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Implementation of the Outdoor Study Method to Improve Natural Science Learning Outcomes for Class V Students

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ABSTRACT

This study aims to describe the application of the outdoor study method to improve the learning outcomes of natural science students in grade V of SD Negeri Kleco I Surakarta. This research was carried out at SD Negeri Kleco I Surakarta. The research subjects consisted of 20 students who had intermediate academic abilities. This research is a classroom action research that is carried out in a cyclical manner. Each cycle consists of planning, implementation, observation, and reflection steps. The data collection techniques used are observation techniques and data analysis techniques. In this study, qualitative and quantitative data analysis techniques are used. For qualitative data descriptions, they can be analyzed using observation sheets, while quantitative descriptions are carried out with tests that have been given. The learning outcomes in cycle 1 were 71.67% with a good category and in cycle 2 an average score increase of 78.33% was obtained with a good category. Likewise with the completeness of student learning, in cycle 1 there were 13 students or 83.33% who completed and in cycle 2, 100% of students were obtained. It can be concluded that the application of the outdoor study method to improve the learning outcomes of natural science students in grade V of SD Negeri Kleco I Surakarta is good.

Keywords: *outdoor study, learning outcomes, observation*

INTRODUCTION

Elements related to education have a significant impact on the standard of living of a country. In order to build an intelligent and insightful nation, the role of education is very important. Education plays an important role in life because it is a means of developing and improving the quality of human resources. Educational institutions are required to be more adaptable to the advancement of science considering the ever-evolving world of education (Cahyono et al., 2024)

Schools are a very strategic place to implement environmental education that focuses on knowledge, values, and positive habits and to plan and raise awareness of how important attitudes and behaviors are to preserve the environment. To realize an intellectual, peaceful, open, and democratic life, education plays a very important role. The formation of quality human resources is inseparable from the responsibility of a teacher in education (Egok et al., 2021).

One of the learning processes in elementary school is natural science education that must be instilled in students. Natural science means systematically finding out about nature. Not only mastering a combination of knowledge consisting of concepts, facts, or principles, but natural science is also the process of discovering something. Students' hands-on experience (experiments) and understanding of their environment should be the focus of natural science learning in elementary school.

In the 21st century, natural science education focuses on creating methods and solutions to everyday problems. Teachers must understand the importance of applying various forms of cooperation and participation pedagogy to the learning process. This is supported by (Eltiyani & Bengkulu, 2020) which states that education is not only about the curriculum, teachers' learning methods are also very important for student learning achievement. Conventional learning methods cause low student learning activities. When the material is delivered, students tend not to pay attention to the teacher which is additional evidence that the student learning process is still poor.

(Sa'diyah & Wulandari, 2021) stated that learning is a teacher's effort to make learning situations fun and encourage students to be enthusiastic about learning. When choosing a teaching method, teachers must consider the development of students' abilities in accordance with the characteristics of elementary school students.

This is in accordance with the opinion (Cintia et al., 2018) About placing emphasis on student activities and shifting learning responsibilities to students in the learning process is very important so that the learning process can help and facilitate the development of students' potential. So that students can get the learning outcomes that have been determined. One of the outcomes produced during the learning process is called learning outcomes. The definition of learning outcome assessment is the systematic process of collecting, analyzing, and interpreting information to assess whether learning objectives are achieved or not. The results of this assessment produce qualitative and quantitative data called student learning outcomes. (Paramita et al., 2020) states that the level and measure of success after recording and receiving the learning experience achieved by students at school is the definition of learning outcomes.

In fact, natural science learning activities that occurred in grade V of SD Negeri Kleco I Surakarta showed low learning outcomes. It can be seen from the results of the students' daily exams that out of 20 students, only 8 students are able to achieve the minimum completeness criteria of natural science lessons that have been set. This means that only 33.33% of students complete the natural science learning process. This low learning outcome can be seen that in the natural science learning process, learning activities only focus on student books. The concepts of natural science that must be studied are only sourced from the texts in the book, as well as the teacher's explanations. As a result, students only listen without learning activities to find concepts in accordance with the demands of basic competencies. In addition, natural science learning activities are carried out without the use of the right method in conveying concepts and facts from natural science materials (Tri Cahyono et al., 2023).

This problem will certainly affect the learning outcomes of natural sciences continuously if not corrected. It is necessary to improve learning carried out by teachers as an effort to increase professionalism as educators. Efforts that can be chosen by teachers are by utilizing the Outdoor Study method. (Evayani, 2020) revealed that the outdoor learning approach or the usual outdoor

study utilizes outdoor setting facilities. In knowledge management, using nature as a medium in the learning process is considered very effective because it can feel, see, and do it yourself, so that knowledge and experiences derived from nature can be felt, interpreted, and developed according to their own abilities.

The outdoor study method increases children's social and physical activities. Children will be more often involved in activities that indirectly require creativity and cooperation with friends. The same thing was also expressed by (Setiyorini, 2018) which states that learning that is carried out outside the classroom or school is the definition of the Outdoor Study learning method. This method is very important for the development of elementary school students because it can provide students with direct experience with the subject matter, which makes the learning process more meaningful (Suarmika & Faliyandra, 2017).

Based on the problems that have been described, the researcher is interested in carrying out a research entitled "Implementation of the Outdoor Study Method to Improve the Learning Outcomes of Natural Sciences for Class V Students"

METHODS

This research was carried out at SD Negeri Kleco I Surakarta. This research activity was carried out from April to May 2024. The research subjects consisted of 20 students who had intermediate academic abilities. This research is a class action research that is carried out in cycles. Each cycle consists of planning, implementation, observation, and reflection steps. It is a cycle that the researcher will continue until it is completed. Researchers will continue the first cycle with the same procedure to the second cycle if they find new problems or findings that have not been fully resolved.

The data collection techniques used are observation and test techniques. Observation is direct observation of the learning process and student behavior. Tests are a tool to measure data in a study, one of which is learning outcomes. The main instrument in data collection and measurement is a test, which is a test in the form of a description of 10 questions made based on the skills that students need to master.

This research uses qualitative and quantitative data analysis techniques. For qualitative data descriptions, they can be analyzed using observation sheets, while quantitative descriptions are carried out with tests that have been given. Data collection through tests was carried out to measure the improvement of students' cognitive learning abilities at the end of each cycle.

Average grade percentage:

$$\frac{\text{Total score}}{\text{maximum score}} \text{ X } 100\%$$

Next is to calculate the percentage of students who complete or get a score of ≥ 70, using the following formula:

$$\frac{n}{N} \text{ X } 100\%$$

If the total score has been found individually, then it is converted into an average. With success criteria:
> 70 = pass and < 70 = do not pass

Table 1.
Success Criteria

No.	Success Score	Success Rate
1.	85-100	Excellent (A)
2.	70-84	Good (B)
3.	55-69	Enough (C)
4.	40-54	Less (K)
5.	<39	Very Less (E)

If the end of each action has a value of ≥70, the improvement of individual learning ability is said to be complete and the improvement of learning ability is classically complete, if 75% of the total number of students complete learning.

RESULTS AND DISCUSSION

The application of the outdoor study method to improve the learning outcomes of natural sciences for grade V students of SD Negeri Kleco I Surakarta was carried out on the low learning outcomes of students during natural science learning. This improvement activity is an action research activity carried out in 2 cycles that follow the steps of classroom action research. The learning outcomes of students are improved in each cycle as follows:

1. Cycle 1 Learning Outcomes

Cycle 1 is carried out based on the learning implementation plan that has been made at the planning stage. The basic competency in cycle 1 is to analyze the influence of heat on temperature changes and the shape of objects in daily life. The results of this study are based on a test given at the end of the cycle to see the learning outcomes of students after the learning process using the Outdoor Study method. The learning outcomes of cycle 1 are as follows:

Table 2.
Student Learning Outcomes in Cycle 1

NO	STUDENT INITIALS	KKM	VALUE	INFORMATION
1	AUO	70	65	Incomplete
2	BVP	70	80	Complete
3	CWQ	70	85	Complete
4	DXR	70	90	Complete
5	EYS	70	95	Complete
6	FZT	70	65	Incomplete
7	DISTRICT	70	75	Complete
8	HBV	70	50	Incomplete
9	ICW	70	90	Complete
10	JDX	70	95	Complete
11	KEY	70	50	Incomplete
12	LFZ	70	80	Complete

13	MGA	70	70	Complete
14	NHB	70	60	Incomplete
15	OIC	70	70	Complete
16	P.S.	70	80	Complete
17	QKE	70	65	Incomplete
18	RLF	70	90	Complete
19	SMG	70	60	Incomplete
20	TNH	70	80	Complete
Sum			1495	
Grade Point Average			71.67 (Good)	
Percentage of Students Completed			83,33%	
Percentage of Incomplete Students			16,67%	

Table 2 shows the learning outcomes of students using the outdoor study method in natural science learning. From 20 students, the average score data was obtained of 71.67% with a good category. Judging from the completeness of 20 students, there are 13 students or 83.33% who have completed, while 7 students or 16.67% have not reached completeness. Judging from this data, the average score has met the success indicators. The learning outcomes of students in cycle 1 can be described through the following graph of the completeness of learning outcomes.

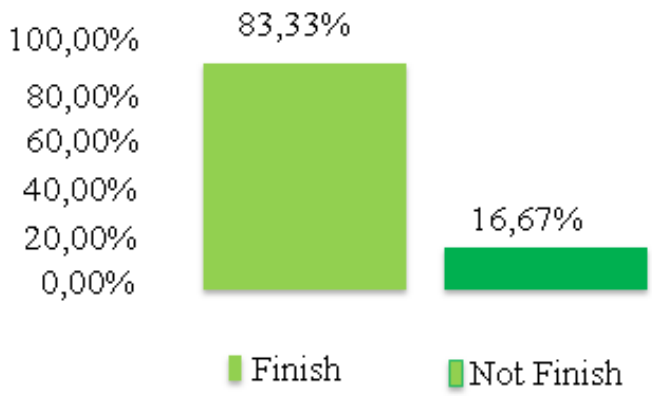

Figure 1.
Student Learning Outcomes in Cycle 1

However, from the results of the reflection, several obstacles were found that caused the students to not be completed. Reflection with colleagues shows that there are shortcomings in the implementation of cycle 1, namely:

1. The implementation of the outdoor study method has been carried out well in accordance with the existing steps in the learning plan, but the time used exceeds the specified time allocation. In addition, it seems that the teacher is too fast in conveying the learning steps.
2. There are still students who have not focused on implementing experimental activities using the outdoor study method

Based on the reflections obtained, the improvement of cycle 2 learning was carried out with the following efforts:

1. The teacher explained with the steps of the activity slowly which were followed directly by the students. In addition, each step is given a time limit to match the set time allocation

2. The number of groups that were originally 3 people per group was formed into 2 people per group, so that each group member can be responsible and focus on the tasks given.

2. Cycle 2 Learning Outcomes

Cycle 2 improvement activities are carried out based on the results of reflection carried out in cycle 2. In this activity, learning improvements are carried out by following the learning implementation plan that has been improved previously. The learning outcomes of students after using the outdoor study method are as follows.

Table 3.
Student Learning Outcomes in Cycle 2

NO	STUDENT INITIALS	KKM	VALUE	INFORMATION
1	AUO	70	70	Complete
2	BVP	70	80	Complete
3	CWQ	70	85	Complete
4	DXR	70	90	Complete
5	EYS	70	95	Complete
6	FZT	70	70	Complete
7	DISTRICT	70	75	Complete
8	HBV	70	80	Complete
9	ICW	70	90	Complete
10	JDX	70	95	Complete
11	KEY	70	85	Complete
12	LFZ	70	80	Complete
13	MGA	70	70	Complete
14	NHB	70	80	Complete
15	OIC	70	70	Complete
16	P.S.	70	80	Complete
17	QKE	70	85	Complete
18	RLF	70	90	Complete
19	SMG	70	70	Complete
20	TNH	70	80	Complete
Sum			1620	
Grade Point Average			81.00 (Good)	
Percentage of Students Completed			100%	
Percentage of Incomplete Students			0%	

The data in table 3 shows that in cycle 2 there is an increase in student learning outcomes using the outdoor study method. The average score data was obtained of 78.33% with a good category. Judging from the completeness of 20 students, there are 20 students or 100% who are complete, Judging from this data, the average score has met the success indicators. The completeness of the learning outcomes can be seen in the following figure. The results of reflection with colleagues showed that the outdoor study method had been carried out according to the steps in the learning implementation plan, the learning activities were

conducive and in accordance with the time allocation that had been designed. And the improvement of learning outcomes has been in accordance with the specified success indicators. For more clarity, the improvement of natural science learning outcomes in cycle 2 using the outdoor study method can be seen in the following figure.

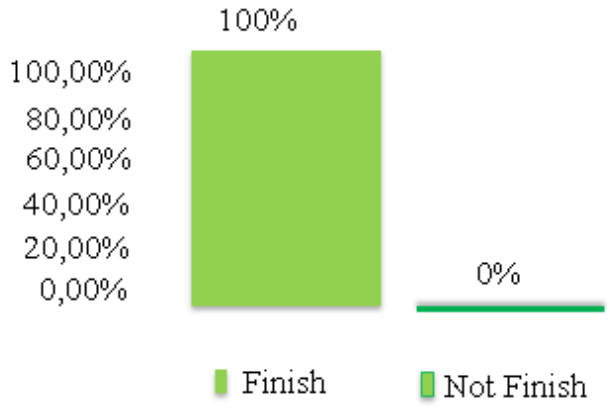

Figure 2.
Student learning outcomes in cycle 2

This research is based on the low learning outcomes of natural sciences students in grade V of SD Negeri Kleco I Surakarta. So that it is necessary to improve learning in the form of classroom action research. It can be explained that learning natural sciences in elementary school is very important to be carried out because it can build students' curiosity, interest in nature and themselves, and provide opportunities for students to practice scientific methods and communicate them. Natural science learning in elementary school is closely related to curiosity about finding material about natural systematics, so that learning natural science in elementary school can be intended as an invention, not just as a mastery of concepts, principles, and collections of knowledge in the form of facts. Therefore, this learning improvement chose the outdoor study method as an action used in the natural science learning process. By using natural media, the learning process is very effective to increase the knowledge gained because children can directly feel, see, and do something independently. A comparison of the improvement of student learning outcomes in cycle 1 and cycle 2 can be seen in the following figure 3.

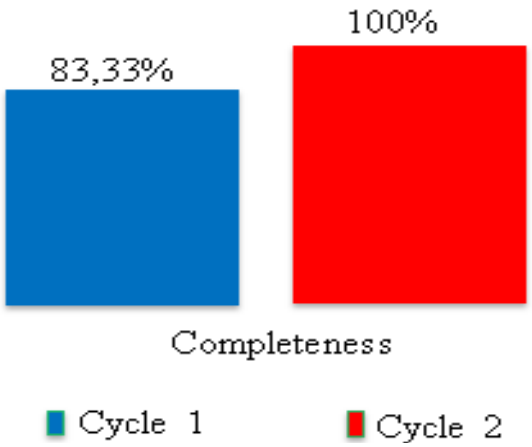

Figure 3.
Comparison of the Completeness of Student Learning
Outcomes in Cycle 1 and Cycle 2

The results of the study showed that there was an increase in student learning outcomes. Both the average score obtained and the percentage of completeness. The learning outcomes in cycle 1 were 71.67% with an average score of 71.67% with the Good category and in cycle 2 an average score increase of 78.33% with the Good category. Likewise with the completeness of student learning. There were 5 students or 83.33% who completed in cycle 1 and in cycle 2, 100% of students were obtained. Explanation that one of the standards in measuring the success of the learning process is the definition of learning outcomes. These results show how far students, teachers, learning processes, and educational institutions have come to achieve the learning goals that have been set. The definition of learning outcome assessment is the process of assessing the learning outcomes obtained by students by comparing them through certain criteria or measures.

This success is an indicator that the action used, namely the outdoor study method, is the right action, this method uses the environment as a place for students to learn. Learning outside the classroom is also known as outdoor study learning is a type of learning activity that allows students to experience extraordinary thinking experiences. Learning outside the classroom, or learning outdoors can be a new learning resource that will not make students bored. This statement is supported by the ability of students who state that the outdoor learning method is suitable for improving students' social intelligence skills because children will think more freely, their brains will be more relaxed, and learning will become more concrete and interesting. The method of learning in the open air can also increase student togetherness and solidarity.

The selection of the outdoor study method is also considered an action that is in accordance with the character of students at elementary school age, so that in its implementation it appears that students really like the learning process. Learning in elementary school is not the same as at other levels of education. This is seen from the perspective of student development. It is very important for teachers to understand the learning characteristics of elementary school students so that they can structure learning that pays attention to the level of student development. However, many teachers do not learn by considering aspects of student development. The learning process in elementary school is closely related to direct experience and concrete objects, it is hoped that the environmental approach can make it easier for teachers to carry out learning activities. This is due to the fact that each child has a different way of understanding and adapting to their environment.

The success of the implementation of this learning improvement is also inseparable from the role of teachers in the implementation of natural science learning. Learning activities that are not monotonous make the learning process more directed and well implemented. Learning activities are also more directed to student activities in learning natural sciences or science, so that students better understand the concepts learned. Explanation that teachers as educators need to dive into the world of students, what is the potential in students, what are their interests and talents, what are their motivations for learning, and all characteristics or problems in the learning process.

This research was carried out by conducting careful planning related to the outdoor study method. Starting with determining the basic competencies to be achieved until the implementation of the research. So it is hoped that it will achieve the expected goals. The expression that learning is basically a learning activity designed to help a person learn according to the learning objectives. Therefore, learning is defined as an external situation carried out by educators in learning activities to encourage someone to learn. The expression that if done programmatically well, the learning process is said to be effective so that basic competencies

and learning objectives can be achieved by students and classroom conditions make students during the learning process more active. This certainly makes the learning process better.

CONCLUSION

Based on the results of the research that has been obtained, it can be concluded that the application of the outdoor study method to improve the learning outcomes of natural sciences students in grade V of SD Negeri Kleco I Surakarta. The learning results in cycle 1 were obtained with an average score of 71.67% with the Good category and in cycle 2 an average increase in scores of 78.33% with the good category. Likewise with the completeness of student learning, in cycle 1 there were 5 students or 83.33% who completed and in cycle 2, 100% of students were obtained.).

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