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IMPROVING SCIENCE CONTENT LEARNING OUTCOMES THROUGH APPLICATION OF PRACTICAL LEARNING METHODS FOR CLASS IV STUDENTS

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

correspondence e-mail: *190611100127@student.trunojoyo.ac.id , agung.setyawan@trunojoyo.ac.id*

ABSTRACT

This study aims to determine whether the practicum method can improve student learning outcomes for grade 4 students at SDN Paseban 02. The research I did was classroom action research using a Kurt Lewin research design. The data collection techniques used in this study were interviews, observations, documentation, and tests, with data techniques going through 3 stages, namely data reduction, analysis, and drawing conclusions. The results showed that there was an increase in the average student learning outcomes. In the first cycle the average student learning outcomes are 63.12 while in the second cycle the average student learning outcomes are 83.75, then the average student learning outcomes increase by 20.63. While the percentage of student learning completeness in cycle 1 is 53.1% while in cycle 2 is 87.5%, then the percentage of student learning mastery increases by 34.4%. It can be collected, based on the data that the initial learning target of the practicum method is achieved, namely improving student learning outcomes in science subjects in class IV SDN Paseban 02.

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A. Introduction

According to Law no. 20 of 2003, Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state. country.

Education is a very important foundation in life. Education can change people to be better people. With education in Indonesia, people can develop themselves in terms of cognitive, affective, and psychomotor. Of the three aspects, of course there is an assessment to measure the human ability.

Student learning outcomes have decreased due to the COVID-19 pandemic. This is because learning is done online. So that students do not get direct experience during learning. The method used by the teacher is only limited to distributing material to students and explaining through video or voice messages. Such methods tend to bore students. However, when the teacher wants to innovate using other methods, the teacher has to consider a lot. Because online learning must have many obstacles, both from teachers, students, or student guardians. Science lessons are one of the subjects that have decreased learning outcomes. Especially for high grades at the elementary school level. Science lessons need a lot of practice so that students better understand the learning material.

In 2022, the government began to rise from the COVID-19 pandemic. In terms of education, the government has a duty to improve student learning outcomes. Teachers must be able to innovate to create learning models that make students more active and independent. Based on the results of interviews with fourth grade teachers at SDN Paseban 02, namely Mrs. Ika Yudha Pratiwi, S.Pd, so far, she only uses the lecture method to teach science subjects. He has never used other methods such as practicum to support the learning process. There are 32 students in class IV of SDN Paseban 02, namely 21 male students and 11 female students. More than 50% of these students have not completed science subjects that have a KKM of 70. This is evidenced by the daily test scores.

Based on the above problems, it is necessary to have innovation in the learning process to improve student learning outcomes in science subjects. The solution that will be given by the researchers for the above problems is learning science using the practicum method. With the practicum method, students will build

their own knowledge so that the knowledge they will receive is more meaningful. In using this method, the teacher must be skilled in using the tools that will be used during the practicum. Based on the description above, the researchers will focus on the research entitled "Efforts to Improve Learning Outcomes of Science Content Theme 5 Sub-theme 1 with the Application of Practical Learning Methods for Class 4 Students at SDN Paseban 02".

B. Method

This study uses a Classroom Action Research Design (CAR). CAR itself is a research in the classroom to improve the quality of learning through an action (Paizaluddin & Ermalinda, 2016). The purpose of CAR is to improve student learning outcomes. Classroom Action Research that will be carried out using Kurt Lewin. According to Kurt Lewin there are four things that must be done in the action research process, namely planning, action, observation, and reflection (Wulandari, 2017). In collecting data to conduct this research, several techniques are used, namely interviews, observations, tests, and documentation with data analysis techniques through 3 stages, namely data reduction, description, and making conclusions.

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 research, the emphasis is on learning science by using the practical method of material on the properties of light. This study used the subject of the fourth grade students of SDN Paseban 02 with 32 students consisting of 22 male students and 10 female students. The following are the results of research in each cycle carried out:

Pra Siklus

This stage was carried out on March 15, 2022. This stage aims to find out about student learning outcomes in science lessons and make observations at school and conduct interviews with the homeroom teacher for grade IV, namely Mrs. Ika Yudha Pratiwi, S.Pd.

The results of interviews that have been carried out by the teacher have never used the practicum method when learning science, usually the teacher only uses the lecture method, question and answer method and sometimes the

assignment method. Never use the practicum method because it is limited by the cost and facilities to do the practicum. Teachers also experience difficulties when teaching material that requires practice because if it is only theory, the teacher feels that students do not understand the material. And teachers feel the lack of adequate facilities for science learning such as the absence of LAB. In fact, according to Mrs. Ika, the Science Lab is needed to support science learning. The characteristics of grade IV students themselves are active, like to move, and a little crowded

Cycle I

This stage is carried out on May 18, 2022, with a total time of 2x35 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 divided the students into 4 groups, where one group consisted of 8 people. And the researcher gave the practicum worksheets to the students. The practicum is divided into 2 sessions, the first session is group 1 and 2, then the second session is group 3 and 4. During the group doing the practicum, the researcher also guides the students who have difficulty doing the practicum. Second, in the final stage, the researcher gave the opportunity to group representatives to convey the results of their practicum and the class summarized the results of the learning together then the students worked on the posttest questions.

At this stage, when giving action, the researcher observes the students according to the observation sheet that has been made. Then the homeroom teacher also makes observations to the researchers according to the observation sheet that has been made by the researcher.

Table 1. The Results of Observations of Research Activities in Cycle I

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				√
Core	• 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 2. The Results of Observing Student Activities in Cycle I

No	Indicator	Observation	
		Score	Description
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

Based on the table above, it can be seen that these activities get a total score of 12, while the total score is 16. Then the value of student activities is 12/16 x 100% = 75%.

Table 3. Cycle I posttest results

Name	Postest	Description
Achmad Aufar Halim	80	Complete
Alfian Riki rdiansyah	80	Complete
Ahmad Dani Sujamiko	80	Complete
Ahmad Viki Haikal	80	Complete
Alqoil Misbah Y.	40	Not Complete
Alif Sadewi	60	Not Complete
Alfandi Yoga F.	40	Not Complete
Anggin Dista S.	80	Complete
Anggun Dista S.	60	Not Complete
Azizah Putri R.	40	Not Complete
Dafit Septiawan	60	Not Complete
Damar Ainul Qolbi	40	Not Complete
Davin Wahyu R.	80	Complete
Ela Fitrianingsih	80	Complete
Fitria Ningrum	80	Complete
Jamiatul Husnah	60	Not Complete
Mar'atul Munadirah	40	Not Complete
Moh. Afandi	80	Complete
Moh Reza Pratama	80	Complete
Moh. Ilham Ardiansyah	100	Complete
Moh. Nur Ihsan	20	Not Complete
Moh. Tirta Maulidi	100	Complete
Moh. Ardiko Ramadhan	80	Complete
Moh. Kelvin Ilham Y.	20	Not Complete
Moh. Zakki Mubarak	60	Not Complete
Nur Samudra	80	Complete
Stevanus Candra W	20	Not Complete
Syifaul Qolbi	80	Complete
Zahra Habibatul M.	40	Not Complete
M. Furqonum Mubin	80	Complete

Novia Ayu Wulandari	80	Complete
Rahardian Fatah	20	Not Complete
Total Score		2020
Average		63,125
Number of students who completed		17
Number of students who did not complete		15
The percentage of complete learning		53,12%

From these results, it can be seen that in cycle 1, there are still many students who have not completed, meaning that there are still many students whose scores are not above the KKM. Thus, the next cycle is needed to prove that the practicum method can improve student learning outcomes. Based on the results of observations that have been made in cycle 1 and the results of observations, it shows that:

1. Student learning outcomes from cycle 1 show that some students' learning outcomes are still below the KKM. The average student score is 63, 125 and the percentage of student learning completeness is 53.12%
2. There are some students who do not do the evaluation test independently.
3. There are some students who are still difficult to cooperate with their group friends
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 re-coordinated with the fourth grade homeroom teacher to carry out the next stage, namely cycle 2 in order to improve student learning outcomes in science learning, especially the material properties of light with practicum methods. This is in accordance with what was conveyed by (Mulyatiningsih, 2015), that repetition of actions can be done to improve actions in the previous cycle and if the results have not reached the research target.

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 stage is carried out on May 25, 2022, with an allocation of 2x3 minutes. In this cycle, the researcher made a smaller practicum group so that the coordination between students went well. 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 divided the students into 8 groups where one group consisted of 4 students. And the first 4 groups did the practicum first, then the other 4 groups followed. Then in the closing activity, researchers provide conclusions and examples of other properties of light that exist in everyday life. At this stage, observations were also carried out. Observations were carried out according to the guidelines that had been made.

Table 4. The Results of Observations of Research 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				√
Core	• 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. The Results of Observing Student Activities in Cycle II

No	Indicator	Observation	
		Score	Deskriptor
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	4	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.

Table 6. Cycle II posttest results

Name	Postest	Description
Achmad Aufar Halim	100	Complete
Alfian Riki rdiansyah	80	Complete
Ahmad Dani Sujamiko	100	Complete
Ahmad Viki Haikal	100	Complete
Alqoil Misbah Y.	80	Complete
Alif Sadewi	80	Complete
Alfandi Yoga F.	60	Not Complete

Anggin Dista S.	100	Complete
Anggun Dista S.	100	Complete
Azizah Putri R.	80	Complete
Dafit Septiawan	80	Complete
Damar Ainul Qolbi	100	Complete
Davin Wahyu R.	80	Complete
Ela Fitrianingsih	80	Complete
Fitria Ningrum	80	Complete
Jamiatul Husnah	80	Complete
Mar'atul Munadirah	60	Not Complete
Moh. Afandi	80	Complete
Moh Reza Pratama	100	Complete
Moh. Ilham Ardiansyah	100	Complete
Moh. Nur Ihsan	60	Complete
Moh. Tirta Maulidi	100	Complete
Moh. Ardiko Ramadhan	100	Complete
Moh. Kelvin Ilham Y.	60	Not Complete
Moh. Zakki Mubarak	80	Complete
Nur Samudra	80	Complete
Stevanus Candra W	60	Not Complete
Syifaul Qolbi	80	Complete
Zahra Habibatul M.	80	Complete
M. Furqonum Mubin	80	Complete
Novia Ayu Wulandari	80	Complete
Rahardian Fatah	100	Complete
Total Skor		2680
Rata-rata		83,75
Jumlah peserta didik yang tuntas		28
Jumlah peserta didik yang tidak tuntas		4
Presentase ketuntasan belajar		87,5%

From this value, the student's learning mastery presentation has met the KKM, thus it can be said that the practicum method has succeeded in improving the learning outcomes of fourth grade students at SDN Paseban 02 so that student learning completeness gets the title of Very Good. Based on the results of observations that have been made in cycle 1 and the results of observations, it shows 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 practicum method can improve the learning outcomes of fourth grade students at SDN Paseban 02, especially in science subjects, the material properties of light.

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 practicum methods in science subjects material properties of light can improve student learning outcomes. This can be proven by increasing the average student learning outcomes. In the first cycle the average student learning outcomes are 63.12 while in the second cycle the average student learning outcomes are 83.75, then the average student learning outcomes increase by 20.63. While the percentage of student learning completeness in the first cycle was 53.1% while in the second cycle it was 87.5%, so the percentage of student learning mastery increased by 34.4%. It can be concluded, based on these data, that the initial learning target of the practicum method was achieved, namely improving student learning outcomes in science subjects in class IV at SDN Paseban 02

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