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The effect of ice breaking on student learning outcomes in science subjects in Class IV of the PAB 1 Klumpang private elementary school

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ABSTRACT

This is the aim of this research to find out how much influence the Ice Breaking learning strategy has on students' science learning outcomes. By using a pre-test and post-test control group design, the data is processed in the form of numbers, so that this research process is a type of quantitative experiment. This research involved 40 students from class IV of PAB 1 Kumpang Kebun Private Elementary School. Data normality test, homogeneity test, and independent sample T-test were used for data analysis, which was carried out both before and after testing. Furthermore, based on statistical data, a significant value of 0.007 <0.05 was found, which indicates rejection of Ho and acceptance of Ha. Thus, it can be concluded that the Ice Breaking Learning Strategy has an impact on students' science learning outcomes.

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INTRODUCTION

Education is a conscious effort to prepare students for their future roles through guidance, teaching, or practice. Education is very important for human life because it will shape and determine the path of their life. Even though there are some parties who disagree, education remains a basic human need. Education allows a person's abilities and talents to develop, be honed and trained. Often each person's ability is measured by education. (Ningsih, 2020) states that education has the aim of producing a young generation who fulfills the nation's expectations, namely having broad insight and personality, high norms and creativity.

Education consists of two main components: input, which includes teachers and students; and processes that occur during learning (Yasin, 2022). Learning is a process that influences learning outcomes and behavior, according to him (Zuhariyah & Fahmi, 2022). Therefore, learning becomes an important process and each person gives a special assessment. In fact, learning activities are an important component that can be changed by teachers in conveying information (Aryzona et al., 2023). It is a challenge for teachers to create interesting learning in higher classes. Ineffective learning and a boring learning environment are caused by the limited abilities of teachers. Especially in subjects where there is a lot of text in learning, one of which is Natural Sciences (IPA).

(Sukarini & Manuaba, 2021) believes that science is the main subject to provide and create scientific information, skills, thought patterns, values, as well as a sense of love and appreciation for the oneness of God Almighty in students. Science is the study of natural phenomena. (Fahmi et al., 2021) said that science learning provides students with the opportunity to learn about themselves and the natural surroundings. He also stated that there is a great opportunity to apply these examples in life. Science is needed to solve everyday problems and meet human needs. (Melanda et al., 2023) believes that the use of IPA must be done carefully so as not to cause negative impacts on the environment. Science refers to the theoretical understanding of material phenomena obtained through specific scientific methods. In fact, scientific viewpoints, scientific cycles, and scientific objects constitute science. Science can be defined as objects, interactions, or information strategies, both obtained at school and outside school, which are obtained through logical thinking activities which are expected to develop our insight into nature and discover new information. (Pratama et al., 2023).

(Setyawan & Kristanti, 2021)states that the main goal of science education is to equip students with the ability to acquire and apply scientific concepts. In addition, science equips them with the basic skills needed to continue their education and apply this knowledge in everyday life. (Azizatunnisa et al., 2022). Students are expected to be able to participate in science learning well, happily, concentrate and enthusiastically. To participate in enthusiastic learning, of course learning activities need to have a strategy, one of which is Ice Breaking. According to (Harianja & Sapri, 2022)Icebreaking itself is a game or activity carried out by each person to attract attention to themselves and return the class atmosphere to its original state, namely enthusiastic or helpful. The capital that every individual needs to carry out their activities is this passion (Zakkiyah et al., 2022).

Based on field observations at the PAB 1 Klumpang private elementary school, there are still obstacles in science learning, namely when science learning is in progress, many of the class IV students pay less attention to the material being presented by the teacher and there is a lack of mutual response between the teacher and students. This happens because of students' lack of concentration during the learning process. Lack of student concentration during the learning process, namely, students tend to be more absorbed in their own world, create their own games, do not understand the material presented, students easily get bored and sleepy in class, students daydream more during learning.

This of course can affect student learning outcomes. The reality is that many students are not confident in working on the questions given, so that the student learning outcomes obtained are less than satisfactory. Low student learning outcomes are of course obtained from monotonous learning process activities or the absence of simple game interludes during learning. Passive learning such as the absence of interesting activities by providing games so that only some students understand the material presented.

The problem above is certainly a problem for teachers, how do teachers maintain enthusiasm and concentration when students are learning. Of course, teachers need to find strategies on how to maintain students' concentration and enthusiasm for learning. This has of course been explained in the previous sentence, one learning strategy that can overcome this problem is by doing Ice Breaking. Ice Breaking is carried out throughout the learning process so that students maintain their concentration and enthusiasm.

(Remma et al., 2022) states that Icebreaking is an open learning strategy that is integrated into the learning process.*Activity*or a game called "icebreaking" is intended to eliminate awkwardness among students and foster a fun and relaxed atmosphere. (Amalia, 2020) believes that Icebreaking is also expected to create a unique and enjoyable learning climate. Icebreaking is very important in preparing students' concentration both in open and closed spaces. There are 3 types*Ice Breaking*used in this research, namely*game,*clap and sing.

In a learning environment, it is very important to create a safe and active learning environment. However, students have not been able to adjust to their new environment, and they continue to experience awkwardness and even discomfort in their learning environment. (Widodo et al., 2021). Therefore, this is where the benefits of Ice Breaking in learning are very necessary. The benefit of Ice Breaking is to reduce feelings of boredom, drowning, tension and fatigue due to studying a lot. Students are able to work together and interact in teams and think creatively. Teaches systematic problem-solving thinking.

In this research, experts tested the influence of learning methodology*Ice Breaking*with*Game Based Learning*(TTS). Game-themed learning procedures can help students not get tired easily and engage effectively in the learning experience. (Ulfa et al., 2022) states that Game Based Learning (GBL) is a learning strategy that uses games as an instrument to facilitate learning. The advantages of media presented in the form of games include being able to make learning fun for students and an opportunity for students to gain new knowledge while having fun doing it. (Hikmawan et al., 2020).

According to (Novyanti et al., 2022) It makes sense that Games Based Learning (TTS) is a learning technique that is expected for students to learn with a playing approach. According to (Oktavia, 2022) Some of the advantages of this learning methodology are as follows: this system can stimulate students and engage them directly in learning; This technique can help students to further develop their efficiency abilities; This procedure is intended to legitimately make students active, thinking.

Crossword puzzles (TTS) are used as research games. Crosswords are educational games (Mulfiani & Ismet, 2020). Crossword puzzles (TTS) are a popular game that can improve knowledge and cognitive abilities (Lakoro et al., 2020). Crosswords are useful for reviewing and helping students remember what educators have taught (Agustin et al., 2021). Students are motivated and enthusiastic in acquiring vocabulary using TTS media so that they can improve their reasoning abilities in understanding problems. This makes learning easier to remember, memorize, and harder to forget (Yulianti & Andriyanto, 2020). Students may be more engaged in this game because they will look for varied information to solve crossword problems.

RESEARCH METHOD

This type of research is known as experimentation. Consisting of group A and group B which were not chosen randomly. Experimental research is conducted under controlled conditions to assess the influence of the independent variable (treatment) on the attachment variable (outcome). This research involved all 40 grade IV children at PAB 1 Klumpang Private Elementary School, with details of 20 grade IV-A children and 20 grade IV-B children. Sample members were taken from the entire population of 40 students who were divided into two classes. This research uses pre-test and post-test. The pre-test was carried out before being given the Ice Breaking treatment for group A, while for group B the pre-test was carried out before being given the Games Based Learning (TTS) treatment. After both groups carried out a pre-test, both groups were given treatment. After the treatment was completed, both groups were given a post-test, to determine the effect of scores after and before treatment.

RESULTS AND DISCUSSION

After learning using the Ice Breaking learning strategy in class A and the Games Based Learning (TTS) learning strategy in class B, the following learning results were obtained:

Science Learning Outcomes for Students Taught Using the Ice Breaking Learning Strategy

According to the data and results taken through calculations, it is known that the science learning outcomes taught using the Ice Breaking Learning Strategy obtained a standard

deviationamounted to 38.09; variance of 6.17; with an average of 90; median 90; mode 90. The lowest and highest scores are 65 and 100. Frequency score distribution of science learning outcomes given instructionusing the Ice Breaking Learning Strategypresented in the following table. presented in the following table.

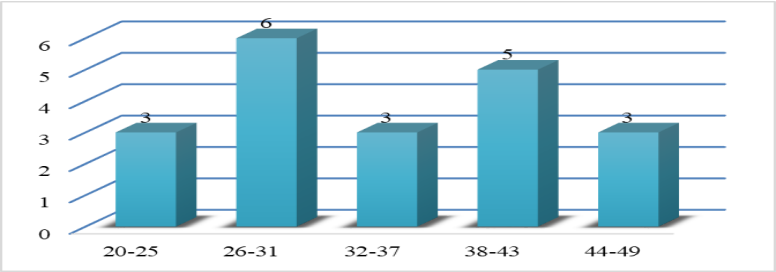

Figure 1. Histogram of student science learning results taught using ice breaking learning strategy

Science Learning Outcomes for Students Taught Using the Games Based Learning (TTS) Learning Strategy

According to the data and results taken through calculations, it is known that the science learning outcomes that are taught using the Games Based Learning Learning Strategy are Crossword Puzzles (TTS). The standard deviation obtained was 8.60; variance of 73.95; with a mean of 59; median 60; mode 65. The lowest and highest values are 45 and 75. Furthermore, the data above can be depicted in the following histogram form.

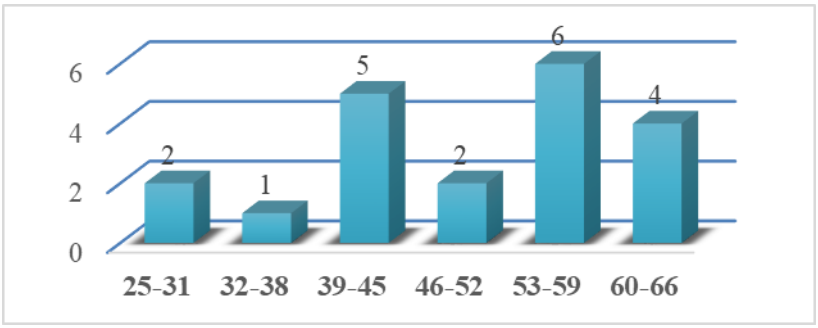

Figure 2. Histogram of student science learning results taught using games based learning (TTS) learning strategy

a. Normality Test

Table 1. Normality test results

	Group	Kolmogorov-Smirnova			Shapiro-Wilk		
		Statistics	Df	Sig.	Statistics	Df	Sig.
Learning outcomes	A	.137	37	,077	,946	36	.073
	B	,174	40	,004	,952	40	,089

The significant value obtained from the normality test using the Shapiro - Wilk test is 0.073 > 0.05, the conclusion is that the data is normally distributed.

b. Homogeneity Test

Table 2. Data homogeneity test results

		Levene Statistics	df1	df2	Sig.
Learning outcomes	Based on Mean	,000	1	75	,083
	Based on Median	,002	1	75	,164
	Based on Median and with adjusted df	,002	1	74,928	,165
	Based on trimmed mean	,002	1	75	,068

The significant value obtained from the table above is 0.083 > 0.05. Researchers concluded that the data was homogeneous.

c. t test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hasil Belajar	Equal variances assumed	.000	.983	6.865	75	.007	12.31081	1.79325	8.73848	15.88314
	Equal variances not assumed			6.859	74.245	.007	12.31081	1.79479	8.73480	15.88682

Figure 3. T test results

Result sig. (2-tailed) obtained from the t test table is 0.007 < 0.05, so the researcher concludes that there are differences in abilities seen from the science learning results of group A and group B students.

Discussion

Students' science learning outcomes are influenced by many variables, one of which is learning methods and factors related to students' conditions. Therefore, science student learning outcomes need to be improved. One learning strategy that is considered capable of increasing student learning productivity is the ice breaking learning strategy. As stated by(Nuryana & Sunardin, 2020), Ice Breaking is a learning strategy that is entertaining and can create a more dynamic learning atmosphere

According to(Nurhayanti et al., 2020)*Ice Breaking*is a game or activity used to break down the frozen atmosphere in a group. Ice Breaking exercises can be done at the beginning of learning, intensive learning or at the end of learning. Through game practice, body movements, singing and so on. In carrying out ice breaking the teacher can replace the material presented with the subject being taught.

The above statement is strengthened by research findings that students who master the use of learning strategies are superior to students who master games-based learning methods, especially crossword puzzles (TTS. Using the results of hypothesis testing with a significance value of 0.007 < 0.05, reject Ho and accept Ha. This shows that student learning outcomes are different and more influential when*Ice breaking*more used than games based learning (TTS).

CONCLUSION

The use of Icebreaking in the learning process looks easy, but it is not more than imagined, it still requires adequate skills, creativity that can support, and adequate training to achieve the desired learning goals. On the other hand, if the Icebreaking activity is considered easy and implemented as is, then no meaning will be obtained. The benefits of Icebreaking are felt by every individual who applies it, creating a learning atmosphere that is fun, conducive, can raise enthusiasm and increase student concentration in the learning process. Ice Breaking is certainly useful for teachers, to improve the quality of learning which improves student learning outcomes.

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