APPLICATION OF DISCOVERY LEARNING TO INCREASE ACTIVITY AND STUDENT LEARNING RESULTS IN UNDERSTANDING THE LIFE ENVIRONMENT IN SMP NEGERI 2 SUKODONO

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Abstract

The purpose of this study is to analyze the main problem in the classroom and improve student learning outcomes in environmental material in SMP Negeri 2 Sukodono. This research is a classroom action research carried out in 2 action cycles. In this study the data obtained in the form of student learning activities, the value of the discussion, and the value of student learning outcomes. The results showed that with the implementation of discovery learning could be improved the activities and learning outcomes of the students in understanding the environmental problems material. Its indicated by the increase of student learning activities from 65.07% (enough) in the first cycle increased to 76.67 % (good) in cycle II.

key words : Discovery Learning, Learning Activity, Learning Outcomes.

INTRODUCTION

Learning is a process of changing one's behavior. Changes in this case are interpreted as desired changes. The desired change is a behavior based on motivation and ability to learn from within that person. But in fact in the learning process that occurs we often find students who don't want to learn. As an example when in the classroom there are still many students who pay less attention to the lesson

Many factors that affect these things often occur. But one factors that often occur in school because these students feel lazy because they do not understand the true learning goals. So that students do not want to follow the learning process.

One effort that can be used to foster student learning interest so students want to take lessons is to use a model discovery learning in environmental material. Discovery learning has substance on freedom and independent formation of knowledge by students. So that it can increase student interest because learning is more fun.

The progress of the Indonesian nation can only be achieved through good education arrangement. The effort to improve the quality of education is expected to increase the human dignity of Indonesia. To achieve this, education reform in Indonesia needs to be continuously made to create a sensitive education world for the changing times. Efforts to improve education are key focuses in educational development today. The effectiveness of learning by professional teachers is a major factor in improving the quality of education.

Teachers as professional educators with the main task of educating, teaching, guiding, directing, training, assessing and evaluating learners need continuous professional improvement. In the era of the curriculum that always experience this shift / change, education providers and learners need teachers who also serve as researchers most power full, capable of executing tasks and adopting new strategies. Based on the function of national education, the role of the teacher becomes the key to success in the mission of education and learning in school in addition to responsible for organizing, directing, and create the atmosphere that encourages students to do learning in the classroom. Educational issues are always emerging along with the growing and increasing ability of students, situations, conditions of existing environment, the influence of information and culture and the development of science.

SMP Negeri 2 Sukodono is an advanced school on technology, it can be seen on infrastructure that is quite complete in the school, which include Physics Laboratory, Biology Laboratory, Computer Laboratory, Language Laboratory, Library, Student Organization Room Intra School (OSIS), Student Cooperative Room, School Health Unit Room (UKS), Counseling Guidance Room (BK), Electrical Room, Skill Room, Mosque and School Cafeteria. Based on observations made, it is known that Geographic subject teachers deliver the subject matter using lecture, question and answer methods, assignments, and exercises. In addition, based on interviews conducted with students of class VIII-B SMP Negeri 2 Sukodono about their view of Geography lessons most of the students said that Geography subjects are boring, because many concepts should be memorized (many memorized).

In addition, from 40 students, 75% of students do not understand the benefits of Geography lesson for real life. This can be seen from the students' answers when they are asked questions that are related to the environmental problems that surround them. One of the developed learning approaches is the learning approach that uses real-world problems as the context of students to learn about critical thinking, and problem-solving skills, and to acquire essential knowledge and concepts from learning materials.

The problem-based learning approach aims to form a self-sufficient person, because in the learning process the student's participation is highly preferred and strongly highlighted.

In addition to active cognitive, effective and psychomotor activities with full involvement in the learning process will manifest skill, social and physical skills useful later in real life. Problem-based learning also educates students to issues or questions that are authentic and demands collaboration in investigation and produce work.

METHODS

This type of research is a classroom action research is research done by someone who works on what he is doing without changing his system. The action given is to provide the task to formulate and solve problems and create reports and then provide a test of learning outcomes to determine the success of learning. The researcher's activity is to conduct learning process by using problem-based learning for environmental damage material and handling it. Implementation of the actions in this study will take place within a few cycles to achieve the stage of action success. In each cycle consists of 4 stages of activity. These stages include: action planning, action execution, observation and reflection. This research was conducted in SMP Negeri 2 Sukodono which is located at Dieng road no 272 Lumajang Regency. The subject of this research is class VIII. Due to the large number of classes, as well as the lack of understanding of students in solving a problem then the researchers just take one class only. Data collection in this research is done by using 3 ways in accordance with the needs of researchers, namely (1) observation or field notes; (2) documentation; and (3) tests. The collected data is then analyzed. Data analysis aims to reveal what data still needs to be searched, what questions are still unanswered, what methods should be used to obtain new information, and what errors should be corrected immediately. Data analysis is performed every time the giving of the action ends and after the data collection.

RESULTS AND DISCUSSION

There is a stage of observation 1, at this stage, the activities undertaken are observing the process of student learning conducted by two colleagues of researchers and teachers of geography studies SMPN 2 Sukodono. Based on the observations, there are some research findings after the implementation of the action in Cycle 1, namely: There are still students who are confused with the model of learning-based problems seen from some students who often ask the teacher, Not all students have a source book because the teacher does not encourage students to have a certain hand book.

Conditions like this that cause many students who pass to borrow books to other friends who have the source book, There are still 4 members of passive learning group, joking alone, and do not want to discuss in doing the task of the teacher.

There are still 2 members of the group who do not pay attention to his friend when asking questions as well as answering questions as class discussions take place. The student presents the discus with hesitation and the Teacher goes around from one group to another, to clarify to another group that is not clear about the assignment. it can be seen that the increase in the percentage of student learning activities in each of the observed student learning aspects.

Material mastery aspect increased from 61,66% in cycle I to 90% in cycle II, material delivery aspect increased from 57,92% in cycle I to 82,91% in cycle II, question aspect increased from 60,17% in cycle I become 69,83% on second cycle, comment aspect increased from 74,17% in cycle I to 80,83%, responding aspect increased from 49,17% in cycle I to 72,25% in cycle II and other activity aspect increased from 75,42 % in cycle I to 77.08% in cycle II. the overall percentage of learning activity and the success rate of action increased from 65.07% or had a sufficient level of success in the first cycle to be 76.67% or have a good success rate in cycle II, and from the results obtained in cycle II can be concluded that there is a significant increase on the percentage of success for student learning activities and this proves that application of Problem-Based Learning.

Table 1. The cycle of research

Aspects	Cycle I (%)	Cycle II (%)
material mastery	61,66	90
material delivery	57,92	82,91
question	60,17	69,83
comment	74,17	80,83
responding	49,17	72,25
other activity	75,42	77,08
overall	65,07	76,67

Data Processed (2017)

The results of this study are in accordance with the opinion Kurniasih & Sani (2014: 64) discovery learning is defined as learning process that occurs when learning material is not presented in its final form, but students are expected to organize themselves. Furthermore, Sani (2014: 97) reveals that discovery is find concepts through a series of data or information obtained through observation or experiment.

A further statement stated by Hosnan (2014: 282) that discovery learning is a model for developing active learning by finding yourself, investigating yourself, then the results obtained will be faithful and durable in memory. Through learning discovery, students can also learn analytical thinking and try solve the problem itself.

Wilcox (in Hosnan, 2014: 281) states that in learning with discovery, students are encouraged to learn mostly through active involvement themselves with concepts and principles and teachers encourage students to have experience and conduct experiments which allows them to find principles for themselves themselves.

Discovery model is learning that emphasizes direct experience and the importance of understanding structures or ideas important to a scientific discipline, through student involvement active in learning. Teaching materials presented in the form questions or problems that must be resolved.

Become a student obtain knowledge that he did not know not through notification, but through self-discovery. The results of study also related several learning process. The learning process will goes well and creatively if the teacher gives an opportunity to students to find a concept, theory, rule, or understanding through the examples found in his life. Use discovery learning, wants to change the learning conditions that are passive to become 15 active and creative.

According to Budiningsih (2005: 43), "The Discovery Learning model is a way learn to understand concepts, meanings, and relationships through an intuitive process for finally came to a conclusion ". Discovery is a translation of discovery. According to Sund "discovery is a mental process where students are able to assimilate a concept or principle". The mental process is to observe, digest, understand, classify, make guesses, explain, measure, make conclusion and so on (Roestiyah, 2001: 20), whereas according to Bruner, "Discovery is a process, a way of approaching a problem not a product or item of knowledge. " Thus in in Bruner's view, learning with discovery is learning for find, where a student is faced with a problem or situation which seems odd so students can find ways to solve (Markaban, 2006: 9).

According to Hamalik (2008) learning outcomes are as a change behavior in one self that can be observed and measured knowledge, attitude and skills. This change can be interpreted as an increase and development of a better previous one who did not know to know. According to Mulyasa (2008) learning outcomes are student achievement as a whole which is an indicator of competence and degree of change the behavior in question.

Competencies that must be mastered by students need to be expressed in such a way that it can be assessed as a manifestation of student learning outcomes which refers to direct experience. Sudjana (2009: 3) defines student learning outcomes in essence is a change in behavior as a result of learning in a deeper sense broad covers the fields of cognitive, affective, and psychomotor.

According to Dimyati and Mudjiono (2006: 3-4) mention learning outcomes is the result of an interaction between learning and teaching. From the side teacher, teaching action ends with a process of evaluating learning outcomes.

From the side students, learning outcomes are the end of teaching from the peak of the learning process.

CONCLUSION

Based on the results of research, data analysis and discussion of research obtained conclusion that geography learning by using discovery learning can increase students' understanding of environmental issues. Learning method by using problem-based learning model can improve student learning outcomes. the teacher must be able to apply this strategy correctly if he wants to achieve the learning goals.

REFERENCES

Budiningsih, Asri. 2005. *Belajar dan Pembelajaran.* Jakarta: Rineka Cipta.

Dimyati dan Mudjiono. 2006. *Belajar dan Pembelajaran*. Jakarta: PT. Rineka. Cipta.

Hamalik, Oemar. 2008. *Kurikulum dan Pembelajaran.* Jakarta: Sinar Grafika.

Hosnan, M. 2014. *Pendekatan Saintifik dan Kontekstual dalam Pembelajaran Abad 21*: Ghalia Indonesia

Kurniasih, Imas & Sani, Berlin. 2014. *Implementasi Kurikulum 2013 Konsep & Penerapan.* Surabaya: Kata Pena

Mulyasa. 2008. *Menjadi Guru Profesional Menciptakan Pembelajaran Kreatif dan Menyenangkan.* Bandung : PT. Remaja Rosdakarya.

Roestiyah .2001. *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta.

Sudjana, Nana. 2009. *Penilaian Hasil Proses Belajar Mengajar.* Bandung: PT. Remaja Rosdakarya.