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Improving Science Learning Outcomes Through Environment Based learning Models Environment-Based Learning

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Abstract

The purpose of this study is to improve student learning outcomes in science subjects with Human and Environmental material through an environment-based learning model for the even semester of the 2022/2023 academic year in the VC class of SDN Pinnag Ranti 01 Pagi Jakarta. The subject of this study was a VC class student of SDN Pinnag Ranti 01 Pagi Jakarta. This research procedure is a class action research conducted by researchers based on the PTK model, namely Kemmis and Mc Taggart which consists of planning, implementation, observation and reflection activities. This research will take place from May 8 to June 15, 2023. With the research subjects of 29 students, two of the 29 students were students with special needs. This research was carried out as many as 3 cycles with 2 meetings in each cycle. In the first cycle, student activity was obtained with an average score of 40 with a fairly good predicate. In cycle II student activity has increased with an average student activity of 60 with good qualifications. In cycle III experienced an average increase of 80 with a presentation of 82% there were very good qualifications and increased from cycle II. Student learning outcomes in the first cycle of student activity were obtained with an average score of 55.1 with a completeness percentage of 20%. In cycle II student activity increased with an average student activity score of 62.4 with a completeness presentation of 66%. In cycle III experienced an average value increase of 78.4 with a presentation of 82% there was an increase of 10% from the cycle. And the results of interviews that have been conducted in this study concluded that learning science through an Environment-Based learning model can improve student learning outcomes.

Keywords: Science Learning Outcomes, Human and Environment, Environment-Based Model

1 INTRODUCTION

Education is the key to all quality progress and development because education can realize all human potential both as a person and as a citizen of society. Education is very important in the process of life not only for the present but also for the future. And education is indispensable for humans as a means to develop themselves. Education can be obtained through formal education and non-formal education channels. School as formal education is required to carry out a good and optimal learning process. This is certainly inseparable from the role of education which continues to be considered and improved in various ways, including the Government issuing a law on the national education system.so that the Indonesian people get the right to proper education.especially for the nation's successor children, especially in elementary schools. Because education functions in developing itself, namely the development of all potentials, abilities, and personal characteristics in a positive direction, both for himself and his environment.

The emergence of a problem in a well-arranged rule, may be unavoidable. If analyzed, the effort has not emphasized its implementation and implementation. This can be seen from most of the VC class students of SDN Pinang Ranti 01 Pagi in the learning process do not have optimal learning motivation so that learning outcomes decrease dramatically. Especially in science subjects. Science subjects are said to have not been fully understood or interested by students of the VC class of SDN Pinang Ranti 01 Pagi because most students consider science to be a difficult and boring subject so that some students do not get the knowledge or material taught and the learning outcomes are not as expected because from the learning outcomes it can be known to what extent students can understand and understand the material taught. This is reinforced by Permadi & Saini (2017) which states that science teaching staff is one of the subjects that requires teaching aids and practice in their learning

Sudjana (2014) defines "Student learning outcomes are essentially changes in behavior as learning outcomes in a broader sense covering the cognitive, affective, and psychomotor fields. Meanwhile, according to Purwanto, (2016) learning outcomes can be explained by understanding the two words that make it up, namely results and learning. Understanding results (product) refers to an acquisition due to the implementation of an activity or process that results in functional input changes. Based on the results of the pre-survey, researchers conducted interviews with VC homeroom teachers, it was stated that Hsail studied in the science subjects of the VC class of SDN Pinang Ranti 01 in the morning still under KKM. Science learning at SDN Pinang Ranti 01 This morning is still teacher-centered, this causes students' academic abilities to be less than optimal. A weakness in students is a lack of interest in science subjects. So that the results of learning science from students show that there are still students who have completion scores below average. These learning problems need efforts to improve science learning outcomes, need to pay attention to changes in the learning process, one of which is marked by changes in learning models.

In learning situations like this, teachers can provide learning models in various ways that are tailored to the situation and can increase enthusiasm for learning so that in any situation students can improve their learning achievement. This teacher must be able to provide an approach with an environment-based learning model. According to (Karjiyadi, 2012) Environment-based learning leads to learning that utilizes the environment as a source of learning. The environment can be formatted or used as a learning resource. While (Vera Adelia, 2012) that there are several important meanings that can be obtained by students and teachers when learning outside the classroom, namely first, students will be able to adapt to the environment, the environment, and to community life and secondly students can know the importance of life skills and life experiences in the environment and the surrounding nature. While Ali, (2010) said this environment-based learning model applies a game system and learning outside the classroom, some things that must be considered in the environment-based learning model are the content and learning procedures must be in accordance with theLearning environment, the knowledge provided must provide a way out in response to the environment. According to Hamzah, (2011) that the concept of learning using the environment provides enormous opportunities for students to improve their learning outcomes, and in general the concept of learning using the environment can increase the learning motivation of students, so that the guidance and motivation of teachers and the environment play an important role in shaping the character or attitude of students including emotional students in carrying out learning activities towards attitudes what's better

Based on the theory above, this study will discuss problems that arise in classroom learning, including whether there is an influence of environment-based models on improving the learning outcomes of SDN Pinang Ranti 01 pagi students. Discussion of this research problem in achieving the goal of improving science learning outcomes with an environment-based learning model

2. RESEARCH METHODS

This research was conducted on VC class students of SDN Pinang Ranti 01 Pagi whose address is JL. Taman Mini Pintu II, Pinang Ranti Kota East Jakarta. The sample used in this study was VC class students with a total of 29 students, 2 of whom were students with special needs. This research model is the Kemmis and Mc Taggart class action research model (PTK), which consists of planning, implementation, observation and reflection activities.

Planning there is a stage of planning activities to be carried out, namely preparing the learning syllabus to be carried out, lesson plans and arranging observation sheets.

The implementation of activities in each of these cycles is by implementing actions that refer to the learning implementation plan (RPP). During the learning process, teachers and researchers teach using lesson plans that have been previously designed. In the

implementation of actions, learning activities are not always fully fixated on RPP, but in learning activities changes can be made that if needed adjust the available time and the conditions of students. Avoid miscommunication between researchers and class teachers, before the research action is carried out, inform the teacher first.

Observation is a way to see the extent of the effect of actions that has been done on each cycle. Then the instrument used byResearchers are using observation sheets for student activities. To strengthen the observations, researchers also use field notes that contain everything that happens during the learning process.Reflection activities are carried out to find out how far the achievement of research actions in each cycle that has been carried out. The results of reflection later will be used as material for improvement or input for the next cycle, data collection techniques in this study using observation, tests and documentation.

3. RESULTS OF RESEARCH AND DISCUSSION

This research was conducted at SDN Pinang Ranti 01 Pagi, Pinang Ranti kec. Makassar City East Jakarta, with the number of VC class students as many as 29 students consisting of 10 male students and 19 female students. This research will be conducted in May 2023. Before researchers carry out cycles I, II and III, researchers first make pre-action preparations for observing and carrying out observation activities for VC homeroom teachers and their students which will be carried out on March 29, 2023. This observation aims to determine the extent of science learning outcomes in the VC class, whether it has reached KKM.

Research Results

Based on the observations of researchers, there are still many VC class students of SDN Pinang Ranti 01 Pagi who are still unsuccessful in learning, especially in science subjects. In addition, from the data obtained by researchers through student learning outcomes that are still low under the Minimum Completeness Criteria (KKM). And researchers found that many students were still far below KKM. The KKM at SDN Pinang Ranti 01 Pagi in the VC class science subject is 75, and students who reach KKM are only 20% of the total 29, and 2 of them are students with special needs. So that on May 8, 2023, researchers took data by conducting tests in the form of question items, which were then used as a reference for learning activities, as well as standards to improve learning better than before.

Table 1 Recapitulation of Completeness of Precycle Science learning outcomes

Completeness	Number of Shiva	Percentage
Complete	6	20%
Incomplete	23	80%
Total	29	100%

Learning Improvement Cycle 1

Cycle 1 is carried out with 2 meetings. This activity is carried out by utilizing the surrounding environment in accordance with the learning materials covered in the Basic Competencies. Activities in cycle 1 were carried out as many as 2 meetings by making observations / observations on the Results of the Data Analysis Prerequisite Test. Based on graphic images of learning outcomes carried out in cycle 1

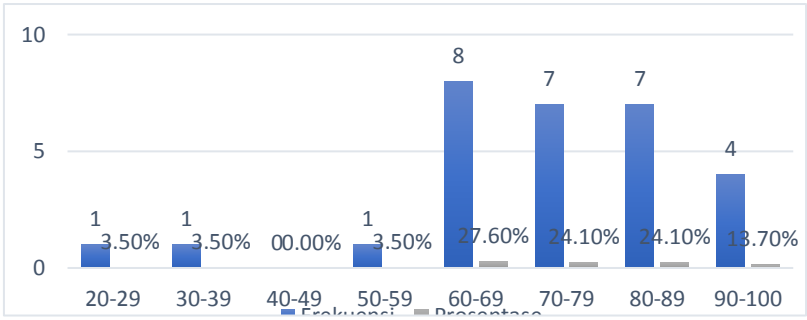


Figure 1. Cycle I Learning Outcomes Graph

The learning results of the graph above, show that the results of student science learning using an environment-based learning model with a number of 1810 and an average obtained 62.4. This average shows that the learning outcomes obtained have not met the specified success indicator of 80%.
Table 3 Grades of Student Learning Outcomes Cycle II
The low learning outcomes of students seen during the learning process are also known from the observation of activities that get a score of 40 with quite good qualifications. So that the utilization of the BLUM environment is optimal. Learning activities are still dominated by teachers in delivering material
Learning.

3.1.2. Learning Improvement Cycle 2
The implementation of Cycle 1 and Activities in cycle 2 is carried out by looking at the weaknesses or shortcomings that have been carried out in cycle 1. So that it is expected to get maximum results in accordance with the objectives of improvement in cycle 2, environmental utilization is carried out as a whole in accordance with the RPP design made. In addition, the learning process
More emphasis on the student-centered learning process.

Table2. Frequency of Cycle II Test Results

No	Interval Class	Frequency	Presentation
1	**- 30-39**	**1**	**3,5 %**
2	**- 40-49**	**1**	**3,5 %**
3	**50-59**	**1**	**3,5 %**
4	**60-69**	**2**	**6,8 %**
5	**70-79**	**7**	**24,1 %**
6	**80-89**	**11**	**38 %**
7	**90-100**	**6**	**20,6 %**
	Sum	**29**	**100 %**

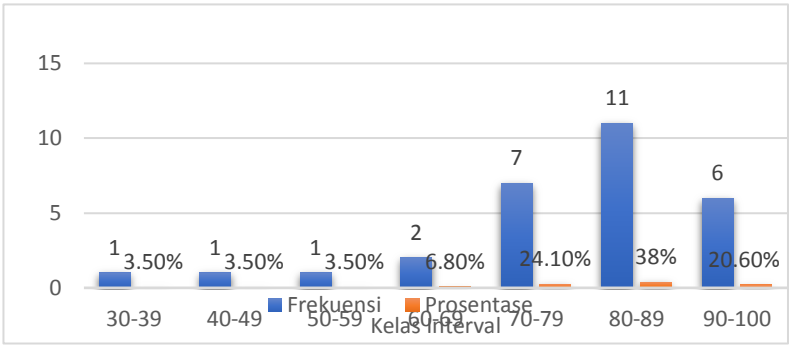


Figure 2. Cycle II learning outcomes graph

The learning outcomes of the graph and frequency table above, show that the results of student science learning using an environment-based learning model with a number of 2160 and an average obtained 74.4. This average shows that the learning outcomes obtained have almost reached the specified success indicator of 80%.

In addition, student learning outcomes seen during the learning process are also known from the results of activity observations that get a score of 65 with good qualifications. So that the use of the environment already looks optimal. Learning activities are still needed Dlam improvement in cycle III.

3.1.3. Learning Improvement Cycle 3

The implementation of Cycle III is carried out by looking at the weaknesses or shortcomings that have been done in cycles 1 and 2. So it is expected to get maximum results in accordance with the objectives of improvement in cycle 3, environmental utilization is carried out as a whole in accordance with the RPP design made. In addition, the learning process emphasizes more on the student-centered learning process. The results of cycle 3 learning improvement can be seen from the following student activities and learning outcomes.

Tabel 4.Frequency of Cycle III Test Results

No	Interval Class	Frequency	Presentation
1	50-59	1	3,5 %
2	60-69	2	6,8 %
3	70-79	13	44,9 %
4	80-89	9	31,1 %
5	90-100	4	13,7 %
	Sum	29	100

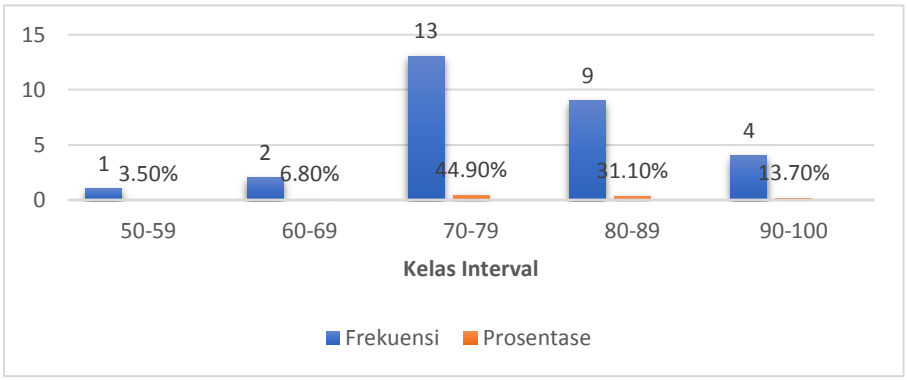


Figure 3. Cycle III Learning Outcomes Graph

The learning outcomes of the graph and table above, show that the science learning outcomes of students using an environment-based learning model with a total of 2275 and an average obtained 78.4. This average shows that the learning outcomes obtained have reached the specified success indicator of 80%.

In addition, student learning outcomes seen during the learning process are also known from the results of activity observations that get a score of 80 with very good qualifications. So that the use of the environment is optimal. Learning activities to improve science learning outcomes with an environment-based learning model have been better and reached KKM 75 with 80% of students.

3.2 DISSCUSION

Cycle I

The implementation of the science learning process of Human and environmental material in cycle I. Teacher activities during the science learning process are still not optimal and many students are still less focused on the lesson and joke more so that the conditions of the learning process have not been maximized and are still far from expectations, especially more activities are carried out outside the classroom. The reflection results from the first cycle only reached a class average score of 62.4 with the highest score reaching 90 and the lowest 20. With 11 students completed by 37% and incomplete 18 students by 63%.

Cycle II

In the learning process activities in cycle II, this is an improvement from the previous cycle. In the learning process in science subjects in this cycle, students have begun to show student interest in science subjects and students' attention and activeness have been seen better than before. During the learning activities, students who had been passive have begun to ask and answer teacher questions. The results of the second cycle reflection have quite a good improvement with an average value of 74.4 with the highest value of 90 and the lowest of 30. With completed students as many as 19 students or around 66% and 10 students who have not completed or 34%. While the Minimum Completeness Criteria score in science subjects is 75.

Cycle III
The implementation of improvements in the science learning process in the third cycle has increased learning outcomes as expected, students are more active and enthusiastic in the role of students, when teachers ask students' responses have been seen active. With active learning conditions, teachers are increasingly enthusiastic in teaching because student concentration begins to focus on the teacher and the material taught, student responses look very good and begin to be interested in science subjects even though learning conditions are outdoors or school environment. Teachers also do not hesitate to motivate students, the results of cycle III are quite good compared to cycles I and II. From the results of the data obtained by researchers, the increase reached by 82%. With an average score of 78.4, with 24 completed students and 5 incomplete students. A total of 5 completed students, 2 of whom are students with special needs.

4. CONCLUSION

Based on the results of class action research conducted at SDN Pinang Ranti 01 Pagi East Jakarta, Makassar District from May 8 to June 15, 2023, the even semester of the 2022/2023 academic year. It can be concluded that in the learning process through an Environment-Based learning model can improve student learning outcomes in science subjects, Human and environmental materials. It can be summed up as follows. First,through the Environment-Based learning model can improve the quality of learning in students at SDN Pinang Ranti 01 Pagi. Second, the Environment-Based learning model can improve the learning outcomes of students in the VC class of SDN Pinang Ranti 01 Pagi. This can be seen from the Pre-cycle data with an average value of 55.1 with completeness reaching 20%. In cycle I with an average value of 62.4 with completeness reaching 37%. In cycle II with an average value of 74.4 with completeness reaching 66%. In cycle III with an average score of 78.4 with 82% completeness, the results have reached the success criteria indicator, namely 80% of students in the VC class of SDN Pinang Ranti 01 Pagi have experienced complete learning in science subjects with Human and environmental material. Third, the Environment-Based learning model can also improve teacher skills and student activities in each cycle through teacher and student observation sheets during the learning process. In the first cycle, researchers as teachers and students get a score of 75.5 for teachers and 40 scores for students. In cycle II teachers and students get a score of 87.5 and students 65. Then in cycle III teachers and students get a score of 95 and students 80.

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