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IMPROVING MATHEMATICS LEARNING OUTCOMES OF THIRD GRADE STUDENTS ON THEME 6 THROUGH THE DEMONSTRATION METHOD

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ABSTRACT

Mathematics is a subject that is often considered difficult by students. Therefore, there are many students who have low mathematics learning outcomes. Therefore, the purpose of this study was to determine the improvement of mathematics learning outcomes on the theme of 6 standard time unit materials through the demonstration method. This method is expected to be able to present abstract mathematical concepts to be easier for students to understand. This research is a classroom action research with data collection methods in the form of observation, interviews, tests, and documentation. The collected data were then analyzed with the stages of reduction, display data, and conclusion. The results of this study indicate an increase in mathematics learning outcomes for third grade students at SDN 2 Talunrejo. In cycle 1 the average student learning outcomes are 67 while in cycle 2 the average student learning outcomes are 79, then the average student learning outcomes increase by 12. While the percentage of student learning completeness in cycle 1 is 60% while in cycle 2 by 80%, then the percentage of student learning completeness increased by 20%. It can be concluded, based on these data, that the initial learning target of the demonstration method has been achieved, namely improving student learning outcomes in mathematics at SDN 2 Talunrejo.

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A. Introduction

According to Law no. 20 of 2003, concerning the national education system, education is referred to as a real and planned effort to create a learning atmosphere and learning process so that students can actively develop their potential to have spiritual, religious, self-control, personality, intelligence strengths. , noble character, and skills needed by himself, society, nation and state.

In essence, education is an effort to develop Indonesian human resources in cognitive, affective, and psychomotor aspects. Education can also be said as a process for a person to gain knowledge, experience, and behavior that shape a person's good and bad. Therefore, education is a major factor in shaping the human personality. Through education, students will give birth to the abilities and skills to develop in society. This goal can be achieved because there are several factors, one of which is the method used in the learning process.

Mathematics is a subject that is considered difficult by some students because they have to deal with numbers (Herawati et al., 2022). Therefore, educators or teachers should need skills to realize interesting learning in order to increase student interest. The ability possessed by the teacher when presenting learning material greatly influences student learning outcomes. Based on the results of observations and interviews that have been conducted with the third grade teacher at SDN Talunrejo 2, namely Ibu Indah Dwi Puspa, S.Pd., she uses the lecture method as well as the assignment method. The teacher only explains the material accompanied by assignments according to what is in the book without being accompanied by direct application in the learning process. There are 6 students in class III, 2 students are male and 4 students are female. Where the completeness of student learning outcomes has not been maximized. This is because of the obstacles that are often faced by students when they do not understand the related material.

Based on these problems, it is necessary to make improvements in the learning process experienced by students with the aim of improving learning outcomes in mathematics subjects in class III SDN 2 Talunrejo. The solution given is to use the demonstration method. This method takes the form as an example of implementation in a skill or activity process. The condition that must be possessed when using this method is that the teacher must be able to demonstrate the use of tools and also carry out certain activities or actual activities. After demonstrating,

students are given the opportunity to do the same thing to develop their abilities and knowledge.

Based on the explanation above, the researchers focused on research with the title "Efforts to Improve Student Learning Outcomes on Mathematics Content Theme 6 Energy and its Changes in Standard Time Unit Materials with the Demonstration Method in Class III SDN 2 Talunrejo". Through the application of the demonstration method, it is hoped that students can improve learning outcomes in the even semester of the 2021/2022 academic year.

B. Method

The design used in this research is the Classroom Action Research Design (CAR). CAR is a research conducted by the teacher in his own class which aims to improve the performance of the teacher so that it will have an impact on the learning outcomes of the students. Data collection techniques using observation, interviews, tests, and documentation. The data is then analyzed using analytical techniques with stages. In this study, there are several stages, namely data reduction, data display, and conclusion drawing/verification.

C. Result and Discussion

This research uses classroom action research (CAR) and is carried out in two cycles, where each cycle consists of several stages, namely planning, implementation, observation, and reflection. In this study, the emphasis was on learning mathematics using the standard time unit material demonstration method. This study used the subject of class II students at SDN 2 Talunrejo with 5 students consisting of 1 male and 4 female students. The following are the results of research in each cycle carried out:

Precycle

This stage was carried out on March 10, 2022. This stage aims to find out about student learning outcomes in mathematics lessons and make observations at school and conduct interviews with the third grade homeroom teacher, Mrs. Puspa Dwi Indah. S, S. Pd. SD. The results of interviews that have been carried out by the teacher have never used the demonstration method when learning mathematics, usually the teacher only uses the lecture method, question and answer method and sometimes the assignment method. Never use the demonstration method because there are limited facilities to do practicum.

Teachers feel the lack of adequate facilities for learning mathematics such as mathematics learning media. The characteristics of grade III students themselves are active, like to move, and a little crowded

Cycle 1

This stage is carried out on May 15, 2022, with a total time of 2x30 minutes. At this stage the researchers carried out learning in accordance with the lesson plans that had been made previously. At this stage it is carried out in 3 stages, namely the opening, the core, and the end. At the opening stage the researcher opened the class and prayed together, after that conveyed the learning objectives and gave apperception to students and the researchers also distributed pretest sheets to be done by students. Then at the core stage, the researcher directs students to understand the material. And the researcher gave the students time to try and demonstrate. During the group demonstration, the researcher also guided students who had difficulty during the demonstration. Then in the final stage, the researcher gave the opportunity to the students to ask questions and the class concluded the results of the joint learning then the students worked on the posttest questions.

In addition to tests, the homeroom teacher also makes observations to researchers according to the observation sheet that has been made by the researcher.

Table 1. Results of Observation of Researcher Activities in Cycle I

Stage	Indicator	Value			
		1	2	3	4
Beginning	• Open the class by greeting and doing attendance • Delivering learning objectives • Provide the facilities to be used				√
Content	• Ask students to understand the material • Guiding students in learning • Responding to student activities				√
Ending	• Conduct evaluation • Provide feedback • Ending the lesson				√
Total		**8**			

Berdasarkan tabel diatas, peneliti telah melakukan semua indikator sesuai dengan RPP. Sehingga untuk nilai akhir yang diperoleh oleh peneliti yaitu $\frac{8}{8}$ x 100% = 100, Sesuai dengan kriteria Taraf Keberhasilan tindakan peneliti mendapatkan predikat sangat baik.

Table 2. Result of Observation of Student Activity Cycle I

No	Indikator	Pengamatan	
		Nilai	Deskription
1.	Students answer the teacher's questions	3	Often done

2.	Students are able to use practical tools correctly	3	Often done
3.	Students work together to do practicum with group friends	3	Often done
4.	Students work on practice questions independently	3	Often done

Berdasarkan tabel diats dapat dilihat bahwa kegiatan tersebut mendapatkan total nilai 12, sedangkan untuk nilai total yaitu 16. Maka nilai aktivitas siswa adalah $\frac{12}{16}$ x 100% = 75% Maka kriteria keberhasilan siswa pada taraf cukup.

Table 3. Cycle I . posttest results

Name	Postest	Description
Afika Firnanda	80	Complete
Julya Rahmadanii T	40	Not Complete
Naura Pebilya Putri	80	Complete
Viola Azahra R	85	Complete
Kelvvin Dwi Putra A	50	Not Complete
Total Score		335
Average		67
Number of students who completed		3
Number of students who did not complete		2
The percentage of complete learning		53,12%

From these results it can be seen that in cycle 1, there are still some students who have not completed, meaning that there are still some students whose scores are not above the KKM. The number of students who finished studying was 60%. Thus, the next cycle is needed to prove that the demonstration method can improve student learning outcomes. Based on the observations made in cycle 1 and the results of the observations that have been made, the following points can be made:

1. Student learning outcomes from cycle 1 show that some students' learning outcomes are still below the KKM. The average student score is 67 and the percentage of student learning completeness is 60%.
2. There are some students who do not do the evaluation test independently.
3. There are some students who still find it difficult to demonstrate.
4. There are some students who are not active to ask questions by the teacher (students tend to be passive)

Based on the problems above, the researchers coordinated with the third grade homeroom teacher to carry out the next stage, namely cycle 2 in order to improve student learning outcomes in learning mathematics, especially the material for determining the standard time unit with the demonstration method.

Cycle 2

This cycle aims to improve the learning process from the previous cycle. In cycle 2, the researcher is very concerned about the learning tools that will be used so that the mistakes in cycle 1 do not repeat themselves.

The implementation phase will be held on May 23, 2022, with an allocation of 2x30 minutes. In this cycle, the researcher provides more assistance to students. The following stages of learning are carried out in the opening stage, at this stage the researcher opens the class and then prays together. Then, the researcher gave apperception to the students about the material that had been taught last week. In the next stage, namely the core activity, the researcher directs students to demonstrate the stone unit given by the teacher. Then in the closing activity, the researcher provides conclusions.

In addition, at this stage, observations were also carried out. Observations were carried out according to the guidelines that had been made.

Tabel 4. The Results of Observing Teacher Activities in Cycle II

Stage	Indicator	Score			
		1	2	3	4
Beginning	• Open the class by greeting and doing attendance • Delivering learning objectives • Provide the facilities to be used				√
Content	• Ask students to understand the material • Guiding students in learning • Responding to student activities				√
Ending	• Conduct evaluation • Provide feedback • Ending the lesson				√
Total		**8**			

Based on the table above, the researcher has carried out all indicators according to the lesson plan. So that the final score obtained by the researcher is 8/8 x 100% = 100, in accordance with the criteria for the success rate of the researcher's action getting a very good predicate.

Table 5. Results of Observations of Student Activities in Cycle II

No	Indicator	Observation	
		Score	Deskription
1.	Students answer the teacher's questions	4	Always done
2.	Students are able to use practical tools correctly	4	Always done
3.	Students work together to do practicum with group friends	4	Always done
4.	Students work on practice questions independently	3	Always done

Based on the table above, it can be seen that students have carried out activities as expected. The value obtained from these observations is 15 of the total value of 16. So the value of student activity is 15/16 x 100% = 93.75%. Then the predicate of student success is Very Good.

Tabel 6. Hasil *posttest* siswa siklus 2

Nama	Postest	Description
Afika Firnanda	80	Complete
Julya Rahmadanii T	60	Not Complete
Naura Pebilya Putri	85	Complete
Viola Azahra R	95	Complete
Kelvvin Dwi Putra A	75	Complete
Total Score		395
Average		79
Number of students who completed		44
Number of students who did not complete		1
The percentage of complete learning		80%

From this value, the student's mastery presentation has met the KKM. The percentage of students who finished studying was 80%. Thus, it can be said that the practicum method has succeeded in improving the learning outcomes of third grade students at SDN 2 Talunrejo so that students' learning completeness gets the predicate of Very Good. From the data above, it is obtained that

1. The results of teacher and student activities have increased so that they get a very good predicate so that there is no need for repeating the cycle.
2. In this cycle, the cooperative attitude and self-confidence of students have begun to be seen and there has been a fairly good increase compared to the previous cycle.
3. Student learning outcomes also have a very good improvement so that it can be proven that the demonstration method can improve the learning outcomes of third grade students at SDN 2 Talunrejo, especially in mathematics, the material determines the standard time unit.

Based on the description above, all the desired indicators have increased quite well and are in line with expectations. So that researchers no longer need to repeat the cycle.

D. Conclusion

The application of the demonstration method in mathematics subjects in standard time units can improve student learning outcomes. This can be proven by increasing the average student learning outcomes. In cycle 1 the average student learning outcomes are 67 while in cycle 2 the average student learning outcomes are 79, then the average student learning outcomes increase by 12. While the percentage of student learning completeness in cycle 1 is 60% while in cycle 2 by 80%, then the percentage of student learning completeness increased by 20%. It can be concluded, based on these data, that the initial learning target of the

demonstration method has been achieved, namely improving student learning outcomes in mathematics at SDN 2 Talunrejo.

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