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Improving Thematic Learning Outcomes on Number Place Value using the Demonstration Method and Glass Media

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Abstract
This research is motivated by the poor learning outcomes of the first-grade students at SDN Grogol Utara 09. So far, in learning Mathematics, teachers only emphasize cognitive aspects. Where the teacher explains a lot of material and gives questions to students without paying attention to how well students understand the subject. This in turns push the students to get bored quickly and are not enthusiastic about learning. As a result, interest and learning outcomes in mathematics decrease. The purpose of this study was to find out whether student learning outcomes have increased in terms of place value in numbers using the demonstration method and glass media in grade 1 students at SDN Grogol Utara 09. This research was conducted in two cycles on the material place value in numbers. Based on the results of the improvement, it turned out that it was able to increase the achievement of grade 1 students at SDN Grogol Utara in Mathematics. It was proven by obtaining the class average scores in the 1st cycle improvement, namely 62.5 and 79.5 in the 2nd cycle improvement. It was stated that there was an increase of 17 points. Thus, the use of the Demonstration method with glass media in learning Mathematics about determining place value in numbers turns out to be able to improve grade 1 student achievement at SDN Grogol Utara 09 in Mathematics.

Keywords: Learning outcomes, demonstration methods, learning media

Introduction

Education is an effort to prepare students for their future roles as members of society. To be able to deal with that inquiry quality education is needed, starting from basic education called elementary school, to higher education. In elementary school there are many subjects needed to be studied and one of them is Mathematics. Learning Mathematics can be adapted into the development of elementary school children, in addition to the compatibility between the amount of material in the curriculum and the available allocations that are adapted to the intellectual development or cognitive structure and learning experience that children have acquired. Many cases show that the implementation of learning often encounters obstacles. In general, in learning mathematics the teacher only emphasizes cognitive aspects. Where the teacher explains a lot of material and gives questions to students without paying attention to the extent to which students understand the material being taught. This makes students get bored quickly and are not enthusiastic about learning. As a result, interest and learning outcomes in mathematics decrease. This problem is found in class I students at SDN Grogol Utara 09 in the daily assessment activities, there are still student learning outcomes that are incomplete or below the KKM in the thematic Mathematics lesson about determining place value in numbers.

Based on the information received by the author, the reason is that the use of learning methods applied by the teacher is often monotonous and the teacher is less creative in explaining the material provided so that students are less enthusiastic in learning so that students are still focused on other activities, such as playing or talking to friends next to them. Therefore, the teacher should explain the objectives, benefits and learning activities that will be carried out and when the learning takes place, the teacher should invite students to be active so that students focus on the material by adding interesting learning methods. From a number of existing methods, the demonstration method with glass media is a suitable method and media to solve the

problem. According to Sri Anitah (2017), the Demonstration Method is a teaching method that presents learning material by demonstrating directly objects or ways of doing something so that you can learn it in a process.

Based on the background stated above, the research problem is to find out whether there an increase in student learning outcomes about place value in numbers with the demonstration method and glass media in grade 1 students at SDN Grogol Utara 09 South Jakarta. The purpose of this remedial research is to find out if there is an increase in student learning outcomes regarding place value in numbers using the demonstration method and glass media in grade 1 students at SDN Grogol Utara 09 South Jakarta in the 2022/2023 academic year. the results of the remedial research are useful for students to increase students' learning motivation in Mathematics, to increase students' mastery of Mathematics learning material and to improve Mathematics learning outcomes. Benefits for teachers to be able to play an active role in developing their own knowledge and skills and to increase the activity of teachers and students in learning. The benefits for schools are to improve the quality of school education, improve the quality of graduates, provide input for the advancement of education.

Discussion of Most Relevant Literatures

Demonstration Method

The Demonstration Method is a teaching method that presents learning material by demonstrating directly objects or how to do something so that you can learn it in a process way. (Sri Anitah, 2017). According to Asmidar Parapat (2020), the demonstration method is a method of presenting lessons by demonstrating to students about a certain process, situation or object, either real or just an imitation. As a demonstration presentation method, it cannot be separated from the verbal explanation. Even though in the demonstration process the role of the child is just paying attention, the demonstration can present more concrete learning material. From this statement, it can be concluded that the demonstration method is a teaching method that presents props and shows objects directly to students to make it easier for creative students to understand the material. As for the advantages and disadvantages of the demonstration method according to Sanjaya, W. (2006) quoted by Halim Simatupang (2019), namely through the demonstration method the occurrence of verbalism can be avoided, because students immediately pay attention to the lesson material explained, the learning process will be more interesting, because students not only hear, but also see events that occur, by observing directly students will have the opportunity to compare theory and reality; and thus students will have more confidence in the truth of the learning material. In addition, the demonstration method also has several weaknesses, namely the demonstration method requires more thorough preparation, because without adequate preparation the demonstration can fail so that it can make this method no longer effective. In fact, it often happens that to produce a performance of a certain process, the teacher must be able to try it several times first, so it can take a lot of time, demonstrations require adequate equipment, materials and places which means using this method requires more expensive financing compared to lectures, demonstrations require special teacher abilities and skills, so teachers are required to work more professionally. In addition, the demonstration method also requires good teacher abilities and motivation for the success of the student learning process.

Learning Media

According to Muhestyo (2015: 2.3), media is a learning tool that is deliberately planned to be prepared or provided by the teacher to present and or explain lesson material, and is used by students to be directly involved with learning mathematics. In this sense the use of learning media aims to make information or teaching materials acceptable and well absorbed by students. So that there is a change in student behaviour both in knowledge, attitudes and skills.

The types of learning media can be grouped based on sensory perception, including audio media, which is media that uses the sense of hearing as an intermediary in conveying media content or relying on sound alone in its use. Visual media is media that uses the sense of sight as an intermediary or in conveying media content. Audio Visual Media is media that combines the senses in audio media and visual media. Audio visual media uses the senses of sight and hearing as intermediaries in conveying content.

Learning outcomes

Learning outcomes are used as a measuring tool to determine how far a person has mastered the material being taught. According to Hamalik quoted by Haryanto (2022), "Learning outcomes are the occurrence of a change in behaviour or character in a person that can be observed and also measured in the form of

knowledge, attitudes and skills. We can interpret this change as an increase and also develop a better one, which previously did not know, it will become known. Meanwhile, according to Sudjana he stated that learning outcomes are abilities possessed by students after they receive experience about learning. Based on this statement, what is meant by student learning outcomes is a measure of the success of students' abilities obtained after going through learning activities and a measure of success in mastering the material expressed in good grades in the form of report cards and other reports. According to Munadi (Rusman, 2012), the factors that influence learning outcomes, quoted from Abdulrahim Maruwae, include internal factors and external factors. Internal factors consist of physiological factors, in general physiological conditions such as excellent health, not in a state of fatigue, and not in a state of physical disability, and so on. This can affect students in receiving the subject matter. Psychological factors, each individual, in this case students, basically have different psychological conditions, of course this also influences their learning outcomes. Several psychological factors include intelligence (IQ), attention, interests, talents, motives, motivation, cognitive, and reasoning power of students. External factors consist of environmental factors, environmental factors can affect learning outcomes, these environmental factors include the physical environment and social environment. Natural environment such as temperature, humidity and others. Studying during the day in a room with minimal air circulation will be very influential and will have a difference when the learning process is carried out in the morning when the environmental conditions are still fresh and have sufficient air circulation. Instrumental factors, instrumental factors are factoring whose existence and use are designed in accordance with the expected learning outcomes, and can function as a means to achieve the planned learning objectives. These instrumental factors are in the form of curriculum, facilities and lecturers.

Relation Between Demonstration Methods and Learning Outcomes

The demonstration method is a teaching method that presents props and shows objects directly to students to make it easier for creative students to understand the material. While student learning outcomes are a measure of the success of student abilities obtained after going through learning activities and a measure of success in mastering the material is expressed in good grades in the form of report cards and other reports. By using the demonstration method and utilizing the media, the teacher can provide material in the form of very clear pictures or concrete objects. Besides that, make experience directly to students so as to stimulate learning activities in students. With that students can ultimately foster motivation to learn in students so as to improve learning outcomes. According to Chofshoh (2018), "Through interactions with interesting real objects, children, especially low-grade students, will get a lot of information so that their understanding will be more easily formed."

Method

The research subjects were 20 students. The research was carried out in class I at SDN Grogol Utara 09. The time used for the research began on October 12 2022 until October 28 2022, semester 1 of the 2022/2023 school year with the subject Mathematics with the material determining the place value of numbers in class I SDN Grogol Utara 09 1. Implementation of cycle 1 on Thursday 20 October 2022. Cycle 2 was carried out on Friday 28 October 2022. This research was planned in two cycles. Each cycle consisted of several stages, namely: (1) planning; (2) implementation of actions consisting of initial activities, core activities and final activities; and (3) observation and data collection; and (4) reflection. Data analysis in this study uses quantitative and qualitative. Quantitative data regarding the evaluation results of student learning in each cycle were collected using a learning achievement test, the data was analyzed descriptively quantitatively. While qualitative data were obtained from observation sheets using the PKP 1 Simulation Assessment Tool (APKG-PKP 1) and the PKP Simulation Assessment Tool 2 (APKG-PKP 2) and were analyzed descriptively qualitatively.

No.	Components assessed	Average Score
1.	Determine learning improvement materials and formulate Learning Improvement Objectives/Indicators.	5
2.	Develop and organize materials, determine themes, media (learning aids) and learning resources	4,5
3.	Planning learning improvement scenarios	4,6
4.	Planning class processing improvement learning	4,5

5.	Plan procedures, types and prepare learning improvement assessment tools	4
6.	Display of the learning improvement plan document	4,5
Amount		**27,1**
Percentage of APKG 1 PKP PGSD		**90**

Table 1. Cycle I Planning

Based on table 1, the description of the teacher's ability to plan learning includes (1) objectives, learning materials and formulating improvement indicators in learning improvement plans in accordance with the curriculum. This has been arranged in detail and clearly. (2) it is necessary to pay more attention to the inclusion of materials, topics, learning media and learning resources that are made to suit the problems and needs of students. (3) in planning learning improvement scenarios, it is necessary to fix points regarding the types of learning improvement activities/according to the theme and the organization of learning steps. In determining the time allocation, it is very good to have directed learning steps by including the time allocation, how to motivate students, and prepare learning. (4) the design of student participation must be given more attention, while the spatial planning design is very good. (5) in determining the procedures, types and tools of cognitive and psychomotor assessment are very well planned. It is necessary to make an answer key so that it is easy to correct after the knowledge assessment is carried out. (6) the use of written language is a note for further improvement in cycle 2.

No.	Components assessed	Average Score
1.	Determine learning improvement materials and formulate Learning Improvement Objectives/Indicators.	5
2.	Develop and organize materials, determine themes, media (learning aids) and learning resources	5
3.	Planning learning improvement scenarios	4,8
4.	Planning class processing improvement learning	4,5
5.	Plan procedures, types and prepare learning improvement assessment tools	5
6.	Display of the learning improvement plan document	4,5
Amount		**28,8**
Percentage of APKG 1 PKP PGSD		**96**

Table 2. Cycle 2 Planning

Based on table 2 below, the description of the teacher's ability to plan learning shows behaviour, including (1) in determining learning improvement materials, objectives and indicators compiled in a learning improvement plan in accordance with the applicable curriculum, according to the problems being corrected and accompanied by detailed and clear descriptions . (2) the organization of learning materials adapts to the development of class I theme networks. Likewise, the preparation of learning aids and learning resources to support learning has been planned in accordance with the teaching materials in the curriculum. (3) in planning learning improvement scenarios, it is necessary to pay more attention to re-planning the sequence of learning steps so that activities are more structured. This will produce good results. (4) a redesign of learning facilities has been carried out so that it is easily accessible to students and more efficient. However, it has not shown a good increase. The researcher encountered a problem in designing placing the Indonesian map props so that they could face the students, this was because the blackboard was positioned next to the tables and chairs. (5) in determining the procedures, types and tools of cognitive and psychomotor assessment are very well planned. (6) the RPP documents submitted contain effective written language so that they are easy to understand.

No.	Components assessed	Average Score
1.	Managing study rooms and facilities	4,5
2.	Carry out learning improvement activities	4,7
3.	Manage class interaction	5
4.	Be open and flexible and help develop students' positive attitudes toward learning	4,2

5.	Demonstrating special abilities in improving the learning of Mathematics	4,5
6.	Carry out an assessment of the process and learning outcomes	4,5
7.	General impression of the implementation of learning	4,5
Amount		**31,9**
Percentage of APKG 2 PKP PGSD Values		**91**

Table 3. Implementation: Cycle 1

Based on table 3, the ability to plan teacher learning shows behaviour, namely (1) they are able to arrange rooms and learning facilities according to their needs, so that students are also easy to use media and teaching aids. (2) simulation of the implementation of learning improvements that are carried out according to the circumstances and learning environment. (3) very good at managing student interactions by providing instructions, questions, responses both verbally, in writing, gestures & body movements so as to trigger student involvement in learning. (4) it is necessary to increase openness and flexibility in learning, so that students can realize their strengths and weaknesses. And can foster student self-confidence. (5) have been able to demonstrate methods, media/tools, and increase student involvement in thematic learning of Mathematics. (6) have carried out assessments both during the process and at the end of the learning process. (7) in general, gives a very good impression of language use, and is responsive to students' language errors.

No.	Components assessed	Average Score
1.	Managing study rooms and facilities	5
2.	Carry out learning improvement activities	5
3.	Manage class interaction	5
4.	Be open and flexible and help develop students' positive attitudes toward learning	5
5.	Demonstrating special abilities in improving the learning of Mathematics	4
6.	Carry out an assessment of the process and learning outcomes	5
7.	General impression of the implementation of learning	4,8
Amount		**33,8**
Percentage of APKG 2 PKP PGSD Values		**97**

Table 4. Implementation: Cycle 2

Table 4 describes the teacher's ability to plan learning, namely (1) in implementing learning improvements, the teacher has arranged learning spaces and facilities according to needs and is not difficult to use. (2) in carrying out learning it is in accordance with the sequence of core learning activities which become more focused (3) students have interacted harmoniously so that students become more actively involved in learning. (4) have implemented an open and flexible attitude in learning, so that students can realize the strengths and weaknesses of students. And can foster student self-confidence. (5) the learning delivered in the implementation of learning improvement is appropriate, systematic and there are generalizations made with students. (6) have carried out an assessment to find out students' understanding during the learning process, both through the signs shown by students and carrying out the final evaluation according to the objectives. (7) has given a very good impression in the use of language, and is responsive to students' language errors.

No.	N(Value)	F	N.F	Complete	Remedial
1	90	4	360	√	

2	80	1	80	√	
3	70	4	280	√	
4	60	1	60		√
5	50	6	300		√
6	40	4	160		√
Amount	390	20	1250		
Average value			62,5		
Complete				9 Students (45%)	
Incomplete					11 Students (55%)

Table 5. Learning Outcomes of Cycle 1

It can be concluded that learning has not been successful because it has not achieved completeness in accordance with the expected success indicator, namely 80% of the number of students. The learning outcomes of 20 students in cycle 1 are as follows (1) 4 students who got 90, (2) 1 student who got 80, (3) 4 students who got 70, (4) got a score of 60 achieved by 1 student, (5) who got a score of 50 achieved by 6 students, (6) who got a score of 40 achieved by 4 students.

No.	Score	F	N.F	Complete	Remedial
1	90	7	630	√	
2	80	7	560	√	
3	70	5	350	√	
4	50	1	50		√
Amount	290	20	1.590		
Average score					
Complete				19 Students (95%)	
Incomplete					1 Student (5%)

Table 6. Learning Outcomes of Cycle 2

The learning achievement obtained by students based on cycle 2 shows the result that the highest score is 90 obtained by 7 students, the value of 80 is obtained by 7 students, the value of 70 is obtained by 5 students and the lowest score is 50 obtained by 1 student. All students were declared complete in this study with an average class score of 79.5, thus the average student score was more than 65 (KKM determined by the school).

Results and Discussion

Planning the results of observations on learning improvement planning using APKG-PKP 1 obtained the following data

Cycle 1 got a score of 90 while cycle 2 got a score of 96. There was an increase of 6 points. Teachers have good skills and knowledge in terms of determining learning improvement materials and formulating learning improvement objectives/indicators because they have included learning materials, improvement objectives, and learning indicators in learning improvement plans, and planning learning improvement scenarios found teachers re-planning the sequence of steps learning so that activities are more structured. In addition, the teacher also has several weaknesses in planning learning improvements, namely: Need to pay more attention to spatial planning, this is because students are still less flexible in moving,

Implementation of the results of the assessment of the repair simulation using APKG-PKP 2 obtained the following data:

In cycle 1 it shows a score of 91 while cycle 2 gets a score of 97. This shows an improvement of 6 points. The teacher shows good skills in several ways, namely: (1) The teacher gives instructions and explanations in a directed and easy-to-understand way for students related to learning content, (2) The teacher always responds to every question and provides answers and instructions that are easy for students to understand, (3)) The teacher also provides variations in interacting with students, for example by giving oral expressions, writing, gestures and body movements according to the context of the conversation. However, the teacher also needs to pay attention to the following unfavourable things, (4) Inappropriate time management, (5) In general, the teacher's appearance is very good and attractive, it's just that the use of teaching aids is less effective.

Chart 3. Student learning outcomes in the implementation of learning improvements

It can be described several improvements in student competence. These improvements include (1) Students get the highest score of 90 in both cycles. This means that students have experienced an increase in knowledge since cycle 1 was implemented. (2) The lowest student scores in both cycles experienced a significant increase. The lowest score in cycle 1 was 40 (quality grade E or not reaching KKM), increased in cycle 2 to 50. The student's lowest score increased to 10 points. (3) The class average score also increased. At first the average value of cycle 1 was 62.5, while the average value of cycle 2 was 79.5, so an increase of 17 points was obtained. (4) KKM achievement increases. In cycle 1 only about 9 students or 45% of students who had reached KKM or completed, increased to 19 students or 95% in cycle 2. The number of students who completed the achievement increased by 50%. (5) Conversely students who have not completed decreased by 50%. The use of the Demonstration method with glass media in Mathematics thematic learning about determining place value in numbers turned out to be able to improve the thematic Mathematics learning outcomes for grade 1 students at SDN Grogol Utara 09 who before carrying out improvements to learning values of student learning outcomes experienced incomplete KKM. During the implementation of learning improvements, there are advantages, namely the use of media teaching aids that are able to increase student understanding, so that student learning outcomes increase. While the weakness in the simulation of implementation of learning improvements is that there are still students who are not focused and do not follow the lesson well, so that their learning outcomes are still below the class average. This is in line with the opinion of Chofshoh (2018), "Through interactions with interesting real objects, children, especially low-grade students, will get a lot of information so that their understanding will be more easily formed."

Conclusion

Based on the results of learning improvement, it can be concluded that the use of the Demonstration method with glass media in Mathematics learning about determining place value in numbers was actually able to improve Mathematics thematic learning outcomes for class 1 students at SDN Grogol Utara 09. It was proven by obtaining an average value for cycle 1 class of 62 .5 and cycle 2 of 79.5. It was stated that there was an increase of 17 points. The use of demonstration methods using glass media was also able to improve teacher performance. The increase in results in improving learning is indicated by the existence of advantages such as the teacher providing instructions and explanations in a directed and easy to understand way for students related to learning content, the teacher also provides variations in interacting with students, for example by giving oral expressions, writing, gestures and body movements that are appropriate with the context of the conversation. In addition, there are also weaknesses such as inappropriate time management, in general the teacher's appearance is very good and attractive, it's just that the use of teaching aids is less effective.

Based on the conclusions above, the suggestions that can be put forward include the following: Because the teacher provides instructions and explanations in a directed and easy to understand way for students related to learning content. It would be nice for the teacher to maintain the use of demonstration methods and glass media in classroom learning, because the teacher also provides variations in interacting with students, for example by giving oral expressions, writing, gestures and body movements that are appropriate to the context of the conversation. It would be nice for the teacher to maintain the use of demonstration methods and glass media in classroom learning, due to inappropriate time management. It would be better for the teacher to improve student conditioning, because the teacher's appearance is very good and attractive, it's just that the use of teaching aids is less effective. It would be better for the teacher to increase the use of learning media so that it can provide an effective learning experience.

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