

Application of Discovery Learning Model to Improve Results of Science Learning In Class V Students Of SDN I Tataaran

Fonny Katili

Primary Education Department Faculty of Education

Manado State University

Email: fonny_katili@unima.ac.id

Abstract—This study aims to improve learning outcomes of natural science subjects through the application of the Discovery Learning model to students in class V of SDN I Tataaran. The research method used is the method of classroom action research. The design of the implementation of this research is by following the research design proposed by Kemmis and McTaggart. This research consists of two cycles, in which each cycle consists of the planning, implementation, observation, and reflection stages. Based on the results of the study, it was shown that the implementation of the first cycle of learning completeness learning outcomes in classical terms reached 59.5% with the level of individual completeness of new students reaching 6 students from 20 students. Whereas in the second cycle students learning outcomes in a classical manner increased the percentage to reach 95.75% with students achieving mastery learning reaching 20 students or mastery learning. Based on the results achieved, it can be said that the use of discovery learning models in natural science subjects can improve the learning outcomes of fifth grade elementary school students.

Keywords—discovery learning, learning outcomes, natural sciences.

I. INTRODUCTION

Education is a vehicle for improving and developing the quality of human resources. Indonesian society with its pace of development still faces severe educational problems, especially related to the quality, relevance and efficiency of education. Because education is directed at the desirable formation of human beings, the expected human figure is a human who is capable of being independent and responsible (Nani Widiarti, 2013: 7). Education for most students in elementary school means trying to guide children to resemble adults, whereas for Jean Piaget in [6], education means producing, creating, even if a creation is limited by comparison with the creation of others.

Education as a two-sided liaison, on the one hand the individual is growing and the other side is social, intellectual, and moral values which are the responsibility of education to encourage the individual. In addition to education education directs subjects who have high ability and absorption, are creative, independent and professional. Improving the quality of education especially in elementary schools is the focus of attention in order to improve science learning. To be able to carry out science learning well at the elementary

school level, it requires teachers who are skilled at designing and managing learning processes that are active, creative, innovative and fun as reflected in the implementation of curriculum that aims to have the ability to live as individuals and believing citizens. productive, creative, innovative and affective and able to contribute to the life of the world, nation, state and civilization. In implementing the curriculum teachers should be able to involve active students in learning both physically, mentally, and socially, from the above requirements it is said that teachers are expected to be able to design and manage the learning process by presenting as well as possible and regulating good conditions.

In fact, science learning in class V tends to still use the lecture model in presenting the material so as to cause boredom in students, students ineffective in the learning process Therefore learning activities that occur are not interactive and unpleasant for students because students are not fully involved in the learning process even though the teacher has provided student books as a good medium. This reasoning causes many students to consider the science learning process to be a boring, unpleasant learning, too much memorization, less varied and sharing other complaints because there are no activities that attract students' interest and curiosity.

This causes student learning outcomes to be low, this can be seen from 20 students only 7 students who achieve mastery scores and 13 students who have not yet completed, which means that they have not achieved the minimum completeness standard (KKM) set by the school which is a score of 70. Criteria KKM completeness in classical is considered complete if it reaches 75% of the total number of students.

For this reason, teachers are expected to be able to explore the things that make the challenges, including the use of professional learning models with reference to teacher readiness, children's readiness, and school readiness. To overcome this problem, the application of the Discovery Learning Learning model in science learning can be an alternative action that can be applied to improve student learning outcomes in animal life cycle material in class V SDN 1 Tataaran.

In the Discovery Larning learning model the teacher acts as a guide by providing opportunities for students to learn actively, the teacher must be able to

guide and direct student learning activities in accordance with the objectives. Discovery Learning Model is a teaching method wherein the learning process allows the teacher to allow his students to find themselves, develop scientific thinking, assimilate a concept or principle and put students in a lot of creative learning. Discovery in Indonesian means discovery. In the opinion of Sund in [3], it is stated that the discovery model is a mental process where students assimilate a concept or principle. The mental process, for example: observing, classifying, making guesses, explaining, measuring, making conclusions, and so on. What is meant by concepts are: triangles, democracy, heat, energy, and so on. Whereas the principle: metal when pan expanded, the environment affects the life of the organism.

By applying the Learning model Discovery Learning repeatedly can improve the ability of self-discovery of the individual concerned. The use of the Discovery Learning Learning model, can change the learning conditions that are passively active and creative. Turning teacher-centered learning into student-centered learning so that by implementing the Discovery Learning learning model can improve student learning outcomes.

II. METHOD

This research was conducted in the form of classroom action research which refers to the action research model proposed by Kemmis and McTaggart in the Ministry of National Education (2004: 2) which consists of four stages, namely: the planning stage, the stage of action, the observation stage and the reflection stage.

The research design carried out in this study broadly includes:

Planning stage. At this stage the researcher collaborates with the classroom teacher to compile the design of science learning in the animal life cycle material using the Discovery Learning Learning model, then prepare the lesson plan, prepare teaching aids and prepare research instruments.

Implementation stage. The implementation phase of the learning action is adjusted to the steps of the Discovery Learning model: Stimulation or stimulation, Statement and identification of problems, Data collection, Data analysis, Verification and Generalization.

Observation stage. In the observation activity observed by the class teacher (observer) is (research subject) and (researcher) during the learning activity and identifies student constraints during learning.

Reflection stage. At this stage the researcher reflected on the learning process during the teaching and learning activities taking place using an observation sheet. Through this instrument the researcher evaluates the success or failure of students in understanding learning.

The subjects in this study were fifth grade students of SDN 1 Tataaran, amounting to 20 people consisting of 13 women and 7 men. This research was conducted in the first semester of the 2016/2017 school year. The main data in the study were carried out by observation and written tests. Analysis data with

calculation of percentages and average learning outcomes achieved by students. The data analysis technique in this study uses descriptive analysis techniques with a unit of percentage calculation with 75% completeness indicators covering the success of all students in this study.

III. RESULTS AND DISCUSSION

This class action research was conducted in class V of Sagerat Elementary School, with a total of 20 people consisting of 13 women and 7 men. In the process of classroom action research using the Discovery Learning learning model to improve science learning outcomes, which are outlined in the learning implementation plan according to the education unit level curriculum. In this study the researcher acted as an act of action and was monitored by the study teacher and the principal.

In this study, the process was carried out in two implementation cycles. The results of achieving the learning process in the first cycle of completeness in classical learning are as much as 60.5% with the level of mastery learning, students who have completed only reach 8 students from 20 students enrolled. In this cycle the results achieved are not satisfactory or need to be improved again. This failure occurs because the teacher has not been able to regulate the steps of the Discovery Learning model that has been designed so that the formed study group has not succeeded and the assignments and assignments given by the teacher are not done by the student. For this reason, it needs to be taught in detail so that they can be understood so that the results expected can be achieved.

While the results achieved in the implementation of the second cycle of mastery learning classically are 95.5% with the level of student mastery reaching 20 students, it can be said the mastery of learning is successful. Based on the above study and data analysis of the learning process starting from the plan to the learning activities conducted by the researcher, it turned out that there had been an increase in learning, this was seen in the high activity of students in taking part in ongoing learning activities. . It can be concluded that, in the learning process in the second cycle there was an increase in learning outcomes in science learning in class V using the Discovery Learning model. With the results of learning in this second cycle, the implementation of learning stops at this stage.

Discussion of research results

In teaching and learning activities for students in trying to achieve learning goals. But seeing the conditions experienced by students is often the goal has not or does not work as expected. From the conditions encountered, it shows the difficulty of learning science faced by fifth grade students of SDN 1 Tataaran, generally students only know about science concepts, without being equipped with learning that allows students to save more material and apply it in their daily

lives day. As a result, the values of science declined and the learning outcomes were not satisfactory.

The role of the teacher in understanding this problem is to strive for a more meaningful learning process for the students themselves, the teacher is only as a facilitator, mediator, and motivator for students, so students are more independent and more appreciative of the knowledge they obtain themselves.

From the results of the research in using the Discovery Learning model in the first cycle, there are still difficulties for the teacher in explaining how to make discoveries to students, so that when the teacher gives questions the students are still unable to understand the purpose of the question, but after re-learning the students understand make discoveries, and when asked questions students can answer questions. This is carried out according to the steps of the Discovery Learning model during the teaching and learning activities. This can also be seen from evaluations, there are changes in making discoveries and activeness of students in answering questions well, students no longer play but are serious in learning. This can be seen with the results of the second cycle students' achievement of 95.5%. With the results of student achievement in the second cycle has reached the specified criteria, then this research is said to be successful.

IV. CONCLUSIONS

The application of the Discovery Learning model can improve the science learning outcomes of fifth grade students of SDN 1 in order and can make students more excited and excited in learning with students looking for and determining what is learned.

In this study, the process was carried out in two implementation cycles. The results of achieving the learning process in the first cycle of completeness in classical learning are as much as 60.5% with the level of mastery learning, students who have completed only reach 8 students from 20 students enrolled. While the results achieved in the implementation of the second cycle of mastery learning classically are 95.5% with the level of student mastery reaching 20 students, it can be said the mastery of learning is successful.

REFERENCES

- [1]. Arikunto, Suharsimi. 2010. *Penelitian Tindakan Kelas*. Jakarta: Bumi Aksara
- [2]. Aunurrahman. 2009. Belajar dan Pembelajaran. Bandung: Penerbit Alfabeta.
- [3]. Budiningsih. 2003. Aplikasi Model Discovery Learning. Jakarta: Pustaka Mandiri.
- [4]. Daryanto, H. 2008. Evaluasi Pendidikan. Jakarta: Rineka Cipta'
- [5]. Kunandar. 2007. Guru Profesional. Jakarta : PT. Rajawali Grafindo Persada.
- [6]. Sagala, Syaiful. 2011. Konsep Dan Makna Pembelajaran. Bandung: Alfabeta.
- [7]. Solihatin, Etin dan Raharjo. 2005. Cooperative Learning Analisis Model Pembelajaran IPA. Jakarta: Bumi Aksara.
- [8]. Sulaiman. M. 2004. Lebih Dekat Dengan Alam sains Untuk Anak SD kelas IV. Jakarta: Setia Purna Inves.
- [9]. Trianto. 2007. Model-Model Pembelajaran Inovatif berorientasi Konstruktivistik. Jakarta: Presentasi Pustaka.