

Implementation of the Make a Match Cooperative Learning Model Assisted by Picture Cards in Classroom Science Learning

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Abstract

Education plays an important role in improving the quality and integrity of individuals. Education is also a consciously designed and carried out effort to create a teaching and learning process and learning environment that allows students to actively develop their potential. This study aims to determine the mastery of science learning outcomes among fifth-grade students at SD Negeri 59 Lubuklinggau through the application of the Make a Match cooperative model using picture cards. The main problem in this study was the low student learning outcomes, with only 26.92% achieving the mastery score. The research method used was a quantitative pre-experimental approach with a one-group pretest-posttest design. The sample consisted of 26 fifth-grade students. Data were collected through objective tests and analyzed using a one-sample t-test. The results showed an increase in the average score from 58,97 (pretest) to 74,36 (posttest). The hypothesis test obtained a calculated t-value (2.202) > t-table (1.708), thus concluding that the application of the Make a Match model using picture cards significantly improved the science learning outcomes of fifth-grade students at SD Negeri 59 Lubuklinggau.

Keywords

Learning Outcomes, Make a Match, Picture Cards, Science.



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INTRODUCTION

Education is actually a learning process that helps a person to grow and develop as a whole, starting from their thoughts, feelings, way of socializing, to their attitude and morals. With education, a person can gain useful knowledge, skills, and important values so that he can adjust to the surrounding environment, take an active role in society, and achieve the best abilities he has. According to Nurfuadi et al. (2022:4), education is a process to expand one's knowledge, which also includes improving theoretical understanding and problem-solving skills related to achieving educational goals. Educational activities include various efforts designed to improve a person's overall competence in a certain direction, outside of the work he or she is undertaking.

Education plays an important role in improving the quality and integrity of individuals. Education is also a consciously designed and carried out effort to create a teaching and learning

process and learning environment that allows students to actively develop their potential. The purpose of this education is for students to have spiritual strength in religion, intelligence, good morals, personality, self-control and skills needed both for themselves and for the country and nation. Educational activities are carried out with full awareness through mature, systematic, open, and directed planning by the community. This educational process is intended for generations who will be responsible for building civilization in the future, with clear goals or achievements that have been determined after going through the process (Nurbaya et al, 2024:4-5).

One of the significant changes in the world of education at the elementary school level is the merger of science (Natural Sciences) and Social Sciences (Social Sciences) into one subject known as Science and Social Sciences (Ministry of Education and Culture, 2022). This change is intended to address the weaknesses contained in separate learning between science and social studies. By combining the two fields of study, students can understand the strong relationship between science and social studies. They will learn how science affects nature as well as related to social aspects in daily life (Evitasari et al, 2025:3).

IPAS helps students develop their curiosity about the phenomena that exist around them. This curiosity supports them in understanding how the universe works and how it interacts between nature and human life on Earth. Thus, students not only learn about the facts, but also dig deeper into the complex relationships between various elements in this world (Meylovvia & Julianto, 2023:85). Social studies learning in grade V elementary school has its own challenges because the material taught is increasingly complex and abstract. This material combines scientific concepts and social phenomena that students must understand so that they can not only memorize, but also understand their meaning. However, the results of observations conducted by researchers at SD Negeri 59 Lubuklinggau show that students still often act passively when learning. They rarely participate in discussions and have difficulty remembering important concepts taught. The problem is suspected to be caused by several factors. First, learning methods that are still conventional and teacher-centered make students less actively involved in the learning process. Second, the lack of a variety of interesting learning media. Third, the lack of learning activities involving social interaction between students, even though cooperative learning has proven to be effective in improving understanding of social concepts and skills.

Then this has an impact on the learning outcomes of students who have not reached the criteria for achieving learning objectives (KKTP) that have been determined by SD Negeri 59 Lubuklinggau, which is 70, especially in science subjects. From the results of the midterm exam for class V.A students, there were 7 (26.92%) out of 26 students who had completed the learning goal achievement criteria (KKTP), and 19 (73.08%) students who had not completed the learning goal achievement criteria (KKTP). Meanwhile, in class V.B, there were 13 (54.17%) of the 24 students who had completed the criteria for achieving learning objectives (KKTP), and 11 (45.83%) students who had not completed the criteria. This is also in line with the results of

observations made at SD Negeri 59 Lubuklinggau that teachers have not used interesting models and media in learning.

To overcome the problems that exist in this study, namely, by using learning strategies in the form of learning models and media. One of the models and learning media that can be used is the Make A Match model and picture card media. According to Rusman (2011: 223) Make A Match is a learning model that prioritizes students to work together in groups with activities that are games, where they help each other to find a pair of cards according to the concepts being learned. This learning model not only makes students more active and focused, but also helps hone critical thinking skills and social skills (Ningrum & Puri, 2020:102). The combination of the Make a Match learning model with picture card media is in accordance with the principles of the Independent Curriculum which prioritizes active, collaborative, and meaningful learning.

Research shows that this model can increase student participation in the learning process while improving their learning outcomes, thereby creating a positive and effective learning environment (Wahyudinata et al, 2022:8). Using the Make a Match learning model using card media has a significant positive impact on improving student learning outcomes through active engagement, deeper understanding, improved memory, high motivation, and social skill development (Lu'Lul et al, 2025:208).

The purpose of this study is to determine the completeness of the learning outcomes of IPAS students in grade V of SD Negeri 59 Lubuklinggau after applying the Make a Match type cooperative learning model with the help of picture card media. The results of the study are expected to provide information about the application of the model and media in order to provide knowledge and guidelines on the application of the make a match model with picture cards, especially at the elementary school (SD) level.

METHODS

The research method used in this study is quantitative approaching. The method used in this study is the pre-experiment design method. Pre-experiment design is a design that involves a group or one class given before and after treatment. The design applied was a pretest (O1) and posttest (O2) design that was carried out in one group without any control group or comparator.

Tabel 1. One-Group Pretest-posttest Design

<i>Pretest</i>	<i>Treatment</i>	<i>Posttest</i>
O1	X	O2

(Sugiyono 2022:74)

Description.

O1 : Pre-test (before being given treatment)

X: Treatment

O2 : Post-test (after treatment)

This research was carried out at SD Negeri 59 Lubuklinggau City, which is located at Jl. Amula Rahayu, Kel. Tanah Periuk, Kec. South Sumatra. The population used in this study is all grade V students of SDN 59 Lubuklinggau for the 2025/2026 school year. Sampling in this study

is using the non-probability sampling technique is said to not give equal opportunities or opportunities for every element or member of the population selected to be a sample. Based on the results of the interviews that the researcher has conducted, the researcher took a sample class in the VA class with a total of 26 students where this VA class will be treated with the Make a Match learning model assisted by picture card media.

The data collection technique carried out in this study is by using tests. The validity test for multiple choice was used biserial point correlation because the scores were 1 and 0 only. Reliability test Reliability test states that reliability is concerned with the degree of consistency and stability of data or findings. The data analysis techniques in the research used are interviews and student test results; Finding Mean Values and Standard Deviations; Normality of the data; and Hypothesis Test.

FINDINGS AND DISCUSSION

Based on the results of interviews and observations with homeroom teachers of V.A at SD Negeri 59 Lubuklinggau, it was identified that there was a problem of low focus and enthusiasm of students during the learning process. This condition has a direct impact on the learning outcomes of students in science subjects who have not met the Learning Goal Achievement Criteria (KKTP) of 70. Daily test data shows that out of 26 students, only 7 children (26.92%) were declared complete, while the other 19 (73.08%) were still below the Criteria. This confirms that student learning outcomes have not reached an optimal level.

Before carrying out the research in class V.A which was used as a research sample, the researcher first conducted an instrument test on grade VI students of SD Negeri 59 Lubuklinggau as a test class. This step is taken to ensure the validity of the measuring instrument used. The initial instrument consisted of 20 multiple-choice questions. Based on the results of data analysis, 15 questions were obtained that were declared valid and 5 questions that were invalid. In addition, the instrument showed a very high level of reliability with a coefficient of 0.84. The quality of the questions was also evaluated based on the differentiating power and level of difficulty spread across the categories of very bad to very good, and very easy to very difficult.

In the initial stage of the research, a pretest was conducted to measure students' basic abilities in the science material. The results of the evaluation showed the highest score of 80 and the lowest score of 33, with the average class reaching 58.97 and the standard deviation of 12.18 From the analysis of the data, only 5 students managed to achieve the completeness criteria (score > 70), so it can be concluded that the learning outcomes of grade IV students of SD Negeri 59 Lubuklinggau are classically included in the incomplete category.

Responding to these results, the researcher applied the Make a Match learning model assisted by picture card media during two meetings. The application of this innovation has been proven to be able to improve the completeness of learning outcomes, create a more active classroom atmosphere, and increase student enthusiasm for learning. These findings are in line with the statement of Nurdin et al. (2024:33-34) that the application of the Make a Match

learning model assisted by picture card media is able to increase student motivation and involvement in the learning process.

In the first meeting, the researcher implemented the Make a Match model with the help of picture card media in the IPAS subject with the topic "What is the Culture of My Region Like?". The learning stage begins with a brief explanation of the material, followed by the division of students into 6 small groups. Furthermore, the researcher asked several questions related to the learning material presented previously as a stimulus that must be listened to by all students. After that, each group is divided into 2, there are 3 groups holding answer cards and 3 other groups holding question cards. Students who get question cards have to think about the answer and vice versa, students who get answer cards think about question cards that match the answer cards they get. Each student who successfully matches the cards presents the result of their answer in front of the class. The researcher corrected the students' answers. The researcher made 2 rounds in the application of this model, where the second round was carried out after all the cards were collected, shuffled and redistributed to all students. The steps used by the researcher are in line with Ferial & Rohani (2023) Where the Make a Match learning model consists of 10 stages that start with the teacher preparing and distributing cards containing questions or answers to students. Next, students are grouped against each other to think about their cards and find matching pairs of cards within a certain time limit, where the successful student will get points while the one who fails receives the agreed sanction. This process can be repeated by shuffling the cards again, allowing students to join matching small groups, and ending with the conclusion of the subject matter jointly between the teacher and the student.

At this first meeting, the researcher saw that students were not able to adjust to learning activities. The next obstacle is that there are still students who are not focused and play around in the process. However, the researcher anticipates by providing guidance and understanding to students so that they can be more active and orderly in the learning process. At this first meeting, students still need guidance and direction in the learning process that applies the Make a Match model assisted by this picture card.

In the second meeting, it was still using the Make a Match model assisted by picture card media with the same learning steps as the previous meeting. At this meeting, it showed that students of class V.A had begun to understand and could apply the learning model better, at the turn of the round, the researcher invited Shiva to do ice breaking so that students focused on the learning process. Then at the next meeting, the researcher conducted a posttest which aimed to find out the students' abilities after applying the Make a Match model with the help of picture card media in the science subject.

The results of the analysis of student scores have increased significantly, namely the highest score of 93 and the lowest score of 53 with an average of 74.36 and a standard deviation of 10.10, so it can be seen from the results of the analysis of posttest data that during the learning process using the Make a Match Learning model assisted by picture card media, it is known that student learning outcomes have experienced a significant increase completely.

This can be seen from the results of the evaluation by providing posttest questions totaling fifteen multiple-choice questions, an average score for the pretest was 58.97 and an average score for the posttest was 74.36 with an average increase of 15.39. In the posttest data, it was obtained that there were 20 students who had completed KKTP 70 and 6 students were still below the completeness score.

Based on the analysis of posttest data using the t-test formula of one sample in Pancasila education subjects, it was found that $t_{count} = 2.202$ is greater than $t_{table} = 1.708$. It is proven that the application of the Make a Match model with the help of picture card media in IPAS subjects can complete student learning outcomes. Thus, the research hypothesis proposed in this study can be accepted as true.

CONCLUSION

Based on the results of research that has been conducted by researchers at SD Negeri 59 Lubuklinggau, it can be concluded that the learning outcomes of social studies of grade V students of SD Negeri 59 Lubuklinggau for the 2025/2026 school year after the implementation of the Make a Match learning model assisted by picture card media are significantly complete. This can be seen from the analysis of the data that has been carried out, the average pretest result is 58.97 and the average posttest result is 74.36 with the completeness of student learning outcomes of 75%. Based on the results of the t-test, the t-value of the table t-count was obtained, which was 2.202 1.708. This means that H_0 is rejected and H_a is accepted so that it can be concluded that the hypothesis in this study can be accepted as true. In other words, the learning outcomes of IPAS students in grade V of SD Negeri 59 Lubuklinggau were significantly completed after the implementation of the Make a Match learning model assisted by Picture Card Media. For researchers, in implementing the Make a Match learning model assisted by picture card media, they should pay attention to social studies learning, especially on what kind of material is the culture of my region? Using the Make a Match learning model assisted by picture card media. In addition, when applying the Make a Match learning model with the help of picture card media, researchers must be able to control and motivate students during learning so that it goes well.

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