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THE EFFECT OF ICE BREAKING ON LEARNING CONCENTRATION AMONG FOURTH-GRADE STUDENTS AT SDN 1 RENSING

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A B S T R A C T S

This study was motivated by the low level of learning concentration among fourth-grade students at SDN 1 Rensing, attributed to a monotonous learning environment and a lack of variety in the teaching strategies employed by the teacher. "Ice breaking" is a pedagogical strategy that can be used to create a more enjoyable, active, and conducive learning atmosphere, with the potential to enhance students' learning concentration. This study aimed to determine the effect of implementing ice-breaking activities on the learning concentration of fourth-grade students. A quantitative approach was employed, utilizing a pre-experimental "one-group pretest-posttest" design. The research subjects consisted of all 23 fourth-grade students, selected via purposive sampling. Data were collected using a learning concentration questionnaire comprising 20 statements based on a Likert scale, supplemented by observation sheets. Validity testing confirmed that all items were valid, while reliability testing yielded a Cronbach's Alpha coefficient of 0.850, indicating that the instrument was reliable. Preliminary analysis showed that both the pretest and posttest data were normally distributed (Shapiro-Wilk: pretest 0.287; posttest 0.656) and homogeneous (Levene's Test: 0.901). Hypothesis testing using a paired-sample t-test resulted in a t-value of -2.692, with a two-sided p-value of 0.013—which is below the significance threshold of 0.05. It concludes that ice breaking is an effective pedagogical strategy for enhancing the learning concentration of elementary school students.

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INTRODUCTION

The problem of student learning concentration at the elementary school level has become an important focus in educational discourse, both at the national and international levels. In basic education, students' ability to focus attention during the learning process is a

fundamental aspect that directly influences learning effectiveness. Concentration is not only understood as a passive mental ability, but rather as an active psychological condition that allows students to understand, integrate and apply information obtained through learning interactions in the classroom (Fitriani, 2025).

Thus, full attention from students is the main prerequisite for a meaningful and impactful learning process to take place. The phenomenon of decreasing student learning concentration is often caused by a monotonous classroom atmosphere, lack of interaction, and minimal variety of learning approaches that are able to stimulate students' affective and cognitive aspects (Nasution & Mahariah, 2025). Learning that takes place repeatedly using lecture methods or assignments alone, without being accompanied by interesting and fun learning elements, has the potential to cause boredom and even students' reluctance to be actively involved. This condition becomes increasingly complex for elementary school students whose cognitive and psychological development is still at the concrete operational stage, so they require a contextual, visual and fun learning approach (Khairat, 2023).

Low variation in learning can have an impact on impaired focus, decreased motivation to learn, and the inability of students to absorb learning material optimally (Putri et al., 2025). A monotonous learning environment, characterized by less varied teaching methods and minimal interaction, contributes significantly to a decrease in student interest and concentration in learning by up to 42%. These findings indicate that the inability of the learning system to stimulate students' attention and active involvement can have an impact on reducing the overall effectiveness of learning.

Similar conditions were also found at SDN 1 Rensing, especially among class IV students. Based on initial observations, many students showed low concentration when the teacher delivered learning material, especially during daytime study hours. These symptoms can be seen from the behavior of students who do not pay attention to the teacher's explanations, talk to their classmates, and do not complete assignments on time. If this condition is left unchecked, it will have a negative impact on student learning outcomes in the long term. Therefore, learning strategies are needed that are able to enliven the class atmosphere without reducing the substance of the learning material. One approach that is considered to have potential to overcome this problem is the application of the ice breaking method in the learning process.

Ice breaking or ice breaking is a learning strategy used to create a fun and interesting learning atmosphere. The term ice breaking comes from the words ice, which means ice that is stiff and cold, and breaking, which means breaking. Conceptually, ice breaking is interpreted as an effort to break down a stiff learning atmosphere to make it more comfortable, relaxed and conducive (Marzatifa et al., 2021). Ice breaking is an activity that aims to relieve students' tension and boredom, thereby supporting students' readiness to learn before entering the core learning activities.

Various previous studies have demonstrated the effectiveness of "ice-breaking" activities in enhancing students' learning concentration. The periodic implementation of such activities for second-grade students at SD Negeri Pusakajaya Utara I, Karawang Regency,

was found to significantly improve learning concentration, particularly by reducing levels of boredom (Hartini, 2022). Furthermore, a study by Zuhariyah and Fahmi (2022) at SD Negeri Bangetayu Wetan 01, Semarang, showed that the use of ice-breaking techniques—such as group cheers and "silent clapping" exercises—helped improve the learning concentration of fourth-grade students, especially within the affective domain. The human brain has a limited capacity for processing information; ice-breaking activities serve as a "cognitive reset," helping students clear their working memory before receiving new information. Additionally, Mardiana et al. (2024) noted that brief physical activities can increase blood flow to the brain by up to 15%, which directly contributes to improved student learning concentration (Indrawati, 2019).

Based on these studies, it can be concluded that ice-breaking is an adaptive teaching strategy that can be tailored to the specific context of a classroom. However, to date, no research has specifically examined the impact of ice-breaking activities on the learning concentration of fourth-grade elementary students—particularly within the cognitive domain—at SDN 1 Rensing. Consequently, the researcher is interested in conducting a study on the effect of implementing ice-breaking activities on the learning concentration of fourth-grade students at SDN 1 Rensing. Based on the background and the scope of the problem as previously outlined, the research question for this study is: Does the use of "ice-breaking" activities have an effect on the learning concentration of fourth-grade students at SDN 1 Rensing?

RESEARCH METHODS

The research design employed in this study is the "One-Group Pretest-Posttest Design," which is classified as a type of pre-experimental research. In this design, the study is conducted with a single group of subjects, with no control group present. The subjects undergo an initial assessment (pretest) to determine their level of learning concentration prior to the intervention. Subsequently, the subjects are exposed to an intervention in the form of "ice-breaking" activities integrated into the learning process. Following this intervention, a final assessment (posttest) is conducted to determine the students' level of learning concentration after the implementation of the ice-breaking activities. The choice of purposive sampling in this research was based on the condition that the research only used one class as research subject, namely all class 4 students with the consideration that class 4 is a transitional phase from low class to high class, where learning concentration at that level begins to develop cognitively so that this phase is relevant for researching the level of learning concentration. Data collection techniques are the methods used by researchers to obtain the data needed in research. In this research, the data collection techniques used are as follows: 1) Observation, 2) Questionnaire, 3) Documentation. Data analysis techniques are a method that discusses how to process data and information that has been obtained during research, in order to obtain results from the research. The method used to process data in this research is SPSS software.

RESEARCH RESULTS AND DISCUSSION

This research aims to determine the effect of applying the ice breaking method on the learning concentration of class IV students at SDN 1 Rensing. The research was carried out from April 20 to June 13 2026 using a One Group Pretest-Posttest design, where all 23 class IV students were designated as research subjects using a purposive sampling technique.

The implementation of ice breaking activities in this research was carried out in a planned and systematic manner as part of the learning process in class 4 of SDN 1 Rensing. Before the treatment was given, the researcher first coordinated with the homeroom teacher to conduct initial observations in the class to determine the conditions in the class as a general idea for further action.

Then the researcher designed a research implementation schedule following the lesson schedule in that class, where the researcher did not design a lesson plan for 1 subject but instead used a lesson plan that had been made by the teacher in charge of each subject, which then integrated the ice breaking activity into the learning subject scenario.

Data collection in this study was conducted using a learning concentration questionnaire consisting of 20 statements, each with a four-point Likert scale. The questionnaire was administered to students as a pretest before the intervention, and again as a posttest following the implementation of ice-breaking activities. Prior to its use, the instrument underwent validity and reliability testing. The validity test results indicated that all 20 statements were valid, with calculated r-values exceeding the critical r-table value of 0.413. The reliability test, calculated using Cronbach's Alpha, yielded a coefficient of 0.850—surpassing the critical r-table value of 0.423—thereby confirming that the instrument was reliable and suitable for use as a data collection tool.

Before hypothesis testing, prerequisite tests—specifically for normality and homogeneity—were performed. The normality test, conducted using the Shapiro-Wilk method, resulted in significance values of 0.287 for the pretest data and 0.656 for the posttest data; both values are greater than 0.05, indicating that the pretest and posttest data are normally distributed. Furthermore, the homogeneity test, using Levene's Test, yielded a "Based on Mean" significance value of 0.901—also greater than 0.05—leading to the conclusion that the variances of the pretest and posttest data are homogeneous. Having met these two prerequisite assumptions, the use of parametric statistical tests for data analysis in this study was justified.

Hypothesis testing was carried out using a Paired Sample T-Test at a 5% significance level. The analysis yielded a calculated t-value of -2.692, with 22 degrees of freedom (df) and a critical t-table value of 1.717. A comparison between the calculated t-value and the t-table value shows that |calculated t-value| = -2.692 > t-table = 1.717, which indicates a significant difference between the pretest and posttest scores. Furthermore, the two-sided p-value of 0.013 is less than 0.05; therefore, based on the decision-making criteria, Ha is accepted and Ho is rejected. This means that the implementation of ice-breaking activities has a significant effect on the learning concentration of fourth-grade students at SDN 1 Rensing.

Theoretically, the improvement in learning concentration resulting from the

implementation of "ice-breaking" activities can be explained through the cognitive load theory, as proposed by Rahmawati et al. (2023). According to this theory, the human brain has a limited capacity for processing information. When students experience mental fatigue due to prolonged and monotonous instruction, their ability to concentrate declines significantly. In this context, ice-breaking activities serve as a "cognitive reset"—a mechanism for mental refreshment that helps students clear their cognitive load before receiving new instructional information. Furthermore, the light physical activity involved in various types of ice-breakers—such as rhythmic clapping or simple movements—has been shown to increase blood flow to the brain, which positively impacts students' focus and concentration (Pane & Dasopang, 2017).

Based on the above, it can be concluded that the effective implementation of ice-breaking activities enhances the learning concentration of fourth-grade students at SDN 1 Rensing. Rather than serving merely as a diversion or entertainment, ice-breaking acts as a deliberate pedagogical strategy designed to foster a conducive, enjoyable, and interactive classroom environment. Such an environment encourages active student engagement, improves attention toward the teacher's explanations, and cultivates persistence in completing tasks, all of which lead to a significant increase in student concentration. The findings of this study are expected to offer practical contributions for teachers in selecting and applying innovative instructional strategies to improve the quality of the learning process in primary schools.

CONCLUSION

Based on the research results and data analysis, it can be concluded that the implementation of ice-breaking methods has a significant influence on the learning concentration of fourth-grade students at SDN 1 Rensing. This is evidenced by the results of a Paired Sample T-Test, which yielded a t-statistic of -2.692—a value lower than the t-table value of 1.717 (with degrees of freedom, df = 22). This indicates that the mean pretest score differs from the mean posttest score following the implementation of ice-breaking activities. Furthermore, the two-sided p-value of 0.013 is below the established significance level of 0.05. Consequently, the alternative hypothesis (Ha) is accepted, and the null hypothesis (Ho) is rejected; this signifies that students' mean learning concentration scores were significantly higher after the implementation of ice-breaking activities (posttest) compared to those recorded before the intervention (pretest).

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