

THE USE OF COOPERATIVE LEARNING MODELS IN NATURAL SCIENCE EDUCATION

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Abstract. *The purpose of this research is to determine the impact of the cooperative learning approach in science education. Cooperative learning can help students make significant strides in building attitudes, beliefs, and behaviors that will allow them to participate in their communities in ways that are congruent with the goals of historical education. The research data is in the form of numbers derived from tests and observation outcomes (direct observation). Teachers and students in the scientific learning process were used as data sources in this study by employing identity cards. The first instrument used in this study was self-research, which served as a data collector with the help of supporting instruments in the form of observation sheets.*

Keywords: *Cooperative Learning, Research, Data Sources*

Abstrak. Tujuan dari penelitian ini adalah untuk mengetahui dampak pendekatan pembelajaran kooperatif dalam pendidikan IPA. Pembelajaran kooperatif dapat membantu siswa membuat langkah signifikan dalam membangun sikap, keyakinan, dan perilaku yang memungkinkan mereka untuk berpartisipasi dalam komunitas mereka dengan cara yang sesuai dengan tujuan pendidikan sejarah. Data penelitian berupa angka yang diperoleh dari tes dan hasil observasi (pengamatan langsung). Guru dan siswa dalam proses pembelajaran saintifik digunakan sebagai sumber data dalam penelitian ini dengan menggunakan kartu identitas. Instrumen pertama yang digunakan dalam penelitian ini adalah self research yang berfungsi sebagai pengumpul data dengan bantuan instrumen pendukung berupa lembar observasi.

Kata kunci: Pembelajaran Kooperatif, Penelitian, Sumber Data

A. INTRODUCTION

Cooperative learning is a form of learning based on constructivist understanding. Cooperative learning is a learning strategy with a number of students as members of small groups with different levels of ability. In completing their group assignments, each student member of the group must work together and help each other to understand the learning material. In cooperative learning, learning is said to be incomplete if one of the friends in the group has not mastered the lesson material.

The basic elements in cooperative learning according to Lungdren (1994) are as follows:

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students must have the perception that they "sink or swim together". Students must have responsibility for other students or students in their group, in addition to responsibility for themselves in learning the material at hand. The students should be of the view that they all have the same goal.

In cooperative lessons that are taught are specific skills in order to work well in the group, such as being a good listener, students are given activity sheets containing questions or assignments planned to be taught. During group work, the task of group members is to achieve completeness.

According to A. Crow and L. Crow (1989), education is defined as a process in which experience or information is obtained as a result of the learning process, whereas according to Budiningsih (2005), there is a principal difference between learning theory and learning theory. Learning theory is descriptive, because its main purpose is to examine the learning process. Meanwhile, learning theory is prescriptive, because its main goal is to determine optimal learning methods. Cooperative learning is one of the learning based on constructivist understanding. Cooperative learning is a learning strategy with a number of students as members of small groups with different levels of ability. In completing their group assignments, each student member of the group must work together and help each other to understand the subject matter.

Cooperative learning can make great progress in students toward developing attitudes, values and behaviors that will enable them to participate in their communities in ways that are consistent with the goals of history education. This can be achieved because the main purpose of cooperative learning is to gain knowledge from fellow friends. That knowledge is no longer obtained from the teacher. A friend must provide opportunities for other friends to express their opinions by respecting the opinions of others, correcting each other's mistakes, and correcting each other.

The steps in the implementation of the cooperative learning model in general which are explained operationally are as follows:

1. Designing Learning Program Plan

In this step the teacher considers and sets learning targets to be achieved in learning. Besides that, the teacher also determines the attitudes and social skills that are expected to be developed and cared for student during the course of learning.

2. Designing an observation sheet

This is intended to observe student activities in learning together in the context of small groups, in delivering material the teacher no longer conveys material at length because students will later understand and deepen the material when studying together in groups.

According to Aep (in Wawan 2010: 1) learning activities are all a series of activities or learning activities carried out by a person which results in changes in him in the form of changes in knowledge or skills which are dependent on more or less changes. Meanwhile, according to Ujang Komarudin (in interview: 2) activity in the teaching and learning process is a series of activities that include the activeness of students in attending lessons asking questions about activities carried out that can support learning achievement.

B. RESEARCH METHODS

In this research method we use descriptive qualitative research. Qualitative descriptive research is a method that is used as a description or condition of a subject, by describing as much detail as possible with the existing facts. This type of research is literature review research. Literature review research is research in which all reading material has been read and analyzed whether it has been published or as an individual collection. Literature reviews are often related to theoretical frameworks or theoretical foundations used to analyze research objects. The literature research we reviewed was sourced from PDF and journals obtained from e-journals.

C. RESULTS AND DISCUSSION

This classroom action research was carried out in class I of Social Sciences (IPA) subjects for the 2020-2021 academic year by collaborating with other science subject teachers. This research was carried out departing from the problems found in class I Elementary School resulting in low student learning outcomes, as well as the results of daily tests prior to class action.

The problem in general is the weak understanding of first grade elementary school students in science learning, this problem is caused by the boring class atmosphere for students. Students who are less active in learning and science subject teachers still convey subject matter in a

conventional way, namely by lecturing and then giving assignments to students resulting in low student learning outcomes.

In an effort to improve science learning outcomes in class I Elementary School. The results of classroom action research are the result of collaboration between researchers and science teachers using identity card media.

Planning Cycles I and II: In carrying out classroom action the researcher and science teacher create an action plan to improve the learning strategy by compiling action scenarios in the form of learning plans, carrying out learning which is divided into several steps, namely: introduction, core activities, closing and evaluation the researcher also determines action performance indicators as well as observing with the observer, from the observations of the first cycle did not meet the criteria with predetermined performance indicators, the researchers together with the observer devised an improvement strategy for carrying out class action in cycle II.

Implementation of Cycles I and II: Implementation of class action research according to the cycle, where cycle II aims to improve the learning process before class action is held. This classroom action research was carried out through planning action activities, creating action scenarios, implementing actions, observing reflection for further actions.

In this class action research the task that must be completed by students is that students can understand the concept of learning material with the subject of implementing cooperation through the media of self-identity cards in cycle II. After the teacher briefly explained the subject matter, students were directed by the teacher to form groups and carry out demonstrations using the Siri identity card media that had been provided by the teacher.

With the guidance and monitoring of the teacher, students do group work and when group work takes place observations make observations to determine student activity. Based on the results of classroom action research on science subjects, it shows the development of activeness, understanding of learning outcomes and mastery of learning individually and socially.

Student Activities Cycles I and II: based on research results in the form of observations and achievement of student scores, it can be seen that this learning model is able to improve the quality of science learning. Aspects of the teacher's ability to manage learning that were successfully observed using observation sheets with a scale of 1-4 showed an average score of 2.50 in the first cycle increasing to 4.80 in the observation cycle. This observation showed that in general the teacher was managing learning using card media the identity of science learning

is good.

Student Learning Outcomes: a list of pre-test scores for cycles I and II based on the results of classroom action research on science subjects shows the development of learning outcomes and learning completeness both individually and classically. Below is presented data and graphs of student development in participating in the learning process with the media of identity cards. Activeness and understanding of students in the learning process through identity cards can improve student results. Based on the average value of daily tests in cycle I and cycle II, it shows that the average value of students' daily tests has increased significantly in each cycle.

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