



## THE EFFECT OF USING ICE BREAKING ON LEARNING MOTIVATION OF ELEMENTARY SCHOOL STUDENTS IN LEARNING SCIENCE

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### ABSTRACT

This research was conducted due to the low learning motivation of elementary school students in participating in class learning, especially in science learning. One of the causes of low learning motivation is the lack of interesting innovations in learning, so that students tend to get bored and bored in learning. This low motivation results in low scientific literacy abilities of students. This study aims to determine the effect of using ice breaking on students' learning motivation and scientific literacy abilities. This research was conducted in an elementary school in a district in West Sumatra. This type of research is quantitative in the form of a quasi-experimental design. The data analysis used quantitative analysis using the Paired Sample T-Test. Based on the pretest results, the average motivation score of the experimental class that applied Ice Breaking was 49.842 and the post-test motivation score of the experimental class was 82.631. Based on the results of hypothesis testing conducted with the Paired Sample T-Test,  $t_{count} = 3.8421$  and  $t_{table} = 2.028$  with a significant level of 5%. Thus  $t_{count} = 3.8421 > t_{table} = 2.028$ , it can be concluded that there is an effect of using Ice Breaking on Learning Motivation of Elementary School Students in Learning Science.

**Keywords:** *Ice breaking, learning motivation, scientific literacy, students*

### INTRODUCTION

Learning in elementary schools should have prominent characteristics that prioritize the activeness of students rather than teachers in their learning activities. Students seek their understanding independently, from direct experience mediated by their peers. So that with an active learning environment and prioritizing students like this, students will get meaningful learning and better remember what they get. As that the implementation of the 2013 curriculum in Indonesia expects the birth of a creative, innovative, productive and affective generation by strengthening aspects of attitude, knowledge and skills (Taupik & Fitria, 2021).

Learning content taught in elementary schools, one of which is science learning

which is expected to give birth to students who are able to face global challenges (Khairuzzaman, 2016; Khoerunisa & Amirudin, 2020). Learning Science or Science is an important thing for us to pay attention to, because it has an important role in preparing human resources capable of facing the intended global challenges (Motivasi et al., 2022).

Science learning materials are adapted to the times (Rozi et al., 2019) and students are required to be able to remember and memorize a number of concepts well which is one of the causes of science learning being very boring for students and learning (Khoerunisa & Amirudin, 2020). This happens of course because the packaging of learning is not interesting and does not match the characteristics of students. In addition, science learning in

elementary schools is generally only based on textbooks, without the use of teaching aids or other supporting media.

The condition that is often encountered in the field today is the problem of low student motivation in learning in class. Students feel bored, bored, and unenthusiastic and have no attention to the learning material. This condition will certainly disrupt and hinder the success of the learning process and student learning outcomes will not be maximized. One of the factors causing the low motivation to learn is the teacher who is less skilled in packaging learning and is not good at providing comfortable and relaxed conditions in learning (Khoerunisa & Amirudin, 2020; Rahayu, et.al., 2023).

In learning the teacher only acts as a facilitator in learning (Yuli et al., 2020). That is, the main character in learning is Shiva. However, as a facilitator, the teacher has a very important role in determining the success of the learning process. As we know, that there are two factors that affect the success of learning, namely internal factors and external factors. One of these external factors is the teacher (Uno, 2021). Because it is the teacher who plays a role in how the learning system is packaged, how the methods will be applied, what activities are carried out by students, and what goals are to be achieved. That is, the teacher's role is very important in the success of students in learning. As educators or teachers, teachers must prepare themselves to face learning in the new normal era (Taupik, et.al, 2021).

Motivation is the effort that drives someone to do something. Motivation can be said to be a basic urge that exists within a person, so that he can move himself to behave (Hanafi, 2018). Motivation can be interpreted as a person's strength (energy) that can raise the level of will in carrying out an activity. Willingness comes from within the individual itself (intrinsic motivation) and from outside the individual (extrinsic motivation). How

strong an individual's motivation will largely determine the quality of the behavior he displays, both in the context of study, work and in other lives (Putri, 2021).

One of the activities to build student motivation given by the teacher to eliminate boredom and increase learning motivation is by giving Ice Breaking (Putri, 2021; Deswanti, et al, 2020). Ice Breaking is one of the activities carried out during learning, both at the beginning, in the middle, or at the end of teaching and learning activities to break the ice, build learning readiness, or to boost student motivation during learning takes place (Putri, 2021). More further, Sunarto stated "Ice breaker is intended to build a learning atmosphere that is dynamic, full of enthusiasm and enthusiasm.

Judging from the psychological condition of the child, that when the child is at the age of elementary school, he is still a child and at this age, it is often referred to as the "playing stage" where the world of play has various kinds of atmosphere and fun ways, as Bruner said that "playing in childhood is a "serious activity" which is an important part of childhood development (Masripah, 2019). So motivation is the power (energy) within a person to encourage himself to do something, which is characterized by the emergence of the will, feelings and reactions to achieve certain goals in accordance with the underlying motivational theme.

The role of Ice Breaking in the learning process is as an energizer or a source of new energy for students (Putri, 2021). Through Ice Breaking, students' feelings of boredom, boredom, and focus which are starting to decrease can be revived. Thus, the learning process can run again effectively and meaningfully if the students themselves can continue learning with enthusiasm and a good focus point. Based on the description above, the researcher is interested in studying more

deeply about "The Influence of Ice Breaking on Learning Motivation of Elementary School Students in Learning Science".

**METHOD**

This research method is a quantitative research method which can be interpreted as a research method based on the philosophy of positivism, used to examine certain populations or samples (Khoerunisa & Amirudin, 2020; Sugiyono, 2019). The population of this study were students at one of the X Elementary Schools with a total of 250 students. The sampling technique was carried out randomly after ensuring that all data were normally distributed and homogeneous. The number of samples used in this population is 19 students for the experimental class and 19 students for the control class with a total of 38 students.

Data collection was carried out using research instruments in the form of interview sheets, observation sheets, and questionnaires. The data analysis technique used is quantitative data analysis. The test conducted to test the hypothesis is the Paired Sample T-Test.

**RESULT AND DISCUSSION**

Prior to sampling, a prerequisite test was carried out first to find out whether the data was normally distributed or not. The normality test formula used is Liliefers. The data tested were students' motivation scores before and after the application of Ice Breaking in both classes, namely class A as the experimental class and class B as the control class. The following are the results of the normality test for the two sample classes:

Table 1. Test for normality of learning motivation scores

Class	Variabel	$L_0$	$L_{count}$	N	$\alpha$	Criteria
Experiment	Pre Test	0,162	0,195	19	5 %	Normal
	Post Test	0,153	0,195	19		Normal
	Pre Test	0,143	0,195	19		Normal
Control	Post Test	0,157	0,195	19		Normal

Based on table 1 above, the  $L_{count}$  value for all sample classes for both pre-test and pre-test is greater than the  $L_0$  value, so it can be concluded that the sample has normally distributed data. After the normality test is carried out, it is continued with the homogeneity test. Homogeneity test was carried out to find out whether the assessment sample has data with homogeneous variance or not. The homogeneity test used is Fisher's test or F test. After calculating, the pre-test and post-test data obtained from the two samples are as follows:

Table 2. Sample class homogeneity test

JT	Varians		$F_{count}$	$F_{table}$	Criteria
	Experiment	Control			
Pre Test	132,25	76,38	1,17	2,21	Homogen
Post Test	90,81	87,32	1,03	2,21	Homogen

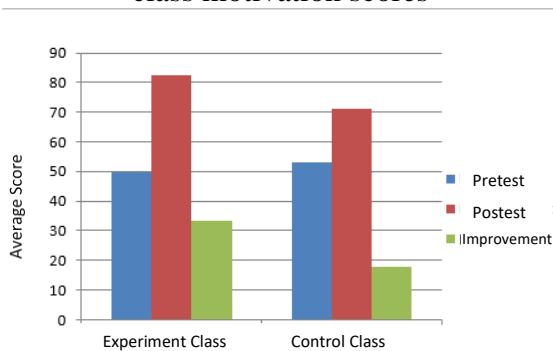
From Table 2. above, in the pre-test of the experimental and control classes, we get  $F_{count} < F_{table}$ , namely  $1.731 < 2.2171$ , so the pre-test has a homogeneous (same) variance. For the post-test of the experimental class and the control class,  $F_{count} < F_{table} = 1.0398 < 2.2171$ , so the post-test has a homogeneous (same) variance. From the homogeneity test of the two classes it was concluded that the distribution of the pre-test and post-test data had a homogeneous variance at a significant level of 5%.

**Description of Pre-Test and Post-Test Data**

Based on the analysis of the pre-test and post-test data on the learning outcomes of the experimental class and the control class, there are differences in the acquisition of learning motivation scores between the two classes. The average pre-test score for learning motivation in the experimental class was 49.842 and the average pre-test for the control class was 53.21. While the average post-test learning motivation score of the experimental class

was 82.6315 and the post-test score of the control class was 71.105. The increase in student learning motivation scores in the experimental class was higher than the increase in student learning outcomes in the control class. Comparison of pre-test and post-test scores between the experimental and control classes can be seen in the following graph:

Figure 1. Comparison of the sample class motivation scores



After carrying out the normality test and homogeneity test on the sample data, it is known that the post-test scores of students in both sample classes are normally distributed and have a homogeneous variance. Furthermore, to test the hypothesis, the following t-test formula is used:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\text{with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

(Lestari & Yudhanegara, 2017)

The hypothesis put forward is:

Ho: There is no significant effect of the use of Ice Breaking on the Learning Motivation of Elementary School Students in Learning Science.

H<sub>1</sub> : There is a significant effect of the use of Ice Breaking on the Learning Motivation of Elementary School Students in Learning Science.

With the test criteria if  $t_{count} < t_{table}$  then  $H_0$  is accepted and  $H_a$  is rejected. If  $t_{count} > t_{table}$  then  $H_0$  is rejected and  $H_1$  is accepted.

After doing the calculation, the value of  $t_{count} = 3.8421$  with a significant level of 0.05 and  $dk = n_1 + n_2 - 2 = 19 + 19 - 2 = 36$ , we get  $t_{table} = 2.028$ . So that  $t_{count} > t_{table}$ , then  $H_0$  is rejected and  $H_1$  is accepted. It was concluded that there was a significant effect of the use of Ice Breaking on the Learning Motivation of Elementary School Students in Learning Science.

### CONCLUSION

Learning motivation is one of the most important internal factors in supporting student learning success. The teacher as an educator as well as a facilitator in learning must be able to create learning situations that are interesting and fun and in accordance with the characteristics of elementary school students. The use of Ice Breaking can help arouse students' enthusiasm in learning, increase student focus and keep students from feeling bored in learning. Based on the results of this research and discussion, it was found that the average score of students' motivation in the experimental class increased from 49.842 to 82.631. After testing the hypothesis using the Paired Sample T-Test, the value of t count is  $3.84 > t_{table} 2.03$ . So thus  $H_0$  is rejected, and  $H_1$  is accepted, meaning that there is a positive effect of using Ice Breaking on the learning motivation of elementary school students in learning science.

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