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Differences In The Use Of Ict-Based Learning Media With Image Learning Media Towards Basic School Student Outcomes In The Pandemic Covid 19

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Abstract : This study was carried out in the Kabanjahe district of SD Muhammadiyah. The goal of this research was to determine the results of learning science in Class IV SD Muhammadiyah, Kabanjahe Regency, by applying ICT-based training media. To understand the effects of science-based learning in Class IV SD Muhammadiyah , Kabanjahe Regency, and to recognize variations in the outcomes of science-based education by the use of ICT-based learning media and image-based learning in SD Mumammadiyah fourth grader students. This type of research in this research is this type of research in the form of a one-shot case study using a pre-experimental design. The participants in the sample included 22 people in class IV / A SD Muhammadiyah, Kabanjahe Regency, and 22 individuals in class IV / B SD Muhammadiyah Kabanjahe. Tests and reports were used for data collection. The t-test formula was used for the data analysis methodology. On the basis of the findings of the information, it has been shown that the effects of scientific learning vary between the use of ICT-based learning mediums and picture-based learning media on living beings in grade IV, SD Muhammadiyah Kabanjahe, Kabanjahe Regency. This inference is based on the average final outcome of students, with an average ICT student of 76,82, and an average picture learner of 68,64. It also illustrates that the use of ICT-based education media is more potent than picture-based learning media. The results of the statistical data analysis 't evaluation' indicate that the results obtained t table = 1. 720, and the results of the t-test calculation t count = 1.945, such that Ho is refused, and Ha is accepted, compared to t count and t, therefore t count > t.

Keywords: Learning outcomes, image learning media, ICT media, Elementary School, Pandemic COVID 19

INTRODUCTION

Teachers must be able to build a learning model that will help students learn more effectively because students learn better if they do more learning on their own rather than only listening. Learning successfully enables students to learn about their behaviors. From this point of view, it can be appreciated that students are entirely interested in learning activities. (Mardhatillah et al., 2019).

As part of a scientific study, science learning involves testing or experimental practices involving process skills based on scientific attitudes. Furthermore, science learning creates interest through findings based on direct expertise through practical work to use evidence, develop ideas, hypotheses, and laws. Students' behaviors in daily life are supposed to be influenced by scientific learning such that they are eventually made conscious of their responsibility for the environment.

Teachers also use the lecture method to study science in the fourth grade of SD Muhammadiyah, Kabanjahe Regency. This leaves students bored and looking less enthusiastic. As a consequence, student learning findings in science lessons suggest that there is no degree of mastery (Kartal et al., 2011). Learning results are also low in science classes. It shows that science learning only results in products or results demonstrated by students and not a process that students take to build up their knowledge based on the situation in SD Muhammadiyah, Kabanjahe Regency (David Guntoro, Totok Sumaryanto F, 2016). A teacher's teaching center is typically a product-oriented learning center, where teachers play a significant role in the learning process, while students only receive information (Tien et al., 2019). The wrong way of communicating knowledge or story has a destructive impact on student abilities expressed in learning outcomes (Kasmini & Mardhatillah, 2020)

Given the realities in the field mentioned earlier, it is essential to have a suitable learning model to ensure that interaction occurs between educators and students to establish a conceptual creation process rather than just a function of transmitting knowledge (Multisim et al., 2014). ICT-based learning media is one of the lessons of cognitive science that is not meant to be a method of behavior modification due to experience.

ICT-based learning media make it easier for teachers to obey when they use computer media during learning. This learning medium uses the open approach between teachers and students to build a pleasant feeling while learning among teachers and students. (Ace, 2007)

From the issues mentioned above, teachers need to strengthen the teaching process. One is introducing ICT-based learning media to improve students' positive attitudes towards learning sciences in science teaching and learning processes.

The explanation for calculating the difference between ICT media and imaging media is that it describes alternative learning following the educational character of environment care to improve student learning output. This is expressed in the importance of the results of the analysis.

METHOD

This type of research uses a pre-experimental design in the form of a one-shot case study where there is a group given care in this research design. Then it is found that the outcomes (respect) are as independent variables, and the results are as variables. Dependency).

This research methodology is a quantitative approach. The quantitative method is an analysis that essentially uses a deductive-inductive system, meaning that a method that departs from a collection of assumptions, ideas from experts, and understanding of researchers based on their experience is then transformed into problems and solutions proposed to obtain proof (verification) as data support. Area empirical. Empirical.

The right research strategy must be used to give the researcher a clear picture of the steps to be taken and taken and explain the issue. Analysis methods focused on data existence include the quantitative research method in which data obtained are statistical figures.

The study will be done in the 2020-2021 academic year's first semester. The study location is SD Muhammadiyah, Kabanjahe Regency

RESULT AND DISCUSSION

1. Comparison of the Results of Preliminary Tests (*Pretest*) for Experiment Class A and Experiment Class B.

Data from the initial test scores of students in experimental class A and experimental class B can be described in the table below:

Table 1. Comparison of Pretest Value Results

Classification	**Experiment Class A. (ICT)**	**Experiment Class B (Picture)**
Number of Students (N)	22	22
Average value (*Mean*)	58.18	57.95
Middle value (Median)	55.00	60.00
Minimum Value	40	30
Maximum Value	80	80
Standard Deviation	12,492	13,153
Total value (sum)	1280	1275

Based on the table above, there are variations in student learning outcomes in experimental class A and experimental class B, but these variations are not significant. In experimental class A, the average value is 58,18, and the standard deviation is 12,492, while in experimental class B, the average cost is 57,95, and the standard deviation is 13,153.

Thus it is known that student learning outcomes on the subject of caring for living things in experimental class A obtained pretest results are almost the same as those of experimental class B. The following table illustrates the contrast of the value distribution of experimental class A and experimental class B:

Table 2. Distribution of Pretest Results for Experiment Class A and Experiment Class B

Score	**Experiment Class A. (ICT)**		**Experiment Class B (Picture)**	
	Frequency	Percentage	Frequency	Percentage
30	-	-	1	4.5%
40	3	13.6%	2	9.1%
45	1	4.5%	1	4.5%
50	4	18.2%	5	22.7%
55	4	18.2%	1	4.5%
60	3	13.6%	3	13.6%
65	4	18.2%	3	13.6%

70	1	4.5%	4	18.2%
75	2	9.1%	-	-
80	3	13.6%	2	9.1%
total	**22**	**100%**	**22**	**100%**

Among experimental group A and experimental group B regarding caring for living things, the adaptation of living things to their environment is not that different. Under these conditions, research can be carried out by offering the two different treatments, experimental group A using ICT-based learning media, while experimental group B using an image-based learning media model.

2. Comparison of the Results of the Final Test (*Posttest*) for the Experiment Class and the Experiment Class B

Data from the student's posttest scores in experimental class A and experimental class B can be shown in the table below:

Table 3. Comparison of *Posttest* Value Results

Classification	**Experiment Class A. (*ICT*)**	**Experiment Class B (Picture)**
Number of Students (N)	22	22
Average value (*Mean*)	76.82	68.64
Middle value (Median)	75.00	70.00
Minimum Value	55	45
Maximum Value	100	100
Standard Deviation	12,492	12,647
Total value (sum)	1690	1510

Based on the table above, there are substantial variations in student learning outcomes in experimental class A and experimental class B after ICT-based learning media and image-based learning media models. In experimental class A (ICT-based learning media), the average value was 76.82, and the standard deviation was 12.492, while in experimental class B the average value was 68.64 and the standard deviation 12.647.

Thus, it is known that the results of student learning in science lessons with the theme of caring for living things in experimental class A (ICT-based learning media) obtained posttest results higher than in experimental class B (image-based learning media). The comparison of grade distribution from a class experiment and experimental class B can be seen in the info.

Table 5. Distribution of *Posttest* Results *for* Experiment Class A and Experiment Class B

Score	**Experiment Class A.**		**Experiment Class B**	
	Frequency	Percentage	Frequency	Percentage
45	-	-	1	4.5%

50	-	-	2	9.1%
55	1	4.5%	-	-
60	1	4.5%	4	18.2%
65	2	9.1%	1	4.5%
70	6	27.3%	8	36.4%
75	3	13.6%	2	9.1%
80	3	13.6%	2	9.1%
85	2	9.1%	-	-
90	1	4.5%	1	4.5%
100	3	13.6%	1	4.5%
total	**22**	**100%**	**22**	**100%**

3. Normality test

The study hypothesis normality test used the Kolmogorov-Smirnov test, using the framework software SPSS.20. Normality test results can be seen in the table below:

Table 6. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Mind Mapping Class Pretest	STAD Class Pretest
N		22	22
Normal Parameters [a, b]	Mean	58.18	57.95
	Std. Deviation	12,492	13,153
Most Extreme Differences	Absolute	, 146	, 136
	Positive	, 146	, 136
	Negative	-, 146	-, 113
Kolmogorov-Smirnov Z		, 685	, 640
Asymp. Sig. (2-tailed)		, 735	, 807

a. Test distribution is Normal.

b. Calculated from data.

Based on the results of the normality of posttest value data, it is known that the posttest scores of experimental class and control class students are generally distributed in plant morphology material. The p-value is 0.735 for experimental class A (ICT-based learning media) and 0.807 for experimental class B (STAD). Data is usually distributed if p is>0.05. The p-value of the two sample classes is greater than 0.05, so the data for the control class and the experimental class are usually distributed.

4. Homogeneity Test Results

The results of calculating the homogeneity test using the Annova test can be seen in the following table:

Table 7. Test H omogenitas

Test of Homogeneity of Variances

Result

Levene Statistics	df1	df2	Sig.
, 078	1	42	, 781

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	, 568	1	, 568	, 003	, 953
Within Groups	6910,227	42	164,529		
Total	6910,795	43			

Homogeneity measurements using the Annova test were made using SPSS 20 software. Based on estimates, p was 0.781. The data requirement is considered homogeneous if the measured meaning value exceeds 0.05. The p-value obtained was 0.781 (0.781>0.05), so the results in experimental class A (ICT-based learning media) and experiment B (STAD) is homogeneous.

5. Hypothesis Test Results

Data collected were analyzed using T-test formula. This t-test attempts to assess whether there is a difference in the final potential between the two groups by measuring the average posttest acquisition in each group. The effects of the t-test evaluated by the SPSS.20 application can be seen in the table below:

Table 8 . Hypothesis testing

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Mean Error	95% Confidence Interval of the Difference				
				Lower	Upper			

Pair 1	Mind Mapping Class Postest - STAD Class Postest	8,182	19,733	4,207	-, 567	16,931	1,945	21	, 065

This research test assesses student learning outcomes in science lessons after being handled with various learning models. Experimental group A used ICT-based learning media, while experimental group B used the model image-based learning media. Based on t-test calculation performance, it can be summarized as follows in the table.

Table 9 Comparison of the t-test for Experiment Class A and Experiment Class B On the *Posttest*

Variable	N	Mean	Std. Deviation	Don't $_{count}$	t $_{table}$	df
Experiment Class A.	24	76.82	12,492	1,945	1. 7207 4	21
Experiment Class B	24	68.64	12,647			

From the results of t-test calculations obtained, t-count = 1,945 and t-table calculation is 1. 720. 720. Since the > t table is 1.945>1. 720 Conclusion can be obtained between experimental class A (media-based learning ICT) and experimental class B (STAD models) having different learning outcomes on the subject of living things. Experimental class A has better performance than experimental class B. Since the average experimental class A results using ICT-based learning media have an average value of 76.82, whereas experimental category B using Image-based learning media model obtained an average result of 68.64. From these results, both groups display a substantial difference, since t count > t table or 1.945 > 1. 720. 720.

So it can be concluded that Ha, which reads "There are variations in science learning outcomes between ICT-based learning media application and image-based learning media models in class V SD Muhammadiyah, Kabanjahe Regency," has been declared accepted.

CONCLUSION

Media learning based on ICT is very suitable applied during the pandemic covid 19 's case is because the medium of learning it will be easier for the teacher in the process of learning, and will make students learn the easy, learning-based ICT is flexible, can be used diskolah and also can be used at home, its use is efficient and easy. With the use of ICT based learning media, learning can be more active and effective in improving student learning outcomes.

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