The Effect of Make A Match Cooperative Learning Model on Mathematics Problem Solving Ability in Elementary School

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Abstract: The aim of this research is to determine the influence and effectiveness of the make a match cooperative learning model on students' mathematical problem solving abilities. This quantitative research focuses on Class II children at SD Negeri 064965 Medan. The technique used is quasi-experiment. Data were analyzed using Descriptive Statistics and Independent Samples T-Test to compare problem solving abilities between classes that used the Make-a-Match model and those that did not. Testing was carried out with a predetermined significance of 0.05. Interviews, evaluations, and recording are techniques used to collect data. This research compares the results of the control and experimental groups using parametric statistical tests, especially the t test. After conducting a pretest and posttest on the experimental and control groups, it was discovered that the experimental class achieved much better problem solving learning outcomes (91.25 out of 100) compared to the control class (85 out of 100). The experimental class proved that the make-a-match technique was successful in igniting students' curiosity and encouraging them to be involved in learning. The results of this research show that the Make a Match approach is a powerful enthusiasm booster for students, which ultimately increases their interest and ability to remember lesson content. The Make a Match model promises as an alternative approach in education, it can improve student learning outcomes through a positive classroom environment and a high emphasis on group scores.

Abstrak: Tujuan penelitian ini adalah untuk mengetahui pengaruh serta keefektifan model pembelajaran kooperatif Make a Match dalam kemampuan pemecahan masalah matematis siswa. Penelitian kuantitatif ini berfokus pada anak Kelas II SD Negeri 064965 Medan. Teknik yang dipakai adalah eksperimen semu. Data dianalisis dengan Statistik Deskriptif dan Independent Samples T-Test untuk membandingkan kemampuan pemecahan masalah antara kelas yang menggunakan model Make a Match dan yang tidak. Pengujian dilakukan dengan signifikansi yang telah ditentukan yaitu 0,05. Wawancara, evaluasi, dan pencatatan adalah teknik yang dipakai untuk pengumpulan data. Riset ini membandingkan hasil kelompok kontrol dan eksperimen menggunakan uji statistik parametrik, terutama uji t . Setelah dilakukan pretest dan posttest pada kelompok eksperimen dan kontrol, diketahui bahwa kelas eksperimen mencapai hasil belajar pemecahan masalah yang jauh lebih baik (91,25 dari 100) dibandingkan dengan kelas kontrol (85 dari 100). Kelas eksperimen terbukti bahwa teknik make-a-match berhasil menyulut rasa ingin tahu siswa dan mendorong untuk terlibat dalam belajar. Hasil riset ini menunjukkan, pendekatan Make a Match merupakan pemacu semangat yang ampuh bagi siswa, yang akhirnya meningkatkan minat dan kemampuan dalam mengingat isi pelajaran. Model Make a Match menjanjikan sebagai pendekatan alternatif dalam pendidikan, dapat meningkatkan hasil belajar siswa melalui lingkungan kelas yang positif dan penekanan nilai kelompok yang tinggi.

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A. Introduction

In accordance with the preamble to the 1945 Constitution, education is the main priority in improving human resources. Making the nation's life intelligent is the ultimate goal of national education. Plans to advance science and technology in order to provide quality education are very necessary for the achievement of education. To achieve this educational goal, reform efforts are needed in the implementation of education at all levels. Education, basically, is a strategy planned by individuals to facilitate the teaching and learning process so that students actively develop their talents and abilities. Pursuing specific information, insights, and skills to prepare students for a rapidly changing world is another educational concept. The quality of future generations can be best reflected by the quality of education they receive.

However, quite a few students in Indonesia face learning difficulties in the educational process, and one of them is caused by weaknesses in using conventional methods in teaching and learning activities. According to (Rohmah et al., 2020) In conventional learning, it usually starts with the presentation of experiences related to the concept to be studied, followed by the delivery of information by teacher, a question and answer session, and giving assignments or homework, until teacher is sure that students have understood the material being taught. (Hasanah et al., 2022) describes conventional learning as an approach where students tend to focus more on conveying concepts rather than developing student competencies. The ultimate goal is for students to have knowledge, develop the skills to apply it. During the learning process, students tend to listen more than actively participate, often without the opportunity to fully demonstrate their abilities. As a result, students often forget or do not even understand the material presented, hampering the achievement of learning objectives.

Among the scientific disciplines that students must have is mathematics. The importance of students developing critical and careful attitudes, being objective and open, appreciating the beauty of mathematics, being curious, thinking and acting creatively, and enjoying learning cannot be overstated, according to Choridah in (Zakiah & Kusmanto, 2017). Often, the progress of a country's society can be measured by looking at its education system. Students' problem-solving skills in reading, mathematics and science, as well as their practical knowledge in these areas, are often important benchmarks for assessing whether the education of the compulsory school seniors has reached a good standard or not (Dewi et al., 2014). This fact emphasizes the urgency of teaching mathematics at every level of education, in order to equip students with the skills necessary to face the evolution of the times (Kurniawati et al., 2019). Through studying mathematics, students can develop mathematical concepts and principles independently, through an internalization process, so that they can strengthen the foundation of their mathematical knowledge (Nuriana Rachmani Dewi, 2022)

The poor quality of teaching is a major problem in schools in Indonesia (Ilmiah et al., 2015). Mathematics is fundamental to today's technological progress, plays an important role in various fields, and contributes to increasing human reasoning capacity;

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This is in accordance with the Regulation of the Minister of National Education Number 58 of 2014. Students must be able to answer mathematical problems which constitute mathematical competence.

Instead of memorizing, children's brains are forced to store and process knowledge to relate it to real life situations (Jannah, 2018). This rule applies in any field. The ability to solve problems is a skill that students develop in mathematics classes. According to Ministerial Regulation Number 22 of 2006 concerning National Education, one of the main objectives of mathematics education is to help students develop problem solving skills. Students must be able to solve difficulties because they often have to work hard to achieve goals that do not have clear answers (Haryanto, 2020). (Dewi et al., 2014) found that the most effective way to solve problems is through collaborative activities, such as working in small groups or independently. Students' awareness and ability to think creatively about problems can be increased through the many open discussion opportunities provided.

The ability to solve problems is a skill or potential possessed by students, enabling them to overcome various challenges and apply them in everyday life situations. (Fatkya & Wicaksono, 2023). The ability to solve mathematical problems is the foundation for producing individuals who have critical, systematic, logical, creative, rational and intelligent thinking with potential. Therefore, it is important for the mathematics learning process, even from the elementary school level (SD), to pay special attention to the development of problem-solving abilities. National Council of Supervisors of Mathematics (NCSM, 1977) and the National Council for Mathematics Council (NCTM, 1980) both support this view, with the first stating that problem solving skills should be the main emphasis of mathematics education (Mulyati, 2016). Therefore, problem-solving skills are essential for academic success. Motivating students to think outside the box is an important part of education because it equips them to face real world situations by utilizing their own knowledge, experience and abilities (Ritonga, 2017).

Facts in the field show that in mathematics learning, support for the importance of these abilities is not yet fully optimal. Students' ability to solve problems is still far from expectations. The results of interviews and school exam scores show that class II students at SD Negeri 064965 still have low abilities in solving mathematics problems. Some students experienced difficulties when trying to complete problem-solving assignments, according to conversations with class II homeroom teachers. When the teacher gives instructions to solve the questions, there are still a number of students who do not respond or are less responsive to the material being taught. In the end, some students lose interest and feel bored when studying mathematics. They tend to memorize mathematical concepts and repeat definitions taught by teachers or stated in textbooks without really understanding the meaning behind them. At the learning stage in class, the teacher has not implemented an appropriate learning model for teaching mathematics subjects. This results in the level of student participation becoming passive and less enthusiastic in participating in learning activities.

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Not only that, the lack of application of learning models also results in a decrease in students' enthusiasm for learning and causes them to quickly feel bored, which ultimately affects their learning achievements. It should be remembered that children's mathematical understanding abilities vary greatly. Grade II Mathematics Midterm Examination score data is presented in Table 1 below, based on the findings of the document study.

Table 1. Mathematics Mid-Semester Exam Scores for Grade II Students at Public Elementary School 064965 Medan for 2023/2024 Academic Year

No.	Class	The Number of Students	Student Mathematics ULTS Result Scores Based on KKM	
			Number of Completed Students	The number of students is incomplete
1.	II A	24	15	9
2.	II B	20	16	4
Total		44	31	13

Table 1 shows that of the 44 students, 31 people (or 70.45%) were declared complete, and 13 people (or 29.54%) were considered incomplete, while the Minimum Completeness Criteria (KKM) for Mathematics was 75. The fact is that the students' numeracy skills the results are still all over the place indicating that they have not yet reached proficiency. This problem must be addressed immediately to prevent a decline in their academic performance. Student engagement and retention will suffer due to boring teaching. Therefore, to avoid student boredom and foster an interesting, productive and efficient learning environment, educators must have the ability to choose an appropriate learning approach.

By incorporating a variety of learning models into their lessons, elementary school math teachers can help their students achieve better results. The learning model not only helps instructors deliver content, but also provides students with the opportunity to practice problem-solving skills through interesting games. The cooperative "make a match" model is one possible learning paradigm.

Curran proposed the Make a Match style learning methodology in 1994. Increasing accuracy and understanding are the goals of teaching based on the Make a Match paradigm. According to (Zakiah & Kusmanto, 2017), the use of this methodology encourages students to think critically, examine situations, and work together in groups. Students practice questions related to subjects using cards containing solutions or questions that have been prepared. Students will have fun while learning new ideas by matching photos. They work in teams to find a suitable set of cards that fits the given challenge and its solution. By allowing students to construct their own knowledge, these pull cards reduce the instructor's role as the sole authority figure in the learning process. Additionally, this strategy encourages student involvement and teamwork by having them

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work in small groups and then presenting the results of the conversation (Ferdiana & Mulyatna, 2020).

Students in the Make a Match cooperative learning methodology search for matching sets of cards that provide Lesson topic information (Gosachi & Japa, 2020). The main advantage of this technique is that it provides students with an interesting and entertaining way to learn a subject or topic through the process of matching pairs of cards. This concept is easy to adapt, so it can be used by students of any age and on any topic. A number of mathematical problems can be the basis for creating suitable cards (Aristianto, 2019).

This learning model encourages cooperation between students in groups and is an example of an active learning approach (Wulandari, 2022). This approach can be implemented in large classes, including 30–40 students, either individually or in groups. Meanwhile, the rules of the game, waiting for your turn, and finding card pairs also play an important role in helping students develop social skills.

In the Make a Match teaching approach, the first step the instructor takes is (1) Create a deck of cards that will function as questions and answers. (b) One type of card is given to each student. (c) each student considers the question or response card. (d) With the cards they have, students look for matching pairs. (e) Points will be awarded to any student who finds a matching card before the time limit. (f) After each session, the cards are shuffled again to exclude the possibility of participants receiving the same cards in the next session. (g) Students and instructors reach new levels of knowledge (Tuken & Astuti, 2022).

The Make a match type cooperative learning model has advantages, including (1) an enthusiastic atmosphere will arise during the learning process, (2) cooperation between classmates is carried out flexibly and (3) there is an even mutual cooperation incentive among all students (Pemasaran, 2020).

Through the cooperative learning model, Make a match or looking for a partner is considered an alternative to influence the ability to solve mathematical problems (Zakiah & Kusmanto, 2017). The ability to mobilize and support students to be independent in solving problems is not only important. Apart from that, it is hoped that it can improve the mathematical problem solving abilities of class II students at SD Negeri 064965 Medan. Based on the problems that have been described, this research focuses on students' mathematical problem solving abilities using the make a match type cooperative learning model which will create a new atmosphere in the classroom. With this model, students will be more interested in following their learning process. This creative and innovative approach will motivate students, because their interest in learning will be stimulated and they will not quickly feel bored during a non-monotonous learning process. The integration of paired card games will increase the challenge for students, so that they do not just passively accept the theory. This has the potential to have a positive impact on their academic achievement. The aim and focus of this research is to determine the effect of

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implementing the Make a match type cooperative learning model on the problem solving abilities of class II students at SD Negeri 064965 Medan.

Method

Based on the research objectives that have been determined, this research is categorized as quasi-experimental research. The experimental design and research flow used in this research are depicted in the figure:

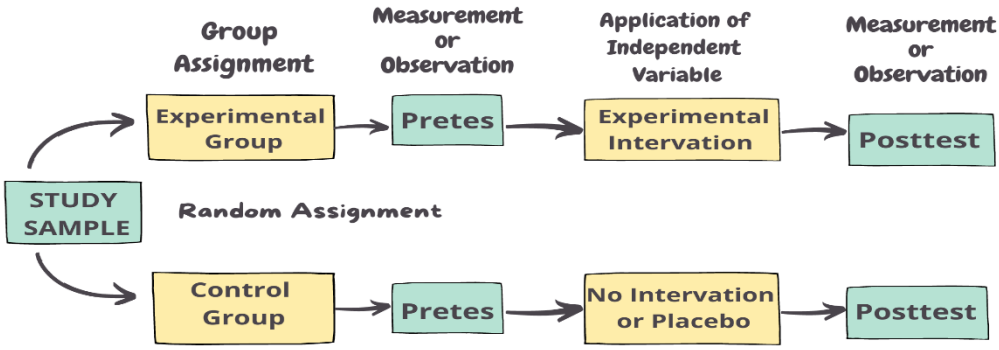

Figure 1. Research flow

The research population was first class students at SD Negeri 064965 Medan. The number of students involved was 44 students, who were divided into two classes, namely class II A with 24 students as the experimental class, and class II B with 20 students as the control class. Interviews, evaluations, and recording are techniques used for data collection. The research instrument used consisted of an assessment of mathematical problem solving for students as the dependent variable in this research, and a 5-question objective test was used to measure it. Quoting Polya's opinion (Astutiani & Hidayah, 2019), Indicators of mathematical problem solving abilities include the following: understanding the problem, planning solutions, implementing solutions, and checking results. After the test, the results are assessed using an assessment rubric based on these indicators. In research, tests with previously demonstrated validity are used to evaluate mathematical problem solving abilities. Then, homogeneity tests and paired samples were carried out. Descriptive statistics and the Independent Samples T-Test were used in the ultimate data analysis to compare the problem solving abilities of classes that used the make-a-match model with those that did not. Testing was carried out with a predetermined significance threshold of 0.05.

C. Result and Discussion

Result

The instructor gave an introductory exam to the control and experimental group students to gauge their starting point before diving into the investigation. Based on the results of the first assessment, classroom action research will be carried out using

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procedures developed with indicators of mathematical problem solving ability. These abilities are defined by Polya (1986) and include understanding problems, planning solutions, completing plans, and taking checks. return. The pretest results data for both groups are as follows.

Table 2. Pretest Data for Control and Experimental Classes

Control Class			Experimental Class		
No	**Scores**	**Frequency**	**No**	**Scores**	**Frequency**
1	65	5	1	65	6
2	70	6	2	70	7
3	75	4	3	75	5
4	85	5	4	85	6

Based on the results of the pretest carried out, there are still students who have not met the school's KKM criteria, namely 75, so from the results of the test research the teacher took action using the Make a match method. The results data after treatment are the students' posttest scores as follows.

Table 3. Postest Data for Control and Experimental Classes

Control Class			Experimental Class		
No	**Scores**	**Frequency**	**No**	**Scores**	**Frequency**
1	75	6	1	85	14
2	85	10	2	100	10
3	100	4			

Based on the analysis in Table 3 presented, it can be seen that the experimental class that applied the Make a Match type cooperative learning method showed better results compared to the method applied in the control class.

1. Test Requirements Analysis

Table 4. Validity Test of Item Analysis

No	r Count	r Table	Information
1	0,388	0,401	Valid
2	0,388	0,401	Valid
3	0,388	0,401	Valid
4	0,388	0,401	Valid
5	0,388	0,495074	Valid/ Very high

From the data in the table above, it is clear that all test instruments for research mathematical problem solving abilities are valid. Therefore, test instruments are reliable and useful research tools due to their high level of precision and steady performance.

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Table 5. Control Class Normality Test

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreKon	.227	20	.008	.831	20	.003
PosKont	.300	20	.000	.793	20	.001
a. Lilliefors Significance Correction						

Table 6. Experimental Class Normality Test

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
PreEks	.221	24	.004	.831	24	.001
PostEks	.379	24	.000	.629	24	.000
a. Lilliefors Significance Correction						

The results show that the data is normally distributed so that the research meets the requirements to proceed to the parametric statistical test stage. This is supported by the Kolmogorov-Smirnov and Shapiro-Wilk sig values > 0.05, as seen in the table containing all experimental and control class data, as well as pretest and posttest.

Table 7. Homogeneity Test

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig.
Student learning outcomes	Based on Mean	.936	1	42	.339
	Based on Median	.014	1	42	.907
	Based on Median and with adjusted df	.014	1	40.952	.907
	Based on trimmed mean	.768	1	42	.386

Based on the homogeneity test results table, it can be seen that the significance value based on the mean of student learning outcomes is 0.339. A significance value exceeding 0.05 conventionally indicates that the data can be considered homogeneous, in accordance with basic principles in statistical decision making.

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1. Hypothesis Testing

Table 8. Paired Samples Test results

Paired Samples Test									
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PreEks - PostEks	-17.70833	9.43849	1.92662	-21.69386	-13.72281	-9.191	23	.000
Pair 2	PreKon - PosKon	-11.50000	11.13317	2.48945	-16.71048	-6.28952	-4.619	19	.000

Based on the findings of the Paired Sample Test hypothesis, the scores before and after the experimental and control class tests varied significantly (Sig. (2-tailed) = 0.000). Here, the calculated t-value for the research group is -17.70833 and for the control group is -11.50000, neither of which exceeds the t-table of 2.068 with 23 degrees of freedom (at α = 0.05). Therefore, the researcher accepted the alternative hypothesis and rejected the null hypothesis, which indicated that the posttest and pretest scores of the two classes varied significantly. It is clear that therapy improves student learning outcomes in problem solving skills, because the experimental class has a mean difference value of 17.07 and the control class has a mean difference value of 11.13.

Table 9. Descriptive Statistics Results

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	PreEks	73.5417	24	7.58706	1.54870
	PostEks	91.2500	24	7.55415	1.54198
Pair 2	PreKon	73.5000	20	7.62613	1.70526
	PosKon	85.0000	20	8.88523	1.98680

Each group participating in the paired t-test is given pre- and post-test data along with the mean, sample size, standard deviation, and standard error of the mean. The experimental group, known as pair 1, experienced a statistically significant increase from their pretest mean score of 73.54 to their posttest score of 91.25. Although there was higher dispersion in the pretest results (standard deviation = 7.587), the posttest scores (standard deviation = 7.554) were closer to the mean value. Pair 2 representing the control group also

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showed a considerable increase from pretest to posttest, with a mean score of 85.00 compared to 73.50. The scores on the pretest were more widely spread with a standard deviation of 7.626; on the other hand, scores on the posttest clustered more closely around the mean with a standard deviation of 8.885. Based on paired sample statistics, the intervention succeeded in increasing posttest scores in both groups, with posttest results being more stable compared to pretest.

Discussion

Researchers have gone through a number of processes, starting with the necessary testing, based on the findings of data analysis that has been carried out to answer the given hypothesis. The data is homogeneous, with a significance value based on the mean of 0.727 > 0.05, and the normality test and homogeneity test show that the data follows a normal distribution, with a significance value > 0.05 for Kolmogorov-Smirnov and Shapiro-Wilk. This data can be continued with parametric statistical tests (t test) because it meets these two requirements (Aristianto, 2019).

For the purpose of comparing the results of the research instruments, a T test was carried out. Class II B as the control group and class II A as the experimental group; These two classes were used as samples for this research. First, to compare the conditions before and after treatment, the two sample classes were given research instruments to complete a pretest which included identifying relevant answer text structures.

The researcher then used a total of twenty participants in the control group and twenty-four participants in the experimental group to test the Make a match model. During the learning process, there were differences in treatment between the experimental class and the control class. The control class, which is class II B, only applies conventional learning methods and provides exercises. This causes students to become passive during the teaching and learning process and the atmosphere in the class is not very pleasant. Students also experience difficulties in problem solving activities in classes that apply conventional methods. The differences were clearly visible in class II A, which was the subject of the experiment. In this study, the researcher only provided a brief explanation of the subject matter and divided students into several groups. Among these groups, some were given question cards and some were given answer cards, in accordance with the "Make a Match" type cooperative learning approach (finding partners). This learning model involves the teacher preparing cards with questions or problems, as well as answer cards, then students work together to find pairs of cards. Researchers guided students in a matching game, where they had to solve problems and match cards according to their group. The first group to find a pair will get additional points. After that, students discuss with their group partners and present the results in front of the class. The aim of this activity is to foster students' interest in learning, encourage them to solve problems, improve communication skills, and understand the material in a fun way.

Additionally, the Make a Match model received excellent group ratings, proving its effectiveness in increasing student excitement, while making learning more fun. The aim is

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to make class II students more interested in learning how to solve problems so that they can pay full attention to the material. However, in teaching and learning activities that take up a lot of time, researchers need to manage their time wisely. This is evident from the atmosphere of the experimental class, where the researcher faced several obstacles such as students not following the schedule, disruption between students, and the problem of reluctance to discuss and ask questions. Researchers must be able to overcome these obstacles with the right approach and create a conducive classroom environment. To test the hypothesis, students continue to return to individuals by working on problem solving tests given as pretest and posttest as the results of the Independent Sample Test show that the Sig. (2-tailed) < a = 0.05 (0.000 < 0.05) which means that H0 is rejected and Ha is accepted. It can be concluded that there is a significant difference in the learning outcomes of writing response text structures between the control class, with a mean of 85, and the experimental class, which reached 91.25.

At the elementary level, mathematics teaching does not only focus on numeracy skills, but also on students' problem-solving abilities. This includes mathematical problems and contextual situations that require the use of mathematics to solve them (Noviyana, 2019). According to Sarbiyono in (Noviyana, 2019), Problem solving is the core of mathematics learning to handle mathematical problems. Learning mathematics, especially problem solving, is strongly influenced by beliefs about mathematics. Problem solving should be the main focus in the mathematics curriculum and an integral part of mathematics learning. Therefore, innovation is needed in mathematics learning approaches for problem solving.

The teacher's role is very important in mathematics learning, especially in changing the learning paradigm towards problem solving. This requires the teacher's ability to plan, implement and assess problem-solving learning. Various problems that arise can be caused by teachers' inaccurate perceptions about problem solving, which has an impact on their learning. Apart from that, a dense learning load based on the curriculum can also be a factor, causing limited time for problem solving activities, especially in group learning models.

Based on the student problems above, students need a learning model to help in the teaching and learning process. To instill basic arithmetic concepts in students, special techniques are needed that can make it easier for students to understand these concepts. The technique is by learning to count using a learning model. Using models in delivering learning material can help students understand learning, especially in mathematics subjects.

The learning model used in this research is the make a match type cooperative learning model for class II students at SD Negeri 064965 Medan. This learning model begins by instructing students to look for pairs of cards that match the answer or question before time runs out, and students who successfully match the cards will get points. The Make A Match learning model is a type of cooperative learning that involves game elements, where students look for pairs of answers on cards. This encourages cooperation,

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active involvement, and avoids student passivity in the classroom learning process. This is in accordance with the theory from several studies regarding the application of the Make A Match type cooperative learning model, such as research conducted by (Arbiah, 2022), The application of the make a match model in the learning process provides greater encouragement to students because they will be actively involved through the use of question cards and answer cards. In this way, learning becomes more meaningful and enjoyable because students can immediately feel their involvement in the learning process. In line with research (Silalahi, 2022) this method is expected to provide opportunities for students to be creative and innovate because it includes interesting learning techniques from the beginning to the end of learning..

This positive influence will encourage students' mathematical resilience, which in turn will improve their skills in solving mathematical problems. As the next step, teachers need to pay attention to students' mathematical resilience to develop their ability to solve mathematical problems. The problem solving taught by teachers is related to students' everyday situations, which opens up their thinking patterns far beyond the material in textbooks alone, as expressed by (Mansur, 2018). This allows students to find solutions with approaches and steps they believe are appropriate and effective.

D. Conclusion

Several important values must be taken into account in this research framework. To start a parametric statistical test, the data must have a normal and homogeneous distribution, this is indicated by the results of the normality and homogeneity tests. Another thing is Sig. Since the p value does not exceed 0.05 (0.000 < 0.05), the alternative hypothesis is accepted and the null hypothesis is rejected according to the two-tailed test. Evidently, the experimental group significantly outperformed the control group in terms of learning how to solve problems.

In addition, the results of this research show that the Make a Match approach is a powerful enthusiasm booster for students, which ultimately increases their interest and ability to remember lesson content. A positive classroom environment and high group scores in tests show that the Make a Match model is promising as an alternative approach in education that can contribute to better learning outcomes for students.

The author provides recommendations and suggestions to teachers and parents after researching the effect of the "make a match" type cooperative learning model on the motivation and mathematics achievement of class II students at SD Negeri 064965 Medan. The author has several recommendations for improving the classroom experience, including the following: 1) Teachers should try to use the Make a Match cooperative learning paradigm to make arithmetic and other boring topics more interesting for their students. The aim is to make children more enthusiastic about learning, which will inspire them and lead to better results in their studies. 2) Adequate facilities are a must for schools to support the success of learning activities and the teaching and learning process. In the long run, this will help students succeed academically in and out of the classroom. 3)

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Third, researchers must become experts in classroom management and find new and interesting ways to incorporate game aspects into Make a Match type cooperative learning models. Students will be more motivated to be actively involved in learning if this happens. Apart from that, researchers must also make the best use of the time given.

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