

IMPROVING MATHEMATICS LEARNING OUTCOMES ON COMPOSITE ADDITION THROUGH THE DEMONSTRATION METHOD USING THE LABYRINTH BOARD MEDIA FOR GRADE II SDN 1 MOJOWETAN

PENINGKATAN HASIL BELAJAR MATEMATIKA MATERI PENJUMLAHAN BERSUSUN MELALUI METODE DEMONSTRASI DENGAN MEDIA PAPAN LABIRIN KELAS II SDN 1 MOJOWETAN

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Abstrak

Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa kelas II SDN 1 Mojowetan pada materi penjumlahan bertingkat melalui penerapan metode demonstrasi dengan media papan labirin. Subjek penelitian ini adalah 23 siswa kelas II A. Penelitian ini menggunakan metode Penelitian Tindakan Kelas (PTK) dengan model Kemmis dan Mc. Taggart, yang dilaksanakan dalam dua siklus, masing-masing terdiri dari perencanaan, pelaksanaan, observasi, dan refleksi. Teknik pengumpulan data meliputi observasi, wawancara, dokumentasi, dan tes, dengan validitas data diuji menggunakan triangulasi sumber dan metode. Analisis data dilakukan secara kualitatif dan statistik deskriptif. Hasil pretest menunjukkan bahwa hanya 4 siswa dengan persentase (17,39%) yang mencapai Kriteria Ketuntasan Minimum (KKM). Setelah penerapan metode demonstrasi dan papan labirin, hasil belajar mengalami peningkatan yang signifikan, sebanyak 12 siswa dengan persentase (52,17%) mencapai ketuntasan pada siklus 1, dan meningkat menjadi 20 siswa dengan persentase (86,96%) pada siklus 2. Selain hasil belajar kognitif, hasil keterampilan guru dalam menerapkan metode demonstrasi pada siklus 1 memperoleh nilai rata-rata 17 dengan kategori (Baik), sedangkan pada siklus 2 terjadi peningkatan dengan nilai rata-rata 19 dengan kategori (Sangat Baik) dari total nilai 20. Sebagai kesimpulan, penerapan metode demonstrasi dengan media papan labirin efektif dalam meningkatkan kualitas pembelajaran dan hasil belajar siswa.

Abstract

This study aims to improve the learning outcomes of second-grade students of SDN 1 Mojowetan on the material of stacked addition through the application of the demonstration method with a labyrinth board media. The subjects of the study were 23 students of class II A. This study used the Classroom Action Research (CAR) method with the Kemmis and Mc. Taggart model, implemented in two cycles, each consisting of planning, implementation, observation, and reflection. Data collection techniques included observation, interviews, documentation, and tests, with the validity of the data tested using triangulation of sources and methods. Data analysis was carried out qualitatively and descriptive statistics. The pretest results showed that only 4 students with a percentage (17.39%) achieved the Minimum Completion Criteria (KKM). After the implementation of the demonstration method and maze board, learning outcomes experienced a significant increase, as many as 12 students with a percentage (52.17%) achieved completion in cycle 1, and increased to 20 students with a percentage (86.96%) in cycle 2. In addition to cognitive learning outcomes, the results of teacher skills in implementing the demonstration method in cycle 1 obtained an average score of 17 with the category (Good), while in cycle 2 there was an increase with an average score of 19 with the category (Very Good) from a total score of 20. In conclusion, the implementation of the demonstration method with maze board media is effective in improving the quality of learning and student learning outcomes.

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INTRODUCTION

Education is a fundamental right of every citizen and plays a vital role in developing superior human resources. Through education, individuals can increase their capacity, free themselves from ignorance and poverty, and become globally competitive. The goal of education in Indonesia, as stated in Article 3 of Law Number 20 of 2003, is to develop the potential of students to become people who believe in and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible (Nasution, 2021). Education is also a means to enlighten the nation's life, as mandated in the fourth paragraph of the preamble to the 1945 Constitution. According to (Sumardi & Alqadri, 2022). in the context of basic education, mathematics plays a central role because it fosters logical, systematic, and critical thinking skills. Therefore, it is important for students to master basic mathematical skills from an early age, one of which is through understanding arithmetic operations such as addition.

According to Elfiyani (2024), mathematics learning in elementary schools should begin early because it serves as a foundation for students' intellectual development at higher levels of education. Basic mathematical concepts, such as addition, need to be taught properly so that students can understand more complex material later on. Bruner's theory (in Khasanah & Purwaningrum, 2023) also emphasizes that in mathematics learning, concepts must be arranged hierarchically, starting from the simplest to the most complex. Therefore, mastery of basic concepts is crucial before students can understand more advanced concepts. To achieve this goal, teachers must use the right approach, such as appropriate learning models, methods, and media, to ensure an effective and enjoyable learning process.

According to Rosyidah et al., (2023), one of the basic materials in lower grade mathematics is compound addition. Mastery of this number operation is the key to students' success in understanding other mathematical materials. Karimah, (2023) stated that numeracy skills, including compound addition, are very important because they are directly related to daily activities and are a requirement for absorbing advanced mathematical materials. However, in reality, many students at the elementary school level still experience difficulties in understanding this material. Nada Febiola et al., (2024), stated that low mathematics learning outcomes are caused by various factors, such as low student interest in learning, lack of variety in teaching methods, and minimal use of learning media. This is also experienced by class II A students of SDN 1 Mojowetan, where they still face difficulties in understanding the concept of compound addition, especially in storage techniques. Monotonous and lecture-dominated learning methods result in students being passive and less interested in mathematics lessons (Julyananda et al., 2022).

Based on observation data on November 28, 2024, class II A students still experience difficulties in understanding compound addition, especially in the technique of storing numbers. The results of interviews with the homeroom teacher of class II A showed that the learning method used was still monotonous, and only focused on lectures and did not use learning media. In contrast to class II B which had used varied methods and interesting media in learning. Therefore, class II A was chosen as the focus of research to improve the effectiveness of learning. The low achievement of mathematics learning outcomes of class II A students was evidenced by the results of the pretest in the pre-action stage carried out on December 5, 2024. Of the 23 students, only 4 students with a percentage (17.39%) achieved a KKM score of 70, while the other 19 students with a percentage (82.61%) had not yet achieved the KKM. In fact, the compound addition material has been taught since semester 1. These low results are caused by a lack of conceptual understanding, low motivation

to learn mathematics, and monotonous learning methods that do not involve students. The minimal use of learning media also makes learning less interesting.

To improve the quality of mathematics learning, teachers need to use innovative methods and media. According to Kristina, (2023) varied and appropriate learning methods and media can create a more enjoyable learning atmosphere, increase student interest, and help them achieve better learning outcomes. One effective approach is the demonstration method using a maze board. Meanwhile, according to Nugraha et al., (2023) this method allows teachers to explain the material directly and visually. Meanwhile, according to Yulia Ika et al., (2024) the maze board helps students understand the concept of addition in a fun way through games and interactions. With this combination of methods, it is hoped that learning will be more interesting and easier for students to understand.

Therefore, researchers propose the use of a demonstration method assisted by a labyrinth board in teaching compound addition. The demonstration method provides an opportunity for teachers to directly demonstrate the process and steps of compound addition (Tahsinia et al., 2022). This is in line with research conducted by Hasibuan, (2022) which explains that demonstrations aim to show students a specific formation process. Meanwhile, the labyrinth board functions as a visual and kinesthetic aid, making the learning process more engaging and enjoyable. This combination helps students more easily understand the concept of addition, overcome mathematical difficulties, and become more motivated to participate in mathematics learning. This approach also encourages active student engagement, which is crucial for improving overall learning outcomes.

This research aims to provide a new innovation in mathematics learning in elementary schools through the integration of demonstration methods that provide direct learning experiences with interactive and fun labyrinth board media. This combination is expected to be able to create a more active and interesting learning atmosphere and make it easier for students to understand the concept of addition in a straight line. In addition, this research also provides practical contributions for teachers in designing innovative and applicable learning strategies, especially in improving students' mathematics learning outcomes, especially in the material of addition in a straight line.

METHOD

This research uses an approach Classroom Action Research (CAR) with the model developed by Kemmis and McTaggart, which consists of four main stages, namely: planning, implementation of actions, observation, and reflection. The research was conducted in acyclical and repetitive, with the main aim of improving quality of mathematics learning on the material stacked summation, through the implementation of demonstration method using labyrinth board media. The following is a schematic of the Kemmis and McTaggart action research cycle model (In Nahdi et al., 2018) which consists of 4 components, namely:

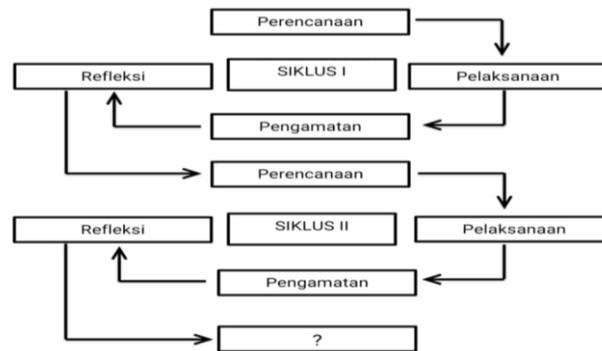


Figure 1. Kemmis and Mc, Taggart Model Cycle

This research is descriptive, qualitative, and quantitative. The subjects were 23 students in grade II A of SDN 1 Mojowetan, consisting of 12 boys and 11 girls. Prior to the implementation of the study, the researcher conducted initial observations and interviews with the class teacher, the principal, and several students to identify the problems that would be the focus of the study.

Data collection in this study was conducted using several techniques, namely participant observation, interviews, documentation, and tests. The following is an explanation:

1. Observations are carried out to assess the activities of teachers and students during learning.
2. Interviews were conducted with the class teacher, the principal, and the two students who received the highest scores, and the two students who received the lowest scores.
3. Documentation includes photos of learning activities and other supporting documents such as teaching modules and student grades.
4. Tests are conducted before the action/pre-action and after the action to measure improvements in student learning outcomes.

The data sources in this study consist of data primer And data seconds. Primary data was obtained through interviews and observations of teachers, principals, and students, while secondary data was obtained from learning document relevant documents, such as syllabi, teaching modules, assessment sheets, and other administrative documents.

Data analysis techniques using the approach qualitative and quantitative descriptive. Qualitative analysis is carried out in three stages, namely: data reduction, data presentation, and drawing conclusions. Meanwhile, quantitative analysis was used to evaluate learning outcomes and teachers' teaching skills. Data validity was tested using source and method triangulation techniques to ensure the validity and accuracy of the data obtained during the research process.

Success indicators are used as benchmarks to assess the success of Classroom Action Research. Research is considered successful if it achieves predetermined target criteria. The following are the success indicators formulated by the researcher:

Table 1. Achievement indicators

No	Aspects measured	Target	Achievements
1	Learning outcomes	80%	Completed KKM
2	Teacher skills	B	15-17

Information:

1. Student learning outcomes achieve the minimum target 80% of the total number of students completed the KKM, namely 70.
2. Teacher skills in designing and implementing learning are in the category B (good) based on observation results.

RESULT AND DISCUSSION

Pre-action Data

The pre-action stage is a step taken by researchers to collect information or initial data related to mathematics learning outcomes, especially on the topic of addition in layers for class II A students of SDN 1 Mojowetan. At this stage, researchers conducted observations and interviews as the main methods to obtain information. Observations were carried out to coincide with Mathematics class hours, and aimed to determine how the learning process took place, both in terms of the methods used by the teacher and student responses during learning activities. Based on the results of the observations, it was seen that in mathematics learning for class II A, the teacher had not shown the use of innovative learning media and still applied the conventional method, namely the lecture method. This approach, which is still conventional, causes Mathematics learning to tend to be teacher-focused and only monotonous, with one-way interactions. This led to a lack of feedback from students, which ultimately made them feel bored and preferred to play alone and not pay attention to the lesson in class.

After conducting observations, the researcher proceeded to the interview stage. This interview was conducted with the class II A teacher and yielded various information, one of which was the statement that students' understanding of the material on addition in columns was still very low. In the pre-action stage, the interview was not only conducted between the researcher and the class II A teacher, but also involved the principal and several students from class II A of SDN 1 Mojowetan. The interview with the principal provided general information regarding the number of students at SDN 1 Mojowetan, the curriculum implemented, the principal's knowledge of the teaching methods used by teachers, and the principal's role in providing learning support facilities. Meanwhile, interviews with students provided an overview of their opinions on learning Mathematics. Some students expressed that they felt happy in learning, while others found it difficult, some felt the material was sometimes easy, but there were also those who felt sleepy, enthusiastic occasionally, but often felt bored and not interested in Mathematics lessons.

The pre-action phase doesn't stop at observation and interviews; a test is also administered. This test is called a pretest. The purpose of the pretest is to determine the students' initial knowledge of the material on building blocks. Furthermore, the pretest is used to corroborate data and provide evidence, as interviews with the class IIA teacher indicated that students' understanding of the material on building blocks is still low. During the pretest, students were given 10 essay questions with a 35-minute time limit to complete them and then collected. The pretest generated initial data on student learning outcomes in the form of scores before the learning intervention. After correction, it was seen that at this pre-action stage, the highest score obtained by students was 80, while the lowest score was 10. The following table shows the results of the pretest for mathematics for class II A:

Table 2. Grade II A Mathematics Pretest Score

No	Range of Values	Frequency	Percentage (%)	Information
1	0-30	13	56.52%	Incomplete
2	31-55	6	26.09%	Incomplete
3	56-69	-	-	Incomplete
4	70-85	4	17,39%	Complete
5	86-100	0	-	Complete

Amount	23	
< KKM (70)	19	82,61%
> KKM (70)	4	17,39%
Highest Score	80	
Lowest Score	10	

Based on the table above, it can be seen that most of the class II A students of SDN 1 Mojowetan still have scores below the Minimum Completion Criteria (KKM) that has been set, which is 70. Of the total 23 students, as many as 19 students with a percentage (82.61%) have not achieved the KKM score, while only 4 students with a percentage (17.39%) have achieved or exceeded that score. Therefore, it is necessary to take action.]

Results of Cycle I Actions

1. Planning

Planning in cycle I aims to address previously identified learning problems. The approach used is a demonstration method with the aid of media. *maze board* as a learning tool. Actions are carried out in two meetings.

a. Compile teaching modules

At this stage, the researcher collaborated with the class II A teacher to compile a teaching module that would be used in two learning sessions, each lasting 2 x 35 minutes.

b. Preparation of facilities and equipment

- 1) Prepare a labyrinth board media as the main tool in learning.
- 2) Provide supporting equipment such as cell phones for documentation, markers and stationery for field notes.
- 3) Prepare observation and assessment sheets. Observations are used to observe teacher skills during the learning process. Assessment sheets are used to measure student understanding of the learning objectives to be achieved. Mengukur.

2. Implementation

This classroom action research was conducted using a demonstration method supported by the use of a labyrinth board in the learning activities. During the learning process, the teacher assessed attitudes, skills, and knowledge. At the end of each lesson, the teacher administered a test in the form of a quiz. *essay* in mathematics, totaling 10 questions at the end of each meeting. The results of the Cycle I assessment are presented in the following table.

Table 3. Knowledge scores for Cycle 1

No	Range of Values	Frequency	Percentage (%)	Information
1	30-40	2	8.70%	Incomplete
2	41-55	5	21,74%	Incomplete
3	56-69	4	17,39%	Incomplete
4	70-80	7	30.43%	Complete
5	81-89	4	17.39%	Complete
6	90-100	1	4.35%	Complete
	Amount	23	100%	
	< KKM (70)	11	47,83%	
	> KKM (70)	12	52,17%	
	Highest Score	100		
	Lowest Score	35		

Based on the data in the table, it can be seen that 12 students (52.17%) achieved a score above the Minimum Completion Criteria (KKM), which is 70, while 11 students (47.83%) still fell below the KKM. Despite this improvement, not 80% of students achieved a score of ≥ 70 according to the indicator. Therefore, it is necessary to continue to Cycle II to improve learning outcomes.

3. Observation

Observations in cycle I were conducted by observing the teacher's teaching process during the learning process. In this activity, the researcher acted as an observer in class II A, where the researcher filled out an observation sheet to determine whether the conditions implemented by the teacher during class hours were in accordance with the desired learning program. The researcher prepared an observation sheet in cycle I which was used to assess teacher skills during teaching. The observation data was then filled out by the researcher to assess the teacher's teaching performance based on the assessment indicators by assigning scores to the columns. The following are the results of teacher observations in Cycle I:

Table 4. Observations of teacher skills in cycle I

No	Name of the teacher	Indicator					Total score	Category
		opening the lesson	Presenting material	Conducting media demonstrations	Guiding discussions	Closing and evaluating		
1.	Bu Upik	4	3	3	3	4	17	Good

Based on the table above, the observation results of the teacher's learning process obtained a total score of 17 out of five assessed indicators. The teacher demonstrated excellent skills in opening and closing lessons, as well as conducting learning evaluations, with a score of 4 in both aspects. In delivering material, demonstrating media, and guiding discussions, the teacher obtained a score of 3, indicating good performance, but still has room for improvement. Overall, the teacher has carried out the learning process well, although further optimization of material delivery, media use, and interaction in discussions is needed to maximize student learning outcomes.

4. Reflection

Reflection in cycle I was conducted based on the results of learning evaluations, teacher observations, and analysis of student learning outcomes. The learning implementation used a demonstration method supported by a labyrinth board, while knowledge assessment was conducted through essay tests at each meeting. The assessment results showed that out of 23 students, 12 students (52.17%) achieved scores above the Minimum Completion Criteria (KKM) of 70, while 11 students (47.83%) were still below the KKM. Despite progress, the classical results did not meet the minimum completion target of 80% of students. Meanwhile, teacher skill observations obtained a score of 17 with a "good" category. This indicates that the management of knowledge assessment has not met the expected indicator of 80% completion of the KKM, and teacher skills still need to be improved so that the learning process runs more effectively. Based on these data, improvements are needed in cycle II.

Results of Cycle II Actions

1. Planning

Planning in cycle II is carried out based on the problems found in cycle 1. The stages are as follows:

a. Compile teaching modules

Before compiling the researcher collaborated with the class II A teacher to compile a teaching module that would be used in two learning sessions, each lasting 2 x 35 minutes.

b. Preparation of facilities and equipment

1) Prepare a labyrinth board media as the main tool in learning.

2) Provide supporting equipment such as cell phones for documentation, markers and stationery for field notes.

3) Prepare observation and assessment sheets. Observations are used to observe teacher skills during the learning process. Assessment sheets are used to measure student understanding of the learning objectives to be achieved.

2. Implementation

This classroom action research was conducted using a demonstration method supported by the use of a labyrinth board in the learning activities. During the learning process, the teacher assessed attitudes, skills, and knowledge. At the end of each lesson, the teacher administered a test in the form of a quiz. In mathematics, there are 10 questions at the end of each meeting. The assessment results in cycle II are as follows:

Table 5. Knowledge scores for Cycle II

No	Range of Values	Frequency	Percentage (%)	Information
1	30-40	-	-	Incomplete
2	40-54	-	-	Incomplete
3	55-69	3	13.04%	Incomplete
4	70-80	9	39.13%	Complete
5	81-90	8	34.78%	Complete
6	91-100	3	13.04%	Complete
Amount		23	100%	
< KKM (70)		3		13,04%
> KKM (70)		20		86,96%
Highest Score		100		
Lowest Score		55		

Based on the table above, there are 3 students with very high mastery (13.04%), 8 students with high mastery (34.78%), 9 students with moderate mastery (39.13%), and 3 students with quite low mastery (13.04%). These results indicate an increase in mathematics learning outcomes compared to Cycle I. Classically, 80% of students have achieved scores according to the success indicators.

3. Observation

Observations in cycle II were conducted by observing the teacher's teaching process during the learning process. In this activity, the researcher acted as an observer in class II A, where the researcher filled out an observation sheet to see whether the conditions carried out by the teacher during class hours were in accordance with the desired learning program. The researcher prepared an observation sheet in cycle I which was used to assess teacher skills during teaching. The

observation data was then filled out by the researcher to assess teacher teaching performance based on assessment indicators by providing a score. The following are the results of observations of teacher and student skills in Cycle II.

Table 6. Observations of teacher skills in cycle II

No	Name of the teacher	Indicator					Total score	Category
		opening the lesson	Presenting material	Conducting media demonstrations	Guiding discussions	Closing and evaluating		
1.	Bu Upik	4	4	4	3	4	19	Very Good

Based on the results of observations of the learning process carried out by the teacher, a total score of 19 was obtained from the five indicators assessed. The teacher obtained a maximum score (4) on the indicators of opening the lesson, delivering material, demonstrating media, and closing and evaluating the learning. Meanwhile, on the indicator of guiding the discussion, the teacher obtained a score of 3, which indicates that although it was good, there is still an opportunity to further improve student interaction and involvement in the discussion. These results indicate that the implementation of learning was in accordance with the teaching module and received a score in the A category (Very Good).

4. Reflection

Reflection on Cycle II showed a significant improvement in student learning outcomes and teacher skills compared to Cycle I. The demonstration method supported by the labyrinth board media was still applied with assessment in the form of a descriptive test at the end of each meeting. Of the 23 students, 20 students (86.96%) managed to achieve a score above the Minimum Completion Criteria (KKM) of 70, an increase from 52.17% in the previous cycle. This indicates that learning has been running more effectively and in accordance with the established success indicators.

Observations of teacher skills also showed positive development, with a total score of 19, categorized as "very good." Teachers were able to open and close lessons, deliver material, and utilize learning media effectively. However, there was still room for improvement in guiding discussions to optimize student engagement. Overall, the learning process in Cycle II went according to plan and had a positive impact on students' mathematics learning outcomes.

Comparison of Action Results

This classroom action research was conducted in two cycles, each consisting of two meetings. Each cycle included four stages: planning, implementation, observation, and reflection. Following the completion of both cycles, a comparison of the results is presented to demonstrate the improvement in student understanding through the demonstration method using the maze board.

Table 7. Comparison of students' cognitive outcomes in cycles I and II

Cycle	Complete	Incomplete	Number of Students	Percentage completion (%)
I	12	11	23	52,17%

II	20	3	23	86,96%
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Based on the data in the table above, it can be concluded that students' mathematical cognitive outcomes have increased from cycle I to cycle II. In cycle I, the average learning completeness was 12 students with a percentage reaching 52.17%, while in cycle II it increased to 20 students with a percentage reaching 86.96%. This shows that there has been an increase in mathematics learning outcomes compared to Cycle I. Classically, as many as 80% of students have achieved scores according to the success indicators. So these results indicate a significant increase in students' understanding of the learning material. The following is a comparison of the results of observations of teacher skills in cycle 1 and cycle 2.

Table 8. Comparison of teacher skill observation results in cycles I and II.

Cycle	Shoes	Category
1	17	Good
2	19	Very good

The table above shows a comparison of the results of teacher skill observations in Cycle I and Cycle II. In Cycle I, the teacher obtained a score of 17, categorized as "good," while in Cycle II, the score increased to 19, categorized as "very good." This increase reflects improvements in learning implementation, particularly in terms of more thorough planning, clearer material delivery, more effective use of media, and more systematic evaluation. This indicates that the learning implementation has been going very well and in accordance with the planned teaching module.

Discussion

Based on the analysis conducted in the research, from cycles I to II, there was an improvement in both observational and cognitive outcomes for students. The results obtained from this study are as follows:

1. Improving Mathematics Learning Outcomes for Structured Addition Material

After implementing classroom action in class II A of SDN 1 Mojowetan, students' learning outcomes on compound addition improved significantly, particularly in the knowledge aspect. This improvement was achieved through the application of the demonstration method combined with a maze board. The demonstration method allows students to understand the material through concrete examples, while the maze board serves as an engaging visual medium and makes it easier for students to understand the concept of addition in a fun way.

The use of demonstration methods and labyrinth board media has been proven to improve student learning outcomes in the material of stacked addition. This can be seen from the results of the evaluation test which showed a significant increase after the action was taken. In the pre-action stage, only 17.39% or around 4 students achieved the Minimum Completion Criteria (KKM), which reflects the low understanding of students towards the material being taught. However, after the learning action was carried out using a more active and innovative approach, namely using the demonstration method with labyrinth board media, there was an increase in student learning outcomes. Then after the implementation of the research, there was an increase in student learning outcomes in each cycle. In cycle I, the completeness of learning outcomes reached 52.17% or as many as 12 students, then in cycle II the completeness of learning outcomes increased to 20 students or reaching 86.96% who achieved the Minimum Completion Criteria (KKM). Thus, the indicator of

learning outcome achievement, namely 80% of the number of students reaching the KKM of 70 has been successful.

This improvement in learning outcomes demonstrates that the demonstration method and maze board media are effective in enhancing students' understanding of multiplication. This is supported by several previous relevant studies, such as that conducted by Lailiyah & Setyawan, (2022) which found that the demonstration method can directly improve students' mathematical understanding Darmaraja, (2020) also found that mentioned that the demonstration method was successful in increasing understanding learners. In addition, a similar study related to the use of maze boards, such as that by Rahmatillah et al., (2021) stated that maze board games are played on a board by moving pawns toward the exit according to predetermined rules. This activity is carried out in groups, thus encouraging interaction between students and making learning more engaging and enjoyable. This is evidenced by research by Angwarmasse & Wahyudi, (2021) which shows that using a maze board through play can improve student learning outcomes. Thus, this strategy has proven effective and can be applied to more engaging and meaningful mathematics learning.

2. Steps for implementing the Demonstration Method with Maze Board Media to Improve Learning Outcomes

Based on the results of initial observations in class II A SDN 1 Mojowetan, the learning process is still dominated by lecture methods and is teacher-centered, so that students are less active, unfocused, and less motivated, especially when studying the material of addition in a row. To overcome this, a demonstration method was implemented with a labyrinth board media to increase student engagement and learning outcomes. The results of the classroom action showed a significant increase, from only 17.39% of students who completed the pre-action stage, increasing to 52.17% in cycle I, and reaching 86.96% in cycle II. This increase cannot be separated from good teacher planning in preparing teaching modules and implementing the steps of the demonstration method systematically.

According to Rina et al., (2020) The steps of the demonstration method include three important stages: preparation, implementation, And evaluation. In the preparation stage, the teacher sets clear learning objectives, prepares the tools and media for the maze board, and conducts a trial run to ensure the demonstration runs smoothly. The implementation stage emphasizes creating a conducive classroom environment and actively involving students, such as taking notes, asking questions, responding, and directly trying to use the maze board to solve addition problems. The teacher acts as a facilitator who guides students to observe and understand the demonstration process directly. In the evaluation stage, students are given questions to measure their understanding of the material.

This improvement was analyzed based on several indicators. First, in terms of planning, the teacher had developed a teaching module well, set clear learning objectives, and thoroughly prepared learning media, including conducting a trial of the labyrinth board. Second, in implementation, the teacher was able to manage the class well, deliver the material demonstratively, and actively involve students. Students were seen taking notes, asking questions, responding, and directly trying to use the labyrinth board to solve addition problems. Third, in terms of student engagement, there was an increase in active participation because the labyrinth board media was able to create a fun and interactive learning atmosphere. Fourth, in the evaluation stage, the results of student practice showed an increase in understanding, especially in the technique of storing numbers in series addition.

The results of the observations that have been carried out state that the teacher has been very good in carrying out class actions by using the demonstration method and the labyrinth board media in accordance with the teaching module created, so that student learning outcomes can be improved. This statement is proven by the existence of an observation sheet for teacher skills assessment actions obtained by class teachers as teachers who are assessed by researchers as observers. The teacher in cycle I got a score of 17 out of a total score of 20 with the category (Good). While in the cycle II meeting got a score of 19 out of a total score of 20 with the category (Very Good). This increase in scores proves that the implementation of learning has been very good and in accordance with the indicators that have been set. Thus, teachers are able to significantly improve student learning outcomes through effective learning planning and implementation.

Based on the research results that have been conducted, it can be concluded that the application of the demonstration method through structured steps with the help of labyrinth board media has proven effective in optimizing the achievement of student learning outcomes, especially in understanding compound addition. This proves that the learning carried out is very good in accordance with the steps of the teaching module created. So that student learning outcomes can improve. This is also in line with research by Latifah, (2025) which states that the demonstration method is able to improve the understanding of mathematical concepts towards student learning outcomes. Meanwhile, according to menurut Risnayati, (2021) the demonstration method aims to show that there are demands on teachers to plan its application, clarify demonstrations or oral or visual statements, and provide the necessary equipment. Regarding the labyrinth board media, Fauzia & Retnawati, (2023) The mathematical labyrinth board game was designed with the hope of improving students' skills in solving problems in line with increasing creative mathematical thinking abilities. In addition, research by Azizah et al., (2025) shows that the use of labyrinth board media significantly contributes to improving student learning outcomes. Therefore, it can be concluded that the application of demonstration method through structured steps, and support labyrinth board media, proven to be effective in improving student learning outcomes, especially in the material stacked summation.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the study on Improving Mathematics Learning Outcomes on Stacked Addition Material Through Demonstration Methods with Labyrinth Board Media for Class II SDN 1 Mojowetan, the researcher concluded that the application of the demonstration method with labyrinth board media was proven effective in improving mathematics learning outcomes for class II A students of SDN 1 Mojowetan. In the pre-action stage (pretest), only 4 out of 23 students (17.39%) achieved scores above the KKM, while 19 students (82.61%) had not yet completed. After the action was carried out, student learning outcomes increased, namely in cycle I as many as 12 students (52.17%) achieved completeness, and increased to 20 students (86.96%) in cycle II. This increase shows that the use of demonstration methods with labyrinth board media is able to help students better understand the material on two-digit addition and significantly increase learning completeness.

Meanwhile, based on the observation results of the implementation of classroom actions carried out by the teacher, it can be concluded that the learning has been carried out very well and in accordance with the steps in the teaching module. The teacher used the demonstration method and maze board media effectively in each learning cycle. This is evidenced by the increase in the teacher's skill observation score from 17 in cycle I to 19 in cycle II out of a total score of 20. This increase indicates that the teacher is able to reflect and improve actions based on previous evaluations. Thus, the teacher has successfully implemented effective learning strategies and supported the improvement of student

learning outcomes.].

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