

**IMPROVING FOURTH GRADE NATURAL SCIENCE LEARNING OUTCOMES  
WITH TYPE STUDENT TEAM ACHIEVEMENT DIVISION (STAD)  
COOPERATIVE MODEL****Irma Sari Br Purba<sup>1</sup>**<sup>1</sup>Program Studi PGSD, Universitas Quality<sup>1</sup>[purbairmasari@gmail.com](mailto:purbairmasari@gmail.com)**ABSTRAK**

Penelitian ini dilakukan bertujuan untuk mengetahui peningkatan hasil belajar IPA kelas IV dengan menggunakan model kooperatif tipe STAD. Subjek penelitian adalah seluruh siswa kelas IV SDN 046573 Berastagi, Kabupaten Karo. Objek penelitian adalah peningkatan hasil belajar IPA kelas IV dengan menggunakan model kooperatif tipe STAD. Instrumen penelitian yang digunakan adalah lembar observasi dan tes pilihan berganda. Analisis data yang digunakan adalah hasil belajar individu, ketuntasan klasikal, dan rata-rata hasil belajar siswa. Dari analisis data yang diperoleh hasil observasi pelaksanaan pembelajaran aktivitas guru meningkat 12.11% dari nilai 59% menjadi 71.1 %, aktivitas siswa meningkat dari nilai 62 menjadi 74, ketuntasan individu yang dinyatakan mencapai nilai KKM yaitu 65, ketuntasan secara klasikal meningkat dari 66.67% menjadi 87.50%, dan nilai rata-rata meningkat dari 64.58 menjadi 76.25. Dari hasil penelitian dapat disimpulkan bahwa pelaksanaan pembelajaran berkategori baik dan hasil belajar siswa meningkat setelah menggunakan model pembelajaran kooperatif tipe STAD pada pelajaran IPA.

Kata kunci: Hasil belajar, Pembelajaran student team achievement division

**ABSTRACT**

This study was conducted to determine the improvement of fourth grade science learning outcomes using the STAD type cooperative model. The subjects were all students in fourth grade 046573 Berastagi, Karo. The object of the research is the improvement of the fourth grade science learning outcomes using the STAD type cooperative model. The research instrument used was the observation sheet and multiple-choice tests. Data analysis used is individual learning outcomes, classical completeness, and average student learning outcomes. From the analysis of the data obtained from observations the implementation of learning activities of teachers increased 12.11% from a value of 59% to 71.1%, student activity increased from a score of 62 to 74, the completeness of individuals who expressed achieving KKM scores of 65, classical completeness increased from 66.67% to 87.50 %, and the average value increased from 64.58 to 76.25. From the results of the study it can be concluded that the implementation of learning in good category and student learning outcomes increase after using the STAD type cooperative learning model in science lessons.

Keywords: Learning outcomes, student team achievement division learning

**INTRODUCTION**

Education is a conscious effort to carry out tasks through guidance, circle and training activities for its role in the future. Purwanto (2014: 1) states that education is a program. The program used is the components that work together in the process to achieve the programmed goals. Education is an awareness and objectives aimed at achieving the goal. Education that can support the future development to be carried out is education that can develop the potential of the learners who are able to face and solve the problems that exist in the face it.

Natural Sciences (IPA) according to Rahayu, et al (2018) are subjects taught at the elementary school level and become a vehicle to improve the knowledge, skills, attitudes and values contained therein. Improved student learning outcomes are very dependent on the role of the teacher in managing the lesson. One of the ways to improve student learning outcomes is to improve the quality of teaching, especially the ability of teachers to deliver material, how to teach well and the selection of the right learning model.

Based on the conditions in the field, it is necessary to develop a learning model that is able to improve student learning outcomes. To overcome this problem, the authors wish to conduct research using Student Team Achievement Division (STAD) type cooperative learning model, because STAD type cooperative learning is a learning model that will involve active students and can make students think creatively, logically and critically in the learning process, by focusing on using discussion groups students work together to solve problems and discuss each other's problems with friends. Based on the problems above, the problem boundary was determined in this study, namely the use of STAD type cooperative learning models in science subjects in fourth grade.

### **Student Team Achievement Division (STAD)**

According to Istarani (2011: 19) states "STAD type learning model is one type of cooperative learning model using small groups with the number of members of each group of 4-6 students heterogeneously. Beginning with the delivery of learning objectives for delivering material, group activities / quizzes and group awards. In order for learning to be done using a measured and systematic STAD model, it must follow the steps that are in accordance with the rules of using the model. Huda (2014: 202) revealed the steps in applying the STAD learning model as follows:

#### **Stage 1: Teaching**

At the teaching stage, the teacher presents the subject matter, usually with the format of the lecture. At this stage, students should be taught what they will learn and why the lessons are important.

#### **Stage 2: Study Team**

At this stage, group members work cooperatively to complete worksheets and answer sheets provided by the teacher

### Phase 3: Test

At the test stage, students individually complete the quiz. The teacher scores the quiz and records the results. These results from individual tests will be accumulated for their team scores.

### Stage 4: Recognition

Each team receives an award or reward depending on the average score of the team.

### Hasil Belajar

Learning outcomes are essentially changes in one's behavior due to learning. Gagne in Sudjana (2013: 22) classifies learning outcomes into five categories, namely "verbal information, intellectual skills, affective strategies which include affective domains, attitudes of the affective domain and motor skills of the psychomotor domain. Learning outcomes are obtained from the teaching and learning process. Learning is the process of finding out and getting something new. Cronbach in Suprijono (2010: 13) states "Learning is shown by change in behavior as a result of experience, which means: Learning as an activity indicated by changes in behavior as a result of experience".

Sudjana in Rusman (2012: 1) states "Learning is essentially a process of interaction with all situations that exist around individuals. Teaching helps students get information, ideas, skills, values, and ways of thinking. Trianto (2011: 17) states "The most important element in teaching is stimulating and directing students to learn. How to teach a good teacher is the key and prerequisite for students to learn well. Joyce and Well in Jihad (2013: 8) revealed "Teaching is helping students get information, ideas, values, ways of thinking and means to express themselves". Based on the above problems, this study aims to find out the improvement of the learning outcomes of science grade IV SDN 046573 Berastagi with a cooperative model.

### METHODS

The type of research used is classroom action research (CAR) through the use of STAD type cooperative learning models with the aim of improving the learning process and improving student learning outcomes in science subjects in class IV SDN 046573 Berastagi. PTK according to Rahayu (2018) is a research method which is carried out by the implementer of educational practices or a group of teachers by giving treatments in learning, based on students' reflections on the results of these treatments.

The subjects in this study were all fourth grade students of SDN 046573 Berastagi. The object of the research is the use of STAD type cooperative model to improve the learning outcomes of science fourth grade SDN 046573 Berastagi. Data collection tools in this study are observation sheets, documentation, and tests. This study obtained quantitative data obtained from student learning outcomes and qualitative data.

Analysis of the data used to determine the success or failure of the action taken by the research. In accordance with the purpose of the study, the data analysis was carried out using comparative analysis by carrying out the learning process in the form of assessing teacher activity and student activities, student learning outcomes seen from individual and classical student learning completeness, and an average increase in student learning outcomes.

## RESULTS AND DISCUSSION

### Results

This classroom action research was carried out in 2 cycles according to the research program. The initial cycle was carried out for 2 hours of study and the results of the study showed that the teacher's activities were 59% with sufficient categories, the activities of students were 62 with enough categories, students were completely learning 16 people (66.67%), the average learning outcomes were 64.58. The findings of this study state that there are still efforts to improve the problems found in the first cycle learning as the initial cycle, so the researcher continues to improve to cycle II. Cycle II was carried out by evaluating shortcomings in cycle I and carried out as a cycle I procedure. In cycle II there was an increase in all aspects, teacher activity 71.1% with good category, student activity 74 with good category, students finished learning 21 people ( 87.5%), average learning outcomes 76.25. The results of research in cycle II show that research does not need to be continued in the next cycle. Learning outcomes using the STAD type cooperative model in the fourth grade students of SDN 046573 Berastagi 2017/2018 Academic Year are obtained in the following table:

**Tabel 1. Rekapitulasi Data Hasil Penelitian Siklus I dan II**

Data	Siklus I	Siklus II
Aktivitas Guru	59%	71,1%
Aktivitas Siswa	62%	74%
Ketuntasan Individu	16	21
Ketuntasan Klasikal	66,67%	87,5%
Rata-rata	64,58	76,25

Based on table 1 can be explained the results of the research in cycles I and II as follows:

#### 1. Observation Result of Teacher Activity Cycle I and Cycle II

Through the observation sheet it was found that the implementation of the learning done by the teacher in the first cycle was not optimal with the percentage of teacher activity 59% in the sufficient category and an increase in teacher activity in the second cycle with a percentage of 71.1% in the good category.

#### 2. Observation of Student Activity in Cycle I and Cycle II

Based on the observation cycle I obtained 62% of students' activities in the sufficient category and in the second cycle students' activities were 74% in the good category.

#### 3. Individual Completeness

The use of STAD type cooperative model in science subjects in Class IV in the first cycle resulted in 16 students who had completed learning, and students who did not complete the study as many as 9 people. In the second cycle, there were 21 students who had completed their studies and 3 people who did not complete their study.

#### 4. Classical completeness

Classical completeness in cycle I is 66.67% of students who have completed learning and 33.33% of students who have not completed learning. In the second cycle students who completed classically 87.5% and 12.5% of students who did not complete learning.

#### 5. Average Student Learning Outcomes

The average learning outcomes of students in the first cycle were 64.58 while in the second cycle increased to 76.25. So it can be concluded that learning outcomes increase individually and classically. Berdasarkan hasil penelitian di atas, dapat disimpulkan bahwa peningkatan data pada siklus I dan siklus II membuktikan adanya peningkatan aktivitas guru, aktivitas siswa, ketuntasan secara individu, ketuntasan secara klasikal dan rata-rata hasil belajar siswa. Dengan demikian dapat dikatakan bahwa pembelajaran model kooperatif tipe STAD pada mata pelajaran IPA kelas IV SD memberikan dampak positif untuk peningkatan hasil belajar IPA siswa.

## Discussion

Cronbach in Agus Suprijono (2010: 13) states "Learning is shown by change in behavior as a result of experience, which means: Learning as an activity indicated by changes in behavior as a result of experience". This is in line with the research results obtained where

there is a change in the behavior of teacher activities, student activities that lead to increased student learning outcomes in science subjects as a result of learning experience using STAD type cooperative learning models. Sudiarpa, et al (2015) also found that the science learning outcomes of fourth Grade elementary school students taught by the STAD type cooperative model had better learning outcomes than students who were taught with conventional models.

STAD type learning model is one type of cooperative learning model using small groups with the number of members of each group of 4-6 students heterogeneously. Starting with the delivery of learning objectives, delivery of material, group activities / quizzes and group awards. Slavin in Salma (2012: 317) states "STAD is one of the simplest cooperative learning models and is the best model for beginners for new teachers using a cooperative approach. STAD type cooperative learning model is a learning model that emphasizes students interacting in groups to achieve common goals, inviting students to share information that is cooperative with fellow group members actively and positively, so that the objectives of learning material are quickly mastered by students. Cooperative models provide opportunities for students to be cooperative and actively master the subject matter. This has an impact on improving student learning outcomes.

## CONCLUSION

The results of the research conducted in class IV SDN 046573 Berastagi concluded that the use of STAD type cooperative model in science learning in fourth grade elementary school was able to give results in the form of increased student activities in good categories and completeness of individual and classical learning outcomes.

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