2006). Who is teaching students with emotional and behavioral disorders? A profile and comparison to other special educators. *Behavioral Disorders, 31*(3), 252-264.
- Borenson, L. (2006). *Effective programs for students with emotional behavioral disabilities (EBD)*. Retrieved from Wisconsin Department of Public Instruction website: <http://dpi.wi.gov/sped/doc/ebdeffprog.doc>
- Cheney, D. & Barringer, C. (1999). A transdisciplinary model for students' social and emotional development: Creating a context for inclusion. In J. R. Scotti & L. H. Meyer (Eds.), *New directions for behavioral intervention: Principles, models, and practices* (pp. 149-174). Baltimore, MD: Paul H. Brookes.
- Cousins, J. B., & Earl, L. M. (1995). *Participatory evaluation in education: Studies in evaluation use and organizational learning* (Eds.). London: Farmer Press.
- Cousins, J. B., Goh, S., Clark, S., & Lee, L. (2004). Integrating evaluative inquiry into the organizational culture: A review and synthesis of the knowledge. *Canadian Journal of Program Evaluation, 19*(2), 99-141.
- Grosenick, J. K., George, M. P., & George, N. L. (1987). A profile of school programs for the behave/orally disordered: Twenty years after Morse, Cutler and Fink. *Behavioral Disorders, 12*, 159-168.
- Grosenick, J. K., George, M. P., & George, N. L. (1990). A conceptual scheme for describing and evaluating programs in behavioral disorders. *Behavioral Disorders, 16*, 66-74.
- Grosenick, J. K., George, N. L., George, M. P., & Lewis, T. J. (1991). Public school services for behaviorally disordered students: Program practices in the 1980s. *Behavioral Disorders, 16*, 87-96.
- Henderson, K., Klein, S., Gonzalez, P., & Bradley, R. (2005). Teachers of children with emotional disturbance: A national look at preparation, teaching conditions, and practices. *Behavioral Disorders, 31*(1), 6-17.
- Jones, V., Dohrn, E., & Dunn, C. (2004). *Creating effective programs for students with emotional and behavior disorders: Interdisciplinary approaches for adding meaning and hope to behavior change interventions*. Boston, MA: Allyn & Bacon.
- Katsiyannis, A., Zhang, D., & Conroy, M. A. (2003). Availability of special education teachers: Trends and issues. *Remedial and Special Education, 24*(4), 246-253.

- Neel, R. S., Cessna, K., Borock, J., & Bechard, S. (2003). Quality program indicators for children with emotional and behavioral disorders. *Beyond Behavior*, 12(3), 3-9.
- Newman, L., Wagner, M., Cameto, R., Knokey, A. M., & Shaver, D. (2010). *Comparisons across time of the outcomes of youth with disabilities up to 4 Years after high school: A report of findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2)* (NCSE 2010-3008). Menlo Park, CA: SRI International.
- Patton, M. Q. (2008). *Utilization-focused evaluation* (4th ed.). Los Angeles, CA: Sage.
- Senge, P. (2000). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. New York, NY: Doubleday Currency.
- Simpson, R. L., Peterson, R. L., & Smith, C. R. (2011). Critical education program components for students with emotional and behavioral disorders: Science, policy and practice. *Remedial and Special Education*, 32, 230-242.
- Suarez-Herrera, J., Springett, J., & Kagan, C. (2009). Critical connections between participatory evaluation, organizational learning and intentional change in pluralistic organizations. *Evaluation*, 15(3), 321-342.
- Tsai, S. F. (2011). *Preliminary psychometrics of the participatory evaluation and expert review for classrooms serving students with emotional/behavioral disabilities*. University of Washington, Seattle.
- Tsai, S., Cheney, D. & Walker, B. (2013). Preliminary Psychometrics of the Participatory Evaluation and Expert Review for Classrooms Serving Students with Emotional/Behavioral Disabilities. *Behavioral Disorders*, 38, 137–153.
- U.S. Department of Education. (2006). *Twenty-sixth annual report to Congress on the implementation of the Individuals with Disabilities Education Act*, Washington, D.C.: Author.
- Wagner, M., Kutash, K., Duchnowski, A. J., Epstein, M. H., & Sumi, W. C. (2005). The children and youth we serve: A national picture of the characteristics of students with emotional disturbances receiving special education. *Journal of Emotional and Behavioral Disorders*, 13(2), 79-96.
- Walker, B., & Cheney, D. (2007). *Participatory Evaluation & Expert Review for Classrooms Serving Students with Emotional and Behavioral Disabilities*. Seattle, WA.

Walker, B., Clancy, M., Tsai, S.F., & Cheney, D. (2013). Bridging the research to practice gap: Empowering staff to implement meaningful program evaluation and improvement to better serve students with emotional or behavioral disorders. *Beyond Behavior, 22*(3), 3-14.

Walker, B., & Fecser, F. (2002). Elements of an effective Re-EDucation program for the 21st century. *Reclaiming Children and Youth, 11*(2), 110-115.

Zukoski, A. & Luluquisen, E.M. (2002). Participatory Evaluation: What is it? Why do it? What are the challenges? *Community Based Public Health Policy and Practice, 5*, 1-6.

Mailing address: Douglas A. Cheney, University of Washington, Box 353600, 102 Miller Hall, Seattle WA 98195-3600 USA

Email: dcheney@uw.edu

Note: This article is based on the work of Drs. Cheney & Walker in developing the PEER EBD, as well as the dissertations completed by Drs. Tsai and Clancy:

Tsai, S, Cheney, D. & Walker, B. (2013). Preliminary Psychometrics of the Participatory Evaluation and Expert Review for Classrooms Serving Students with Emotional/Behavioral Disabilities. *Behavioral Disorders, 38*, 137–153.

Walker, B., Clancy, M., Tsai, S.F., & Cheney, D. (2013). Bridging the research to practice gap: Empowering staff to implement meaningful program evaluation and improvement to better serve students with emotional or behavioral disorders. *Beyond Behavior, 22*(3), 3-14.

Clancy, C.M. (2011). *Participatory evaluation in programs for students with EBD* (Unpublished doctoral dissertation). Seattle University, Seattle, WA.

Tsai, S. F. (2011). *Preliminary psychometrics of the participatory evaluation and expert review for classrooms serving students with emotional/behavioral disabilities* (Unpublished doctoral dissertation). University of Washington, Seattle.

Exploring the Perceptions of Academic Social Skills of Students With Emotional and Behavioral Problems

Nicole Dobbins, PhD
University of North Carolina Greensboro, Greensboro, NC, U.S.A.

Joseph J. Morgan, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: How educators of and students with emotional and behavior disorders perceive social skills must be understood to provide direct instruction. A study, conducted in an urban school district in the southwestern United States explored the perceived level of importance of social skills held by teachers and students. The findings indicate that teachers and students both perceive the importance of social skills equally, however, students may they may perceive the value of direct instruction differently depending on varying academic and social environments and the type of skill.

Students who are able to use social skills effectively in academic and functional settings are likely to be more successful in post-secondary outcomes and independent living (e.g., employment, higher education) (Cumming et al., 2008; Herbert-Myers, Guttentag, Swank, Smith, & Landry, 2006; Konold, Jamison, Stanton-Chapman, & Rimm-Kaufman, 2010; Segrin & Taylor, 2007). Furthermore, these students may have higher achievement scores and more established positive relationships with teacher and peers (Konold et al., 2010; McClelland, Morrison, & Holmes, 2000; Meier, DiPerna, & Oster, 2006; Segrin & Taylor, 2007; Warnes, Sheridan, Geske, & Warnes, 2005). On the contrary, the inability to display or use appropriate social skills may lead to adverse interactions with teacher and peers, thus resulting in a academic deficits, and possibly higher rates of problematic behaviors (Gresham, Elliott, Cook, Vance, & Kettler, 2010; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Mikami, Huang-Pollock, McBurnett, & Hagnai, 2007).

Students with emotional and behavioral disorders (EBD) characteristically have difficulty interacting with peers and teachers (IDEA, 2004). They may display disruptive behaviors such as verbal and physical aggression towards others, impulsivity, and deficits in communication skills that impact their ability to develop or maintain interpersonal relationships with friends and/or teachers (Gresham, Sugai, & Horner, 2001; Hill & Coufal, 2005; Johns, Crowley, & Guetzloe, 2005). Students with EBD must receive direct instruction on social skills across academic and functional settings using appropriate implementation strategies in order to develop social competence. Educators of these students must address these needs through individualized interventions to increase the probability of students creating and maintaining positive interpersonal relationships (Gresham et al., 2001; Gresham et al., 2010; Warnes et al., 2005). These targeted skills are typically delivered

through direct and explicit instruction involving explanations of inappropriate and appropriate behaviors across settings. Modeling of the appropriate skills and opportunity to practice and generalize to natural settings are also imperative (Johns et al, 2005; Goldstein & McGinnis, 1997; Gresham, Sugai, & Horner; Maag, 2005).

Social skills are performed based on contextual environments and cultural constructs (Hart et al., 2010; Siperstein, Wiley, & Forness, 2011). Often, when teachers design the direct instruction of social skills for students with EBD, little consideration is given to the need for the skills to be taught, why the deficit exists or acknowledgement of the discrepancy between behavioral expectations of ones home and school environments (Cartledge & Kourea, 2008; Cartledge, Singh, & Gibson, 2008). Furthermore, this instruction is more likely to occur in a separate special education classroom irrelevant to the actual environment where the appropriate behavior would occur (Johns, Crowley, & Guetzloe, 2005), thus limiting a student's ability to effectively generalize the skills (Maag, 2005). These variables must be considered when designing interventions for students with EBD to become socially competent across a variety of environments (Grehsam et al., 2001). Instruction should incorporate or consider a student's cultural values and perspectives as they relate to the their perception of the perceived importance of the skill (Cartledge & Kourea, 2008; Cartledge & Loe, 2001; Chamberlain, 2005). This alignment of social skills within the common core curricula and cultural consideration rarely occurs, since teacher report receiving little to no training concerning social skills instruction in the general education environment (Dobbins et al., 2010).

The purpose of this study was: (a) to identify the perspectives of teachers and students with EBD related to their perceptions of the importance of school appropriate social skills and (b) to explore any differences that may exist in these perceptions across gender, age, and ethnicity of students. Specifically the following research questions were addressed: (a) What perspectives do teachers and students with EBD have related to the importance of school-appropriate social skills? (b) Are there any differences in the perceptions of students with EBD related to the importance of social skills appropriate for use in the school environment among students of different genders, ages, and ethnicities? (c) Are there any differences in the perceptions of importance of social skills among teachers and students with EBD?

Methods

A survey research design model was used to collect information about the perceptions of teachers and students with EBD related to the importance of social skills. All participants were recruited from a special school, which only provided special education services for students with EBD, located in a large urban school district in the Southwest region of the United States. Descriptive statistics and an analysis of variances were used to identify any significant differences between the groups of students and teachers in terms of age, ethnicity, or gender.

Participants

The participants were 50 elementary, middle, and high school students identified as having an emotional or behavioral disorder by a multidisciplinary team and who were receiving

their educational services in a self-contained school setting. Additionally, 18 licensed, special education teachers who worked at this self-contained school participated. Written consent and assent forms were gathered from all participants prior to participation in the study.

Instrumentation

In order to determine the level of importance teachers and students with EBD place on social skills typically taught, the researchers' garnered permission to use the *Modified Teacher/Staff Skillstreaming Questionnaire* (Dobbins et al., 2010; Goldstein & McGinnis, 1997). This questionnaire was modified from the original *Teacher/Staff Skillstreaming Questionnaires* from elementary and adolescent versions of the *Skillstreaming* curricula (Goldstein & McGinnis, 1997; McGinnis & Goldstein, 1997). The teacher completed the modified tool which was comprised of questions related to 87 social skills presented in the curricula based on the following categories: (a) Classroom Survival Skills/Beginning Social Skills, (b) Friendship-Making Skills/Advanced Social Skills, (c) Skills for Dealing with Feelings, (d) Skill Alternatives to Aggression, (e) Skills for Dealing with Stress, and (f) Planning Skills.

The students completed the *Perceptions of Importance of Social Skills Questionnaire*, which is a shortened version of the *Modified Teacher/Staff Skillstreaming Questionnaire*, categorized by the same six categories but containing only 47 statements to ensure student engagement and participation. Both questionnaires followed the same structure of providing participants with a stem followed by a statement referring to different social skills commonly taught to students with EBD. Students were asked in terms of the level of importance of the skill to them, and teachers were asked to rate the level of importance for students to learn how to perform a skill. Agreement for each given statement was ranked based on a 5-point Likert scale.

Procedures

Permission was granted by the local school district and site administrator, to recruit teachers who taught social skills, to students in grades 3-12, and those students identified as EBD in grades 3-12. Only teachers and students who provided written consent and assent were invited to participate. Teachers used a protocol to explain the study to their classes and invite students to complete the survey in class. All completed instruments were then placed in a sealed envelope and delivered to the research team for analysis.

Results

In order to determine (a) what perspectives teachers and students with EBD have related to the importance of school-appropriate social skills, (b) are there any differences in the perceptions of students with EBD related to the importance of social skills appropriate for use in the school environment among students of different genders, ages, and ethnicities? and (c) are there any differences in the perceptions of importance of social skills among teachers and students with EBD, all participant responses were entered into a database for descriptive and statistical analysis. Twenty-five percent of the entered

responses were verified by a member of the research team, with an interscorer reliability of 100%.

In terms of the perceived importance of social skills for teachers and students with EBD across the six categories of social skills, both teachers and students agreed that social skills are important to learn. Overall, respondents indicated that they agreed or strongly agreed that the skills within the category were important to learn. Although, the results indicated there was a significant difference between reported perceptions of the importance of social skills across categories [$F(1,5) = 7.481, p < .001$]. Follow-up pairwise comparison tests indicated a significant difference in respondents' perceptions of the importance of category 1 (Beginning Social Skills) and category 3 (Skills for Dealing with Feelings) ($p < .01$), as well as between category 1 and category 5 (Skills for Dealing with Stress) ($p < .01$).

According to the results, no significant difference in the perceived importance of social skills was evident across age, [$F(1,1) = 1.00, p = .321$], gender [$F(1,1) = 1.210, p = .277$], or ethnicity [$F(1,1) = 2.73, p = .105$]. However, there was a significant difference between students and teachers in their reported perception of social skills [$F(1,1) = 5.054, p < .03$]. While students and teachers agree that social skills are important, teachers believed social skills were more important to learn than students.

Discussion

This study explored the perceptions held by teachers and students with EBD on the importance of social skills. Teachers and students with EBD, both believe that social skills are important skills regardless of age, gender or ethnicity. Teachers believe the skills were more important to learn than did students. These finding suggests that while students view the learning of social skills important, if the selected skills in a curricula are not relevant to their particular cultural or academic constructs, motivation to learn and generalize the skill will not be high (Cartledge, Kea, & Simmons-Reed, 2002; Cartledge & Loe, 2001; Gresham, Sugai, & Horner, 2001; Hart et al., 2010). When a student's cultural and academic backgrounds are considered in the design of a social skill lesson and furthermore explained prior to the implementation of that lesson, the probability of a student being able to master and generalize the concept is great improved.

References

- Cumming, T., Higgins, K., Pierce, T., Miller, S., Boone, R., & Tandy, D. (2008). Social skills instruction for adolescents with emotional disabilities: A technology-based intervention. *Journal of Special Education Technology*, 23, 19-33.
- Dobbins, N., Higgins, K., Pierce, T., Tandy, R. D., & Tincani, M. (2010). An analysis of social skills instruction provided in teacher education and in-service training programs for general and special educators. *Remedial and Special Education*, 31, 358-367.
- Gresham, F. M., Elliott, S. N., Cook, C. R., Vance, M. J., & Kettler, R. (2010). Cross-informant agreement for ratings for social skill and problem behavior ratings: An investigation

- of the social skills improvement system-rating scales. *Psychological Assessment*, 22, 157-166.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children*, 67, 331-344.
- Goldstein, A. P., & McGinnis, E. (1997). *Skillstreaming the adolescent*. Champaign, IL: Research Press.
- Hart, J. E., Cramer, E. D., Harry, B., Klingner, J. K., & Sturges, K. M. (2010). The “troubling” to “troubled” behavior: Exploratory case studies of African American students in program from emotional disturbance. *Remedial and Special Education*, 31, 148-162.
- Herbert-Meyers, H., Guttentag, C. L., Swank, P.R., Smith, K. E., & Landry, S. H. (2006). The importance of language, social, and behavioral skills across early and later childhood as predictors of social competence with peers. *Applied Developmental Science*, 10, 174-187.
- Hill, J. W., & Coufal, K. L. (2005). Emotional/behavioral disorders: A retrospective examination of social skills, linguistics, and student outcomes. *Communication Disorders Quarterly*, 27, 33-46.
- Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Johns, B. H., Crowley, E. P., & Guetzloe, E. (2005). The central role of teaching social skills. *Focus on Exceptional Children*, 37(8), 1-8.
- Konold, T. R., Jamison, K. R., Stanton-Chapman, T. L., & Rimm-Kaufman, S. E. (2010). Relationships among informant based measures of social skills and student achievement: A longitudinal examination of differential effects by sex. *Applied Developmental Science*, 14, 18-34.
- Lane, K. L., Pierson, M. R., & Givner, C. C. (2004). Secondary teachers’ views on social competence. Skills essential for success. *Journal of Special Education*, 38, 174-186.
- Maag, J. W. (2005). Social skills training for youth with emotional and behavioral disorders and learning disabilities: Problems, conclusions, and suggestions. *Exceptionality*, 13, 155-172.
- McClelland, M. M., Morrison, F. J., & Holmes, D. L. (2000). Children at risk for early academic problems: The role of learning-related social skills. *Early Childhood Research Quarterly*, 15, 307-329.

- Meier, C. R., DiPerna, J. C., & Oster, M. M. (2006). Importance of social skills in the elementary grades. *Education and the Treatment of Children, 29*, 409-419.
- Mikami, A. Y., Huang-Pollock, C. L., Pfiffner, L. J., McBurnett, K., & Hangai, D. (2007). Social skills differences among attention-deficit/hyperactivity disorder types in a chat room assessment task. *Journal of Abnormal Child Psychology, 35*, 509-521.
- Segrin, C., & Taylor, M. (2007). Positive interpersonal relationships mediate the association between social skills and psychological well-being. *Personality and Individual Differences, 43*, 637-646.
- Siperstein, G. N., Wiley, A. L., & Forness, S. R. (2011). School context and the academic and behavioral progress of students with emotional disturbance. *Behavioral Disorders, 36*, 172-184.
- Warnes, E. D., Sheridan, S. M., Geske, J., & Warnes, W. A. (2005). A contextual approach to the assessment of social skills: Identifying meaningful behaviors for social competence. *Psychology in the Schools, 42*, 173-187.

Mailing address: Nicole Dobbins, University of North Carolina, Greensboro, Department of Specialized Education Services, 432 School of Education Building, PO Box 26170, Greensboro, NC 27402 USA
Email: n_dobbin@uncg.edu

Cultural Parental Perceptions of Student Educational Achievement

Vita L. Jones, PhD
Dawn R. Person, PhD

California State University Fullerton, Fullerton, CA, U.S.A.

Abstract: The paper presents two case studies that asked parents perceptions of resiliency and student success while in high school. One case study used surveys and the Delphi method for identifying key findings while the other used interviews and grounded formal theory. The findings from the Delphi method were that spiritual/faith, positive/negative personal traits, family involvement/problems, positive educational supports, and decreasing inappropriate behaviors were all contributory factors to the students' academic success. The second case study showed parents believed that their ninth graders were resilient due to family support, academic support through supplemental instruction, and their personal motivation to achieve. The eleventh grade findings revealed that self-motivation continued to prevail as well as parental and teacher support. The intervention that was offered in the school was also viewed as a contributor to their success and peers were the final source of support. Similar characteristics of resiliency were noted in both studies.

President Obama's Race to the Top outlines the importance of education for every student in our country. The previous national framework, No Child Left Behind, also set forth a course for students to succeed. What is unclear is the path needed to make these academic gains; furthermore, students do not all start with the same equitable opportunities. Often, students that are considered "at risk" have special challenges precluding their ability to succeed. Students of color often fall into categories of marginalization as a result of these challenges. While students have their own perceptions of what it takes to succeed educationally, their parents also are clear about the barriers their children face and how their children can achieve success. To this end, parental beliefs about their students' educational trajectory are valuable to achievement. This paper considers two case studies of parents who share their perspectives on their child's achievement and resilience. One case study focuses on African American parents from varied social economic backgrounds who share a common connection with the church community in Las Vegas, Nevada. The second case study setting is an "at risk" low socioeconomic urban high school in Southern California. In both case studies, parents were interviewed and the results of the study revealed the importance of parents' perceptions of academic resilience.

Parental Beliefs about Academic Resiliency

Resiliency is an important element contributing to the success of African American students (Patterson, 2002). Without this essential characteristic, African American students are often targets of low expectations and increased probability of school failure (Ogbu, 2004). Without this pertinent research, educators and African American parents are at a significant disadvantage when attempting to build this crucial attribute into the lives and education of African American students (Parker, Cowen, Work, & Wyman, 1990).

The definition of academic resilience is the ability to overcome hardships and remain positively engaged in the educational setting (Patterson, 2002; Sagor, 1996; Ogbu, 2004). Major components of academic resilience include, but are not limited to, the possession of internal locus of control, intrinsic motivation, strong relationships with peers and adults, and the ability to remove oneself emotionally from unfavorable situations (Ford, 1994; Kitano & Lewis, 2005; Sagor, 1996). Major fields of study have examined the characteristics of academic resilience. Sociologists claim resilience is dependent on the social relationships students develop as well as favorable intrinsic factors (International Resilience Project, 2006). Anthropologists report that resilience is the ability to have communal support and maintain a positive inner dialogue (Robinson, 2005). The contribution of psychologists to the literature of academic resilience state that parents' ability to reframe stressful events for students is vital to their development of resilience (Goldstein, 2006). Educational theorists define academic resilience as the cultivation of successful school fit in spite of adversarial events (Martin & Marsh, 2006). In essence, there are various aspects to resilience.

Methodology

In the first case study, the researcher developed a consensus of parents' views of resiliency for African American children/youth using the Delphi process. The Delphi method is based on the premise that human judgment is legitimate and provides useful input for the topic under study (Stitt-Gohdes, & Crews, 2004). Probing into the distinguishing characteristics that contribute to building resiliency in this population, the researcher was able to identify specific characteristics of resiliency that African American parents described. These parents graduated from high school and had one or more children who were high school graduates described. The Delphi study consisted of three rounds of surveys given at each of the five churches. Data collectors (members) of each church passed out the surveys during weekly services. First-round survey data were analyzed and placed on second-round surveys; third-round surveys consisted of top answers from the second round. Top answers were analyzed for themes and categories.

Research Questions/Findings

This study involved the administration of three rounds of the Delphi to develop a consensus among African American parents concerning the characteristics of resiliency they believe contributed to the success of his or her child who graduated from high school. The study focused on the following question: What roles do individual, relationship, community, cultural, and environmental influences play in achieving resiliency in African American children/youth?

Three thousand two hundred sixteen responses were collected during the first rounds of the Delphi survey. Of these responses, 281 aggregated responses were categorized and the top ten responses were placed on the second survey. Participants then completed a second survey with the top 10 responses from round one. The third round survey was comprised of the top three responses from round two.

Findings: Case Study 1

The following categories were noted as beneficial in building academic resilience in African American students. Spiritual/faith, positive/negative personal traits, family involvement/problems, positive educational supports, and decreasing inappropriate behaviors were all listed as contributory factors influencing student success. Parents' repeatedly cited family involvement, positive educational support and peer engagement as key factors in their students school success. Spiritual/faith beliefs may have rated high because the study was conducted in the church setting. Parents reported that mentors in church enhanced student achievement as well as spiritual leaders setting the tone for educational attainment. While these factors may not be new to educators, they do provide a basis for renewed effort in working with this population of students.

Methodology: Case Study 2

Students with cultural or linguistic diversity require a distinctive set of skills to successfully traverse through school. A qualitative case study method and grounded theory analysis was used for this study. The qualitative case study method allowed the researcher to explain the phenomena in the context in which it occurred (Creswell, 2007; Miles & Huberman, 1994; Stake, 2000). In this study, the phenomena are the effectiveness of the intervention and the context is the environment surrounding the individual. Grounded Theory involves theory building (Strauss & Corbin, 1990) and helps us understand and explain early preparation for post-secondary education.

Setting of the Study

This longitudinal case study focuses on parents of Latino high school students who were interviewed while their child was in ninth and eleventh grades. The findings highlighted in this paper focus on how parents have supported their students in overcoming struggles and challenges as well as parent insights to factors that have led to their student's success. The parents in this study have children that are considered at-risk and attend underperforming high schools where post-secondary ascendency for graduates is unusual.

For the past five years, these schools have intentionally focused on changing the school culture to one of a college going culture with the aid of federal assistance and educational interventions. The intervention is designed to: 1) Provide students with skills, encouragement, and preparation to enter and succeed in postsecondary education; 2) Heighten parents and families awareness of skills and knowledge needed for postsecondary education; 3) Create and support a college-going culture and 4) Clarify or help explain early preparation for postsecondary education.

Instrument

The interview protocol used included questions centered on demographics, perceptions and effectiveness of the intervention, as well as perceptions of the child as learner and the school climate. Moreover, the interview protocol gauged awareness and usage of activities and support services. Once interviews were conducted, the audio from the interviews were transcribed and reviewed for quality and accuracy. A matrix was then created which extracted key themes. The matrices were separated by school site and year. Open-coding qualitative analysis software (Atlas T.I) was used to manage the data for in-depth analyses.

Participants

A total of 15 interviews were conducted with some overlap in participants from one data collection time to the other. A total of seven parent participants were recruited and agreed to participate in individual interviews in the child's ninth grade of high school. Most parents ($n = 6$) self-identified as Latino/Hispanic, all of whom indicated Spanish as their first language. One participant identified as Vietnamese American and communicated their first language as Vietnamese. Additionally, parents were asked to share their highest level of education. Two participants shared they have no formal schooling, one an elementary school education, one a junior high education, one high school education, one received a general education degree, and one completed college education.

A total of eight parent participants were recruited and agreed to participate in individual interviews in the eleventh grade. Most of these parents ($n = 5$) self-identified as Latino/Hispanic, all of whom indicated Spanish as their first language. One participant identified as Vietnamese and communicated their first language as Vietnamese. Another participant identified as Cambodian and reported their first language as Cambodian. Another parent participant identified as Filipino and mentioned their first language as Tagalog and Bisaya. Additionally, parents were asked to share their highest level of education. Two participants shared they have an elementary school education, three a junior high education, one a high school education, one received a technical education degree, and one completed a four year college education.

Results

Ninth Grade

Perception of student success. Respondents were asked to share elements they believe have contributed to their child's success. Three parents attributed their child's success to the program. Other participants discussed additional elements such as student self-determination, supplemental instruction, and parent and family support and influence.

Barriers and success. Throughout the parental discussions, challenges to their student's educational success were noted. Two parents spoke to the challenges of transitioning from middle school to high school. One parent stated, "Overall aging, he is no longer a child, he is an adult and the whole process is different now than what he was accustomed to in junior high and elementary, and it's been difficult."

Eleventh Grade

Perception of student success. Respondents were asked to share elements they believe have contributed to their child's success. Two parents attributed their child's

success to their group of friends. Other participants discussed additional elements such as students' self-persistence, supplemental instruction, and parent and family support and influence. Most parents stated their students' success was credited to their own academic persistence.

Barriers and success. Parents shared their perceptions of what their students' concerns are in school. In eleventh grade there was a bit of a shift that included issues of health for parents as a challenge, managing the cost of higher education as a low income family, and language continued to be barriers to success from the parents' perspective.

Comparisons

Both groups of parents noted the importance of individual and relational influences in the development of academic resilience in students of color. The individual attribute of self-determination as well as the relational characteristic, parent and family support was consistent in both studies. Other relational features noted were mentoring and familial expectations. Likewise barriers to student success were listed as immigration status, acquisition of the English language, and lack of finances. Negative peer pressure and poor study skills were listed as barriers as well as inappropriate behaviors such as procrastination and a lack of motivation. Parents from both studies, regardless of educational background and experience, seemed knowledgeable about what their students require to succeed, or were resourceful in identifying agents of support to assist their child as needed.

References

- Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Ford, D.Y. (1994). Nurturing resilience in gifted black youth. *Roeper Review*, 17, 80-85.
- Goldstein, S. (2006, October). The roots of responsibility. Retrieved March 3, from <http://samgoldstein.com/cms/index.php/articles/>
- International Resilience Project. (2006). International Resilience Project Research Report. Halifax Nova Scotia, Dalhousie University. Retrieved March 1, 2014 from <http://resilienceresearch.org/research-and-evaluation/projects/147>
- Kitano, M.K., & Lewis, R.B. (2005). Resilience and coping: Implications for children and youth at risk. *Roper Review*, 27, 200-205.
- Martin, A.J., & Marsh, H. (2006). Academic resilience and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools*, 43, 267-281.
- Miles, M. & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*. London: Sage.

- Ogbu, J.U. (2004). Collective identity and the burden of "Acting White" in black history, community and education. *The Urban Review*, 36(1), 1-35.
- Parker, G.R., Cowens, E.L., Work, W.C., & Wyman, P.A. (1990). Test correlates of stress resilience among urban school children. *Journal of Primary Prevention*, 11(1), 19-35.
- Patterson, J.M. (2002). Understanding family resilience. *Journal of Clinical Psychology*, 58, 233-246.
- Robinson, G. (2005). Anthropology, explanation and intervention: Risk and resilience in a parent-and child-focused program. *Anthropological Forum*, 15(1), 1-23.
- Sagor, R. (1996). Building resiliency in students. *Educational Leadership*, 54, 38-43.
- Stake, R. E. (2000). Case Studies. In N. K. Denzin, Lincoln, Yvonna S. (Ed.), *Handbook of Qualitative Research* (2nd ed., pp. 134-164). Thousand Oaks, CA: Sage Publications, Inc.
- Stitt-Gohdes, W.L. & Crews, T.B. (2004). The Delphi technique: a research strategy for career and technical education. *Journal of Career and Technical Education*, 20(2), 55-67.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Wasonga, T., Christman, D. E., & Lloyd, K. (2003). Ethnicity, gender and age: Predicting resilience and academic achievement among urban high school students. *American Secondary Education*, 32(1), 62-74.

Mailing address: Vita L. Jones, California State University Fullerton, 2600 Nutwood Blvd, CP 620, Fullerton, California 92831 USA
Email: vjones@fullerton.edu

Building Bridges: A Program Evaluation Framework for Counselors In Schools

Wendy J. Hoskins, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Counselors working in schools find themselves at a crossroads; wanting to provide services to all students and needing to be accountable to stakeholders for the services they provide. Stakeholders who have a vested interest in counseling services include: students, parents, teachers, administrators, funding entities, school accrediting bodies, referral sources, and community members. This article examines a framework for school counselors to reduce barriers, garner the support of stakeholders, and advocate for expanding services through review of the Accountability Bridge Program Evaluation Model.

Today's school counselors are charged with meeting the personal/social, academic, and career needs of all students. Professional counseling related organizations including the American School Counselor Association, Council for Accreditation of Counseling & Related Programs, and the Education Trust continue to refine ethical codes, training and standards of practice to encourage inclusive, comprehensive school counseling programs and services. For example, the American School Counseling Association (ASCA) developed school counselor competencies and ethical standards that reflect the school counselor's responsibility to advocate for equitable policies and practices within the school for every student. These ethics and standards include special care for students who have not regularly received adequate services such as students with special needs (ASCA, 2010).

Not only do school counselors need to advocate for the needs of all students, they also need to advocate for their counseling practice. Counselors in schools are coming under increased pressure to evaluate and justify services provided. In particular, school counselors may need to work harder to justify working with individuals and small groups when public school populations are high and they need to serve many students. Individual and small group counseling tends to be offered with smaller school populations with specific needs not being met in the dominant school system framework.

School counselors are challenged with how to measure the benefits they provide. One possible measure is program evaluation. Program evaluation is considered an applied research discipline, and is a systematic process of collecting and analyzing information about efficiency, effectiveness, and impact of programs and services (Boulmetis & Dutwin, 2011). School counselors may find program evaluation to be a valuable type of action research that allows them a different view of programs and services as well as potentially improving the quality and scope of students served.

There are two important barriers impeding the process of program evaluation as well as counseling programs and services offered. The first barrier is sufficient program

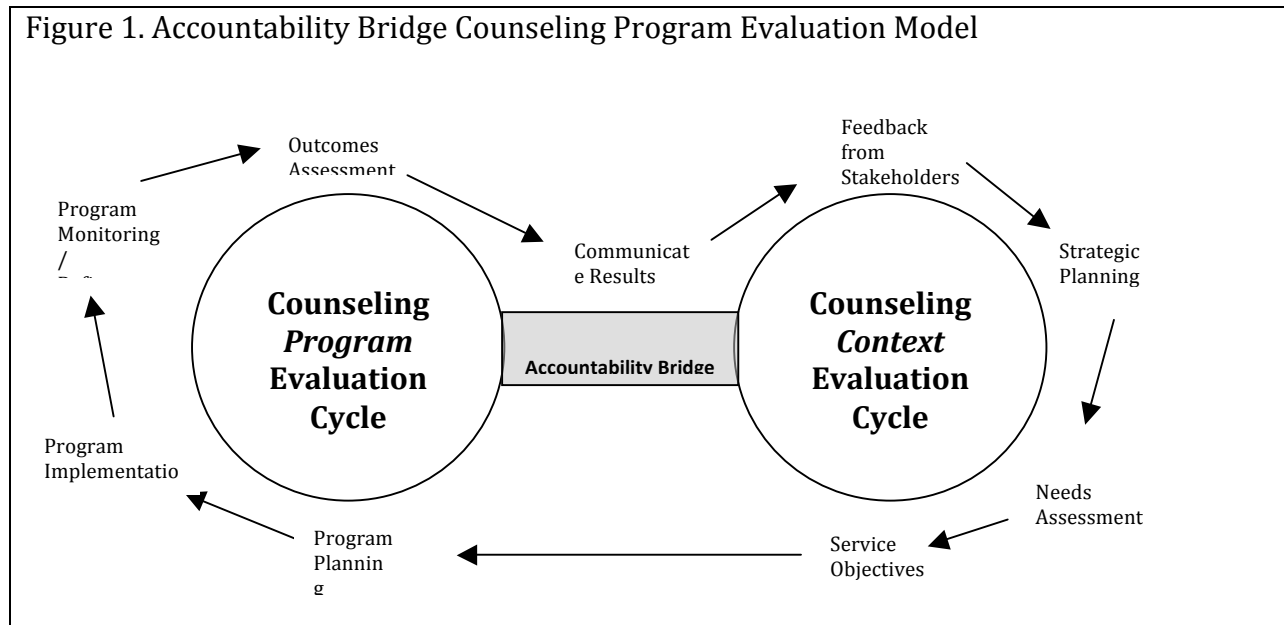
evaluation training and tools offered within the school counseling profession. While school counselors are charged with providing accountability data, they find it difficult to offer evidence of school counseling program effectiveness (Brigman, 2006). Lack of school counseling specific program evaluation tools and outcomes assessments can make the accountability process difficult if not impossible (Studer, Oberman, & Womak, 2006). Without proper modes of assessment, school counselors are often left to develop their own instruments despite limited research-based training. Many school counselors do not feel adequately trained to quantifiably assess their programs and services. For example, counselors in the 5th largest school system in the nation participated in a study and answered questions that included an inquiry of the type of instruction, if any, they received in program evaluation during their training programs. The majority of participants, 53.6%, did not receive training in program evaluation during their graduate coursework. Research suggests evaluation training and research seems to be a low priority in school counseling graduate programs (Astramovich, Coker, & Hoskins, 2005; Sink, 2009).

The second program evaluation barrier involves the stakeholders. Stakeholders who have a vested interest in school counseling services include: students, administrators, funding entities, parents, teachers, referral sources and community members. It is vitally important that stakeholders and counselors are working from the same mission or goals if improvements in counseling services are to take place. Unfortunately, school counselors seem reluctant to advocate or market their programs to stakeholders despite the critical need to promote counseling services provided (Thompson, 2013). Lack of communication creates the gap between stakeholder ideals and actual services offered. Results can vary from lack of support for employing school counselors, uninformed bias regarding the roles and functions of school counselors, or poor understanding for proportionate time given to providing counseling services for under-represented populations.

Despite ongoing publications and reports from professional associations for better school counseling accountability and program evaluation, finding a program evaluation model that meets the needs of the school counselor as well as involve stakeholders can be difficult (Sink, 2009). If school counselors are to overcome the two barriers to effective program evaluation, they must acquire knowledge and understanding of a practical approach that can help determine the impact of their various counseling services and provide an avenue for conveying the results to stakeholders (Astramovich, Hoskins, & Coker, 2013).

The Accountability Bridge Model (see Figure 1) is a framework developed to help facilitate program evaluations and communicate results to stakeholders. This model was developed to help school counselors in the planning, delivery, and assessment of the effectiveness and impact of services provided (Astramovich, Hoskins, & Coker, 2008). The counseling evaluation process is organized into two reoccurring cycles: the *counseling program evaluation cycle* and the *counseling context evaluation cycle*. Together, both cycles represent an ongoing refinement of services based on outcomes, stakeholder feedback, and needs of the population served.

Figure 1. Accountability Bridge Counseling Program Evaluation Model



The *counseling program evaluation cycle* involves four basic stages: program planning, program implementation, program monitoring/refinement, and outcomes assessment. Each step is connected and must be thought through before starting. In the program planning stage, the counselor plans a program based on information gathered previously through needs assessments and identification of service objectives. Identification of the interventions, programs, and resources required is important to this stage. In addition, counselors need to focus on and strategically plan the types of outcomes they wish to assess including but not limited to: checklists, pre-post instruments, and/or performance indicators. Available self-report data, and observable data can also be used (Gysbers & Henderson, 2012).

Next, school counselors initiate specific programs and services during the program implementation stage. All of the work done in the program planning stage can be seen by the execution of the implementation of designated programs. Throughout the program implementation stage, the program monitoring and refinement stage begins simultaneously. School counselors must determine during this time if any adjustments need to be made to the program or intervention. Monitoring can be based on preliminary data and feedback, which leads to the refinement of the current program.

After completing a specific program, school counselors tend to desire information regarding the effectiveness of services provided. In the outcomes assessment stage (the final stage of the *program evaluation cycle*) school counselors actively determine the outcomes of interventions and programs through assessment of data collected. Depending on the type of data collected, utilization of various software programs such as Microsoft Excel or SPSS can be invaluable in executing results.

Between the two cycles of evaluation is the *accountability bridge*. This is perhaps the most important part of the model as it conveys the communication of program outcomes to stakeholders. Stakeholders can maintain the power to potentially decide the type of clientele (including populations with special needs), programs, and reform efforts school

counselors may focus on. Communicating to stakeholders represents taking a proactive stance designed to help counselors advocate for support and increase demand for counseling services (Bridgeland & Bruce, 2011).

The second cycle represented in the model is the *counseling context evaluation cycle*. This cycle includes four stages: feedback from stakeholders, strategic planning, needs assessment and service objectives. The primary goal of the *counseling context evaluation cycle* is to incorporate feedback from stakeholders with the demonstrated needs and develop primary objectives for a counseling center to focus on.

During the feedback from stakeholders stage, counselors communicate results to stakeholders regarding completed programs and interventions. Reporting results can take several forms including face-to-face presentations and discussions, as well as electronic or typed reports and summaries. The goal is to solicit feedback from the stakeholders based on the information offered in an attempt to build better programs in the future. For instance, if the communicated results indicate that the demographics of students with needs served were 95% Caucasian in a school district that has a 75% Hispanic students with special needs, feedback might include development of services that reach out to the Hispanic population. A secondary benefit is the impact this stage has on creating better relations with stakeholders. When stakeholders are engaged meaningfully and asked for their input, they may become more vested and supportive of the school counseling program.

The second stage of the *counseling context evaluation cycle* that school counselors engage in is strategic planning. This stage primarily takes into account the program's impact on the overall mission and goals of the school counseling environment. This can include the counseling center itself as well as the school. More specifically, this stage can include possible changes to existing programs, mission, and purpose of a counseling program as well as implementation of new services to be considered.

School counselors can receive critical information about the school environment and student needs during the needs assessment stage. Needs assessments can identify the perceived needs of the current population being served, as well as potential underserved populations within the school community. Comprehensive needs assessments gather information from various sources (ex: teachers, students, parents) and are planned with a clear purpose in mind (Royse, Thyer, & Padgett, 2010). Making sure the developed needs assessment is specific to the needs of the targeted population is very important.

Finally, service objectives should be identified based on all the information gathered up to this point. Previous outcomes of counseling services, stakeholder feedback, strategic planning, and needs assessments results are all important components to developing useful service objectives. Programs need identifiable and measurable objectives in order to adequately be evaluated for effectiveness. When the service objectives have been developed, the entire Accountability Bridge Counseling Program Evaluation process begins anew.

With continued emphasis on accountability of services, school counselors need to find available tools that work for them. The Accountability Bridge Program Evaluation Model not only offers a helpful tool for school counselors, but is also designed in a collaborative way to incorporate feedback from stakeholders. By building bridges between

school counselors and stakeholders, there is a better chance to advocate for more optimal services to be provided for all students in the school counseling environment.

References

- American School Counselor Association. (2010). *Ethical standards for school counselors*. Alexandria, VA: Author.
- Astramovich, R. L., Hoskins, W. J., & Coker, J. K. (2013). *Organizing and evaluating data-driven school counseling programs*. Dubuque, IA: Kendall Hunt.
- Astramovich, R. L., Hoskins, W. J., & Coker, J. K. (2008). *The Accountability Bridge: A model for evaluating school counseling programs*. Dubuque, IA: Kendall Hunt.
- Astramovich, R. L., Coker, J. K., & Hoskins, W. J., Hoskins (2005). Training School Counselors in Program Evaluation, *Professional School Counseling*, 9, 49-54.
- Boulmetis, J., & Dutwin, P. (2011). *The ABCs of evaluation: Timeless techniques for program and project managers* (3rd. ed.). San Francisco: Jossey-Bass.
- Bridgeland, J., & Bruce, M. (2011). 2011 National survey of school counselors: Counseling at a crossroads. *College Board Advocacy & Policy Center*.
- Brigman, G. (2006). Research methods in school counseling: A summary for the practitioner. *Professional School Counseling*, 9, 421-425.
- Gysbers, N. C., & Henderson, P. (2012). *Developing and managing your school guidance program* (5th ed.). Alexandria, VA: American Counseling Association.
- Royse, D., Thyer, B. A., & Padgett, D. K. (2010). *Program evaluation: An introduction* (5th ed.). Belmont, CA: Wadsworth.
- Sink, C.A. (2009). School counselors as accountability leaders: Another call for action. *Professional School Counseling*, 13 (2), 68-74.
- Studer, J.R., Oberman, A.H., & Womack, R.H. (2006). Producing evidence to show counseling effectiveness in schools. *Professional School Counseling*, 9, 385-391.
- Teles, S., & Schmitt, M. (2011). The elusive craft of evaluating advocacy. *Stanford Social Innovation*, 39-43.
- Thompson, R. A. (2012). *Professional school counseling: Best practices for working in the schools* (3rd ed.). New York, NY: Routledge.

Mailing address: Wendy J. Hoskins, University of Nevada, Las Vegas, 4505 Maryland Parkway, Box 453014, Las Vegas, NV 89154-3014 USA
Email: wendy.hoskins@unlv.edu

Restoring Justice to Special Needs Students: An Anti-Bullying Intervention Model for School Counselors and Special Educators

Shannon Smith, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Students with special needs are greater risk of being bullied than general education students. School Counselors can ally with Special Educators to be advocates for victims of bullying. The authors present an anti-bullying model based upon restorative justice, and illustrate utilization of this model with a case example.

Bullying in schools has garnered a great deal of attention over the past decades (Olweus 1993; Espelage & Swearer, 2003). It is considered by some to be a public health issue (Feder, 2007), and a significant health and social concern in many countries around the world (Smith, Ryan, & Cousins, 2007). Olweus (2013) describes bullying as intentional harm caused to another usually involving a power differential. Nansel et al. (2001) describes the power differential being “physical or psychological” (p. 2094) in nature.

In 2011, President Obama held the first White House Conference on Bullying Prevention. The conference was held in effort to address bullying in schools (<http://www.whitehouse.gov/the-press-office/2011/03/10/background-white-house-conference-bullying-prevention>). Due to the serious consequences of bullying, many states in the USA have require anti-bullying interventions (Limber & Small, 2003). For example, the watch-dog Bullypolice.org reports that 49 of the 50 states now have anti-bullying laws in place. In the state of Nevada, the Nevada Revised Statues (NRS) requires its school districts to provide a safe and respectful learning environment, to establish a school safety team, to prevent bullying, and to report bullying incidents (NRS388.388.121, NRS388.1343, NRS388.135, NRS 388.1351 respectively). Ttofi and Farrington (2011) analyzed 44-high-quality school based intervention programs and found that on average, these reduced bullying by around 20%-23% and victimization by around 17%-20%. Another study by Cross et al. (2011) of Australian programs implemented between 1999 and 2007 demonstrated a reduction in victimization from 25% to 16.5%. Although modest successes in the aforementioned programs show progress, the sustainability of the results are unable to be maintained.

Serious, life-long consequences of bullying result from bullying in schools. Victims of bullying often suffer from a variety of health factors including psychological and emotional illness. In addition, severe academic consequences also result from bullying. Psychological factors can include lower self-esteem, depression, isolation, and suicide ideation (Hawker & Boulton, 2000; Rigby, 2001). Academic consequences include chronic school absenteeism,

school avoidance, feeling unsafe while attending school, and lower academic success than their peers (Kochenderfer & Ladd, 1996; Glew, Fan, Katon, Rivara, & Kernic, 2005).

Nansel et al.'s (2001) study of sixth through tenth grade students in the United States revealed that 29.9% of participants reported being involved as a perpetrator, victim, or both. Nansel et al. estimate that 5,736,417 youth have been involved in some form of bullying throughout grades 6 to 10. Therefore, the prevalence of bullying on a national level is significant and far reaching. Hazel (2010) reports that outside classroom bullying behaviors can negatively affect students' ability to concentrate in the classroom setting – even when the identified perpetrator was not present in the classroom. Other research indicates that the effects of bullying persist into adulthood and can have long-term negative outcomes such as antisocial behavior, drug use and abuse, and criminal behavior (Gladstone, Parker, & Malhi, 2006; Hugh-Jones & Smith, 1999; Nansel et al., 2001).

Students with Special Needs and the Role of School Counselors

Students with special needs are at greater risk of being bullied than general education students. These students are a unique population as they are vulnerable to instances of aggression primarily because they are perceived as being different, typically have fewer social relationships, and have cognitive, emotional, and social limitations (Kokkinos & Antoniadou, 2013). The role of the school counselor is to serve as an advocate and change agent to remove barriers that students from vulnerable populations encounter. School counselors using a self-determination approach can help special needs students understand their rights and freedoms including the right to voice inequities they encounter (Wehmeyer, 1995). Counselors can also teach students skills that will help them avoid bullying situations. However, a student's learning disability may limit their ability to understand their rights or limit their ability to communicate their needs.

School counselors have an opportunity to intercede on behalf youth who are high risk, however, many counselors are ill prepared to effectively resolve bullying situations due to time constraints and because they do not want to compromise their role as counselor versus that of a disciplinarian (Roberts, Jr. & Coursol, 1996). A different approach is needed in order to allow counselors to not only advocate on the behalf of students with special needs but to also ensure these students have a voice and are not continuously victimized.

Restorative Justice

A restorative justice approach to discipline has been proposed by many as a viable way to address challenging behavior and conflict in school and communities. Opposite of retributive justice which holds the primacy of assigning blame and punishment for unacceptable behavior, restorative justice provides an alternative means of preventing, managing and controlling behavior by establishing partnerships with students' home communities (Wearmouth, McKinney & Glynn, 2007). Several theories have been incorporated into the bullying literature in an attempt to broaden understanding regarding the etiology of bullying as well as potential forms of remediation. Restorative justice theory has been proposed as a way to advance understanding of the school bullying and the effectiveness of interventions. For example, the Restorative Whole-school Approach

(RWsA) has been proposed (Braithwaite, Ahmed, Morrison, & Reinhart, 2003; Hopkins, 2004; Morrison, 2002, 2006; Wong, Cheng, Ngan, & Ma, 2011) as an alternative model to retributive justice. The approach does not focus on short-term punishments (e.g., suspension, expulsion), but rather building a long-term positive school environment to prevent bullying (Suckling & Temple, 2002).

Wong, Cheng, Ngan, and Ma (2011) suggest that the RWsA emphasizes establishing restorative goals, clear instructions, team building, and good relationships among students, parents, and teachers. Wong et al. discredit tactics such as expelling and/or suspending those who bully, or police involvement as a primary method to address bullying behaviors. The punitive approach of assigning individual blame and individual accountability can prove to be ineffective at resolving the conflicts, and it can also exacerbate further deterioration of the relationship between bullies and victims (Wong et al, 2011). Therefore, the RWsA approach focuses on creating a caring climate in the school that promotes building quality relationships with self and others. The major goal of this approach is building a peaceful learning environment for as many students as possible. In summary, the RWsA utilizes the concept of restorative justice which prioritizes the need to repair harm done to a relationship over-and-above the need for punishment as the only resolution.

Restorative Justice Anti-Bullying Model: Special Needs Students

School Counselors can ally with Special Educators to be advocates for special needs students that have been victims of bullying, as well as those students that perpetrate acts of bullying. Because special needs students are often bullied as direct result of their apparent disability, the Restorative Justice Anti-Bullying Model centers on an inclusive approach bringing together individuals from multiple disciplines along with parents to determine the best course of intervention or mediation. Using this model, school counselors can help facilitate the process of developing interventions and strategies that will “repair the harm” that can occur with a bullying event (Hopkins, 2002, p.144).

One of the first steps school counselors must take is to assess the climate at their school and have an assessment practice in place to determine who is being bullied, how often bullying takes place, and areas where bullying is most likely to occur (Crothers & Levinson, 2004). Counselors along with other pivotal change agents at a school must communicate the benefits of the Restorative Justice Anti-Bullying Model and ensure that all students including those with special needs understand the process and are able to report instances of bullying. Counselors must also create a safe environment where students feel comfortable sharing their bullying experiences.

The Restorative Justice Anti-Bullying Model is built upon a process oriented approach to conflict resolution. Therefore, each step of the model is contingent upon processing the key elements of each stage. The key elements of the Restorative Justice Anti-Bullying Model include: 1) Assessment of the bullying event, 2) Application of restorative justice principles, 3) Determining the punitive versus restorative procedures, 4) Development of restorative justice plan and contract, 5) Implementation of the restorative justice plan and contract 6) Monitor and assessment of the progress of the restorative justice plan and contract, and 7) Evaluation of the restorative justice goals and objectives.

Assessment of the bullying event. Assessing the bullying event is the first step in the Restorative Justice Anti-Bullying Model. The reason for this step is to clearly distinguish a bullying event from other infractions that may be more serious than bullying, such as assault, theft, or other criminal activity that may require legal proceedings such as a report to child protective services or the police. Once it has been determined that a bullying event has occurred and nothing more serious, than restorative justice principles must be applied to the situation. School counselors can use a 3 tier system of high, medium, and low to determine the severity of the bullying incident.

Determining the punitive versus restorative procedures. Determining the punitive versus restorative procedures is an important step in this model, mainly because certain situations will dictate a combination of both punitive versus restorative procedures. Using a 3 tier system of high, medium, and low to determine the severity of the bullying incident will help to determine what type of punitive and restorative procedures should be utilized. For example, in low and medium bullying offenses, restorative procedures may be the only method utilized. However, in high level bullying offenses both punitive versus restorative procedures may be employed.

Application of restorative justice principles. Restorative justice principles help to guide the procedure for restoring justice to both the victim of the bullying event, as well as the person who conducted the act of bullying. A fundamental goal of the restorative justice approach is to restore the relationship between the perpetrator of bullying and the victim. This doesn't assume that either party will become friends, etc.; however, it does work toward the resolution of the conflict including the residual of emotional content. The first principle of this approach assumes that bullying inflicts psychological and emotional pain on the victim. Therefore, the pain involved in a bullying event needs to be identified and successfully processed. This principle leads to the second which is the restoration of the broken or injured relationship. Following this principle, both the person who conducted the act of bullying and the victim need to define what they need in order for this to be completed.

Development of restorative justice plan and contract. Development of restorative justice plan and contract is based on both the person who conducted the act of bullying and the victim identifying their resolution needs and outlining steps for the restorative justice plan.

Implementation of the restorative justice plan and contract. Once the development of the restorative justice plan and contract have been devised, then the implementation of the restorative justice plan and contract begins.

Monitor and assess progress. Monitor and assessment of the progress of the restorative justice plan and contract is ongoing for the duration of the plan. Modifications will occur as needed, and new goals and objectives can be established in order to foster the restoration process.

Evaluation of the restorative justice goals and objectives. Evaluation of the restorative justice goals and objectives takes place as a collaborative effort among the school counselor and other key stakeholders in the process.

Conclusion

The Restorative Justice Anti-Bullying Model is a proposed model that School Counselors can utilize to ally with Special Educators and advocate for special needs students that have been victims of bullying. It can also be used to aid the person who conducted the act of bullying to foster reconciliation of the relationship as an alternative to strictly punitive methods of correction and punishment.

References

- Braithwaite, V., Ahmed, E., Morrison, B., & Reinhart, M. (2003). Researching the prospects for restorative justice practice in schools: The "Life at School Survey," 1996-9. In L. Walgave (Ed.), *Repositioning restorative justice* (pp. 169-190). Cullompton, UK: Willan.
- Cross, D., Epstein, M., Hearn, L., Slee, P., Shaw, T., & Monks, H. (2011). National Safe Schools Framework: Policy and practice to reduce bullying In Australian schools. *International Journal of Behavioral Development*, 35(5), 398-404.
- Crothers, L. M. & Levinson, E. M., (2004). Assessment of bullying: A review of methods and instruments. *Journal of Counseling and Development*, 82, 496-503.
- Hopkins, B. (2004). *Just schools: A whole school approach to restorative justice*. London, UK: Jessica Kingsley.
- Kokkinos, C. M. & Antoniadou, N. (2013). Bullying and victimization experiences in elementary school students nominated by their teachers for specific learning disabilities. *School Psychology International*, 34 (6), 674-690.
- Morrison, B. (2002). Bullying and victimization in schools: A restorative justice approach. *Australian Institute of Criminology: Trends and Issues*, 219, 1-6.
- Morrison, B. (2007). Schools and restorative justice. In G. Johnstone & D. W. Van Ness (Eds.), *Handbook of restorative justice* (pp. 325-350). Cullompton, UK: Willan.
- Roberts, Jr., W. B. & Coursol, D. H. (1996). Strategies for intervention with childhood and adolescent victims of bullying, teasing, and intimidation in school settings. *Elementary School Guidance & Counseling*, 30 (3), 204-212.
- Suckling, A., & Temple, C. (2002). *Bullying: A whole-school approach*. London, UK: Jessica Kingsley.
- Ttofi, M. M., & Farrington, D. P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology*, 7(1), 27-56.

- Wehmeyer, M. L. (1995). A career education approach: Self-determination for youth with mild cognitive disabilities. *Intervention in School and Clinic, 30*, 157-164. Retrieved March 16, 2014 from Academic Search Premier.
- Wolke, D., Woods, S., Stanford, K., & Schultz, H. (2001). Bullying and victimization of primary school children in England and Germany: Prevalence and school factors. *British Journal of Psychology, 95*, 673-696. doi: [10.1348/000712601162419](https://doi.org/10.1348/000712601162419)
- Wong, D. S., Cheng, C. H., Ngan, R. M., & Ma, S. K. (2010). Program effectiveness of a restorative whole-school approach for tackling school bullying in Hong Kong. *International Journal of Offender Therapy and Comparative Criminology, 55*, 846-862. doi: [10.1177/0306624X10374638](https://doi.org/10.1177/0306624X10374638)

Mailing address: Shannon Smith, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: Shannon.smith@unlv.edu

Collaboration Between Researchers, Speech and Language Therapists and SLT Students in Slovenia

Damjana Kogovšek, PhD
University of Ljubljana, Ljubljana, Slovenia

Abstract: Collaboration between different partners like researchers, speech and language therapists, students, and teachers is self-evidently considered to be a good-thing, and the ways in which all partners involved can benefit, this should be discussed. Given the time and resources such dialogues require, it is worth asking why dialogue is important. We all know that the benefits are many. Despite this, there are also serious obstacles to collaboration, we have to think about. Speech and language professionals, researchers, scientists, and students are all important people in the educational system, but how can their different perspectives be represented equally? And what choice and opportunities are available in a country like Slovenia?

Stressing the importance of making connections between theory, research, and practice can seem almost self-evident; we can just say axiomatic. This paper is positioned to provide some information and background context for the researcher and practitioner gap. We will discuss what we have done in our country in the field of initial education of speech and language therapy, how we started to collaborate with academics (researchers and theorists from other scientific disciplines), speech and language therapists, and students. If we consider the academic, practitioner, and student views from a variety of disciplines, we might gain some insight into the reasons for such a gap and learn how others have dealt with it; or we can find our own way to collaborate effectively. Similar disconnections between researchers and practitioners are evident in many different disciplines. For example, in 2005, Ferguson wrote, “a wide gap still exists” between research and practice. He also noted that “sharing knowledge between researcher and practice in a structural manner is highly challenging but can be rewarded, inspiring and interesting for all parties involved.”

Within the last decade, as with medicine, there has been an increased interest in the ways in which an individual comes to have the appropriate knowledge and skills to function as a qualified speech and language therapist. As a professional subject, speech and language therapy has developed substantially by drawing on other academic areas to bring together the complete discipline. Psychology, biomedical sciences, linguistics, and neurology have formed the basis of the epistemology from which clinical application has been derived, but this has been a complex route to the unified subject of speech and language therapy. During this process, the profession has been teaching its students to learn academic and profession material in a higher education context. Academic aspects of the

degree can be taught from within the institution; higher education can only serve the needs of these students if the professional experience modules are met outside. Professional education is a notably different process from that of higher education theoretical degree, and although the institution can provide teaching in professional methods, the application has to be found within the actual work context. This is what makes teaching a qualified course in speech and language therapy so complex.

Providing education that covers both theoretical understanding and practical experience clearly needs differing educational contexts and it was recognized that there is a major distinction to be made between explicit and tacit knowledge (Brumfitt, 2004). Explicit knowledge is about the objective, public, theory-driven knowledge that students bring to the clinical/placement setting, whereas tacit knowledge is knowing about the professional role, based on experience. To understand the complete process of professional activity we have to help our students. We know that lecturing does not provide the means for students to have a deep understanding of the work-based context. As a response to this, other approaches to teaching have been developed, which are reflected in the educational techniques used today. All speech and language therapy qualified courses now include a mix of lecture-based teaching, workshops, tutorials, and seminars on the university site; along with the learning and teaching acquired in the clinical placement.

Some writers have emphasize what they see as the artificial gap between knowledge, skills, and attitude and theory and practice. Dreyfus and Dreyfus (Baxter, 2004) also integrate theory and practice into a distinction between “knowing how” and “knowing that.” The ‘knowing that’ can refer to facts and rules, but the ‘knowing how’ is acquired from practice. Issues dealing with a researcher-practitioner gap are neither unique to one area nor are they a recent phenomenon. These issues are prevalent in fields such as education, healthcare, computer science, nursing, political science, psychology, sociology, and social work. Hirschkorn and Geelan (2008) outlined four approaches to closing research-practice gap which are divided into four categories: (1) fix the practitioners, (2) fix the researchers, (3) fix the research, and (4) create research translation roles (pp. 10-11). Fixing the practitioner means finding ways to “improve access to and use of research by practitioners” (p.10). Fixing the researcher means holding them accountable for providing more direct information to teachers by publishing in teacher journals and presenting to teachers at conferences. This does not mean that all academic research must be practitioner oriented, but when it is, the researcher should be responsible for ensuring delivery to teachers in an understandable way. Fixing the research means pursuing different types of research, moving away from “generalized, decontextualized knowledge” to “descriptions of and prescriptions for practice” (p.11). Educational research has increasingly made use of different qualitative methods by way of “deemphasizing the quantitatively defined standards of validity and reliability and replacing them with standards of verisimilitude (plausibility to practitioners) and utility (usefulness to practitioners)” (p.11).

Collaborative Background of Development of Slovenian Speech and Language Therapy Education

In Slovenia, there is only one institution where the initial training - education for speech and language therapists takes its place and this is the Faculty of Education, which is a part of University of Ljubljana. In this paper I will try to briefly summarise and discuss some aspects of recent developments of speech and language education. Speech and language therapy education in Slovenia has been changed recently with the Bologna process. It is important to understand that there is a specific situation about education for speech and language therapists, because the academic study programme used to be implemented within the area of Special education and rehabilitation at the Faculty of Education and it is the only academic study programme for speech and language therapy.

The markedly complex and contextual background and various conceptual elements deepen and expand the problem of reforming the study program and have to be understood from the general educational system in Slovenia. In 2010 with the Bologna process, we became an independent study program, but until then we were a part of special education and rehabilitation study program. At the moment we have three generations of speech and language students. And it is for the first time in history to have so many students in speech and language therapy education.

Speech and language therapists in Slovenia (like in Europe) may work or practice in different sectors and settings, according to the socio-economic circumstances in their own country. Kogovšek, Ozbič, Košir, Novšak Brce (2014) stressed that speech and language therapists have a range of generic and subject specific competencies, which prepare them for work in a variety of settings. They work in the education sector (special units, mainstream schools which integrate children with disabilities, kindergartens), in the health sector (particularly in: hospitals, therapeutic and rehabilitation centers, special centers for children with disabilities, nursing homes, special medical-educational institutions,...), in social welfare institutions and in the area of prevention. Different Ministries (Ministry of Health; Ministry of Education, Science and Sport; Ministry of Labour, Family, Social affair and Equal opportunities) finance the different institutions where speech and language or teacher for the deaf and hard of hearing are working. Different legislation allow that speech and language therapist can work as individual therapists, as mobile teachers (giving individual support), health workers, counseling workers, and as teachers for the deaf and hard of hearing. Because of all these facts, we have created the curricula that will cover both areas: deafness and speech and language therapy. With this we have analyzed certain and very important conceptual starting points of reforming the academic study program of speech and language therapy education according to Bologna Declaration. Specific conceptual elements enable the understanding of the development of new and independent and autonomous speech and language therapy study programs.

With the new form of speech and language program we tried to provide continuity and upgrade of professional speech and language subjects and modules. We have also tried to include all communication disorders and tried to create single units for clinical practice. We have also discussed about this with our speech and language experts – practitioners. The speech and language therapy study program enables the student in the time of his/her studies to obtain a set of essential competencies required to perform his/her work in

different institutions in different areas, in accordance with the socio-economic characteristics of the country in which he/she works. The student's work can be performed in the field of education (different continuum of programs and institutions), health care, social security and prevention (Kogovšek, Košir, 2005).

The graduate is also involved in teaching as well as in the rehabilitation process of speech and language disorders at all ages. Such work involves direct contact with children, pupils, students who have difficulties in speech and language communication and listening, as well as their parents, carers, teachers and significant others in their lives. By raising awareness and influencing society in which we live, as well as concrete assistance to deaf, hard of hearing individuals and individuals with difficulties in speech and language communication enable their optimal functioning in the process of education and the environment where they live.

Therefore, it is very important how and in what manner the children in classes of education and how to train future professionals to work with them and in what way it is organized teaching and learning in institutions of education. It is necessary to provide appropriate assistance and support to all this aspect concerned.

Given the importance of communication in the modern world, any disruption in communication makes it difficult, if not impossible human active participation in society. Studying speech and language therapy in Slovenia trained professionals to work with the prevention, detection, diagnosis and treatment of the problems of human communication, thereby understanding the processes and functions associated with the perception and production of speech and language (verbal and/or non-verbal) regardless of the form of expression in writing or orally, kinetic (sign language translation).

Conclusion

New study courses and curricula are being developed according to international guidelines and standards for the education of speech and language therapists; referring explicitly to the work of the International Association of speech and language therapy all over the world (Kogovšek, Košir, 2005). International and inter-institutional cooperation is being encouraged and increased. As it was mentioned before we are still working on our curricula and trying to change it in accordance to the evaluation of the programme. That is why we constantly cooperate with our practioners, academics, and students about the quality of studying as we try to bridge the gap between theory and practice.

Our faculty also participated as a leading partner for Slovenia in the project NetQues (Network for Tuning Standards and Quality of Education Programmes in Speech and Language Therapy/Logopaedics across Europe (NetQues), a multilateral academic and professional network). The NetQues project was undertaken with support from the European Union. This project has been co-funded by the European Commission's ERASMUS Lifelong Learning Programme through the Education Audiovisual & Culture Executive Agency. The three-year long NetQues project (2010-2013) was initiated and coordinated by Comité Permanent de Liaison des Orthophonistes-Logopèdes de l'Union Européenne – CPLOL, the EU umbrella organization of speech and language therapy pprofessional associations. The project has brought together University/Higher education and professional associations from across all EU countries, in a multilateral academic and

professional network of 65 partners engaged in setting and maintaining high standards in SLT education.

The main objective of the project was to establish common standards and criteria for the training of speech and language therapists and to define and develop skills which are essential for speech and language therapists. Speech and language therapy education in Europe differs from country to country according to the political, educational and socio-economic circumstances in the country. Given the diversity in content, duration, rate of speech, and terminology of study programs, it was necessary to create a survey based on competencies. It was proved that this was a need for an accurate description of the skills that are necessary to work as a speech and language therapist.

Integration of theory, research, and practice has its proper beginning in graduate initial training programs. To be an expert in one particular area (practice, theory, research) does not automatically disqualify anyone from being conversant in other areas. Academics (theorists and researchers) who state that they do not need each other's wares have little or no understanding of the scientific process. And intervention-based professionals who declare that they do not need theory or data to do their work are naive at best and downright dangerous at worst. In practice, the solution requires a "both" approach. More theoretically and empirically driven programs also need to create opportunities for graduate students to better understand the real world. At the same time, there needs to be more material that integrates information about theory, research, and practice. And finally, all of these efforts over time should naturally produce more young professionals within the field who will self-identify as scientist-practitioners. These linkages all seem like 'win-win' combination or relationship.

References

- Baxter, S. (2004). Fit for practice: new models for clinical placements. In S. Brumfitt (Ed.), *Innovations in Professional Education for Speech and Language Therapy* (pp.116-141). London: Whurr Publisher.
- Brumfitt, S. (2004). Introduction: Perspectives in professional education, an overview. In S. Brumfitt (Ed.), *Innovations in Professional Education for Speech and Language Therapy*. London: Whurr Publisher.
- Ferguson, J. E. (2005). Bridging the gap between research and practice. *Knowledge Management for Development Journal*, 1(3), 46-54.
- Hirschhorn, M. & Geelan, D. (2008). Bridging the research-practice gap: Research translation and/or research transformation- *The Alberta Journal of Educational Research*, 54(1), 1-13.
- Kogovšek, D., Košir, S. (2005). Teorija in praksa z roko v roki pri oblikovanju študijskega programa specialne in rehabilitacijske pedagogike smer surdopedagogika – logopedija. V T. Devjak (ur.), *Partnerstvo fakultete in vzgojno-izobraževalnih*

zavodov: izobraževanje - praksa – raziskovanje (str. 96-102). Ljubljana:
Pedagoška fakulteta Univerze v Ljubljani.

Kogovšek, D., Ozbič, M., Košir, S., Novšak Brce, J. (2014). Standard kakovosti izobraževanja logopedov. V M. Metljak (ur.), *Sodobni pedagoški izzivi v teoriji in praksi: zbornik povzetkov / Posvet Partnerstvo Pedagoške fakultete Univerze v Ljubljani in vzgojno-izobraževalnih institucij*, 31.1. in 1.2. 2014, Pedagoška fakulteta Univerze v Ljubljani (str. 126). Ljubljana: Pedagoška fakulteta Univerze v Ljubljani.

NetQues (Network for Tuning Standards & Quality of Educational Programmes in Speech and language therapy/Logopedics across Europe (NetQues): a multilateral academic and professional network). (2013). NetQues project report – speech and language therapy education in Europe – united in diversity.
www.netques.eu/?page_id=1051 (24.01.2014)

Mailing address: Damjana Kogovšek, University of Ljubljana, Faculty of Education,
Kardeljeva ploščad 16, 1000 Ljubljana, Slovenia, Europe
Email: Damjana.Kogovsek@pef.uni-lj.si

Using iPads to Impact the Sentence Formation Skills of Young Students with Language-Based Disabilities

Cathi Draper Rodriguez, PhD
California State University Monterey Bay, Monterey Bay, CA USA

Therese M. Cumming, PhD
University of New South Wales, Sydney, Australia

Abstract: This paper explores the effects of a language-building iPad application on the language skills of young children. This study employed a pretest-posttest control group design to determine the effects on the sentence formation skills of 30 first through third grade students with identified language-based disabilities. Data indicated that students in the treatment group made significantly greater gains in the area of sentence formation than the control group.

Although schools are increasingly incorporating mobile technologies, such as the iPod and iPad into classroom lessons, there is limited research on the effectiveness of iPad technology to support students with disabilities in the research literature. Aside from the obvious advantage of portability, mobile devices have many advantages that make them attractive to use for learning and teaching in schools, particularly for students with disabilities (Campigotto, McEwen, & Denmans Epp, 2013). Through inexpensive applications (apps) that can be downloaded to and used on the devices, mobile devices such as the iPod touch and iPad appear to have strong potential for individualizing teaching, learning, and communication. Rothschild (2011) suggested that through the use of applications, the iPad is somewhat of a “digital education prescription pad” and that being able to customize a device to suit the needs of each individual student is motivating because it gives students with disabilities something mainstream that is engaging and interactive for them.

Early research shows promise in the use of mobile technology in supporting the communication of students with autism. Achmadi (2010) investigated teaching adolescents with autism to use an iPod to facilitate communication. All of the participants in the multiple baseline across subjects design learned to use a speech-generating application on the iPod to make multi-step requests. Results suggested that adolescents with autism could successfully use an iPod for expressive communication. The effects of an iPad and a picture exchange communication system on the communication rates of five elementary school students with autism were compared (Flores, et al., 2012). These findings provided initial support for use of the iPad as a communication device.

In an additional study, aided language stimulation was combined with tablet technology to create a communication intervention for students with autism (Logan, 2012).

Students who participated in the study made gains in social skills along with gains in their communication skills. The teachers believed that the technology was both engaging and easy for students to use for communication.

Several schools have reported success in using the technology with students who are learning English (Demski, 2011). Students with limited English language skills supported their communication in a range of contexts by using the iPad as a portable dictionary. The dictionaries assisted them in communicating in the classroom, on the playground, and at home by allowing them to locate words more quickly and to hear the words pronounced correctly. Another iPad function that students found useful was using voice memo applications (apps) to record themselves reading out loud in English. The greatest social advantage for students was decreased shyness in using their new language in class, as they were able to make these recordings at home and practice English in a non-judgemental environment. The technology also allowed teachers to monitor student English fluency without forcing students to speak in class (Demski, 2011). Other uses of iPod touch and iPad devices that show promise for students learning English include audio textbooks, access to English language songs, movies and videos, and Internet at school and off campus (through local Wi-Fi hotspots).

In an additional study, Logan (2012) combined aided language stimulation with tablet technology to create a communication intervention for students with autism. Students who participated in the study made gains in social skills in addition to communication. The teachers felt that the technology was engaging and easy for students to use for communication, as all of the pictures could be shown on the same page, which allowed for natural follow through during conversation. Although these preliminary studies are promising, more research is needed in different areas and with students of all ages and abilities before it can be said that tablet technology is an effective educational tool. This study contributes to the gap in the research in this area by investigating the impact of iPad applications on the language skills of young children with language-based disabilities. The specific research question addressed was: Does the use of the iPad application, *Language Builder*, impact the sentence formation skills of young students with language-based disabilities?

Methodology

This exploratory study was designed to provide initial data regarding the effectiveness of and iPad application, *Language Builder*, for young children with language-based disabilities.

Setting and participants. The children in this study attended an elementary school located in a mid-size city in Central California. Students from the self-contained special education classrooms were selected to participate in the study. Participants were selected based on two criteria: (a) they had been identified with a language-based disability by their school district, and (b) their teacher indicated they needed development in their vocabulary. Once identified, parental consent and student assent were attained for 31 students. One student was lost to attrition. Demographic information on the students is provided in Table 1. Students were assigned to one of two groups, Treatment Group (TG) and Comparison Group (CG). There were a total of 20 students in the treatment group, and

11 in the comparison group. The difference in the size of the groups was controlled through analysis and weighted means. This was a convenience sample, guided by what was permitted by the educational agency and availability of the technology.

Teachers. The three female teachers in the study all held a Bachelor's Degree and a special education credential, as required in the state to teach Special Education. For this study, the teachers were responsible for ensuring that the students participate in the intervention for 30 minutes/day 4 days/week.

Materials

When choosing educational applications for mobile technology, researchers and teachers alike should use a rubric or framework to ensure that the technology being used meets the educational and support needs of the students. A framework developed by Su and Draper Rodriguez (2012) to review educational computer games can also be applied to educational applications as well. Thus, the features that should be present in the applications are as follows: (a) scaffolding, (b) collaborative interaction patterns to increase engagement, (c) highly digitized speech and colourful graphic images, (d) interactive tasks requiring an active response, (e) clear instructions, (f) practice tasks, (g) consistent intervals of time for each learning task, (h) encouragement, reinforcement and modeling, (i) feedback to right and wrong responses, and (j) age appropriateness of both content and how it is presented. The application used in the study, *Language Builder*, incorporates the following features: (a) collaborative interaction patterns to increase engagement, (b) highly digitized speech and colourful graphic images, (c) interactive tasks requiring an active response, (d) clear instructions, (e) practice tasks, (f) encouragement, reinforcement and modeling, and (g) age appropriateness of both content and how it is presented.

Language Builder. This application was designed to improve a student's expressive and receptive language skills. The application has three levels, each offering differing degrees of support. In each of the three levels, the student is shown a picture and instructed to make a sentence. In level 1, the sentence is provided in a cloze format. In level 2, the students are provided a written 2-word hint that starts the sentence. In level 3, the student is given an auditory hint; such as "Use the words building and Legos in your sentence". The student must verbalize, record, and play back his or her sentence for review before moving on to the next picture; sentences can also be archived and emailed. Although the students listen to their own sentences, there are no correct models provided for them to compare against. The only reinforcement the student receives is his or her own voice. The application utilizes colorful graphics and the natural speech of a male voice to engage students. Language Builder records statistics of each student's use on individual profile pages.

iPad Devices. The iPad devices used in this study had only the Language Builder application installed. All other applications were removed from the devices. Apple Corporation loaned the devices to the classrooms for the duration of the study.

Measures

At pre- and post-test, data were collected to assess student performance in the area of sentence formation. Trained members of the research team conducted the student pre and post-test assessments. Pre-tests were individually administered one week prior to the beginning of the intervention period. The post-tests were completed the week following the intervention period. All included measures had strong psychometric properties.

Sentence Formation. In order to assess the students' sentence formation skills, the Formulated Sentences subtest of the *Clinical Evaluation of Language Fundamentals-4 (CELF-4)* was used (Sernal, Wiig, & Secord, 2003). During this subtest, students are required to formulate a sentence using a target word(s) that relates to the visual stimulus. The subtest reliability for the *CELF-4* ranges from .69-.91.

Intervention

All students in the study participated in classroom instruction for the 8-week period of the study. All students received the teacher-directed instruction using district-mandated curriculum and pacing guide. This design used two groups, experimental and control. The teacher and aides of the experimental group were taught how to use both the iPads and the *Language Builder* app, then they taught the students how to use them. The students worked on the app for 30 minutes each day, in place of traditional language instruction. Students in the control group received traditional language instruction, including sentence formation, but had no exposure to the iPad.

Results

Descriptive statistics were computed for pre and posttest measures for the two groups. Results are reported in Tables 1 and 2. In order to determine if the *Language Builder* (Tomson, 2011) impacted the language skills of the students, data from the CELF-4 were analyzed. Due to the difference in the group sizes, homogeneity of variance tests were run. An Analysis of Variance (ANOVA) was used to analyze the data. To avoid a Type I error, a Welch correction was used during the analysis. A .05 confidence level was set to determine statistical significance (See Table 2). To determine if teacher perception of the student's ability had changed, an ANOVA with the Welch correction was used on the data.

Sentence Formation. The Sentence Formation subtest of the CELF-4 was used to assess the participants' sentence formation skills. There was a significant main effect by group (control group v. experimental group) ($p=.001$). This indicates that there was a statistically significant difference between the sentence formation skills of the two groups on posttest. The students who participated in using the *Language Builder* performed better in this skill than students who did not use the iPad program. There were no other significant findings. A large effect size was found $d = 1.42$.

Teacher Interviews. The two teachers and two paraprofessionals in the intervention classrooms were interviewed before and after intervention. The teachers in the classrooms reported a lot of experience using iPad devices, both rating themselves a 9 on a 1-10 scale. The paraprofessionals rated themselves much lower a 4 and a 5. Both of them indicated some level of anxiety about using the iPads in the classroom.

At the conclusion of the study all four educators indicated that if the iPad devices and the *Language Builder* application were available, they would continue to use them in

the classroom. Some strengths of the program they identified were the repetition of the application, new vocabulary provided to the students, hearing and recording themselves to play it back as needed, students learned the program quickly, increased independence of students, and watching the kids enjoying using the program. All of the teachers and paraprofessionals felt that the use of the iPads had increased the students' use of vocabulary and complete sentences.

Table 1
Group Performance on Outcome Measures

Measure	Treatment Group (n = 20)		Comparison Group (n = 11)	
	Pretest M(SD)	Posttest M(SD)	Pretest M(SD)	Posttest M(SD)
CELF Sent Formation	4.70 (5.15)	13.55 (8.45)	2.80 (1.09)	3.10 (2.68)

Table 2

Summary of ANOVA with Welch Correction for Posttest Group Differences

Dependent Variable	Source	F	p	Welch Corrected p
Sentence Formation	Group	14.32	.001*	.001*

Note. * Significant at the $p < .05$ level.

Significance

This study was designed to determine the impact of the iPad application *Language Builder*, on the language skills of young students with language-based disabilities. Findings indicated that students who used the iPad application, *Language Builder*, had higher sentence formation skills than students who did not use the iPad application. It appears that using the iPad and the *Language Builder* app provided students with support to improve their sentence formation skills.

Sentence Formation

The data from the two groups indicate a significant time by group difference, indicating that the two groups were significantly different or that the students in the experimental group performed significantly better in the area of sentence formation skills. It appears that the use of *Language Builder* was effective in significantly increasing the sentence building skills of the students who used the iPad application. Learners need to

understand not only words, but also how to put words in sequence in order to make meaning.

Increasing this skill in young students with language-based disabilities is important for their continued success in school. In order to communicate effectively with others, one must put words in a meaningful sequence. Therefore, increasing the sentence forming skills of students with language based disabilities will allow them to more effectively communicate with peers, educators and others in their community. The overall impact of increased sentence forming skills is likely to be high.

Suggestions for Further Research

This study had several limitations. First, this study is limited to a school district in Central California. The ability to generalize these results is limited and replication with a larger sample is necessary. All of the students in this study had been identified as having language-based disabilities. Generalization among students with other disabilities is therefore confounded. This intervention was completed four times a week for eight weeks. The long-term effects of this intervention were not measured. Though this exploratory study found that the iPad application, *Language Builder*, is effective at increasing students' sentence formation skills, future research should focus on variations, including longer intervention and maintenance periods, a larger sample size and participants of different ages.

References

- Achmadi, D. (2010). *Teaching a multi-step requesting sequence to two adolescents with autism using an iPod-based speech generating device*. Unpublished master's thesis, Victoria University of Wellington, Wellington, NZ.
- Campigotto, R., McEwen, R. Denmans Epp, C. (2013). Especially social: Exploring the use of an iOS application in special needs classrooms. *Computers & Education*, 60, 74-86.
- Demski, J. (2011). ELL to go. *T H E Journal*, 38(5), 28-32.
- Flores, M., Musgrove, K., Renner, S., Hinton, V., Strozier, S., Franklin, S., & Hil, D. (2012). A comparison of communication using the Apple iPad and a picture-based system. *Augmentative and Alternative Communication*. Advance online publication. doi: 10.3109/07434618.2011.644579
- Gentry, T., Lau, S., Molinelli, A., Fallen, A., & Kriner, R. (2012). The Apple iPod touch as avocational support aid for adults with autism: Three case studies. *Journal of Vocational Rehabilitation*, 37(2), (Advance online publication) DOI: 10.3233/JVR-2012-0601
- Gentry, T., Wallace, J., Kvarfordt, C., & Lynch, K. (2010). Personal digital assistants as cognitive aids for high school students with autism: Results of a community-based trial.

Logan, K. (2012, April 4). *Developing communication skills in children with autism spectrum disorder using Proloquo2go on the iPad: An aided language approach*. Lecture presented at the ASPECT Research Forum, State Library of NSW, Sydney, Australia.

Price, A. (2011). Making a difference with smart tablets: Are iPads really beneficial for students with autism? *Teacher Librarian*, 39(1), 31-34.

Rothschild, B. (2011). Special tool for special needs. *Courier Post-Cherry Hill N.J.*
Retrieved from <http://beta.courierpostonline.com>

Semel E., Wiig, E., & Secord, W. (2003). *Clinical Evaluation of Language Fundamentals 4 (CELF-4)*. San Antonio, TX: Psychological Corporation.

Tomson, K. (2011). *Language Builder* [iPad Application]. Retrieved from
<https://itunes.apple.com/us/app/languagebuilder-for-ipad/id405801365?mt=8>

Mailing address: Cathi Draper Rodriguez, CSU Monterey Bay, 100 Campus Center, Seaside, CA 93955-8001, USA

Email: cdraperrodriguez@csumb.edu

Teaching the Use of an iPad for Choice-making Using the ChoiceBoard Creator App

Jennifer Stephenson, PhD
Macquarie University, Sydney, Australia

Abstract: This study reports on a choice-making intervention to teach a young student with severe intellectual disability, autism and complex communication needs to use the Choiceboard Creator app on an iPad to make valid choices in three settings. Although the aim was to teach the use of six pictures (displayed simultaneously) in each setting, the student only achieved mastery of three pictures in the free play setting, two pictures in morning circle and five in morning tea. The multiple baseline design across settings and picture groups demonstrated control of the intervention over valid choice-making.

Best practice for students with severe intellectual disability includes opportunities to develop self-determination skills, including basic skills such as making choices from a range of alternatives (Wehmeyer & Abery, 2013). Many students with severe intellectual disability and complex communication needs benefit from learning to use an alternative communication technology such as speech generating devices (SGD) using pictorial representations in order to communicate unambiguous preferences (Beukelman & Mirenda, 2013).

Touch devices such as iPads, with communication apps installed, have several advantages over older devices in that they are mainstream technology and hence their use is not stigmatising. They are portable, can be used in many environments, are relatively inexpensive (compared to older SGDs), have much longer battery life than older devices and there are a large number of apps, apart from communication apps available (Cumming & Strnadova 2012; Douglas, Wojcik, & Thompson 2012).

There are now many communication apps available for the iPad which are suitable for students with severe disabilities, but relatively little research on effective intervention strategies (McNaughton & Light, 2013). There are some research studies on the use of the app ProLoquo2Go on iPads (e.g. Kagohara, van der Meer et al. 2012; Lorah, 2012), but limited studies of apps other than ProLoquo2Go (see for example, Flores et al. 2012, Ganz, Hong, & Goodwyn, 2013). In addition, most of the interventions for the use of iPads and the iPod Touch as SGDs reported to date have been highly structured and do not begin with functional choice making, but rather the student must touch the picture of the single offered item (see for example, Kagohara et al., 2012; van der Meer et al., 2011). Choice making interventions using paper-based systems have been shown to be effective with people with severe intellectual disabilities (Beukelman & Mirenda, 2013) but it is unknown if similar strategies will transfer to the use of an iPad app.

The aim of the study reported here was to explore the effectiveness of a choice-making intervention using the Choiceboard Creator app on an iPad to teach a student with severe intellectual disability and complex communication needs to make valid choices during free time activities, morning circle activities and morning tea.

Method

The procedures, assessment and intervention strategies, and participant selection were carried out in close collaboration with the school staff and the teacher who volunteered to participate in the project. Ethics approval from the relevant bodies was obtained. Parents gave written consent for the student to participate and for me to access his school records and provided background information about his communication and use of iPads. All data were recorded by the classroom teacher who also carried out the intervention and who was trained and coached by the researcher.

The participant was a 7 year old boy with severe intellectual disability and autism spectrum disorder. He had a range of stereotypic and challenging behaviours and it was frequently difficult to engage him in activities. He had no functional speech. He was reported by his parents and/or teacher to communicate through a range of non-symbolic behaviours and some conventional gestures and was judged by school staff to be communicating intentionally. He was able to follow familiar one-step verbal instructions, but was often non-compliant. He was a member of a class of seven students, all with intellectual disability, staffed by a qualified and experienced special educator and a teacher assistant. All baseline and intervention sessions were carried out by the class teacher within the student's classroom.

His individualised educational program, negotiated with his parents, included the goal to make choices by touching graphic symbols. He was reported to use pictures and photographs at home for choice-making, but formal assessment suggested he was unable to select objects or pictures given the spoken word or to select objects given a picture and vice versa. He was familiar with the iPad and was reported by his parents to use it once or twice a week to watch videos and social stories. He had never received an intervention to teach the use of a speech-generating communication device, or to teach the use of any iPad app for communication.

The iPad app selected, Choiceboard Creator (1.2.0 for iOS 6) was used with six squares displayed. When fewer than six pictures were available, each square could be blank or contain a coloured photograph. The number of pictures displayed depended on the stage of the intervention. When a square containing a picture was touched, it activated speech output of the teacher's voice saying the word for the picture. At the same time the selected picture enlarged to fill the whole screen for a short time. For each choice, the app automatically places the pictures in differing positions so users of this app cannot use positional cues when selecting pictures.

The research design used was a multiple baseline across three settings (free play activities, morning circle, morning tea) and three picture sets, one set for each setting, with probes during baseline. Intervention commenced with two pictures in the first setting (free play). When the student achieved a result of at least 80% correct trials for each of three sessions in a row, intervention in the second setting (morning circle) commenced and a third picture was introduced into the first setting. When the student reached mastery of

two pictures in the second setting, intervention was commenced in the third setting (morning tea). Once the intervention was introduced in a setting, the number of pictures was increased as the student reached mastery with two, three, four, and five pictures.

During baseline the student was presented with the iPad with the app already opened and locked and displaying six pictures representing the items and activities available in the setting. The teacher gave a verbal cue (What do you want?) and waited 5 seconds for a response. The six available items were visible and available on a tray and if the student touched a picture, the tray was moved within reach for the student to take the item. The teacher gave a cue to indicate that it was appropriate to take an item. If the student took an item, he was allowed around 30 seconds to interact with it. A valid choice was when the student touched a picture and then selected the corresponding item. Data were recorded on picture activated and the item selected.

During intervention, the procedures were similar, but intervention trials began with only two items in each setting. After the initial cue, the teacher waited for at least 10 seconds for the student to touch a picture. If the student then selected an item that did not match the picture selected, the teacher provided corrective feedback by removing the item (but keeping it visible), and providing a physical prompt to the student to touch the picture matching the item selected and giving the verbal feedback “you wanted the *name of item selected*”. Data were recorded on the picture touched (if any) and the item selected. The aim was to deliver at least five intervention trials every day, but the total number depended on student motivation.

Results

Student motivation and on-task behavior were extremely variable throughout the 15 weeks of intervention, particularly in the free play and morning circle sessions and this should be kept in mind when interpreting the results. The intervention was terminated at the end of the school year. Also, sessions were missed due to school holidays, student and staff absences and problems with iPads and app performance. During baseline, five trials were given during each session, but the number of trials delivered during intervention varied widely depending on student motivation. For intervention trials, a trial was only recorded when the student touched the iPad (that is, no response trials were not counted in determining the number of valid choices in an intervention session). During 12 baseline sessions (60 trials) the student touched the iPad on 24 trials and made only three valid choices (one in free play and two in morning tea). Making no response was the only option the student had to indicate he did not wish to make a choice.

During intervention, mastery for two pictures in the free play session was achieved after 26 sessions, mastery of three after five sessions, and mastery of four was not achieved (15 sessions provided). Mastery of two pictures in morning circle took 11 sessions, and mastery of three pictures was not achieved during the following 20 sessions. Mastery in the morning tea sessions was achieved in three sessions for each of two, three, four, and five pictures. Mastery of six pictures was not achieved during seven sessions, but mean performance over these sessions was 76% valid choices. The % of valid choices across all intervention sessions varied from 0% to 100%, except in the morning tea sessions where the lowest % of valid choices was 58%.

These data suggest that consistent valid choice making in this student only emerged after intervention occurred. The limitation here is that we only recorded baseline performance for six pictures, and the intervention commenced with two pictures and he did not achieve mastery of six pictures in any setting. The time taken (26 sessions) to master the first two pictures suggest that a baseline measure of this skill would have shown poor performance. The combination of the choice-making intervention strategy requiring discrimination between pictures based on appearance only and the features of the app itself (zooming in to the selected picture and consistent voice output when pictures are selected) may all have contributed to the success of the intervention. This study thus contributes to knowledge about the use of iPads as communication devices with an app other than ProLoquo2Go and to knowledge about more natural choice making interventions applied to iPad use.

It should also be noted that this result was achieved despite the continuing challenging behavior of the participant and his extremely variable motivation to engage with offered items. Subjectively, the student was much more engaged with choice making during morning tea and made the most rapid progress and mastered the most pictures in this final setting. The overuse of food/drink and settings such as morning tea is sometimes criticised, but in this instance we may have done better had we commenced intervention in this setting.

Although the student had some degree of success in each setting, there was no evidence from the baseline probes that he generalised skills from one setting to another. It would appear that he has yet to develop the insight that pictures can represent the objects they resemble, and he could not be judged to be using pictures as symbols.

The usual limitations of small-n designs apply. This result was obtained with one student in one classroom. Future work could explore the intervention with students with different characteristics and investigate the elements of the app that might facilitate learning such as whether or not the zooming to the selected picture enhances the learning of picture/object relationships. In addition it would be of interest to consistently monitor the use of pictures outside the intervention setting and for other pragmatic functions besides choice making.

References

- Beukelman, D., & Mirenda, P. (2013). *Augmentative and alternative communication: Supporting children and adults with complex communication needs* (4th ed.) Baltimore: Paul H. Brookes.
- Cumming, T. M., & Strnadova, I. (2012). The iPad as a pedagogical tool in special education: Promises and possibilities. *Special Education Perspectives*, 21, 34-46.
- Douglas, K. H., Wojcik, B. W., & Thompson, J. R. (2012). Is there an App for that? *Journal of Special Education Technology*, 27, 59-70.
- Flores, M., Musgrove, K., Renner, S., Hinton, V., Strozier, S., Franklin, S., & Hil, D. (2012). A comparison of communication using the Apple iPad and a picture-based system.

Augmentative and Alternative Communication, doi:
10.3109/07434618.2011.644579

- Ganz, J. B., Hing, E., R., & Goodwyn, F. D. (2013). Effectiveness of PECS Phase III app and choice between the app and traditional PECS among preschoolers with ASD. *Research in Autism Spectrum Disorders*, 7, 973-983. doi: 10.1016/j.rasd.2013.04.003
- Kagohara, D. M., van der Meer, L., Achmadi, D., Green, V. A., O'Reilly, M. F., Lancioni, G. E., . . . Sigafoos, J. (2012). Teaching picture naming to two adolescents with autism spectrum disorders using systematic instruction and speech-generating devices. *Research in Autism Spectrum Disorders*, 6, 1224-1233. doi:10.1016/j.rasd.2012.04.001
- Lorah, E. R. (2012). Comparing [sic] picture exchange and voice output communication aids in young children with autism. (Doctoral dissertation). Available from Proquest Dissertations and Theses database. (UMI No. 3510318).
- van der Meer, L., Kagohara, D., Achmadi, D., Green, V. A., Herrington, C., Sigafoos, J., . . . Rispoli, M. (2011). Teaching functional use of an iPod-based speech-generating device to individuals with developmental disabilities. *Journal of Special Education Technology*, 26, 1-11.
- McNaughton, D., & Light, J., (2013). The iPad and mobile technology revolution: Benefits and challenges for individuals who require augmentative and alternative communication. *Augmentative and Alternative Communication*, 29, 107-116. doi: 10.3109/07434618.2013.784930
- van der Meer, L., Kagohara, D., Achmadi, D., O'Reilly, M., Lancioni, G. E., Sutherland, D., & Sigafoos, J. (2012). Speech-generating devices versus manual signing for children with developmental disabilities. *Research in Developmental Disabilities*, doi: org/10.1016/j.ridd.2012.04.004
- Wehmeyer, M. L. & Abery, B. (2013). Self-determination and choice. *Intellectual and Developmental Disabilities*, 51, 399-411. doi: 10.1352/1934-9556-51.5.399

Mailing address: Jennifer Stephenson, Macquarie University Special Education Centre, Macquarie University, NSW 2109, Sydney, Australia

Email: jennifer.stephenson@mq.edu.au

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Attitudes and Skills Of Teachers With Regards to the Implementation Of Inclusive Education In Austria

Ewald Feyerer, PhD

Pädagogische Hochschule OÖ, Institute of Inclusive Education, Linz, Austria

Abstract: Attitudes and skills of teachers are decisive aspects for the successful implementation of inclusive education. The appropriate education of the teacher trainees is the task of teacher training institutes. The paper presents the methods and the results of the research project “The Attitudes and Expertise of Teaching Graduates for the effective implementation of an Inclusive Education System”. The project mainly based on the scales SACIE-R and TEIP. At the first time these scales were translated into German by the Austrian project group. More than 1500 teacher trainees were questioned at the beginning, in the middle, at the end and one or two years after finishing their teacher training programme. Furthermore qualitative surveys were done - group discussions with teacher trainees and case studies of graduates. The main focus was on the question “Which fundamental skills and attitudes do students acquire at teaching academies and which factors have an impact on this?” The paper presents the goals and the design of the research project and the fundamental results of the quantitative questionnaire especially in relation to the SACIE-R scale. Furthermore the meaning of the results for the further development of teacher training programmes will be discussed.

The approach and attitude combined with a teacher’s expertise is absolutely essential to achieve an inclusive school system. The responsibility of a teaching degree is to ensure that potential teaching personnel are adequately prepared. In the following research project, the following question will be dealt with in a multi-perspective design - which approaches and attitudes towards an inclusive school system should students and graduates of teaching academies be made aware of and, in turn, what is the consequential impact on their overall education? The following report deals with the goals and the design of the research project, before going on to display the fundamental results of the quantitative questionnaire in relation to the SACIE-R scale.

Goals and Methodology of the Report

The research project “The Attitudes and Expertise of Teaching Graduates for the effective implementation of an Inclusive Education System,” deals, on the one hand, with determining the appropriate skills and attitudes a student should acquire in preparation for their first two years of teaching. On the other hand, optimal choices with regards to the teaching of these attitudes and skills are considered and identified. The adaption of the two questionnaires SACIE-R (=Sentiments, Attitudes and Concerns about Inclusive Education – Revised, *Forlin et al.*, 2011) and TEIP (=Teacher Efficacy for Inclusive Practice, *Sharma, Loreman and Forlin*, 2011) are, in terms of research methodology, the most commonly used in German speaking countries.

Corresponding to the aforementioned goals, the following research questions were yielded.

- Which fundamental skills and attitudes do students acquire at teaching academies? Which factors have an impact on this?
- What do students and teachers understand under the term, "Inclusion"?
- To what extent do students feel prepared with regards to the forthcoming challenges in inclusive schools? Which skills do they believe they have acquired through their studies?
- According to the interviewees, what teaching or student arrangements would be necessary to help aid in obtaining the attitudes and skills necessary for the effective development of an inclusive education?
- Which recommendations can be derived in order to assist the development of graduate education programmes?

The research project was a co-operation project between the teaching academies of Upper Austria (= PH OOE) and Vorarlberg (= PH V). Within the framework of a quantitative questionnaire, a comprehensive survey was carried out at both centres between 2010 and 2012. Surveys for post-graduate students were carried out in 2010 and 2011 before switching the focus to graduate students in 2012. Out of a total of 10 case studies and 8 group discussions, the number of cases produced was somewhat lower in Vorarlberg. This is due to the fact that the PH V doesn't offer an education programme for schools with physically or mentally disabled children.

Research Design

The German version of the quantitative research consists of a four-sided questionnaire (including the cover page). There are a total of 11 independent variables (for students) and 13 (for teachers). These include questions about the demographic, education, personal experience and personal opinion of the quality of education each individual felt they were receiving or, with regards to teaching personnel, the quality of the information available in their working environment. The 15 SACIE-R- and the 18 TEIP-items were also included. The 4 or (respective) 6 level scales are coded to give a high value to the parameter values, whilst simultaneously giving less value to less specific information.

In the winter term of 2011/12, the original scale from the project team was translated with the assistance of a "Native-Speaker" from Canada. A "pre-test" was then carried out at both teaching academies to a total of 8 seminar groups (n=131). After the pre-test results, slight changes to certain items were implemented. The research project was then carried out at both teaching academies in May, June and October 2012. A total of 1532 people were asked, 84.3% female and 15.7% male. More than half of the interviewees (54.8%) were students of the junior school teaching programme, whereas about a third (37.2%), were students of the high school / new middle school programme. The remaining 8% belonged to the special school education programme. The target groups were close with more than half the interviewees between the ages of 18 and 24. However, there were also 58 students (4.2%) over the age of 45.

After the quantitative questionnaire, group discussions with students in the 1st, 2nd, 4th and 6th term from the various teaching programmes were carried out. This resulted in 4

group discussions per teaching academy. These were meant to serve as a stimulus to generate different opinions as to the influence of the teaching programmes on the student's attitudes, skills and expertise.

In addition, 10 case studies on graduates of both teaching academies (4 in Vorarlberg, 6 in Upper Austria), who were either in their first or second year of teaching service in an inclusive school, were conducted. Under the motto, "Being a good teacher is not the same in every school," the systematic environment (principals, colleagues, special school teachers) was looked into in order to achieve awareness as to the effects of the education teachers had obtained in this area and to gather recommendations for future developments within the educational programmes at the teaching academies (in particular for an effective induction phase). Finally, a cross case analysis was compiled.

Teaching Programmes Do Play a Role

The analysis of the SACIE-R scales (S=sentiments, A=attitudes, C=concerns) should, above all, provide an insight in to which attitudes and skills exist and which factors affect them. To be able to answer this, the average of the three SACIE-scales were compared with the use of a T-Test for independent random samples. A one-factor ANOVA (including the Scheffe Procedure) was carried out under the following variables (age, sex, location of school, county/state, admission to teaching academy and previous education, field of study, length of study programme, and previous experience). For significant values, further analysis into the importance of other factors (for example, county/state or teaching programme) was taken into account. The chosen results, albeit in shortened form, will now be presented. All the aforementioned differences are significant. The values displayed in brackets are the averages of the groups named in the report.

In total, the averages establish themselves in the middle of the four-levelled scale with only the positive attitudes tending to go further (S=1.96; A=3.15, C=2.56). Female interviewees display a less positive attitude towards inclusive schools than men (A=3.16/3.06). Age also has an impact in this area with the under 30's expressing higher concerns and a less positive attitude towards inclusive schools than those over 40. (C=2.6/2.4; A=3.1/3.3). With regards to the student programs, it is possible to observe large differences:

Table 1: Sentiments in relation to study program			
Scheffé- Procedure			
		Sub group for Alpha = 0.05.	
Study program	N	1	2
Special teachers	99	1,6098	
Primary teachers	730		1,9649
Secondary teachers	510		2,0188
Significance		1,000	,520

Table 2: Attitudes in relation to study program				
Scheffé-Procedure				
		Sub group for Alpha = 0.05.		
Study program	t N	1	2	3
Secondary teachers	510	3,0207		
Primary teachers	730	3,1955		
Special teachers	98	3,5466		
Significance		1,000	1,000	1,000

Table 3: Concerns in relation to study program			
Scheffé- Procedure			
		Sub group for Alpha = 0.05.	
Study program	N	1	2
Special teachers	99	2,0455	
Primary teachers	731	2,5825	
Secondary teachers	510	2,6273	
Significance		1,000	,661

Students of the special school teaching programme appear in all three dimensions more open to inclusive values than the students of both the junior and high/new middle school teaching programmes. (S=1.6/2.0; A=3.6/3.2/3.0; C=2.0/2.6). One possible conclusion that can be drawn from these results is that different programmes of education appeal to individuals with different attitudes and opinions.

With regards to the length of the programme of study and its subsequent influence has produced ambivalent results. After students of the 1st and 2nd term were separated during the analysis, some clear differences between new students and students who had been at the academies for a longer period of time were noticeable:

Table 4: Sentiments in relation to duration

Duration	N	Sub group for Alpha = 0.05.
		1
1a (1 st Term)	299	1,9090
3. Year (term 6)	285	1,9434
2. Year (term 4)	322	1,9738
1b (2 nd Term)	432	1,9920
Significance		,226

Table 5: Attitudes in relation to duration

Duration	N	Sub group for Alpha = 0.05.		
		1	2	3
1a (1 st Term)	299	3,0194		
1b (2 nd Term)	432	3,1298	3,1298	
3. Year (term 6)	284		3,2179	3,2179
2. Year (term 4)	322			3,2585
Significance		,103	,267	,840

Table 6: Concerns in relation to duration

Duration	N	Sub group for Alpha = 0.05.	
		1	2
1a (1 st Term)	299	2,4462	
1b (2 nd Term)	432	2,5534	2,5534
3. Year (term 6)	286		2,6143
2. Year (term 4)	322		2,6311
Significance		,090	,331

Students in the third year displayed more concerns about the implementation of an inclusive lesson (C=2.4/2.6), but at the same time, a more positive attitude towards inclusive education (A=3.0/3.2). It appears that it is therefore possible to develop fundamental attitudes, but not increase the skills needed for concrete implementation in the classroom. (The handling of children with disruptive behaviour was excluded). Sentiments didn't change throughout the duration of the various teaching programmes.

The quality of the working environment impacts on the results; the more value placed on inclusive education, the better it is seen in all areas, however, it is possible to observe large differences in concerns in relation to the implementation. The differences can often only be seen between the more extreme forms of the possible answers very high / low quality (S=1.9/2.0; A=3.3/3.0; C=2.3/2.9).

The (previous) experience in working with individuals with a physical or mental disability can be named as one of the most influential factors. A new variable can be analysed with the following three items; personal previous experience, the degree of education in relation to working with individuals with a physical or mental disability, and the amount of teaching experience, whereby the experience collected within the framework of practical teaching time during the teaching programme is also taken into account. The higher the (previous) experience, the less negative the attitudes towards disabilities are. This also results in a more positive attitude towards an inclusive school system and contributes to less concerns about the practical implementation (S=1.7/2.1; A=3.3/3.0; C=2.3/2.8)

The results of the TEIP show a high level of self-belief in this field (similar to the results of Australian teachers), although there are large differences in relation to the duration and choice of education programme.

Conclusions for Teaching Programmes

Students and graduates of both teaching academies in Upper Austria and Vorarlberg express, on the whole, a positive attitude towards inclusive education as well as concerns for teaching individuals with a physical or mental disability and the concrete implementation of an inclusive lesson. The sentiments are not influenced by the teaching programmes at the academy. Concerns about the implementation increase during the period of study, whereas, on the other hand, the positive attitudes also rise. (Previous) experience can be named as an important factor of influence.

A high normative agreement to inclusive education is reached through the various teaching programmes. However, this is often coupled with concerns and a focus on disabilities. Throughout the duration of the studies, there is an increase in the systemic view. Students studying in later terms have indeed developed ideas on how to implement inclusive education in their lessons, but they also connect it to a much higher degree of work and energy. Students of the Special School education programme at the teaching academy of Upper Austria feel well prepared for the design and implementation of individual lessons. They regard differentiation as a core element of their education, but consider pupils with a high level of special needs as a big challenge. All students emphasise the importance of good role-models during practical teaching training. One of the most important pieces of advice I could give when it comes to implementing the new education programme for teachers is that teaching academies in Austria need to relinquish their overly cautious approach the practical teaching element of the teaching programme. This would mean that graduates would be more able to deal with the highly complex and irritating challenges of the school day. Correspondingly, rather than a focus on things that go well in the class room, more attention should be given to areas which could go wrong. "Possible failures" should play a central role in the various teaching programmes. Furthermore, it is incredibly important that professors of technical didactic subjects should deal with the challenges of diversity in their lectures. Only when concrete cases can be implemented in the classroom, can the special requirements of an inclusive classroom be worked upon. The positive experiences obtained through dealing with these situations can result in a positive change in skills, attitudes and expertise in this area. At the moment, there prevail concepts of individualized teaching instead of personalized learning.

Mailing address: Ewald Feyerer, Pädagogische Hochschule OÖ · Kaplanhofstraße 40 · 4020 Linz
Email: Ewald.Feyerer@ph-ooe.at

Creating Systemic Change to Create More Inclusive Classrooms for Students with Disabilities

Tom Pierce, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Dale Warby, Ed.D.
College of Southern Nevada, Las Vegas, NV, U.S.A.

Abstract: Over the past 20 years, inclusive practices for students with disabilities have been a major discussion item in the literature and among teachers. There may be no more volatile issue in the field today. Because of federal mandates to place students in the least restrictive environment, inclusion advocates and detractors have argued their points for many years (Hansen, 2012, Peters, 2004). Research has suggested that attitudes can play an important part in teacher education (McLeskey, Waldron, So, Swanson, Loveland, 2001) as well as the attitudes of students in teacher education programs (Cook, 2002). Few would disagree that effective inclusive practices begins with support to the teacher, student, family, and school. This paper will address how an organization created a change in philosophy and practice toward more inclusive practices. The fundamental belief is that inclusive practices benefit students more than segregated classrooms.

Clark County School District

The Clark County School District (CCSD) includes the city of Las Vegas. The county is 8,091 square miles (20,956 km) in area. According to the *Statistical Data Report* (www.ccsd.net/resources/budget-finance.../pdf/.../statistical-data.pdf) the school district has more than 320,000 students, making it the fifth largest school district in the United States. There are currently 356 schools within CCSD, 8 special schools, and 1948 special education classrooms. Currently, there are over 3000 special education teachers.

Because of the urban nature of the district, it has a large diverse population of students. Ethnicity among students includes 43.4% Hispanic, 30.2% Caucasian, 12% African American, and 6% Asian.

These demographic variables, all compete with each other for limited resources, support, and professional development. One thing for certain is that in the past 20 years, CCSD has made very positive steps for increasing inclusive practices for students with disabilities. These efforts have included district wide training, financial enhancements, and moving more students with mild disabilities to general education placements.

Early Beginnings

In 2003 Nevada PIE (NvPIE) was founded by Rhonda Glyman. Ms. Glyman was the mother of a student with learning difficulties who was having trouble in the regular

classroom. She contacted the university for assistance and together NvPIE was formed. The purpose of NvPIE was to:

...strengthen public school education that is respectful of and responsive to the many cultures, languages and diverse learning styles of Nevada's children and youth. We provide expanded opportunities for all students to access knowledge and achieve high standards according to their ability so that all students can realize the great promise of America. Our goals are to:

- *Hold high expectations for student success as we assist all students in learning and performing their best*
- *Make sure each and every student feels welcome and is learning within an environment of mutual respect*
- *Collaborate with families and other community members in building inclusive schools and communities.* (<http://nvpie.org/about.html>)

Building Collaborations

A critical part to this process was developing collaborations with targeted individuals and businesses. Ms. Glyman was an influential person in our community and was able to open doors to many prominent individuals. These connections opened the doors to numerous corporations and political figures. Because of this influence, members of the university system were very early collaborators. In turn, the school district joined with great support. This is a critical part to the success of the program.

The first attempt at systemic change

One high school was selected to work on inclusive practices. The school was well known for its high academic achievement. The school received financial support including additional teaching staff, common planning times, and a student tutoring room for all students. Additionally, the university sent 40 undergraduate university students to observe and support teachers who were implementing inclusive practices. A university class was also offered at the school to support teachers in learning new skills and effective strategies that promoted inclusion. At the celebration dinner the school superintendent, university officials, and community benefactors recognized teachers and administrators for their work.

After this first year, it became increasingly clear that the school had not adopted the philosophy of inclusive practices, rather they wanted the resources. NvPIE was ready to select the next schools for support and wean the first school off the financial support. The first school still received university student support and consultation as needed. When the administrator stated that the school would not be able to effectively implement inclusive practices unless they received the staff support, the NvPIE board recognized how important it was to work with administrators who would champion a culture of inclusiveness. In subsequent years, school administrators were selected based on attitude

and a willingness to lead a positive change effort around inclusive practices. In the 2003-2004 school year 3 schools participated, 7 the following year, and 37 the year after that. By year five, a culture of inclusiveness was beginning to take root throughout the district.

The First Celebration Dinner

The first celebration event was a carefully orchestrated dinner with high-ranking community, university, and school district officials. It was here when the community stakeholders agreed that inclusive practices were important for making systemic change in the lives of students with disabilities. With this important lesson learned, the board moved to providing funds to school teams to support their inclusive practices. Schools could compete for funding to support an individual school team to systemically work on changing inclusion of their students. The following year awards were given to schools and awards ranged from \$5,000.00 – \$25,000.00. These funds were to be used by the school team to support their request for improving inclusion at their school.

Inspirational Dinner

In order to avoid being static in NvPIE's mission for moving forward, each year the board required a different set of goals from which teachers and schools could apply. We realized that there were some schools that may not have embraced inclusive practices, but that there were teachers who were making progress in inclusion. In 2010, we moved to giving support to individual teachers for their work on inclusive practices. Individuals could apply for grants for up to \$2,000 to support classroom practices leading to inclusive practices. Typically, there were approximately 400 teachers and administrators who attend the Dinner. Teachers consistently commented on how this event was the first time they were recognized for the work they were doing.

NvPIE Symposium

In 2012, The Board heard feedback from teachers who needed assistance and did not feel they had the skills to apply for funding. The Board agreed to provide a four-hour training on a Saturday one month before grant applications were due. Approximately 200 participants came to the symposium. We had to limit participation because of the venue in which training occurred. Only individuals attending the symposium were eligible to apply for grant funding. Four unique workshops were held to support teachers in moving toward more inclusive practices. Topics included, including families, implementing the common core for students with disabilities, positive behavior supports, autism, etc. Local experts in the field led training. Feedback on these events was extremely positive and we were able to include more "novice" teachers into the grant competition. In a typical year, we received approximately 100 applications for grant awards. We funded approximately 15 each year.

Fund Raising

Because Ms. Glyman was very strategic in her identification of potential donors, NvPIE has been very successful in achieving its funding goals. Major Las Vegas Hotel administrators, private businesses, and generous benefactors have helped raised more than one million dollars to support NvPIE activities. Hotels were generous in funding our celebration event, private businesses gave generous awards for students who were models of inclusive practices, and benefactors supported financial awards to teachers and schools. We also have used our other donors to leverage funding from other individuals and sources.

Staffing

NvPie receives no government or school district funding. The only paid staff member is the executive director who works primarily on fundraising, board meetings, celebration dinner organization, and setting up the various volunteer committees to select the grant recipients. The NvPIE board includes business and industry administrators, university faculty, school district officials, community partners, and political heavyweights.

Student achievers

In addition to providing grant support to teachers and schools, the board began implementing an “inspirational achievers” award. This award was given to a student who demonstrated outstanding progress in an inclusive environment. Teachers nominated students for this award. Students attended the inspirational celebration with their families and were given awards in front of their teachers, schools and communities. These awards were valued at over \$250.00 each. Awards included over night stays at hotels, passes for attractions, dinners, and show tickets. Moreover, we were fortunate that a local communications company sponsored a series of network TV spots in which the individual students and their teachers were recognized and celebrated for their achievements.

Lessons Learned

NvPIE has been an organization with a focused mission. Through many transitions, we have been able to move a segregated system to a much more inclusive system. In trying to replicated this we would suggest the following:

1. Having more than one constituency at the table is critical. Community and political leaders brought significant change from the school district. Without this top down approach we may not have made such a difference. The effects of having schools, universities, political leaders, and community heavyweights are critical.
2. While some want to learn successful inclusive strategies, others will not change unless they receive funding. This was a hard and important lesson to learn.

3. Ratcheting up each year's requirements allows for individuals and schools to move forward rather than staying static.
4. The importance of recognizing teachers for their good work can never be underestimated.
5. Having appropriate funding to reward teachers and schools is a key to success. Not only does it provide them with welcome tools and resources, it also offers encouragement and a positive incentive to give inclusive practices a try. Then, as teachers see student outcomes improve, enthusiasm grows and a culture of inclusiveness becomes the norm -- the way of life -- in schools.

It is clear from the information provided, that successful inclusive practices can make a significant difference for students with disabilities. It does take collaboration across many different community sectors. Many times it is argued whether change happens from a top down or bottom up approach. NvPIE found that top down was a critical part of the program's success. An interesting postscript to this story is that Ms. Glyman's son was at risk for failing high school. Through the work of many individuals he is now in his third year of college at a prestigious American university studying archaeology. It is a testament to his mother who wanted things done a better way, along with a visionary university system, forward thinking school district, and caring community, that he and so many others have had the opportunity to be successful.

References

- Cook, B.G. (2002). *Teacher Education and Special Education*, v25 n3 p262-277
- Hansen, J.H. (2012) *International Journal of Inclusive Education*, v16 n1 p89-98 2012
- Statistical Data Report* retrieved www.ccsd.net/resources/budget-finance.../pdf/.../statistical-data.pdf the school
- McLeskey, J., Waldron, N., So, T. H., Swanson, K., Loveland, T., (2001) *Teacher Education and Special Education*, v24 n2 p108-115
- Peters, S. (2004) *Inclusive education an EFA strategy for all children*. World Bank: Washington, DC.

Mailing address: Tom Pierce, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: tom.pierce@unlv.edu

Addressing Complex Issues: Actualizing Full Inclusion for All Students

Monica Brown, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

Abstract: Inclusive education has garnered widespread support in much of the developed/developing world, and educational authorities around the world are now addressing their social and moral obligations to educate *all* students. This means that students who were once uneducated [i.e., students with disabilities, students from culturally and linguistically diverse (CLD) backgrounds] are now educated in traditional schools with their peers without disabilities. Australia is no different. Since the passing of the *1992 Disability Discrimination Act in Australia* and parental support for inclusion, teachers and schools are now educating large numbers of students with disabilities in general education classrooms. As with many places around the world new to inclusive education, Australia has moved away from *why* these students should be educated in general education classrooms to grappling with *how* teachers can do this effectively. This paper looks at some of the inclusive practices (i.e., co-teaching, technology integration) implemented in Australia and how they have been used effectively with students with disabilities.

There has been a global push toward equality and equity in education for all students [i.e., students with disabilities, students from culturally and linguistically diverse backgrounds (CLD), etc.], but specifically for students with disabilities. In the U.S., children with disabilities are entitled to an appropriate education in the least restrictive environment (LRE). While not explicitly stated in the *Individuals with Disabilities Education Act* (IDEA), it is implicit that the general education classroom is the least restrictive placement for most students with disabilities; particularly those with high-incidence disabilities (i.e., specific learning disabilities, intellectual disabilities, emotional and behavioral disorders, and communication disorders).

While the U.S. has moved beyond asking *why* inclusive education is necessary, many other countries are still trying to answer that question. Australia has also moved beyond the “*why*” and are now working on “*how*” they can best serve students with disabilities in the general education classroom (Cologan, 2013; Loreman, 2007). As with the U.S., the “*how*” is the most difficult part in Australia and many other countries. Fortunately, in the U.S. and Australia, there are comprehensive laws (IDEA and *1992 Disability Discrimination Act*, respectively) in place that guarantee students with disabilities the right to education in inclusive environments.

However, just having laws in place does not guarantee that students with disabilities (and other marginalized populations) are receiving the appropriate instruction based on their individual, unique educational and other needs. Teachers and other school personnel

(i.e., instructional aids) (Bourke & Carrington, 2007; Giangreco, 2013) have to consistently experiment with research-validated, pedagogical practices appropriate for the student populations in their charge.

Addressing the “How”

Despite the abundance of research-based, pedagogical practices available for inclusive classrooms, teachers are still struggling with the implementation of those practices (Loreman, 2007; Shaddock, Giorcelli, & Smith, 2007). Some of the reasons for the struggle are regarding: (1) lack of preparation regarding teaching students with disabilities (Carroll, Forlin, & Jobling, 2003; Cologan, 2013; Forbes, 2001, 2007; Konza, 2008; Pearce, 2009; Rouse, 2013), their own attitudes regarding the efficacy of inclusion (Forbes, 2001; Konza, 2008; Shaddock, Giorcelli, & Smith, 2007), and (3) school and teacher attitudes regarding students with disabilities in general (Cologan, 2013; Konza, 2008; Loreman, 2003; Pearce, 2009). But, in spite of the difficulties regarding *how* to create inclusive schools, countries are pushing forward and requiring that their schools and teachers implement those research-based, pedagogical inclusive practices in their schools and classrooms.

Promising Practice

In the U.S. and other countries (i.e., Australia), teachers are utilizing technology (Marks & Milne, 2008) and co-teaching (Burks-Keeley & Brown, in Press; Murawski & Lochner, 2010) in inclusive classrooms. In the U.S., many schools, classrooms, and teachers have experienced success when implementing a co-teaching model. Below are examples of how co-teaching has been used successfully in inclusive classrooms with students with disabilities, bringing about real and perceived benefits form teachers and students.

Co-teaching in inclusive classrooms

Co-teaching involves two teachers teaching side-by-side in the inclusive classroom. It is a practice that has been used in the U.S. for more than 20 years. Recently, however, it has gained momentum. But, empirical research on the effectiveness of co-teaching — in terms of quantitatively - measured student outcomes — is limited (Murawski & Swanson, 2001). Despite this fact, it has become one of the most widely used inclusive models in the U.S. There are, undeniably, certain benefits to its use, albeit emotional and not empirical.

For example, in their study of co-teaching in middle schools in the southeastern U.S., Burks-Keeley and Brown (in Press) found that depending on the co-teaching model implemented, students perceived co-teaching as effective in specific areas. That is, depending on the model used, **students perceived** that teacher authority was distributed equally between teachers, student confidence increased, student learning increased, and classroom management was better. Likewise, the **teachers perceived** that classroom management and curriculum implementation improved when two teachers were in the classroom.

Beamish, Bryer, and Davies (2005, 2006) had co-teachers use a co-teaching strategy to plan, implement, and evaluate a unit of work in inclusive primary schools in Queensland. The teams came together with university staff to share their perspectives and document reflections on action. They determined that the teachers’ thoughts and beliefs regarding their roles and responsibilities in co-taught classrooms had changed. By the end of the

study, the teachers' attitudes changed with regard to the efficacy of co-teaching and their feelings of responsibility for all students.

Co-teaching may not yet be narrowing the achievement gap between students with and without disabilities in the U.S. and Australia, but there appear to be changes in teachers' thoughts and attitudes (emotional) as well as students' feelings regarding their confidence and learning in co-taught classrooms. In addition, teachers feel as though they are equal partners in the classroom. But, perhaps the emotional aspects of co-teaching have to be addressed. If teachers don't believe in co-teaching, students with disabilities, etc., then researchers will not get to the empirical studies.

Conclusion

Using an inclusive approach to educate all learners has been discussed extensively in the literature and research. The advantages (i.e., academic, social, emotional, behavioral) and drawbacks (i.e., lack of a universal, definitive definition; lack of teacher preparation, etc.) of this approach are well documented. Additionally, the research-validated pedagogical practices are there for teachers to implement in their classrooms. But, in addition to the practices implemented in the classrooms by teachers, other changes must occur if inclusive education is going to be successful for *all* students.

When Winter and O'Raw (2010) reviewed the literature, they identified nine things that are integral to the development of successful inclusive schools, including: (1) understanding and acknowledging inclusion as a continuing and evolving process, (2) creating learning environments that respond to the needs of all learners and have the greatest impact on their social, emotional, physical and cognitive development, (3) undertaking a broad, relevant, appropriate and stimulating curriculum that can be adapted to meet the needs of diverse learners, (4) strengthening and sustaining the participation of students, teachers, parents and community members in the work of the school, (5) providing educational settings that focus on identifying and reducing barriers to learning and participation, (6) restructuring the cultures, policies and practices in schools to respond to the diversity of students within the locality, (7) identifying and providing the necessary support for teachers and other staff as well as students, (8) engaging in appropriate training and professional development for all staff, and (9) ensuring the availability of fully transparent and accessible information on inclusive policies and practices within the school for pupils, parents, support staff and other persons who are involved in the education of the student.

Teachers identifying the appropriate, research-validated pedagogical practices for their students is but half the battle. Schools (i.e., administrators and other personnel) **MUST** also work toward accomplishing the aforementioned nine things within the school environment. When they do, then success (i.e., academic, social, emotional, and behavioral) will be achieved by *ALL* students.

References

- Beamish, W., Bryer, F., & Davies, M. (2005). Co-teaching in Queensland primary schools: Teacher Reflections. *Griffith University, Center for Learning Research*. School of Cognition, Language, and Special Education. Retrieved from <http://www98.griffith.edu.au/dspace/bitstream/handle/10072/2533/29477.pdf?sequence=1>
- Beamish, W., Bryer, F., & Davies, M. (2006). Teacher reflections on co-teaching: A unit of work. *International Journal of Whole Schooling*, 2(2), 1-15. Retrieved from <http://www98.griffith.edu.au/dspace/bitstream/handle/10072/13073/35576.pdf;jsessionid=5017B48FCAB2BBAF22DEB2A2648FE70D?sequence=1>
- Bourke, P., & Carrington, S. (2007). Inclusive education reform: Implications for teacher aides. *Australasian Journal of Special Education*, 31(1), 15-24. Retrieved from http://eprints.qut.edu.au/5388/1/5388_1.pdf
- Burks-Keeley, R.G., & Brown, M.R. (in Press). Teacher and student perceptions of the effectiveness of co-teaching models: A comparison study. *Journal of the American Academy of Special Education Professionals*.
- Carroll, A., Forlin, C., & Jobling, A. (2003). The impact of teacher training in special education on attitudes of Australian preservice general educators towards people with disabilities. *Teacher Education Quarterly*, 30(3), 65-79. Retrieved from <http://files.eric.ed.gov/fulltext/EJ852365.pdf>
- Cologan, K. (2013). Inclusion in education: Towards equality for students with disability. *Children and Families Research Center, Institute of Early Childhood*, Macquarie University. Retrieved from <http://ndoch.govspace.gov.au/archives/3588>
- Farrall, J., & O'Connor, G. (2010). Inclusive learning technologies: Supporting students of all abilities. *Australian College of Educators (ACER)*, 34-37. Retrieved from <http://www.spectronicsinoz.com/conference/2012/pdfs/handouts/Inclusive-Learning-Technologies-Supporting-Students.pdf>
- Forbes, F. (2007). Toward inclusion: An Australian perspective. *Support for Learning*, 22(2), 66-71. Retrieved from www.waespaa.com/au/pdf/SupportFor Learning-Fiona.Forbes.pdf
- Giangreco, M. F. (2013). Teacher assistant supports in inclusive schools: Research, practices, and alternatives. *Australasian Journal of Special Education*, 1-14. Retrieved from <http://www.uvm.edu/~cdci/parasupport/reviews/giangreco11.pdf>. doi: 10.1017/jse.2013.1.

- Konza, D. (2008). Inclusion of students with disabilities in new times: Responding to the challenge. In Kell, P., Vialle, W., Konza, D., & Vogl, G. (Eds.), *Learning and the learner: Exploring learning for new times* (pp. 39-64). University of Wollongong. Retrieved from <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1036&context=edupapers>
- Loreman, T. (2001). Secondary school inclusion for students with moderate to severe disabilities in Victoria, Australia. Unpublished PhD Thesis, Monash University, Victoria, Australia. Retrieved from <http://www.wholeschooling.net/WS/WSPress/Loreman%20HS%20Incl%20Sev%20Dis.pdf>
- Loreman, T. (2007). Seven pillars of support for inclusive education: Moving from “why?” to “How?” *International Journal of Whole Schooling*, 3(2), 22-38. Retrieved from <http://files.eric.ed.gov/fulltext/EJ847475.pdf>
- Murawski, W.W., & Lochner, W.W. (2010). Observing co-teaching: What to look for, ask for, and listen for. *Intervention in School and Clinic*, 46(3), 174-183.
- Pearce, M. (2009). The inclusive secondary teacher in Australia. *International Journal of Whole Schooling*, 5(2), 1-15. Retrieved from <http://files.eric.ed.gov/fulltext/EJ868805.pdf>
- Rouse, M. (2013). Developing inclusive practice: A role for teachers and teacher education? Retrieved from <http://www.abdn.ac.uk/eitn/uploads/files/issue16/EITN-1-Rouse.pdf>
- Winter, E., & O’Raw, P. (2010). Literature review of the principles and practices relating to inclusive education for children with special educational needs. National Council for Special Education. Retrieved from http://www.ncse.ie/uploads/1/ncse_inclusion.pdf

Mailing address: Monica Brown, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: monica.brown@unlv.edu

Geospatial Mapping and Student Success: Building Bridges and Finding Lost Treasure

Peter N. Winograd, Ph.D
University of New Mexico, Albuquerque, NM, U.S.A.

Katharine W. Winograd, EdD
Central New Mexico Community College, Albuquerque, NM, U.S.A

Amy J. Ballard, MS
University of New Mexico, Albuquerque, NM, U.S.A.

Abstract: One of the most challenging problems that educators face in changing policy comes from the deep inequities that exist among children, families, and communities. These inequities are linked to political, social, economic, racial and ethnic divisions within communities and are complicated by long histories of tension and mistrust. If policy change is to happen in constructive and sustainable ways, then disparate communities must be brought together in ways that build consensus about what should be done. Geospatial mapping is a potentially powerful methodology for engaging multiple audiences in constructive conversations about educational inequities in ways that lead to policy changes and the implementation of educational initiatives aimed at improving the success of all students. This paper provides an analysis of how geospatial mapping is being used to help diverse communities build bridges with each other and work together to ensure that more students reach their full potential.

The American dream of education as the path to increased equality and a brighter future is in danger of dying. Both academic studies and policy debates are focused on the stubborn achievement gaps that exist among students from different backgrounds, abilities and needs; the decline in social mobility, and the increasing threats to economic competitiveness and democratic society (e.g. Duncan & Murnane, 2011; Tate, 2012). These issues are national in scope, but extraordinarily evident in New Mexico where we live and work. In New Mexico, for example, 8% of Native American 4th graders, 31% of African American 4th graders, and 19% of Hispanic 4th graders were proficient or above in reading compared to 47% of White 4th graders on the 2013 National Assessment of Education Progress (NAEP, 2013). The inequities are not limited to differences in race, of course. Students with disabilities comprise 13.8% of the total public school student population in New Mexico but they make up almost 27% of the students who are arrested, referred to the justice system or are suspended or expelled from school (Winograd, 2014). These gaps are evident at every level of the education system and by any other measure of health,

economic vitality or social wellbeing. Sadly, New Mexico holds the dubious record of being 50th in Child Well-Being in the United States (Annie E. Casey Foundation, 2014),

In this paper, we share our experiences in using geospatial mapping and analyses as tools for bringing educators, business leaders, community members, parents, foundation leaders and policy makers together to address the inequities that face New Mexico's children. We will begin with a brief introduction to geospatial analyses and its potential applications in education policy. Then we will share some examples of maps and the policy conversations aimed at addressing educational inequities. We will conclude with some suggestions about how geospatial mapping might be used in other countries and other contexts.

Geospatial Mapping

Geospatial mapping is an approach to applying statistical analyses, data visualization, and other analytic techniques to data that have geographical dimensions. Geospatial mapping has been used extensively in other fields including ecology, geology, archaeology, urban design and epidemiology and industries including public safety, natural resources, conservation and national defense. The use of geospatial mapping in educational research and policy is beginning to emerge. Tate (2008), Tate (2012), Tate and Hoglebe (2011), Hoglebe and Tate (2012), and Gulson and Symes (2007). Hoglebe and Tate (2012), for example, argue that a geospatial perspective is essential in developing visual political literacy in the areas of education, health and human services. These researchers define visual political literacy as an approach that applies the psychological and political potential of geospatial methodology to issues of education, health and human development with the central aim of linking visual products to discussions of the geography opportunity. Hoglebe and Tate (2012) offer two reasons why geospatial maps are so powerful. First, images, illustrations, and graphic representations are strongly support learning, understanding and other aspects of cognition. Second, maps have long been useful in engaging multiple groups in civic debates and other political discussions because they can be used as planning tools, community engagement instruments, historical archives and scaffolding for other scientific approaches to problem solving.

Over the past 2 years, the University of New Mexico Center for Education Policy Research (CEPR) has made extensive use of geospatial data presentation and analysis to inform legislative policy decisions, assist local communities in identifying their assets and challenges, and help foundations determine whether their funding strategies are equitable. In the following section, we will describe how CEPR has used geospatial mapping and worked in partnership with Central New Mexico Community College (CNM) to move an educational policy initiative forward

Albuquerque's Search For Prosperity

One of the most important strategies for building bridges among groups with divergent interests is by finding common ground. The theories of urban prosperity used by CEO's For Cities (Cortright, 2008; Initiative for a Competitive Inner City & CEO's For Cities 2002;) has been particularly useful in our policy work. This national nonprofit organization brings over fifty cities and foundations together to focus on ways to make cities more connected, innovative and talented. We have found their focus on prosperity

to be a useful way to find common ground for the policy discussions in Albuquerque (Winograd, Gonzales, Ballard, Robinson & Timm, 2013).

We believe that prosperity depends on trust and human capital. We also believe that two of gravest threats to Albuquerque's prosperity are the deep disparities among the different neighborhood throughout the city and the educational achievement gap that keeps so many of the city's young people from reaching their full potential. These threats are exacerbated by the fact that many of the city's key leaders spend too much time blaming each other rather than working together. Business leaders blame higher education for poorly prepared workers; colleges blame high schools for poorly educated graduates; high schools point the finger at poorly prepared middle school and elementary school students, schools blame families, and families blame businesses for the lack of jobs and economic viability.

Unfortunately, the educational and economic future of Albuquerque became bleak enough to bring education, business, community and civic leaders together to try and address these issues. The Center For Education Policy Research and Central New Mexico Community College contributed to these conversations in a number of ways, but since our space is limited, we will focus on two of the geospatial maps that helped move the conversations forward.

The maps presented in Figure 1 on the following page show the increased number of elementary, middle, and high schools students who were classified as habitually truant in 2011. Habitually truant means students who have 10 or more days of unexcused absences. These maps sparked a number of policy debates and initiatives both in the city of Albuquerque and across the state of New Mexico.

Showing Change Across the K-12 Continuum: The Tide of Truancy

In the spirit of Tufte's Small Multiples (Tufte 1990) this series of maps shows truancy moving like a red tide that engulfs Albuquerque Public Schools students by the time they are in high school. Maps such as these can lead to rich conversations, including the disparate causes of truancy at different school levels, and the hidden issues associated with truancy such as dysfunctional reporting systems.

Reference:
Tufte, Edward
1990 *Envisioning Information*. Graphics Press, LLC, New Haven

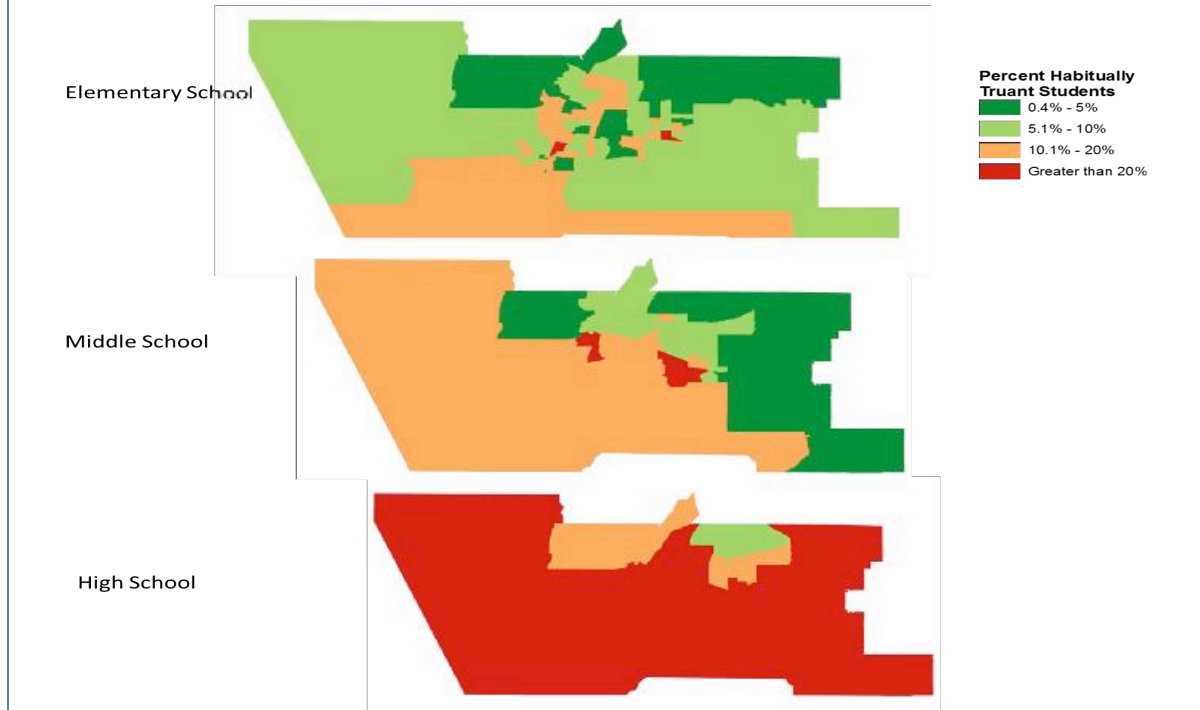


Figure 1: Habitual Truancy In Albuquerque's Elementary, Middle, and High Schools.

The map presented in Figure 2 displays the percentage of individuals living below the poverty level who also have less than a high school education. The map depicts the enormous disparities in terms of educational attainment and income that exists between the predominantly Hispanic communities in the southwest part of Albuquerque and the more affluent communities in the north and northeast quadrants' of the city. The darker colors indicate the numbers who are below 200 percent of U.S Federal Poverty Levels and the size of the circles represents the numbers of individuals who have less than a high school diploma.

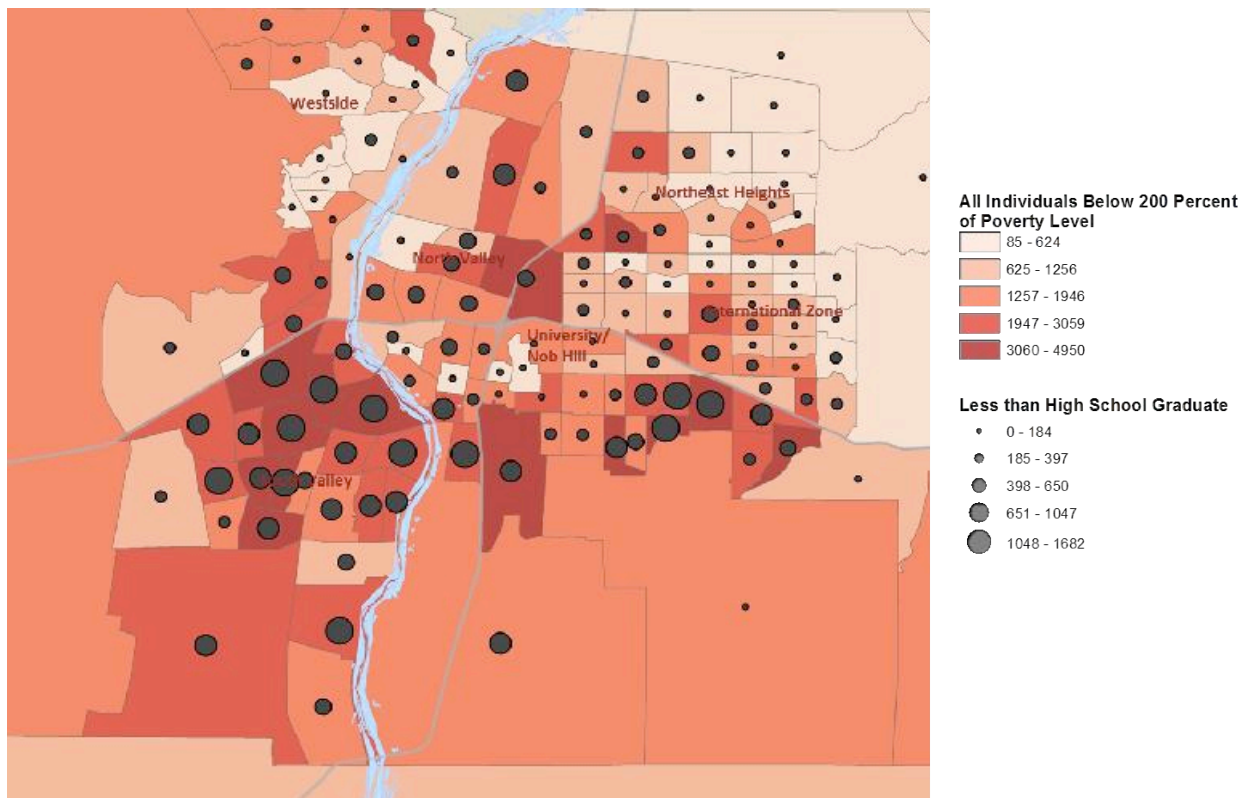


Figure 2: Individuals Living Below 200 Percent of Poverty Level with Less than High School Education

These maps, and many others that showed the same geospatial disparities among neighborhoods in terms of parental and early childhood indicators: elementary, middle and high school educational achievement; high education attainment; higher education participation and attainment; health outcomes; and difference in life expectancy were instrumental in bringing people from all communities and all sectors of the city together.

Hogrebe and Tate's (2012) assertions that geospatial maps are powerful because the images are immediately accessible and understandable by a wide range of audiences and that such images help engage multiple groups in civic debates was clearly true in our experience in Albuquerque. In addition to Hogrebe and Tate's (2012) finding about the impact of maps on cognitive learning, we saw a strong emotional response to the maps by all of our audiences. Emotion is important because, in our experience, policy change is driven as much by the heart as it is by the head.

A number of collaborative educational policy initiatives grew out of these conversations including efforts to improve early childhood education, reduce truancy, strengthen community support for students, increase high school graduation, improve college participation rates, increase the number of students who graduate from college with certificates and degrees, and increase the career opportunities available in Albuquerque so that students who do make it through the educational pipeline can find decent jobs and raise their families.

These collaborative educational initiatives are ongoing and some are showing positive outcomes while others are struggling to be implemented. The important point, for this paper, is that geospatial mapping played an important and impressive part in bridging the divides that plague our city and helped move the educational and social agenda forward. More maps and current research on New Mexico's efforts can be found at the website for the University of New Mexico Center For Educational Policy Research (cepr.unm.edu).

Lessons Learned

We titled this paper, *Geospatial Mapping and Student Success: Building Bridges and Finding Lost Treasure*. Building bridges refers to the importance of helping distrustful communities understand that they are all part of one city. Finding lost treasure refers, of course, refers to increasing the number of students who successfully make the journey from early childhood to high school, college and careers. We are still in the midst of building these bridges and trying to find that treasure, but we do have some lessons we think are worth sharing. First, we believe geospatial mapping has proven valuable in other fields and we believe that the statistical tools, conceptual frameworks and analytical techniques from those other disciplines can offer unique insights when applied to educational issues. Second, maps and other forms of geospatial data visualization are immediately accessible to a wide range of audiences including policy-makers, community members, educators, students, and parents. Maps are powerful conversation starters and they equalize the conversations among different groups at the table. Everybody sees something different in the maps based on their perspectives and experiences and it really is something to watch how carefully diverse participants listen to each other. People genuinely want to know what others think.

Finally, geospatial maps can help convey the message that we are one community, bound together by a sense of place. The maps can present the common challenges we face in much more powerful ways that bar charts, tables and spreadsheets ever could. In a political world marked by increased polarization, any methodology that helps communicate the importance of working together for the common good is worth exploring.

References

- Kids Count Data Center, (2014) Annie E. Casey Foundation. www.aecf.org
- Cortright, J. (2008). City success: Theories of urban prosperity. CEO's for Cities. Retrieved January, 12, 2014 from <http://www.ceosforcities.org/research/city-success-theories-of-urban-prosperity/>
- Duncan, G. J., & Murnane, R. J. (Eds.) (2011.) *Whither opportunity? Rising inequality, schools, and children's life chances*. New York: Russell Sage Foundation.
- Gulson, K. N. & Symes, C. (Eds.). (2007). *Spatial theories of education: Policy and geography matters*. New York: Routledge.

Hogrebe, M., & Tate, W. F., (2012). Geospatial Perspective: Toward a visual political literacy project in education, health, and human services. *Review of Research In Education*, 67-94.

Initiative for a Competitive Inner City & CEOs for Cities (2002). Leveraging colleges and universities for urban economic revitalization: An action agenda. A Joint Study. Retrieved January, 12, 2014 from <http://www.ceosforcities.org//research/the-role-of-colleges-and-universities-in-urban-economic-development/>

The National Assessment of Educational Progress (NAEP). (2001). Retrieved April 7, 2012, from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012459>

The National Assessment of Educational Progress (NAEP) (2013). Retrieved March 5, 2014 from <http://nces.ed.gov/nationsreportcard/>.

Tate, W.F, (2008). "Geography of opportunity": Poverty, place, and educational outcomes. *Educational Researcher*, 37, 397-411.

Tate, W. F. (Ed.) (2012). *Research on schools, neighborhoods, and communities: Toward civic responsibility*. Maryland, Rowman & Littlefield.

Tate, W.F. & Hogrebe, M. (2011) From visuals to vision: Using GIS to inform civic dialogue about African American males. *Race Ethnicity and Education*, 14, 51-71.

Winograd, P. (January, 2014). Understanding New Mexico's school to prison pipeline: What the data are beginning to show.. Presented at the 21st Annual Children's Law Institute, Albuquerque, New Mexico.

Winograd, P, Gonzales, A., Ballard, A, Robison, L. & Timm, J. (April, 2013). Geospatial mapping and city success: Building bridges and finding lost treasure. Presented at the 2013 Talent Dividend Meeting, CEO's for Cities, Philadelphia, Pennsylvania.

Mailing address: Peter Winograd, Center for Education Policy Research, The University of New Mexico, Manzanita Hall, MSC05 3040, Albuquerque, NM 87131 USA
Email: peterwin@unm.edu

A High School Turnaround Initiative: Interventions and Effects on Academic Proficiency Exams

Sherri Strawser, PhD
University of Nevada Las Vegas, Las Vegas, NV, U.S.A.

René A. Zender, PhD
Mojave High School, North Las Vegas, NV, U.S.A.

Abstract: This paper describes research on the implementation of a package of interventions for teacher professional development and student academic improvement as part of a U.S. School Improvement Grant (SIG). To date, little research exists on successful programs or interventions used in SIG schools that contributed to increased student achievement. Only anecdotal evidence was available on a few schools, with no documentation of interventions used or measures of student achievement results. For high schools, the SIG requires student academic proficiency be evaluated by the percentages of all students and students in specific subgroups (i.e., ethnicity, students with disabilities, and students with limited English proficiency) who passed reading and math proficiency exams. This study investigated effects on students' high school proficiency exam scores in math and reading in the initial two years of implementation of a Turnaround Intervention Package (TIP) that incorporated common formative student assessments, Professional Learning Communities, differentiated instructional practices, and a measure of classroom instruction and environment. The TIP was effective in significantly raising scores for the entire student group. Although scores increased for students in the specific subgroups, the increases were not significantly different from those for the entire group.

Even before the formalized Turnaround Movement instituted by the U.S. Department of Education (USDOE), schools have worked to improve educational outcomes in response to the No Child Left Behind Act of 2001 (NCLB) that required the use of standardized test scores to measure the success or failure of schools' and school districts' academic performance. The USDOE fully supported a school reform or *turnaround* effort in 2009 when the U.S. Secretary of Education pledged to turn around the lowest 5% of all public schools through an expanded and revised School Improvement Grant (SIG) program (Wakelyn, 2011). In essence, the revised SIG program addressed the need to dramatically transform school culture and increase student outcomes in each state's persistently lowest-achieving schools through robust and comprehensive reforms that had been necessary for some time (The Center for Comprehensive School Reform and Improvement, 2006). The funded SIG efforts for failing school districts ensued from evidence that school districts do

little, if anything, to turn around poorly performing schools when left to their own devices. A 2007 U.S. Government Accountability Office study found that 40% of schools that were required to restructure because of poor student progress did not enact any of the five options required by NLCB (Wakelyn, 2011). Most of the schools studied selected the option called *other major governance* that provided more flexibility and was open to broader interpretation (Wakelyn, 2011), which allowed schools to continue business as usual while collecting federal funds. In order to receive the revised federal SIG funds, state education agencies must ensure that local education agencies use one of the following federally approved interventions (School Improvement Grants, 2010):

- Turnaround Model: Replaces the principal; screens existing staff and rehires no more than 50% of the teachers; adopts a new school governance structure; and implements strategies that include curriculum reforms, professional development, and extended learning time.
- Restart Model: Converts a school or closes it and reopens as a charter school or under an education management organization.
- School Closure: Closes the school and sends the students to higher-achieving schools in the district.
- Transformation Model: Replaces the principal, takes steps to increase teacher and school leader effectiveness, institutes comprehensive curriculum reforms, increases learning time, creates community-oriented schools, and receives operational flexibility and sustained support.

The federal government urged schools to utilize the turnaround model of school reform even though historically the reviews of success were mixed. Much of the literature has described how successful Turnaround schools have progressed despite the lack of resources and high levels of student poverty (Duke & Jacobson, 2011; Manwaring, 2011; Salmonowicz, 2009). Typically, these schools were elementary schools with small student populations, and the success of these schools has been cited as a model for other turnaround schools. However, educators began to question the long-term effectiveness of these schools' successes noting that turning around a failing school is a complex task with no single solution.

Despite legislation requiring improvement of instructional outcomes in schools, the improvements have been slow or results have not met expectations. In addition, the literature on school reform efforts and the turnaround process has focused primarily on leadership and developing the professional capacity of the faculty. Few studies have examined other aspects of the turnaround process, such as use of the use formative assessment and data to track students' achievement and little research has been done at the secondary school level (Knoepfel & Brewer, 2011). In spite of the significant financial support for SIG schools, successful results are lacking. One factor that may be connected to the lack of turnaround success is the need to identify specific supports, programs, evidence-based strategies, or professional development that will positively affect a turnaround effort. Materials available from the USDOE Office of School Improvement Grants (2010) website provided broad guidelines for schools, but the individual school's

leadership personnel must decide which specific changes to make and how they are implemented within the context of a school turnaround.

Given the lack of specific program models for high school turnarounds, it has been necessary for leadership to use strategies reported to be effective, but not necessarily supported by research that demonstrated effectiveness with student populations involved in the turnaround program. In addition, little information exists about demographic factors that may be related to students' successes or failures in the high school turnaround process. In a high school, the SIG program requires that academic proficiency be tracked by scores in reading and math on a state high school proficiency exam. The academic proficiency of students must be reported as the percentage of all students who passed the exams, as well as percentages of passing students in specific subgroups (i.e., ethnicity, students with disabilities, and students with limited proficiency in English).

Method

This study was conducted in a large urban SIG high school located in a low socio-economic area with a high student transiency rate (40%) and low graduation rate. It investigated the effects on students' high school proficiency exam scores in math and reading over the initial two years of the SIG and implementation of a Turnaround Intervention Package (TIP). A case technique design was used to address research questions relevant to the use of the TIP and its effect on students' achievement on the state high school proficiency scores.

The reading and math scores of a pre-SIG 10th grade student cohort on the state academic proficiency exam were analyzed to determine growth over the two years of the study. In this state, students who do not pass the exam may continue to retake the exam twice a year until they pass each content area. Students were included in the study cohort only if they failed to pass the exams on their first opportunity in 10th grade and took subsequent exam attempts at the school. Enrollment data and demographics for the total student body and the required subgroups are shown in Table 1 for the pre-SIG school year, the first SIG year, and the study student cohort and subgroups. Although the school had a large student enrollment prior to and during the study, the number of students who could be included in the study cohort was subject to a number of confounding factors. One important factor was the high rate of student transiency in the school. Students who withdrew completely or withdrew and returned are not counted in the school's proficiency data. Also, students who did not retake their exam(s) in a consecutive manner were excluded from the study cohort. To avoid invalidation of the statistical analyses, students were also excluded from the analyses if their scores on the first test attempt indicated they took the test, but either (a) put only their names on the test and answered either no or only a few items or (b) answered every item incorrectly. This was necessary to allow analyses of results for students who had the same testing experience (i.e., students who retook the exams successively) and amount of exposure to the TIP.

Table 1

SIG School Student Body and Study Cohort Enrollment and Demographic Data

Pre-SIG School Year		SIG Year 1		Study Student Cohort and Subgroups	
N (%)		N (%)		N (%)	
Total	2,067	Total	2,055	Total	239
White	360 (17.4)	White	317 (15.4)	White	37 (15.5)
Black	650 (31.4)	Black	641 (31.2)	Black	61 (25.5)
Hispanic	936 (45.3)	Hispanic	926 (45.1)	Hispanic	118 (49.4)
Other	121 (5.8)	Other	171 (8.3)	Other	23 (9.6)
IEP	287 (13.9)	IEP	309 (15)	IEP (only reading exam)	21 (8.8)
LEP	286 (13.8)	LEP	171 (8.3)	IEP (only math exam)	20 (8.4)
FRL	1,134 (54.9)	FRL	1,373 (66.8)	LEP (only reading exam)	7 (2.9)
				LEP (only math exam)	3 (1.3)

Note: The “Other” subgroup includes students who report their ethnicity as Asian, Multi-racial, Pacific Islander, or American Native/Alaskan Native. This subgroup was not included as a specific subgroup in the study. The SIG does not require reporting on the subgroup of students receiving Free/Reduced Lunch (FRL).

The Turnaround Intervention Package (TIP)

In previous years, instructional remediation and differentiated instruction teachers may have adopted to improve student achievement was not based on any formal set criteria or practice. Upon implementation of the SIG, each student in the study cohort received monitored instruction via a package of interventions referred to as the TIP. The primary interrelated components of the TIP were common formative and summative student assessments, teachers’ use of assessment data in Professional Learning Communities (PLC) to inform and differentiate instructional practices, and an observational evaluation of teachers’ classroom instruction and the learning environment. The underlying question was whether the use of this package of interventions contributed to improved student achievement in the critical areas of math and reading as measured by state high school proficiency exam scores. It was hypothesized that the use of the TIP would result in significant increases in math and reading proficiency exam scores for the cohort students.

Formative and Summative Student Assessments

In order to determine which study cohort students were non-proficient in course content areas, teachers created common formative and summative assessments for their classes to help plan lesson content and monitor student progress during the instructional cycle. To facilitate this TIP component, the DATAWISE™ (Measured Progress, 2009) assessment and data management system was chosen because it gave teachers the ability to create consistent and valid assessments to measure student achievement and easily analyze the formative and summative assessment results. Teachers created multiple-choice assessments and constructed response questions with the DATAWISE™ item bank of questions based upon state curriculum standards.

Professional Learning Communities (PLC)

The Professional Learning Communities (PLC) component comprised groups of teachers who met by grade and course levels. The members of a PLC work collaboratively and interdependently to help one another achieve a mutual goal (Dufour, Dufour, Eaker, & Many, 2010). The teachers in each PLC worked together to create formative and summative assessments, and use the resulting data to determine an appropriate course of instruction or remediation necessary for individual students. Teachers also analyzed the data to identify and monitor the students who were demonstrating mastery of the content and the students lagging behind. Teachers then researched and shared best practice strategies to create appropriate lessons to (a) provide remediation for students who needed considerable help, (b) keep students who demonstrated initial understanding moving forward, and (c) challenge the students who showed mastery of the content.

Classroom Walkthrough Instrument

The third major TIP component was an observational evaluation of teachers' classroom instruction and the learning environment. Administrators, department chairs, and instructional coaches completed this evaluation using a Classroom Walkthrough instrument (Teachscape, 2009) to gather data in the areas of teaching and classroom practice. The instrument provided a standard way for the observers to record information in the areas of curriculum, teachers' instructional strategies, student actions and engagement, classroom environment, and the manner in which the teachers respond to the needs of all learners. Each observer spent 5 to 7 minutes per classroom to complete the Classroom Walkthrough instrument that provided a snap shot of each classroom over time. The resulting walkthrough data were analyzed to help identify instructional trends or needed changes within classrooms and/or content departments, which were communicated with PLC leaders to guide creation of action plans to address teachers' instructional needs through professional development and trainings.

Results and Conclusions

The Site Improvement Grant under which the Turnaround school worked required growth in academic proficiency for all students, as well as for students in specific subgroups designated as Black, Hispanic, White, IEP (i.e., students with disabilities), and LEP (i.e., Limited English Proficient). Analyses of math and reading proficiency test scores of the student cohort demonstrated a strong upward trend and a statistically significant growth in math and reading achievement for all cohort students. The TIP appeared to have had an effect on overall growth in student achievement. The analyses of results for the

subgroups, however, were not as positive when viewed as trends or through statistical analyses. The TIP appeared to have had a positive effect on student achievement among these specific subgroups; but the subgroups showed no more of an increase than that for the whole group. The subgroups of students with disabilities and students who had poor command of the English language proved especially problematic in this area because of their extremely small numbers related to several factors. Most notably, many students in these two groups essentially wrote only their name on the test booklet during their initial exam attempt, which eliminated them from the study student cohort and any analysis of progress on the exams. In addition, the students in these subgroups were among the highest transient students. These factors combined to reduce the final numbers of students who were included in the study cohort and made conclusions difficult to determine.

One conclusion that can be drawn from this study is that multiple interventions, formative assessments, teacher collaboration, and the use of student data to make instructional decisions and share best practices, improves the probability of students' success in the classroom and mandated high school proficiency exams.

References

- Center for Comprehensive School Reform and Improvement. (2006). *School restructuring under No Child Left Behind: What works when?* Washington DC: Author.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work* (2nd ed.). Bloomington, IN: Solution Tree Press.
- Duke, D. L., & Jacobson, M. (2011). Tackling the toughest turnaround: Low-performing high schools. *Phi Delta Kappan*, 78, 34-38.
- Knoeppel, R. C., & Brewer, C.A. (2011). Education reform, equal opportunity and educational achievement: Do trend data adequately report progress? *Education Policy Analysis Archives*, 19, (10). 1-28.
- Manwaring, R. (2011). School turnaround success: Focus on implementation. *Principal*, 90 (4), 10-13.
- Measured Progress. (2009). DATAWISE™ [Computer software]. Dover, NH: Retrieved from <http://www.measuredprogress.org/datawise>
- Salmonowicz, M. (2009). Meeting the challenge of school turnaround: Lessons from the intersection of research and practice. *Kappan*, 91(13), 19-23.
- School Improvement Grants. 75 Fed. Reg. § 208 (October 28, 2010). Retrieved from <http://www2.ed.gov/programs/sif/legislation.html>

Teachscape. (2009). Classroom Walkthrough: A process for outcomes-based instructional improvement [Software and training materials]. San Francisco, CA: Author.

Wakelyn, D. (2011). State strategies for fixing failing schools and districts. *Issue Brief* NGA Center for Best Practices. Retrieved from www.nga.org/center

Mailing address: Sherri Strawser, College of Education, UNLV, 4505 Maryland Parkway, Las Vegas, NV, 89154 USA
Email: strawser@unlv.nevada.edu