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Improving Science Learning by Applying the Natural Environment Approach into the Characteristics of Living Things Chapter

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Abstract
This research is prompted by the lack of understanding of science subject students within the chapter of Characteristics of Living Things in grade IV of 064955 Medan primary school in the academic year of 2022/2023, which consists of 26 students. At the pre-cycle stage, the learning method used was traditional and not engaging. The aim of the research is to improve the students' natural science learning through the application of the natural environment approach, students learn outside the classroom by observing plants and animals in the environment around the school. Implementation of remedial research carried out over 2 cycles. Each cycle found an increase in the improvement of science learning. The increase in the improvement of science learning in each cycle can be seen from the attitude of students who are active, diligent and able to do assignments well and on time. Study results show an increase in the average value of each cycle, at pre-cycle at 63.23, cycle 1 at 67.3 and cycle 2 at 76.5. In terms of completeness, it can be seen from the increase in percent, in pre-cycle it achieved 30.7%, cycle 1 achieved 61.5% and cycle 2 reached 100%. The conclusion of this study through the application of an environmental approach can improve student learning in the subject of Characteristics of Living Things in grade 4.

Keywords: Science learning, environmental approach, characteristics of living things.

Introduction

Education is supposed to be used as a guide to life that should be planned and built from childhood the best way possible, so that humans can develop better intellectually and emotionally in their lives. Education is very important for everyone, because through education humans can develop themselves and have the potential to live up to their potential. Education can take place anywhere, especially in schools which has the main activities of learning aside for socializing, etc.

School is one of the official educational institutions, where students learn to gain knowledge. Through the learning and teaching process it is hoped that the objectives of learning can be achieved effectively and efficiently. A learning is said to be achieved effectively and efficiently if students participate actively in learning activities and in the end students understand the content of the subject matter that has been studied.

At the Elementary School (SD) level there are several disciplines that must be studied, one of which is the subject of Natural Sciences (IPA). Through science lessons students can find out the concepts and methods that will be studied to facilitate students' understanding of the lessons that will be studied. In science subject's students can learn about living things, inanimate objects and events in the natural surroundings.

In order for science learning objectives to be achieved according to their targets, science lessons need to be taught appropriately so that students can be actively involved in participating in learning through scientific processes and attitudes. In science lessons in elementary school, there are still obstacles and obstacles, this is due to the use of methods and media that are used inappropriately. To overcome problems in natural sciences subject material characteristics of living things, researchers used the application of the natural environment approach method. From this description, the researcher is interested in carrying out Classroom Action

Research (CAR) in class IV SD Negeri 064955 Medan in the subject of Natural Sciences, material characteristics of living things.

Based on the results of the pre-cycle test for science subjects, the discussion on material characteristics of living things for students had not been completed, indicating that there were still many students consisting of 26 students, only 8 students who received a complete score, while 18 students had not achieved completeness. In accordance with the provisions of the Minimum Completeness Criteria (KKM) for science subjects, the completeness score is 70, meaning that students who get a minimum score of 70 and above are said to be complete and students who get scores below 70 are said to be incomplete. As for the data from the pre-cycle, the average score obtained by students in class IV SD Negeri 064955 Medan is 63.23 with the lowest score being 40, the highest score being 82, the percentage of completed scores is 30.76% and the percentage of incomplete grades is 69. 24 %. So that in this case the researcher decided to conduct a study consisting of two cycles using the application of the surrounding natural environment approach in conveying learning material about the characteristics of living things.

Implementation of Cycle 1 on Tuesday, 4 October 2022, where student learning outcomes have started to show an increase, students are interested in participating in learning activities outside the classroom by applying the natural environment approach method, from the learning outcomes it can be seen from the average class value going up to 69.23 with the lowest score of 60 and the highest score of 85, the percentage of completed scores was 57.69% and the percentage of incomplete scores was 42.31%. From this data it shows that there is a positive change because the value of the learning outcomes obtained by some students has increased, but because there are still students who do not understand the lesson and the scores obtained are still low, the teacher as a researcher decides to continue class action research into cycle 2.

Implementation of cycle 2 on Tuesday, 11 October 2022. The data obtained in cycle 2 shows a significant increase. Students become creative to complete the group assignments given and student learning outcomes show an increase with the class average value rising to 75.58, the lowest score is 70, the highest score is 95, the percentage of completeness reaches 100%. After being observed from the implementation of this 2nd cycle, the learning outcomes obtained by students showed a very significant increase, the researcher concluded that through the application of the natural environment approach around student learning outcomes increased and the researcher decided not to continue to the next cycle.

IPA is a collection of knowledge consisting of sequences, systematic arrangements where its use includes phenomena that exist in nature and processes that occur in nature. At the elementary school level, learning science can directly teach them how to know themselves, living things, inanimate objects and their surroundings. As it is well known that children at the elementary school level are still going through stages and phases of growth and development, where at the age of 1-12 years children have special characteristics. The characteristics of children at the elementary school level are: like to play, like to move, like to listen, like to work with friends, like to imagine, like to work and like to practice or do something directly.

Sri Anitah W, et al (2019) states that if a teacher wants his students to obtain a lot of learning outcomes from environmental learning resources, the teacher must make careful preparations because without this preparation the learning activities of the students will be constrained so that this affects the achievement of the expected competencies/learning objectives.

The application of the natural environment approach is an approach used in learning that is carried out outside the classroom by utilizing the environment as a learning resource, so that students can see directly the object being studied. Learning with the natural environment approach does not have to be done in a remote place, with a long time, expensive transportation costs and lots of equipment, but this can be done in a school yard environment. Through the application of the natural environment approach, the teacher expects an increase in student learning outcomes. When studying material characteristics of living things students observe living things in the school environment so that students are directly able to do group assignments properly according to what the teacher ordered, namely finding, seeing and observing living things around the school and finding the characteristics of living things the.

Based on the description of the situation above, the researcher as a teacher who teaches natural science subjects on the characteristics of living things aim to conduct a research titled "Improving Science Learning by Applying the Natural Environment Approach into the Characteristics of Living Things Chapter".

Method

The method of improved learning in the research is classroom action research consisting of two cycles. In each cycle through the stages include: planning, implementation of action, observation and reflection. The following is a scheme for implementing improvement in learning as an overview stage of the research conducted in science lessons on the characteristics of living things for class IV SD Negeri 064955 Medan. The following is a scheme of cycle 1 and cycle 2:

Figure 1. Cycle 1 and cycle 2 scheme

The subjects of this study were 26 grade IV students of SDN 064955 Medan, consisting of 12 boys and 14 girls. This research will consist of 2 cycles with directions from fellow teachers as supervisors. In this study, the data collected was in the form of quantitative data and qualitative data. Quantitative data in the form of scores using comparative descriptive analysis, by comparing the results of the initial condition test, the test scores after cycles 1 and 2, specifically in the form of scores from the daily test results of class IV students at SDN 064955 Medan in cycles 1 and cycle 2.

Results and Discussion

The research results will be presented in the form of tables and reports from the pre-cycle, cycle 1 and cycle 2 learning activities, as follows:

Pre Cycle (Before Learning Improvement)

The pre-cycle was held on Saturday, October 1, 2022. In the pre-cycle of the Science subject material on the characteristics of living things in class IV Odd Semester SD Negeri 064955 Medan Academic Year 2022/2023, with a Minimum Completeness Criteria Score (KKM) of 70, indicating learning outcomes low, as follows:

Table 1. List of Student Learning Outcomes in the Pre-Cycle

No	Score	Frequency	Percentage	Description
1	82	1	3,84%	complete
2	80	1	3,84%	complete
3	75	3	11,53%	complete
4	72	1	3,84%	complete
5	70	2	7,69%	complete

6	65	5	19,23%	Not Completed
7	60	7	11,67%	Not Completed
8	55	2	7,69%	Not Completed
9	50	3	11,53%	Not Completed
10	40	1	3,84%	Not Completed
Complete Percentage				**30,76% (8 People)**
Incomplete Percentage				**69,24% (18 People)**

Based on Table 1.1 above, it shows the learning outcomes of 26 grade IV students at SDN 064955 Medan in the pre-cycle. From the overall score obtained, the percentage of completeness reached 30.76% and 69.24% of students had not achieved completeness or were below the KKM with an average score of 63.23, so the researchers planned to implement learning improvements. To improve student learning improvement, researchers took steps to conduct classroom action research by going through several stages, namely planning, implementing, observing and reflecting which will be carried out in the next cycle..

Cycle 1

Cycle 1 was held on Tuesday, 4 October 2022. In the implementation of learning activities in cycle 1, class IV students at SDN 064955 Medan. This research was on natural science subject matter on the characteristics of living things, where the implementation of this class action was carried out in several stages using systematics in the lesson plan for improving Cycle 1. In cycle 1 the research results were not satisfactory. Student learning outcomes in cycle 1 can be seen in table 1.2 as follows:

Table 2. Student Learning Outcomes in Cycle 1

No	Score	Frequency	Percentage	Description
1	85	1	3,84%	Complete
2	80	1	3,84%	Complete
3	75	8	30,76%	Complete
4	70	5	19,23%	Complete
5	65	5	19,23%	Incomplete
6	60	6	23,07%	Incomplete
Complete Percentage				**57,69% (15 People)**
Incomplete Percentage				**42,31% (11 People)**

Based on Table 1.2 above, it shows the learning outcomes of 26 grade IV students at SDN 064955 Medan in cycle 1. From the overall score, the percentage of completeness reached 57.69% and 42.31% of students had not achieved completeness or were below the KKM with an average of 69. 23 so that the researcher took the decision to continue the implementation of learning improvements to the next cycle.

Cycle 2

The implementation of cycle 2 was carried out on Tuesday, October 11, 2022. The implementation activities in cycle 2 were carried out with the same students, namely class IV students at SDN 064955 Medan,

with material on the characteristics of living things. The student learning outcomes in cycle 2 can be seen in Table 1.3 as follows:

Table 3. Student Learning Outcomes in Cycle 2

No	Score	Frequency	Percentage	Description
1	90	2	7,69%	complete
2	80	8	30,77%	complete
3	75	5	19,24%	complete
4	70	11	42,30%	complete
Complete Percentage				**100% (26 People)**
Incomplete Percentage				**-**

Based on Table 1.3 above, it shows that the learning outcomes of 26 grade IV students at SDN 064955 Medan with material characteristics of living things in cycle 2 reached an average of 75.58. Of the total grades that have been completed, the percentage of achievement is 100%. From cycle 2 it can be seen that learning improvements in the material characteristics of living things show a significant increase, so that researchers are satisfied with the grades obtained by students who have achieved the complete KKM and the researcher decides not to continue research in the next cycle. This means that learning improvement research has been completed.

From the results of observations it can be concluded that the teacher as a researcher in conveying material characteristics of living things only uses conventional methods, namely the lecture method only so that only the teacher is active during learning activities. This causes students to feel bored and not interested in participating in learning activities. Students are not interested, this is what causes student learning outcomes to be low. Therefore, researchers need to conduct classroom action research in this case learning improvement with the aim of improving learning improvement in material characteristics of living things by rearranging improvement lesson plans and even better learning methods. In this case, the researcher decided to carry out learning through the stages of classroom action research (PTK) in several cycles through the application of the surrounding natural environment approach during the implementation of learning improvements.

The pre-cycle implementation was carried out on Saturday, October 1, 2022. In the pre-cycle learning, student learning outcomes in the Natural Sciences subject matter on the characteristics of living things were still quite low. Due to the low level of seriousness in participating in learning, the learning outcomes obtained by students will also be low, so the teacher as a researcher reflects on this problem, and decides that learning needs to be improved. Of the 26 students only 30.76% achieved completeness, 69.24% did not achieve completeness and the average student score was 63.23.

The implementation of cycle 1 was carried out on Tuesday, October 4 2022. The implementation of learning improvements in cycle 1 focused on the efforts of the teacher as a researcher to improve the improvement of natural science learning material on living things. To overcome the problem, the research in cycle 1 uses the application of the natural environment approach method. Through the application of the natural environment approach, it is expected to attract students' interest in participating in the learning process carried out in cycle 1.

From cycle 1 student learning outcomes show an increase when reviewed at the pre-cycle stage. This is known from the learning outcomes of students who achieved completeness with a percentage of 57.69%, those who did not complete decreased to 42.31% and the average value reached 69.23. Through this observation it can be seen that the learning outcomes in cycle 1 are better than pre-cycle. Through the data found, there were student scores that had not reached completeness, so the researcher decided to continue to the next cycle, namely cycle 2.

Cycle 2 was held on Tuesday, October 11, 2022. In the implementation of learning improvement cycle 2 the researcher made improvements to learning on deficiencies during the implementation of cycle 1. Improvements focused on the quality of learning, namely by using the right concept in implementing the surrounding natural environment approach method, utilizing learning media and division of group tasks.

In learning activities students are able to work on group assignments, are able to do tests on material characteristics of living things and submit assignments on time. This shows the success of using the surrounding natural environment approach in increasing the improvement of natural science learning on material characteristics of living things in class IV SDN 064955 Medan in the 2022/2023 academic year.

In terms of student learning outcomes, it was found that there was a satisfactory increase in grades with an average score of 75.58 and a completeness percentage of 100%. This means that the knowledge and in-depth learning of the characteristics of living things increases compared to the improvement in cycle 1. The results of increasing student scores and percentages in the pre-cycle, cycle 1 and cycle 2 can be seen in table 1.4 as follows:

Table 4. Table of Acquired Average Values and Percentages per Cycle

No	Description	Score per Cycle		
		Pre Cycle	Cycle 1	Cycle 2
1	Average Score	63,23	69,23	75,58
2	Completeness Percentage	30,76 %	57,69 %	100 %

Table 4.5 above shows that student learning outcomes increase in each cycle. In the pre-cycle, the percentage was 30.76%, in cycle 1 it increased to 57.69% and in cycle 2 it showed a significant increase of 100%. In this case, it can be proven by the application of the surrounding natural environment approach method which can improve the improvement of learning on material characteristics of living things.

From the description above, it can be said that through the application of the natural environment approach, it can improve the improvement of science learning in material characteristics of living things for class IV students at SDN 064955 Medan in the 2022/2023 academic year.

Conclusion

Through the implementation of the Natural Environment approach, it showed the improvement of learning result in the Natural Science subject on the characteristics of living things subject for the 4th grade students at SDN 064955 in the 2022/2023 academic year. Before applying the natural environment approach, student learning outcomes were low, meanwhile after applying the natural environment approach around school or outside the classroom, student learning outcomes increased. This increase can be seen from comparing the total percentage in the pre-cycle that was completed and it only reached 30.76%, and after applying the natural environment approach, in cycle 1 learning outcomes showed an increase of 57.69% and in cycle 2 showed a very good increase of 100% with an average score of 75.58. Thus, this method can be one of the learning methods to be applied on this subject with or without further adjustments.

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