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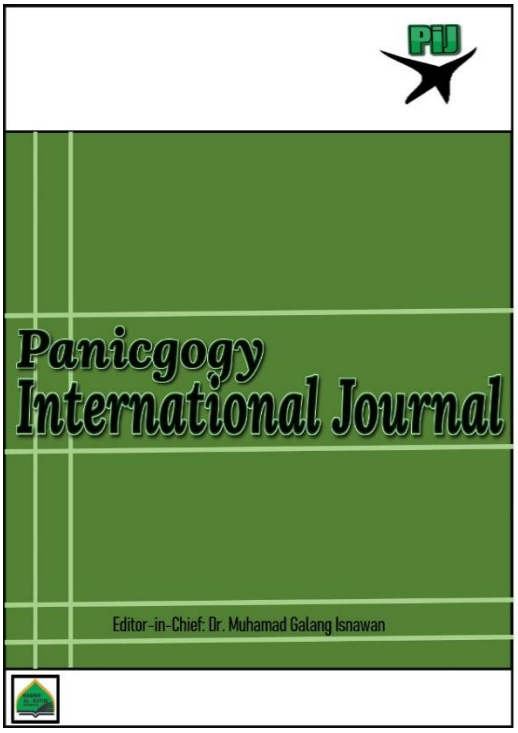

Efforts to improve students' understanding of addition and subtraction operations through demonstration methods in mathematics subjects

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Original Article

Efforts to improve students' understanding of addition and subtraction operations through demonstration methods in mathematics subject

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Abstract
This action research aimed to improve students' understanding of addition and subtraction operations through the demonstration method in Mathematics for Grade 1 students at SDN Tamansari 07 Pagi, West Jakarta. The initial assessment revealed challenges faced by students in comprehending these fundamental mathematical concepts. The study utilized a *Classroom Action Research* approach with 32 students as participants. Data collection methods included documentation studies, observations, field notes, and tests. The research process involved two cycles, each comprising planning, action implementation, observation, and reflection stages. The implementation of the demonstration method in teaching addition and subtraction operations led to significant improvements in students' comprehension levels. The study showed a progressive increase in students' average scores from pre-test to post-test in each cycle, indicating enhanced learning outcomes. Students exhibited increased enthusiasm, better differentiation of addition and subtraction operations, and improved concentration during the lessons. Based on the research findings, it is recommended that educators consider incorporating the demonstration method into their teaching practices to enhance students' understanding of mathematical concepts. Continuous professional development on innovative teaching strategies, such as demonstrations, can benefit both teachers and students in achieving better academic outcomes in Mathematics. Further research could explore the long-term effects of the demonstration method on students' mathematical proficiency and investigate its applicability across different grade levels.
Keywords: Classroom Action Research, Demonstration, Mathematics, Subtraction Operations

1. Introduction

Mathematics, as one of the subjects in school, is highly valued due to its pivotal role in enhancing students' knowledge of logical, rational, critical, careful, effective, and efficient thinking (Jia, 2021). Therefore, students should master mathematical concepts as early as possible. The importance of first-grade students learning addition and subtraction operations lies in laying the groundwork for advancing to higher levels of education (Sidik et al., 2021; Isnawan et al., 2023). Since mathematics is a hierarchical subject, each sub-topic is closely related to the next (Son et al., 2020; Jelahu et al., 2023). Thus, first-grade students must truly excel in addition and subtraction operations as the initial foundation for learning subsequent mathematical topics.

The current situation regarding the learning outcomes of first-grade students in elementary school concerning addition and subtraction operations is not optimal (Sari et al., 2020). Out of 32 students, only 42% are proficient in performing addition and subtraction calculations (Pusporini et al., 2023). This is evident during the learning process, as the children appear bored, passive, and lacking enthusiasm. Despite efforts to improve, the results have not been maximized. One of the reasons

for this issue is that teachers have not employed appropriate media and methods that align with the students' needs, leading to passive, disruptive, and demotivated learning environments (Wirawan, 2020). Most of the teaching processes used are conventional, such as lectures, question-and-answer sessions, and assignments, resulting in teacher-dominated learning (Sudarsono et al., 2022). Therefore, there is a need to explore alternative teaching methods that can effectively enhance students' understanding of addition and subtraction operations.

To effectively deliver the material and ensure understanding by students, appropriate methods and media are required in teaching. First-grade elementary school students are still in the concrete operational stage of learning, which is why methods like using sticks (lidi) and demonstration are suitable for their education. Demonstration is a teaching method involving the demonstration of objects and the sequence of activities, either directly or through relevant teaching aids related to the subject or material being presented (Ya'kub, 2020; Isnawan & Sudirman, 20212). Media or teaching aids are components derived from the students' surroundings that can motivate them to learn and serve as stimuli for the learning process (Taufan et al., 2023; Sudirman et al., 2021). The benefit of media in the learning process is that it enhances interaction between teachers and students, making the learning activities more effective and efficient (Lubis et al., 2023).

Incorporating the use of modern technology, such as interactive apps and educational software, can also greatly enhance students' understanding and engagement in learning addition and subtraction operations (Higgins et al., 2017). Additionally, collaboration between teachers, experts, and partner teachers can contribute to the development of effective teaching methods and media. By involving experts and partner teachers in the development and implementation of innovative teaching methods and media, teachers can address the current challenges in teaching addition and subtraction effectively and ensure that students not only master the operations themselves but also develop a conceptual understanding of the underlying principles (Rahayu et al., 2021). Furthermore, incorporating multimedia technology in mathematics teaching can have a significant impact on enhancing students' understanding and interest in the subject. Teachers need to explore alternative teaching methods and incorporate appropriate media, such as sticks (lidi) and demonstrations, to enhance students' understanding of addition and subtraction operations. This study aims to explore and analyze the impact of implementing multimedia technology as a means for effective teaching in mathematics (Wu, 2014).

The study also aims to investigate the state of mathematics learning media in elementary schools and identify the need for developing interactive multimedia learning based on a guided inquiry approach to geometry materials for fifth-grade elementary schools. Based on the background issues mentioned above, the author attempts to conduct research titled: "Efforts to Improve Students' Understanding of Addition and Subtraction Operations through the Demonstration Method in Mathematics Subject for First Grade Students at SD Negeri Tamansari 07 Pagi, West Jakarta."

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2. Methods

Research Design

This action research study employed a Classroom Action Research (CAR) approach to investigate the effectiveness of the demonstration method in enhancing students' understanding of addition and subtraction operations in Mathematics. CAR was used because it was capable of solving problems in class. The research was conducted with Grade 1 students at SDN Tamansari 07 Pagi, West Jakarta, during the academic year 2020/2021. The study involved 32 Grade 1 students from SDN Tamansari 07 Pagi, West Jakarta, as the research subjects. These students were selected based on their participation in the mathematics classes focusing on addition and subtraction operations.

Data Collection Methods

Data collection methods included documentation studies, observations, field notes, and pre-and post-tests to assess students' comprehension levels before and after the intervention. The pre-test aimed to establish a baseline understanding of addition and subtraction operations, while the post-test evaluated the impact of the demonstration method on students' learning outcomes.

Research Process

The research process consisted of two cycles, each comprising four stages: planning, action implementation, observation, and reflection. In Cycle I, the researcher developed a lesson plan incorporating the demonstration method to teach addition and subtraction operations. Feedback from Cycle I was used to refine the intervention for Cycle II, aiming to further enhance students' understanding of the mathematical concepts.

Data Analysis

Quantitative data from pre and post-tests were analyzed using statistical methods to measure the effectiveness of the demonstration method in improving students' comprehension levels. Qualitative data from observations and field notes were analyzed thematically to identify patterns and trends in students' engagement and learning outcomes.

Ethical Considerations

Ethical considerations were considered throughout the research process to ensure the well-being and confidentiality of the participants. Informed consent was obtained from the school, teachers, and parents of the students involved in the study. By employing a systematic research method, this study aimed to provide valuable insights into the impact of the demonstration method on students' understanding of addition and subtraction operations in Mathematics.

3. Research Results and Discussion

The interview results conducted as part of the preliminary research revealed valuable insights into the initial conditions and challenges faced by Grade 1 students at SDN Tamansari 07 Pagi, West Jakarta. The key findings from the interview with the class teacher are as follows: (1) Student Demographics: The class consists of 32 students, comprising 19 boys and 13 girls. This gender distribution provides a basis for understanding potential differences in learning styles and preferences among male and female students. (2) Low Understanding of Mathematical Operations: The interview highlighted a common issue of low comprehension levels among students regarding addition and subtraction

operations. This observation underscores the need for targeted interventions to improve students' understanding of fundamental mathematical concepts. (3) Suboptimal Mathematics Learning Outcomes: The teacher expressed concerns about the suboptimal learning outcomes in Mathematics among the students. This indicates a gap between the expected proficiency levels and the actual performance of students in mathematical tasks. (4) Minimal Use of Teaching Methods: The interview revealed that there was a minimal utilization of diverse teaching methods in the classroom. This lack of instructional variety may have contributed to the challenges faced by students in grasping mathematical concepts effectively.

Overall, the interview findings provided a foundational understanding of the classroom dynamics and the specific challenges related to students' comprehension of addition and subtraction operations. These insights informed the design and implementation of the action research study, aiming to address the identified issues through the application of the demonstration method in teaching Mathematics to Grade 1 students.

The data on students' learning outcomes from the pre-research assessment revealed the following key points: (1) Low Proficiency Levels: The results indicated that students' proficiency levels in Mathematics, particularly around addition and subtraction operations, were notably low. Only 32.5% of the students achieved the minimum passing grade, while the remaining 67.5% fell below the Knowledge, Skills, and Attitudes (KKM) threshold. (2) Discrepancy from KKM: The data highlighted a significant gap between the actual learning outcomes of students and the predetermined KKM set by the school, which was established at 75%. This misalignment underscored the need for targeted interventions to enhance students' understanding and performance in mathematical operations. (3) Need for Improvement: The findings from the pre-research assessment emphasized the necessity for focused research and intervention strategies to address the identified learning gaps and improve students' proficiency in addition and subtraction operations. (4) Baseline for Comparison: The pre-research data served as a baseline for comparison with the post-research assessment results, enabling the evaluation of the effectiveness of the intervention (demonstration method) in enhancing students' learning outcomes over the course of the study.

Overall, the pre-research data on students' learning outcomes provided valuable insights into the initial proficiency levels and challenges faced by Grade 1 students in mastering addition and subtraction operations. These findings guided the development of targeted interventions to support students in improving their mathematical comprehension and performance throughout the research study.

In the first cycle of the classroom action research, the implementation of the demonstration method in teaching addition and subtraction operations to Grade 1 students at SDN Tamansari 07 Pagi, West Jakarta, was carried out. Despite the limited duration of this cycle, which spanned only one session, there was a range of proficiency levels observed among the students. Some students showed improvement in understanding addition and subtraction operations, while others still faced challenges in grasping the concepts. Although the first cycle was brief, there were initial signs of progress in students' learning outcomes. The outcomes of Cycle 1 provided valuable feedback for the researcher to reflect on the effectiveness of the intervention and identify areas for improvement in subsequent cycles. The data from Cycle 1 served as a foundation for planning and implementing Cycle 2,

aiming to refine intervention strategies and enhance students' learning experiences further.

Planning of action in Cycle 1

The planning of action in Cycle 1 involved the observation of the mathematics learning process in Grade 1 to identify challenging topics for students and assess the effectiveness of the current teaching methods. Based on the observations and initial data collected, it was evident that some students at SDN Tamansari 07 Pagi, West Jakarta, struggled with understanding addition and subtraction operations. To address this issue, the decision was made to implement the demonstration method as an alternative teaching approach. Following the elementary school syllabus for Grade 1 on Addition and Subtraction Operations, the researcher selected specific topics and indicators that aligned with the student's learning needs. The choice of these topics was influenced by the fact that a small percentage of students had not mastered them, possibly due to a lack of suitable teaching aids and explanations. The action plan for Cycle 1 aimed to enhance students' understanding of addition and subtraction operations through the demonstration method, emphasizing active student participation, engagement, and reinforcement of the key concepts. The planning phase set the stage for the subsequent implementation of the action plan, focusing on improving students' mathematical comprehension and performance in Grade 1.

Implementation of the action plan in Cycle 1

The implementation of the action plan in Cycle 1 involved a structured approach to enhance students' understanding of addition and subtraction operations using the demonstration method. The session took place on Wednesday, October 20, 2021, from 8:00 to 9:30 AM. The steps included preparing the students for the lesson, introducing the theme, engaging them in counting exercises, stating clear learning objectives, assessing their prior knowledge through a question-and-answer session, presenting the lesson material on addition and subtraction, demonstrating the operations using wooden sticks as visual aids, encouraging active student participation and discussion, facilitating a question-and-answer session to reinforce learning, and providing clarification on the concepts covered. The interactive nature of the session aimed to deepen students' comprehension and application of addition and subtraction concepts, fostering a more engaging and effective learning experience.

Observation Results Cycle I

In Cycle 1, the performance of the teacher was observed during the implementation of the demonstration method to enhance students' understanding of addition and subtraction operations. The researcher monitored the teacher's delivery of the lesson and interaction with the students to ensure alignment with the intended learning outcomes. While the demonstration method was employed effectively to engage students and facilitate learning, there were some areas identified for improvement. The observation revealed that certain indicators highlighted areas where the teacher could enhance their teaching approach to further support student learning. These insights from the teacher's performance evaluation in Cycle 1 provided valuable feedback for refining instructional strategies and optimizing the teaching process in subsequent cycles. The focus was on addressing any shortcomings and enhancing the effectiveness of the teaching methodology to improve student outcomes in mathematics.

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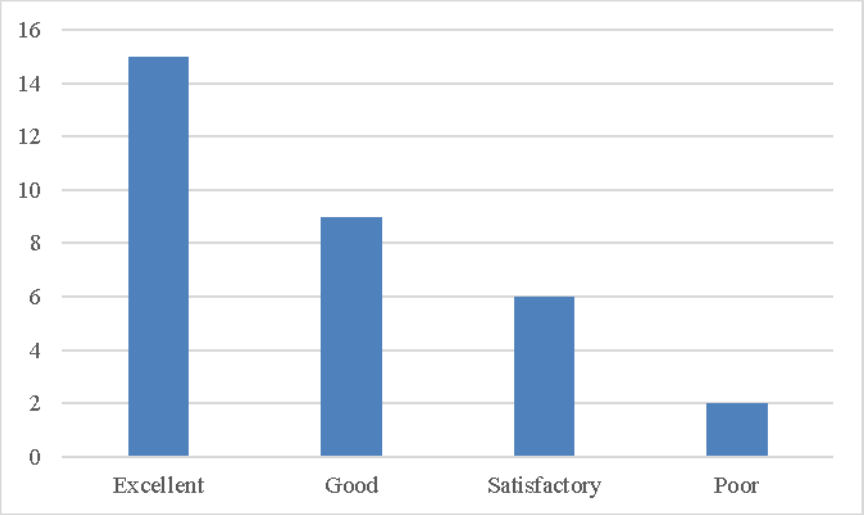
The next, in Cycle 1, the behavior of students was closely observed during the implementation of the demonstration method for teaching addition and subtraction operations. The researcher monitored the students' engagement, participation, and interaction during the lesson to assess their behavior and level of involvement in the learning process. The observation of student behavior revealed varying levels of active participation and attentiveness during the lesson (Figure 1).

Figure 1

Student behavior observation results cycle 1



Based on the diagram above, it can be observed that there are 15 students in the "Excellent" category, 9 students in the "Good" category, 6 students in the "Satisfactory" category, and 2 students in the "Poor" category. Some students demonstrated high levels of engagement, asking questions, and actively participating in activities, while others showed less involvement and required additional encouragement to participate. Overall, the behavior of students in Cycle 1 reflected a range of responses to the teaching method employed, with opportunities identified to further enhance student engagement and participation in future lessons. The insights gained from observing student behavior provided valuable feedback for adjusting instructional strategies and fostering a more interactive and dynamic learning environment in subsequent cycles.

In Cycle 1, the learning outcomes of students were assessed following the implementation of the demonstration method for teaching addition and subtraction operations. Based on the results of Cycle I, it is evident that the students' abilities in mathematics, specifically in numerical operations, remain low. The mastery rate achieved by students in Cycle I was 56.25%, corresponding to 18 students, while 43.75%, or 14 students, did not meet the Minimum Competency Standards (MCS) (Table 1). The outcomes from Cycle I indicate that the success indicators, set at 75%, were not met. Consequently, the researcher will proceed to Cycle II.

Table 1
Learning outcomes of students Cycle I

Category	Value
Max	80
Min	60
Average	69.69
Certainty	56.25%

Based on Table 1 the results of cycle I show that the ability of students in mathematics subjects about number counting operations is still low. The completeness of learning outcomes obtained by students in the first cycle was 56.25% or as many as 18 students while the scores that had not reached KKM were 43.75% or as many as 14 students. The results of cycle I, indicate that the success indicator has not been achieved, which is 75%, so researchers will continue cycle 2.

The researcher evaluated the student's performance and understanding of the mathematical concepts covered in the lesson. The assessment of student learning outcomes indicated a range of achievements among the students. Some students demonstrated a strong grasp of the addition and subtraction operations, showcasing proficiency in applying the concepts taught. However, some students exhibited challenges in fully comprehending and applying the mathematical principles, indicating areas that required further support and reinforcement. Overall, the learning outcomes of students in Cycle 1 reflected a mix of achievements and areas for improvement, highlighting the need for differentiated instruction to cater to the diverse learning needs of the students. The assessment of student learning outcomes provided valuable insights for adjusting teaching strategies and interventions to enhance student comprehension and mastery of addition and subtraction operations in subsequent cycles.

In the reflection on Cycle 1, the researcher critically analyzed the implementation of the demonstration method for teaching addition and subtraction operations. The reflection involved a thorough review of the teaching strategies, student engagement levels, learning outcomes, and overall effectiveness of the instructional approach. The researcher assessed the strengths and weaknesses of the demonstration method in facilitating student understanding and application of mathematical concepts. Areas of improvement were identified based on the observation of teacher performance, student behavior, and learning outcomes in Cycle 1. The reflection process aimed to pinpoint areas for enhancement and refinement in subsequent cycles to optimize the teaching and learning experience. Insights gained from the reflection on Cycle 1 informed adjustments to instructional practices, lesson delivery, and student engagement strategies to better support student learning and achievement in future iterations of the action research project.

The researcher conducted a reflection on the implementation and observation of Cycle II by analyzing the average percentage of formative test scores. The results of the implementation and observation of Cycle 2 are as follows: Based on the data of the achieved scores above, it turns out that the learning outcomes of Mathematics for first-grade students at SDN Tanah Sereal, West Jakarta, with students who passed reached 87.5%. This indicates that Mathematics learning using the Demonstration method was successful. Since the students' learning outcomes in

Cycle II reached above the Minimum Completion Criteria (KKM) of 70%, this research is considered successful. Based on the data presented in Table 4.8, Table 4.9, and Graph 4.5 above, it is evident that students' learning outcomes in Mathematics, specifically regarding addition and subtraction operations in first grade at SDN Tanah Sereal using the Demonstration method in Cycle 2, improved compared to Cycle I. This is demonstrated by the average learning outcomes of students in Cycle II, reaching 75.63%, an increase from 69.69% in Cycle I. In terms of percentage, students' understanding reached 87.5%, an increase from 56% in Cycle I. This indicates that students have a good understanding of addition and subtraction operations.

The data results of Cycle 2 were analyzed after evaluating and reflecting on the implementation of teaching actions conducted by the teacher in Cycle 1. In Cycle 2, the researcher continued and refined the actions initiated in Cycle 1, focusing on improving the data collection instruments for assessing student learning.

a) Planning of Cycle 2 Actions:

Following the completion of teaching in Cycle 1, the researcher proceeded with Cycle 2 by addressing the shortcomings identified in Cycle 1. After reflection, the researcher aimed to make improvements by optimizing classroom arrangements for group distribution before the lesson, motivating students by praising their willingness to express opinions, simplifying questions for better student understanding, and crucially, providing guidance to students during discussions in expert and origin groups.

b) Implementation of Cycle 2 Actions:

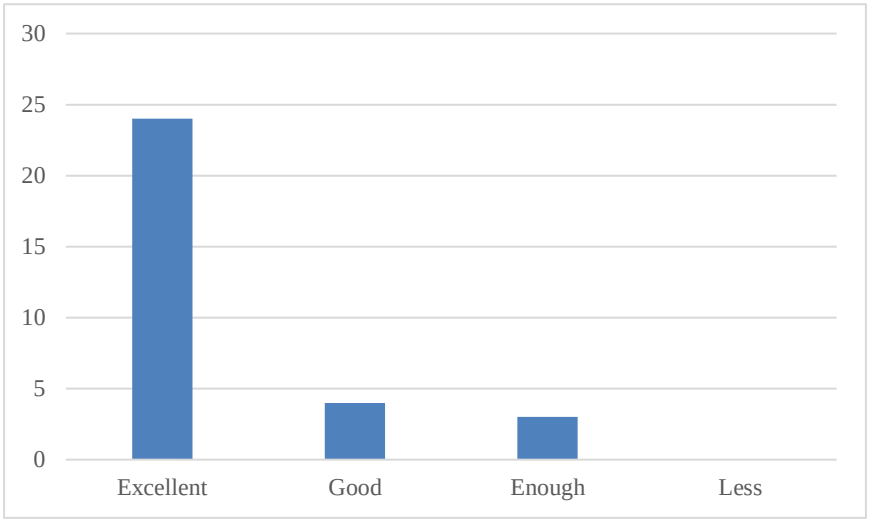
The implementation of actions took place on Wednesday, October 20, 2021, from 08:00 to 09:30, following these steps: (1) Conditioning students to be ready for learning. (2) Informing students about the theme to be learned.

The actions in Cycle 2 were designed to build upon the successes and challenges identified in Cycle 1, with a focus on enhancing student engagement, understanding, and participation in the learning process. The adjustments made in Cycle 2 aimed to create a more conducive learning environment and improve student outcomes in mathematics.

Observation Results of Cycle 2

The observation results of Cycle 2 revealed significant improvements in the implementation of teaching activities compared to the previous cycle. Observers assessed the activities of the teacher during the instructional process in Cycle 2 and noted several positive changes. The evaluation indicated that the average score obtained during the learning activities in Cycle 2 was 40, categorizing it as "Very Good." These improvements were a result of adjustments made based on the reflections from Cycle 1. The observation of teacher behavior and student engagement in Cycle 2 showed a positive impact on student learning outcomes (Figure 2). Student activities were assessed through individual observations, with the average activity score reaching 26.00, falling under the "Good" category. The data from the observations highlighted the enhancements made in Cycle 2, emphasizing the importance of continuous improvement in teaching practices to enhance student engagement and learning outcomes.

Figure 2
Student behavior observation results cycle 2



Based on the diagram above. The "Very Good" category is 24 students, the "Good" category is 4 students. The "Enough" category is 3 students and the "Less" category is 0 students.

Table 2
Learning outcomes of students Cycle II

Category	Value
Max	85
Min	65
Average	75.63
Certainty	75.63%

Based on the results of cycle II (Table 2) show that the ability of students in mathematics subjects about number counting operations begins to increase. The completeness of learning outcomes obtained by students in the first cycle was 75.63% or as many as 28 students while the scores that had not reached KKM were 23.36% or as many as 4 students. The results of cycle II indicate that success indicators have been achieved.

Reflection on Cycle 2

In the reflection on Cycle 2, the researcher analyzed the outcomes and observations from the second cycle of the action research project. The reflection involved a critical assessment of the teaching strategies, student responses, and overall effectiveness of the instructional methods employed in Cycle 2. The researcher evaluated the impact of the adjustments made based on the feedback and data collected during Cycle 1. The reflection process aimed to identify the strengths and weaknesses of the teaching approach in Cycle 2 and determine the extent to which the objectives of the research were achieved. Insights from the reflection on Cycle 2 provided valuable information for refining teaching practices, enhancing student engagement, and improving learning outcomes in future iterations of the action research project. The reflection highlighted the importance of continuous

assessment and adaptation in optimizing the teaching and learning process to meet the diverse needs of students and ensure meaningful educational experiences.

The discussion section of the research paper focused on analyzing and interpreting the data collected throughout the study to address the research questions and objectives. It involved a detailed examination of the results obtained from the implementation of the demonstration method and the use of lidi media to enhance students' understanding of addition and subtraction operations in mathematics. The discussion highlighted the improvements in student learning outcomes observed during the study, including the increase in students' proficiency in mathematical calculations over the course of multiple cycles.

Furthermore, the discussion delved into the implications of the findings, emphasizing the significance of using innovative teaching methods, such as demonstrations and multimedia aids, to engage students effectively and improve their mathematical skills. The study also explored the practical implications of the research results for educators and policymakers, suggesting the potential benefits of incorporating similar teaching strategies in primary school mathematics education. Overall, the discussion section provided a comprehensive analysis of the research findings, offering insights into the effectiveness of the demonstration method and media utilization in enhancing students' mathematical abilities and fostering a conducive learning environment in the classroom.

The results of classroom action research that have been carried out show that the problems that arise when the mathematics learning process takes place are because the method used so far is teacher-centered, namely the lecture method, so that students are passive, mastery of the material is only rote, and finally the learning results are not optimal. Based on the results of classroom action research that has been conducted by researchers, the use of appropriate methods can affect student learning outcomes and activities. The use of the mathematics learning demonstration method for grade I students of SDN Tanah Sereal West Jakarta is proven to increase student understanding.

Learning activities aimed at improving the abilities of first-grade elementary students in adding and subtracting numbers require appropriate methods and media. According to Arni et al., (2023), media can be interpreted as an intermediary or liaison between two parties, namely between the source of the message and the recipient. First-grade students will not succeed in learning if they rely solely on memorizing concepts. It is important to remember that these students are still very much engaged in play and truly need tangible tools to understand concepts effectively. Therefore, it would be beneficial to use concrete objects as aids in the learning process. Before conducting the classroom action research, researchers, assisted by several teachers, carried out field observations as a preliminary action. This activity aimed to determine the level of students’ mastery in performing addition and subtraction operations in mathematics. The initial observations revealed that students' abilities to perform these calculations were still low, primarily because the teaching methods used were still conventional.

From these data, it can be concluded that the operations of addition and subtraction have not been successful. Consequently, researchers have tried to improve students' ability to perform these operations by using demonstration methods and clay media. Real media can enhance students' computational skills. This aligns with Bruner's theory, which states that in the learning process, children

should be given the opportunity to manipulate objects and tinker with props, thereby enhancing their understanding of mathematical concepts. Therefore, teachers should use media in the teaching and learning process to stimulate students and optimize their intellectual development. After conducting classroom action research, researchers evaluated each cycle to determine whether there was an improvement in student abilities. Based on observations with pre-established criteria, students' abilities in performing operations such as calculating, adding, and subtracting increased from 32% in the pre-cycle to 65% in Cycle I—an increase of 33%. This further increased by 22% in Cycle II, reaching 87%.

With the use of demonstration methods and visual media, students are actively involved in the teaching and learning process. They can manipulate the media, playing an active role in learning to understand mathematical concepts and developing intellectual skills. This approach aligns with Bruner's theory, which suggests that children should be given the opportunity to manipulate objects and tinker with props to better understand mathematical concepts. Therefore, teachers should utilize media in the teaching and learning process to stimulate learning and optimize students' intellectual development. The application of demonstration methods and visual media in this study also showed improvement, increasing from 61% in Cycle I to 84% in Cycle II. Some may argue that using demonstration methods and visual media in teaching addition and subtraction operations to first-grade students may be time-consuming and resource-intensive (Nawangsari et al., 2022). However, the benefits outweigh the drawbacks. By incorporating demonstration methods and visual media, students are able to grasp mathematical concepts more effectively and actively engage in the learning process(Azizah & Kumala, 2023).

While the use of demonstration methods and visual media may have shown improvement in students' understanding of addition and subtraction operations, it is important to consider the potential drawbacks of relying too heavily on these tools (Radu et al., 2020). Some educators argue that over-reliance on concrete objects and visual aids can lead to a lack of conceptual understanding (Mutodi & Ngirande, 2017). When students become accustomed to using physical manipulatives to solve mathematical problems, they may struggle to transition to more abstract forms of reasoning and problem-solving. In addition, the use of demonstration methods and visual media may not adequately challenge students to develop mental arithmetic skills, as they become reliant on external aids to perform calculations.

4. Conclusion

The study concluded that the implementation of the demonstration method and the use of lidi media significantly improved the students' ability to perform addition and subtraction operations at SDN Tamansari 07 Pagi. Through a series of cycles, including pre-cycle, Cycle 1, and Cycle 2, there was a noticeable increase in students' proficiency in mathematical calculations. The utilization of the demonstration method and lidi media not only enhanced student engagement but also clarified the understanding of addition and subtraction concepts, leading to active participation in learning activities. The improved learning activities and enjoyable learning environment contributed to the enhancement of students' skills in performing addition and subtraction operations in Class 1 at SDN Tamansari 07 Pagi. The study demonstrated the effectiveness of the demonstration method and

the use of appropriate teaching aids in promoting student learning and achievement in mathematics.

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