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EFFORTS TO IMPROVE STUDENTS LEARNING OUTCOMES ON ECLIPSE MATERIALS USING THE DEMONSTRATION METHOD IN CLASS VI

Rosideh[1*], Agung Setyawan[2]
[1,2] Elementary School Teacher Education, Faculty of education, Universitas Trunojoyo Madura, East Java, Indonesia

correspondence e-mail: : 190611100138@student.trunojoyo.ac.id[1*],
agung.setyawan@student.trunojoyo.ac.id[2]

ABSTRACT

The science learning outcomes of sixth graders at SDN Dlemer in understanding solar and lunar eclipses are still low. This is caused by teachers who only use the lecture method so that learning becomes ineffective. To improve student learning outcomes on the material of solar and lunar eclipses, it is necessary to have a variety of learning methods, one of which is the demonstration method. Therefore, this study aims to determine whether the demonstration method can improve the learning outcomes of sixth grade students at SDN Dlemer. This research is in the form of classroom action research which is carried out in two cycles. Collecting data using interview, observation, test, and documentation techniques. The results of this study indicate that the learning outcomes of students in science subjects regarding solar and lunar eclipses have increased. In the first cycle the average value of the class was 54.37 and the remaining number of students who successfully completed it were 6 students or 37.5%. In the second cycle the average value of the class increased to 80.25 with the number of students who successfully completed 14 students or 86.5%. Based on these results, it can be concluded that the use of the demonstration method can improve student learning outcomes.

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A. Introduction

Education is an important thing to prepare a person to face and adapt in the information and knowledge era as it is today (Cintamulya, 2015). Of course, education is always closely related to the learning process. The learning process is the main activity of an education (Hanafy, 2014). Learning is the process of an educator to help students develop their interests, talents, skills, intelligence, and character values so that they become better individuals (Djamaluddin & Wardana, 2019). Appropriate learning will make it easier for someone to understand what is being studied. Because of the importance of learning, the quality of learning should be maintained so that the objectives of learning and education can be achieved optimally. However, in the learning process sometimes it does not run smoothly, sometimes there are some obstacles and problems. One of the problems in learning is learning difficulties in students.

Based on the results of observations made by researchers, it is known that in learning science in class VI SD Negeri Dlemer, teachers continuously only use the lecture method. This makes learning ineffective and many students are less enthusiastic in the learning process. This can be seen in the response of students who lack enthusiasm and low student motivation during learning. Presentation of material that is less attractive makes students bored quickly in participating in science learning.

From the facts above, it is the low interest in learning that is thought to cause the low student learning outcomes. This has also been investigated by (Karina & Syafrina, 2017) and (Silfitrah & Mailili, 2020), both of these studies managed to find that there is indeed a close relationship between interest in learning and student learning outcomes. This is also reinforced by the assumption that students also think that science subjects are difficult to understand, so that their interest in learning science is low. It can be concluded that the sixth grade students of SD Negeri Dlemer, are less able to master the material presented.

In order to support the learning process, one of the efforts that teachers can make is to apply appropriate and appropriate methods (Nurrita, 2018). One of the learning methods that can be used in elementary schools is the demonstration method. The demonstration method is a way of presenting lessons by showing students a certain process, situation or object being studied, either actual or imitation, which is often accompanied by an oral explanation (Rina et al., 2020). There are several advantages of this demonstration method, including students'

attention being more focused, the teacher is easier to implement and show a concept, especially in the form of stages or a process, stimulates students to be more active, helps students better understand the material, can reduce misunderstandings and make teaching more concrete. , and answer all problems or misconceptions in students' minds (Fince et al., 2014).

Therefore, the advantages of this demonstration method are in accordance with the problems found by the researchers during the preliminary study. So the researcher plans to conduct a classroom action research by applying the demonstration method. The material to be studied is solar and lunar eclipses, because students cannot see the eclipse up close, the demonstration method is very appropriate to be applied in learning solar and lunar eclipses. The purpose of applying this demonstration method is to improve student learning outcomes in Class VI SD Negeri Dlemer.

B. Method

This research is included in experimental action research, where CAR is carried out to try to apply techniques or strategies in a teaching and learning activity. The classroom action research design used by the researcher is the Kurt Lewis model design. Data collection techniques used are observation, interviews, tests, and documentation. The data is then analyzed through 4 stages, namely data reduction, data presentation, and drawing conclusions.

C. Result and Discussion

The research implementation is divided into two cycles. Each research cycle uses a demonstration method in each lesson. The description is as follows:

1. Cycle I

Classroom action research in the first cycle was carried out on Wednesday, April 6, 2022 in class VI SDN Dlemer, Arosbaya District, Bangkalan Regency. Before taking action, the researcher prepared several research purposes such as observation instruments, learning outcomes tests, and teaching tools. The implementation of the first cycle of action consisted of one face-to-face (2 hours of lessons) with a time allocation of 2x35 minutes.

The first data obtained is student and teacher observation data. Based on the observations, the learning process is quite good. Students are very enthusiastic in participating in learning. This is supported by the use of simple teaching aids,

which make students more active and look enthusiastic. In learning, the teacher demonstrates in front of students, then the teacher asks students to demonstrate in front of the class about the rotation and revolution of the earth. The teacher pays attention to student activities and guides students if there are students who have difficulty. The evaluation sheet is done by students to measure the success of the learning that has been carried out

In addition to observation data, there is also data on the value of students' cognitive learning outcomes. The following is the data on the value of students' cognitive learning outcomes in cycle I:

Table 1: Student Learning Outcomes in Cycle I

No	Students Name	KKM	Score	Description
1	Ade Kusuma Wulandari	70	30	Not Complete
2	Aditiya Pratama	70	50	Not Complete
3	Ahmad Faruk	70	40	Not Complete
4	Ahmad Fikri Ramadani	70	70	Complete
5	Annisa Kur Ani Ismail	70	70	Complete
6	Dani	70	30	Not Complete
7	Denis Purwanto	70	40	Not Complete
8	Dina Muyassaroh	70	70	Complete
9	Febri Yanti M	70	70	Complete
10	Goffar	70	70	Complete
11	Irma Novita Sari	70	40	Not Complete
12	Mistiya	70	40	Not Complete
13	Nia Kurniawati	70	60	Not Complete
14	Siti Amina Monder	70	80	Complete
15	Siti Humairoh	70	60	Not Complete
16	Siti Nur Fara Nisa	70	50	Not Complete
Amount		**KKM:** 70	870	**Average learning outcomes < KKM**
Average			54.37	
Max Score			80	
Min Score			30	

Berdasarkan data di atas dapat diketahui bahwa jumlah siswa ada 16 anak, jumlah nilai 870, rata-rata nilai siswa 54.37, nilai tertinggi 80 dan nilai terendah 30. Data nilai tersebut dapat dikelompokkan seperti berikut:

Table 2. Recapitulation of Student Learning Results in Cycle I of Science Subjects

Group	Score Interval	Students	Percentage
A	85 -100	0	0%
B	70 – 84	6	37,5%
C	< 70	10	62,5%
	Amount	16	100%

Based on the data in the table above, it shows that there are 6 children who have completed the KKM with a percentage of 37.5%. When associated with the theory of complete learning from (Trianto, 2012), which states that a class is

declared classically complete if 85% of students are declared complete, then the class cannot be said to be classically complete. In addition, the average learning outcomes still show a score below the KKM, which is only 54.37%. Therefore, the researcher then repeated the cycle. This is allowed, because according to (Mulyatiningsih, 2015), if the results in classroom action research have not reached the target of success, the researcher may repeat the action to ensure the success or failure of the selected action.

2. Cycle II

Classroom action research in cycle II was carried out on Thursday, April 7, 2022 in class VI SDN Dlemer, Arosbaya District, Bangkalan Regency. This cycle is carried out in 1 meeting with an allocation of one day. In this cycle, several improvements were made to get better results. Improvements made in the second cycle, namely the teacher gave more motivation and attention to students who were still not active and motivated students to dare to demonstrate and ask questions if there was material that had not been understood.

There are some data that are recovered in this cycle including observation data on student and teacher activities. Based on the results of observations, the learning process in cycle II was better than cycle I. All students were active in conducting discussions with their friends. Learning media also makes it easier for students to demonstrate in front of the class. Learning activities are very smooth and orderly, students can understand solar and lunar eclipses. Students also have the courage to ask the teacher if there is material that is not understood.

Based on the results of observations made in cycle II in science learning with the material of solar and lunar eclipses, there was an increase in students' enthusiasm for learning. The students looked more enthusiastic, there were no more students who were sleepy or talking to themselves in class, were active, dared to ask questions, and some children even dared to demonstrate independently in front of the class without being appointed by the teacher. In addition to observation data, there is also data on the value of students' cognitive learning outcomes. The following is the data on the value of students' cognitive learning outcomes in cycle II:

Table 3: Student Learning Outcomes in Cycle II

No	Students Name	KKM	Score	Description
1	Ade Kusuma Wulandari	70	50	Not Complete
2	Aditiya Pratama	70	85	Complete
3	Ahmad Faruk	70	85	Complete
4	Ahmad Fikri Ramadani	70	88	Complete

5	Annisa Kur Ani Ismail	70	90	Complete
6	Dani	70	80	Complete
7	Denis Purwanto	70	75	Complete
8	Dina Muyassaroh	70	75	Complete
9	Febri Yanti M	70	100	Complete
10	Goffar	70	77	Complete
11	Irma Novita Sari	70	54	Belum Tuntas
12	Mistiya	70	75	Complete
13	Nia Kurniawati	70	100	Complete
14	Siti Amina Monder	70	100	Complete
15	Siti Humairoh	70	75	Complete
16	Siti Nur Fara Nisa	70	75	Complete
	Amount	**KKM = 70**	1284	**Average learning outcomes < KKM**
	Average		80.25	
	Max Score		100	
	Min Score		50	

Based on the data above, it can be seen that there are 16 students, the total score is 1284, the average student score is 80.25, the highest score is 100 and the lowest score is 50. The value data can be grouped as follows:

Table 4. Recapitulation of Student Learning Results in Cycle I of Science Subjects

Group	Score Interval	Students	Percentage
A	85 -100	7	43,75%
B	70 – 84	7	43,75%
C	< 70	2	12,50%
	Jumlah	16	

Based on the data above, there are two children who have not finished studying with a percentage of 12.50%. This means that there are 14 other students who have completed the KKM with a percentage of 87.5%. Referring to the theory of (Trianto, 2012), then in this cycle, the class can be said to be classically complete because the percentage of students who complete reaches a score of 85%. In addition, the average learning outcomes also show a score above the KKM, which is 80.25%. Furthermore, here are the results of the evaluation of the progress of each student's learning outcomes in cycles I and II:

Table 5. Student Learning Outcomes in Cycle I and II

No	Students Name	Score in Cycle I	Score in Cycle II	Description
1	Ade Kusuma Wulandari	30	50	Increase
2	Aditiya Pratama	50	85	Increase
3	Ahmad Faruk	40	85	Increase
4	Ahmad Fikri Ramadani	70	88	Increase
5	Annisa Kur Ani Ismail	70	90	Increase
6	Dani	30	80	Increase
7	Denis Purwanto	40	75	Increase
8	Dina Muyassaroh	70	75	Increase
9	Febri Yanti M	70	100	Increase
10	Goffar	70	77	Increase

11	Irma Novita Sari	40	54	Increase
12	Mistiya	40	75	Increase
13	Nia Kurniawati	60	100	Increase
14	Siti Amina Monder	80	100	Increase
15	Siti Humairoh	60	75	Increase
16	Siti Nur Fara Nisa	50	75	Increase
Amount		870	1284	**All students experience an increase in learning outcomes**
Average		54.37	80.25	
Max Score		80	100	
Min Score		30	50	

Based on the table above, all students experienced an increase in learning outcomes. Because the class in cycle II can be said to be classically complete, the average value of learning outcomes has reached a score above the KKM, and all students have increased learning outcomes, meaning that the overall success target of the researchers has been achieved. Based on this, it can be concluded that classroom action research was successfully carried out, and the demonstration method was proven to be able to improve the learning outcomes of class VI students at SDN Dlemer on the subject of solar and lunar eclipses.

D. Conclusion

From the results of the research that has been carried out, it can be concluded that using the demonstration method can improve science learning outcomes for grade VI students at SDN Dlemer for the Academic Year 2021/2022. This can be seen from the increase in student learning outcomes in each cycle, namely in the first cycle the percentage of the number of students who completed only 37.5% with an average learning outcome of 54.37%, in the second cycle the number of students completed increased to 87.5% with an average average 80.25. In addition, the application of the demonstration method can also increase the enthusiasm and activeness of student learning.

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