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THE IMPACT OF USING ICT IN TEACHING SOCIAL SCIENCE FIELD TO THE FIFTH GRADE STUDENTS OF SD NEGERI KEUNE KABUPATEN PIDIE

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ABSTRACT

This study aims to determine whether there is a statistically significant difference between students who get social science field instruction using ICT and those who receive science natural field instruction without using ICT. Quantitative research is used in the conduct of this study. This study's methodology is a quasi-experiment. This design treats the experimental group while doing nothing for the control group. The purpose of this treatment is to test the effects of a certain treatment. The pupils at SD Negeri Keune in fifth grade during the academic year 2022–2023 make up the population of this study. There are 48 students in total, divided into the courses V1 and V2, which total 48. Since there were only two fifth grade classes, those pupils were used as the sample for this study, with class V2 students serving as the experiment group and class V1 children serving as the control group. Each cohort included 24 pupils. The Mann-Whitney test was used to examine the obtained data. The Mann-Whitney test result reveals that the Mann-Whitney U test's Sig. (2-tailed) value is 0.000. It indicates that using ICT to teach social science to SD Negeri Pucok Pulu fifth graders has been successful in enhancing the students' capacity to master the subject.

Keywords*: Information Communication Technology (ICT), Social Science*

INTRODUCTION

At all academic levels, social studies are a subject. This lesson's major goal is to help pupils become citizens with the necessary information, morals, attitudes, and abilities to take part in democratic society. The purpose of IPS education is to give students the social information they will need for their future, the social and intellectual abilities that will help them pay attention, and the social skills that will help them become the human resources needed to achieve the goals of the country in terms of education (Widodo et al., 2020).

One of the topics that teachers should take seriously is how the social science teaching and learning process works. Although it is crucial for students to master the natural sciences, many still struggle to understand and master the topic. Students in SD Negeri Keune Kabupaten Pidie, particularly those in fifth grade, also have this issue. One of the numerous things that made it difficult for students to understand social science was the uncomfortable nature of the teaching materials employed by the teachers. In order for the students to respond to the teacher's questions, the teacher just explained the material. They became bored as a result and lost interest in the subject matter. As a result, improving their ability to master the natural sciences is challenging.

Next, to overcome the students' problems in learning social science field, the researcher tries to apply ICT that can be used before at the school. Teachers are trained to speak out against the growth of ICT. Because ICT users can help teachers in administration and improve the quality of their teaching. It is very important to use ICT in the teaching process if you want your lessons to be effective, efficient and memorable for your students. Currently, this generation is known as Generation Z, which is the generation that emerged after they died in the range of 1995 to 2010. This generation includes students who have a history of using ICT. Elementary school students, who have fun playing characteristics, of course.

A student, is one of the many outcomes of ICT development that can be played with. Education cannot be separated from the internet, computers and other ICT facilities as the main teaching tools during the learning process. ICT is not only directly applied, but also must consider the characteristics of students. With ICT, teachers can add teaching materials and find references about the most suitable learning methods for their students. By using ICT according to student characteristics, the learning process will be quality and meaningful. ICT includes all actions related to the processing, manipulation, management and transfer of information between media. So, one cannot avoid the development of information technology in this modern era (Sugiharti & Sukowati, 2020).

Information and Communication Technology (ICT) as a learning tool is needed (Yusrizal, Intan Safiah, 2017). ICT-based media require specific skills, but this does not mean they should be avoided or abandoned. Internet, intranet, cell phone, and CD Room/Flash Disk are some examples of ICT-based learning media. It is proven that the use of technology in learning improves learning outcomes. Teachers should not be technologically illiterate, and they should always try to encourage their students in the field of technology. Teachers should not be lazy to access technology and information to prevent being left behind. To become capable of using information technology tools in front of their students, teachers must study in depth. With more complete facilities and infrastructure, it will be easier for professional teachers to understand the needs of students. As mentioned above, all teachers should be trained in Information and Communication Technology literacy, especially elementary school teachers.

Given the issue and the justification presented above, it is clear that many SD Negeri Keune students continue to experience difficulties when studying the natural sciences. These issues need to be resolved as quickly as possible. As a result, it is necessary to do study on how to use ICT to improve SD Negeri Keune students' ability to master the social science field.

METHODS

This study's methodology is a quasi-experiment. The quasi-experimental, on the other hand, is a type of experimental design that evolved from pure experimental design. Although this design has a control group, it cannot completely control outside factors that influence how the experiment is carried out. The pupils at SD Negeri Keune in fifth grade during the academic year 2023–2024 make up the study's population. 48 students make up the overall population of this study, and they are divided into the classes V1 and Vb. Since there were only two fifth grade classes, the children were used as the sample group for this study. Because their proficiency in the natural sciences is less than that of class V1 students', the students of class V2 were chosen as the experiment group in this instance.

Tests were utilized as a data collection tool. After applying ICT, the test was utilized to determine the students' proficiency in the social science sector. Twenty multiple-choice questions made up the test. This lesson took up 60 minutes per meeting. The researcher used quantitative data in this study. The writer then used the Mann-Whitney test to determine the differences between the pre-test and post-test and to determine the test success after watching the YouTube channel Practical Psychology. The Mann-Whitney test, according to Meltzer in, is used to assess whether or not there is a difference between two independent samples. An alternative to the t-test, a parametric test, is the non-

parametric Mann-Whitney test (Nurkhasani, 2021).

RESULTS AND DISCUSSION

The researcher uses SPSS Version 23 to calculate the data after obtaining it. The following table displays the results of the control group's computation post-test.

Table 1. Post-Test Frequency Score of Control Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	44	2	8.3	8.3	8.3
	48	6	25.0	25.0	33.3
	52	5	20.8	20.8	54.2
	56	4	16.7	16.7	70.8
	60	5	20.8	20.8	91.7
	64	1	4.2	4.2	95.8
	65	1	4.2	4.2	100.0
	Total	24	100.0	100.0	

Table 1 demonstrates that 2 students (8.3%) received a score of 44, 6 students (25%) received a score of 48, 5 students (20.8%) received a score of 52, 4 students (16.7%) received a score of 56, 5 students (20.8%) received a score of 60, 1 student (4.2%) received a score of 64, and 1 student (4.2%) received a score of 65.

The researcher deduces from the description that most students achieve a score of 48 in mastering social science materials before they are taught without the use of ICT. The researcher then displays the test's frequency score in the histogram that follows.

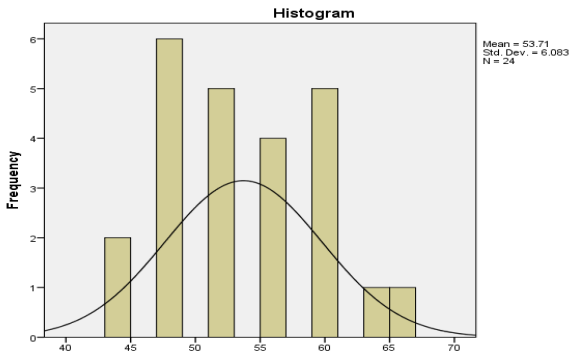

Figure 1. Histogram of Control Group Test

Next, the frequency score of the post-test of experiment group can be presented in the following table.

Table 2. Frequency Score of Experiment Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	44	1	4.2	4.2	4.2
	48	2	8.3	8.3	12.5
	68	2	8.3	8.3	20.8
	72	7	29.2	29.2	50.0
	76	4	16.7	16.7	66.7
	80	6	25.0	25.0	91.7
	84	1	4.2	4.2	95.8
	88	1	4.2	4.2	100.0
	Total	24	100.0	100.0	

Table 2 shows that 1 student (4.2%) received a score of 44, 2 students (8.3%) received a score of 48, 2 students (8.3%) received a score of 68, and Seven students (29.2%) receive a score of 72, four (16.7%) receive a score of 76, six (25%) receive a score of 80, one (4.2%) receives a score of 8, and one (4.2%) receives a score of 88.

According to the description, the researcher comes to the conclusion that after using ICT to teach them social science subject, the majority of pupils achieve a score of 72 in mastering it. The researcher then displays the test's frequency score in the histogram that follows.

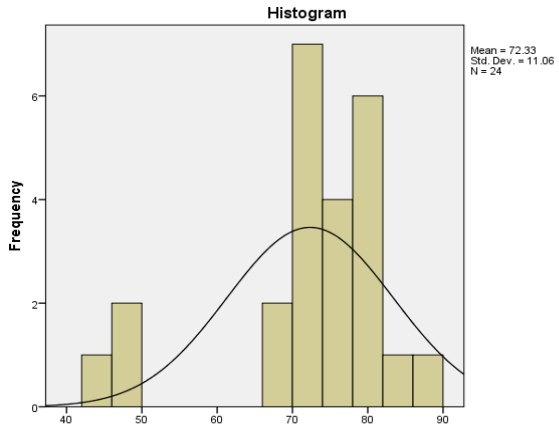

Figure 2. Histogram of Experimental Group Test

The average score of the experiment group is greater than the average score of the control group as a result of the post-test results for the control and experiment groups. The control group's average score is 42.38. The experiment group's average score is currently 70. The alternative average is 27.62. This indicates that students who learn social science material through the use of ICT score higher than those who learn the material without the use of ICT.

The researcher calculates the Mann-Whitney U test and the writer calculates the data using SPSS Version 23 after calculating the average score of the control and experiment groups. The following table contains the calculation's outcome.

Table 3. Test Statistics of Mann-Whitney U

	The Result of Learning Process (Treatment)
Mann-Whitney U	61.000
Wilcoxon W	361.000
Z	-4.711
Asymp. Sig. (2-tailed)	.000

The Asymp. Sig. (2-tailed) value of the Mann-Whitney U test is found to be 0.000 based on the statistical analysis shown in the table above. Then, if the Asymp. Sig values is less than 0.05, the proposed alternative hypothesis is accepted; however, if the Asymp. Sig values is greater than 0.05, the proposed alternative hypothesis is rejected. It indicates that there are any appreciable differences between pupils who are taught social science using ICT and those who are taught natural science using ICT. ICT-based natural science instruction can therefore help pupils learn the material more effectively.

The statistical analysis reveals that the asymptotic significance (2-tailed) value is 0.000. It implies that the successful use of ICT in social science education. The students who are taught natural science field using ICT and the students who are taught natural science field without using ICT differ significantly from one another.

Additionally, this study is unusual in that it uses ICT as a fresh method for instructing pupils in SD Negeri Keune Kabupaten Pidie's fifth grade in the study of natural science. Additionally, this research's design is an experiment. The previous researchers, meantime, used pre-experimental research with one group and a pre-test and post-test design to study the teaching of natural science fields utilizing ICT as a media (Filina et al., 2022). The learning process using media is very important to increase students' interest and understanding of the material (Bintoro et al., 2016). One example is the development of learning media based on Augmented Reality, which does not only consist of monotonous

text but also contains audio/visual multimedia elements, even animations, which help students understand the material better.

Information and communication technology (ICT) has changed the field of education and the learning process. In the current era of globalization, the use of ICT in the learning process has become commonplace. The existence of the internet allows us to learn on a very broad scale anytime and anywhere. For example, since we can only access the internet to get whatever we need, we may share information with each other through facilities such as email, chat, e-books, and e-libraries, among others.

The significant results show a significant correlation between ICT knowledge and the use of ICT in education. This is an important finding because it shows that the more ICT knowledge, the more ICT use in education. Another result that supports this finding is that there were large differences seen between teachers in how often they had taken part in computer courses in the past.

CONCLUSION

The students who are taught social science field using ICT and the students who are taught social science field without using ICT differ significantly. Students who are educated in the natural sciences utilizing ICT as a teaching method perform better academically than those who are not. It is demonstrated by the Mann-Whitney U test calculation result, which indicates that the result is asymp. The 2-tailed signature value is 0.000. It denotes that the 2-tailed Asymp. Sig. value is less than 0.05.

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