

## The Cooperative Learning Model with STAD Type to Improve Science Learning Outcomes of Class IV Elementary School Students

Pardiyana

SDN Tarungin 2, Kecamatan Hatungun, Kabupaten Tapin

\*Corresponding Author Email: [pardiyana07@gmail.com](mailto:pardiyana07@gmail.com)

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### Abstract

The results of science learning on the concept of natural resources achieved by the fourth-grade students of Tarungin 2 Elementary School Students have not been optimal with the average score of students is below 65, the average score obtained by students is only 59.5. That is because the lecture method still dominates the learning process. Classroom action research aims to increase teacher activity, student activity, and science learning outcomes of fourth-grade elementary school students with the STAD type cooperative learning model. This research was conducted in two cycles, for three months (January-March 2020). The research subjects were 16 students, eight males, and eight females. Retrievals of data using observation techniques, tests, and questionnaires. The data analysis technique has been carrying descriptively. The results showed that the use of the STAD type cooperative learning model had increased teacher activity in managing learning, student activities during the learning process, and student learning outcomes.

**Abstrak**

Hasil pembelajaran IPA pada konsep sumber daya alam yang dicapai siswa kelas IV SDN Tarungin 2 selama ini belum maksimal, rata-rata nilai siswa di bawah 65, nilai yang diperoleh siswa rata-rata hanya mencapai 59,5. Hal ini disebabkan metode ceramah masih mendominasi proses pembelajaran. Penelitian tindakan kelas bertujuan meningkatkan aktivitas guru, aktivitas siswa, dan hasil belajar IPA siswa kelas IV sekolah dasar dengan model pembelajaran kooperatif tipe STAD. Penelitian dilaksanakan dua siklus, selama tiga bulan (Januari-Maret 2020). Subjek penelitian sebanyak 16 orang siswa, delapan orang laki-laki dan delapan orang perempuan. Pengambilan data dengan teknik observasi, tes, dan angket. Teknik analisis data dilakukan secara deskriptif. Hasil penelitian menunjukkan penggunaan model pembelajaran kooperatif tipe STAD telah meningkatkan aktivitas guru dalam mengelola pembelajaran, aktivitas siswa selama proses pembelajaran, dan hasil belajar siswa.

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## A. Introduction

Natural science subjects are part of other sciences that teach various aspects of human life to serve as guidelines for living the lives of today's and future societies. Carin (2003), states that natural science as a product or content includes facts, concepts, principles, laws, and theories of Natural Science. So in essence Natural Science consists of three components, namely scientific attitudes, scientific processes, and scientific products. This means that Natural Science does not only consist of a collection of knowledge or various kinds of facts that are memorized, Natural Science is also an active activity or process of using the mind in studying natural phenomena that cannot be contemplated.

Natural Science Learning is oriented to the nature of Natural Science which includes products, processes, and scientific attitudes through process skills. Natural Science Learning, especially biology, emphasizes the process skills approach so that students find facts, build concepts, theories, and scientific attitudes on the part of students that can have a positive effect on the quality and product of education.

In class IV Tarungin 2 State Elementary School students are equipped with knowledge so they can be independent in the future. However, the reality is that the results of natural science learning that have been achieved by students so far have not been optimal, the average score of students have not yet reached 65. The average score obtained by students is only 59.5. This is because the lecture method in learning still dominates so that interactions only take place in one direction. Even though in the teaching and learning process, two-way or more communication should be needed so that it can make student activities more enthusiastic and make learning outcomes more successful. Therefore it is necessary to conduct research on the use of cooperative learning model type STAD to increase teacher activities and student activities in learning the concept of natural resources.

## B. Materials and Method

The classroom action research was carried out at Tarungin 2 Elementary School with a total of 16 students, consisting of eight boys and eight girls. The data were taken from the learning outcomes of fourth-grade students at Tarungin 2 Elementary School, Hatungun District, Tapin Regency. 2019/2020 school year.

The type of data used is data on student learning outcomes and data on student and teacher activity during learning. Retrieval of data using observation techniques, tests, and questionnaires. Observations of students and teachers in learning

activities, written tests of students, and questionnaires about students' opinions about learning. The results of observations of student and teacher activities were analyzed descriptively, while the test results were analyzed using the percentage technique.

Completeness analysis in learning:

$$\text{Score} = \frac{\sum \text{skor}}{\sum \text{maks}} \times 100$$

Categories: 81-100% (very good), 61-80% (good), 41-60% (moderate), and 20-40% (not very good).

The research is declared successful if the final test results of each student have reached a minimum score of 65, according to the minimum completeness criteria (KKM). In addition, it is classically obtained at least 80% of all students get a score of 65. Teacher and student activities are at least in good category.

## C. Result and Discussion

The results of research on teacher activities in managing learning are presented in Figure 1.

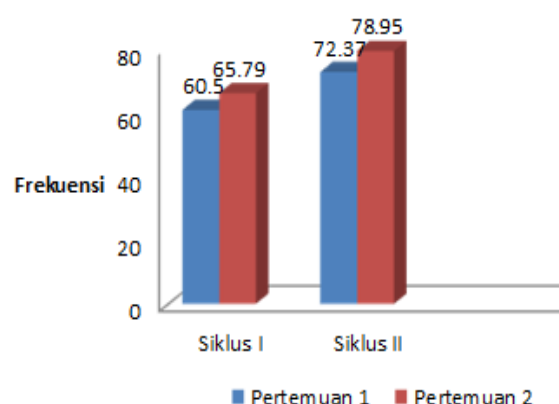


Figure 1 Graph of Teacher Activities in Learning

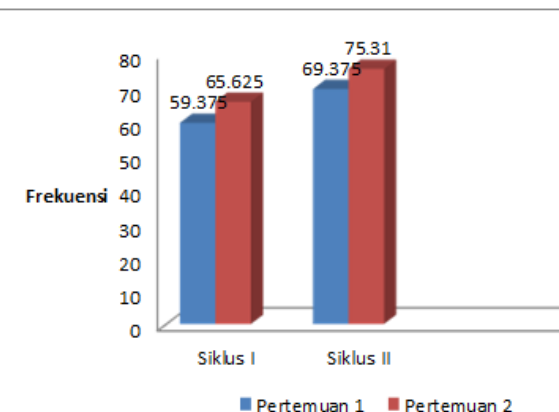


Figure 2 Graph of Student Activities During Learning Process

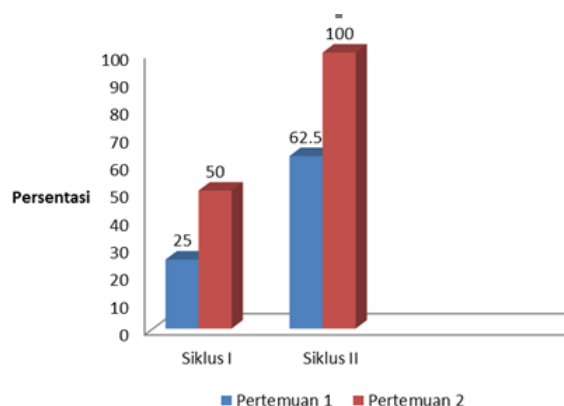


Figure 3 Graph of Student Learning Completeness

Figure information:

Categories: 81-100% (very good), 61-80% (good), 41-60% (moderate), and 20-40% (not very good).

Figure 1 explains that there is an increase in teacher activity in managing learning, and achieving a good category at the end of cycle II. Student activities during the learning process are presented in Figure 2. Figure 2 explained that there was an increase in student activity during the learning process and reached the "good" category at the end of cycle II. Student learning outcomes are present in Figure 3. The results of student learning completeness in cycles I and II are present in Figure 3.

Figure 3 explains that there is an increase in student learning outcomes. Based on the research results, it has been stated that the inference of using the STAD cooperative learning model had increased teacher activity in managing learning, student activities during the learning process, and student learning outcomes.

The results of this study are in line with previous research reports (Nasaruddin, 2015) apply the STAD cooperative learning model can improve learning outcomes. This study emphasizes the number of members in a group to obtain maximum learning outcomes. Suherman (1993) argues that if the group is too small, it will cause difficulties in interacting. But if it is too large, it will result in difficulty coordinating and reaching agreement among group members.

The application of the STAD type cooperative model in learning is a solution to solving problems. This model involves students directly because they exchange ideas with their group friends in obtaining knowledge that will have an impact on improving learning outcomes. Slavin's as cited by Siami (2008), states that when using the STAD cooperative model, students are placed in study groups of 4-5 people that are a different mix

of academics so that in each group there are high, medium, and low achievement students.

Student learning outcomes have increased, and it has been reporting in previous research (Taufiq (2015), complete learning outcomes are following the Kurikulum Tingkat Satuan Pendidikan (KTSP) KKM standard. The STAD type cooperative learning model is suitable for improving student learning outcomes, especially in Natural Sciences subjects (Chodijah, 2015; Supriyono, 2014); Nasaruddin, 2015),

Learning activities so far only emphasize mastering science products in the form of understanding concepts, laws, and theories (Chodijah, 2015). Learning should invite students to be directly involved in groups to improve existing abilities or new abilities to both in knowledge, attitudes, and psychomotor. Djuanda (2006), states the learning in elementary schools requires a variety of learning resources because learning is good requires many learning resources as possible to enrich children's experiences.

## D. Conclusion

Based on the results of the study, it concluded that the use of the STAD cooperative learning model had increased teacher activity in managing learning, student activities during the learning process, and student learning outcomes.

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