

Improving Students' Learning Interest and Outcome through STAD Cooperative Learning Model at SDN 8 Elementary School Kwandang of North Gorontalo Regency

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Abstract-*The objective of this study is to improve students' learning interest and outcome in the topic of earth structure at grade V of Elementary School SDN 8 Kwandang, North Gorontalo Regency by using Student Team Achievement Divisions (STAD) cooperative learning model. The study involved 26 students as the subject. The action was performed in three cycles, consisting of three meetings of each cycle. It employed students' activity observation sheets, data collection instruments, students' learning interest and outcome assessment instruments. The data were descriptively analyzed using the percentage analysis. The results show that nine students (34.62%) lack of learning interest and 11 students (42.31%) have not met the mastery standard of learning outcome in cycle I. After cycle II, 11 students (42.31%) have a moderate learning interest and 17 students (65.38%) have complied with the learning outcome mastery standard. Moreover, students' learning interest and outcome are increased to the percentage of 80.77% (21 students) and 84.61% (22 students) respectively in cycle III. It arrives at the very good classification of learning interest and mastery standard of learning outcome. In conclusion, STAD cooperative learning model is able to enhance students' learning interest and outcome in the academic year of 2016-2017 at the research site. This study recommends several things, including (1) teachers should analyze learning materials and prepare a method before coming to the class in order to help students master the materials, (2) natural sciences learning should be started from an easy topic to the complex one that is adjusted to students' development level, (3) students are expected to be more creative and engaged in Natural Sciences learning to reach an active, innovative, creative, effective, and fun learning.*

Keywords: STAD Learning Model, Learning Interest, Learning Outcome

I. INTRODUCTION

A good teacher can master and present learning topics in the classroom as in line with Slavin (2010:7) that effective teachers do not only acquire complete knowledge in teaching materials, but they are also able to communicate their knowledge with the students. For this reason, teachers' authority and success depend on their mastery on learning materials along with the ability to present those materials to the students.

Ability in delivering a topic in the classroom is inseparable from the strategy the teachers apply. The strategy basically refers to the direction of the efforts and actions so that the objective can be achieved. Besides, the main purpose of learning strategies lies in the selection of effective and efficient learning procedures in providing learning experiences needed by students to reach the formulated learning objectives (Slameto, 2010: 11).

An active learning strategy fundamentally is concerned with the learning process, instead of the outcomes; however, facts show that teachers still apply it the other way around. Therefore, today's classroom learning should have been started by implementing a learning process that adheres to a constructivist approach since the theory of constructivist learning is intended to make students actively build up knowledge taught to them. Uno (2009) argues that the constructivist approach in the learning process leads students to individually find and transform complex information, check it with the existing rules, and if required, revise it. Furthermore, the teacher acts as a facilitator.

Teachers should consider some aspects in choosing a proper strategy, among others: students' and school's conditions, learning environment supporting science and technology advancement as well as social

life advancement in the community, and learning objectives. Thus, the strategy selection is generally having a noteworthy position in the classroom learning process and is a skill the teacher must possess.

A reality in the field shows that, firstly, students in schools commonly have heterogeneous characteristics, referring to gender, religion, socio-economic level, and thinking ability. Secondly, the current era of globalization needs cooperation and social behavior among people; students in the school should be taught social behavior in the society, such as appreciating other people’s ideas, willing to give opinions with a fine way, willing to explain something to people who have not understood it, willing to share works, and the like.

Accordingly, the heterogeneous group learning environment should be created in the learning process, meaning that each group equally has male and female members with high, moderate, and low intelligence. Slavin states that such groups are named cooperative learning groups and the learning model applied is cooperative learning model.

Cooperative learning is a learning strategy that places students to learn in groups of four or five members with different levels of ability and emphasizes group cooperation and responsibility in reaching the same goal. In the perspective of motivation, (Slavin, 2011: 16) notes that cooperative structure creates a situation where the only way the group members can accomplish their personal goal is by successfully achieving the group’s goal.

A study conducted by Hutten and De Vries, Madden, and Slavin indicate that cooperative learning model is able to make students excited in learning (Slavin, 2010: 16). Meanwhile, research by Murray also shows that interaction among students in the learning process can improve their cognitive development (Slavin, 2011: 18).

A basic approach for cooperative learning in the introduction stage is Student Team Achievement Division (STAD) model that its application covers four steps; preparation, materials presentation, group activities, group appreciation, recalculation of initial scores, and group changes. In addition, Slavin (2011:124) argues that STAD cooperative learning model is characterized by its simple learning materials and students’ main task is finishing the worksheet by cooperation.

II. METHOD

This study employed the STAD cooperative learning model in SDN 8 Kwandang to improve students’ learning interest and outcome as expected. STAD is an effective, the simplest model of cooperative learning, and the most suitable approach for teachers who just started to raise students’ social behavior (Slavin, 2011: 288).

Below are the procedures of STAD model as formulated by Slavin (2011: 288).

a. General perspectives

STAD consists of five main components, including class presentation, group learning, quiz, score, individuals’ development, and group appreciation.

b. Preparation

This stage includes the materials preparation, group members arrangement (based on gender, ranking, and others), initial score determination, and preparing students to work cooperatively by introducing the used cooperative skill.

c. Sequence of Activities

The sequence of activities in the learning process is as follows:

- 1) Teaching
- 2) Group Learning
- 3) Quiz
- 4) Group Appreciation

Group appreciation is based on the average score of individuals’ and groups’ development; whereas the development score is further based on the students’ quiz score.

Table 1. Guidelines of Determining Development Score

Quiz Score Compared to Initial Score	Development Score
More than ten points below the initial score	0
Ten points and up to one point below the initial score	10
Equal and up to ten points above the initial score	20
More than ten points above the initial score	30
Perfect score (not based on the initial score)	30

Arends (2008: 140)

The criteria for providing group appreciation are presented below.

- a. If the average development score in the group is 15-19, the group will be categorized good.

- b. If the average development score in the group is 20-24, the group will be categorized great.
- c. If the average development score is more than or equal to 25, the group will be categorized superior.

C. benefits and shortcomings of STAD cooperative learning

A learning model, including STAD cooperative learning, certainly have benefits and shortcomings. Here are various benefits of the STAD model.

According to Slavin, the benefits of this model are 1). Students cooperate to reach goals by upholding group norms, 2). Students actively help and motivate each other to be successful together, 3). Students act as a peer tutor to enhance group success, 4). Interaction among students along with their ability improvement in giving opinions.

It is concluded that using the STAD model can enhance students' social norms, helm them solving problems together in achieving learning objectives, train them to become a peer tutor, and improve their ability in delivering ideas.

D. Relevant Findings

Research that is relevant to this study is Improving Students' Learning Interest and Outcome through STAD Cooperative Learning Model at Grade V of SDN 8 Kwandang, North Gorontalo Regency. This study consisted of three cycles; each cycle covered two meetings.

III. RESULT

The results reveal that the students' learning interest and outcome in the topic of earth structure are improved in which cycle I get 42.31% (**Figure 1**), cycle II of the average result of students' learning outcome is 65.38% (**Figure 2**), and cycle III of the average result of students' activity reaches 84.61% (**Figure 3**). Additionally, students' learning interests in cycle I, cycle II, and cycle III averagely arrive at 42.31%, 42.31%, and 80.77% consecutively. The development of students' learning outcome in cycle I is 42.31%; cycle II is 65.38%, and cycle III is 84.61% (**Figure 4**). In brief, STAD cooperative learning model can improve students' learning interest and outcome in the academic year of 2016-2017 at the research site.

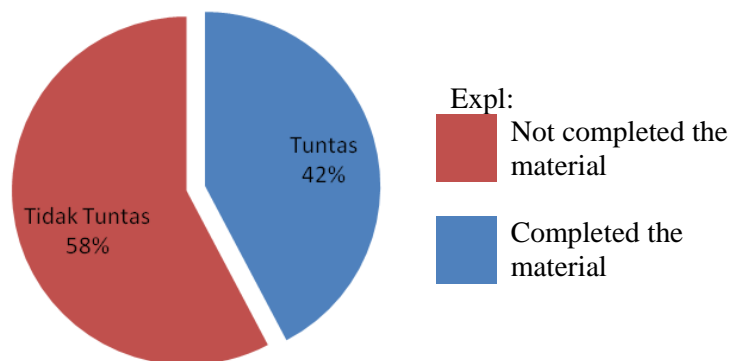


Figure 1: Learning Outcomes of Student Cycle I

From the results of quiz I that have been given to students obtained the number of students who completed 11 people or 42.31%, the highest value 73 and the lowest value 33, and obtained the average value of the first cycle of 48.96.

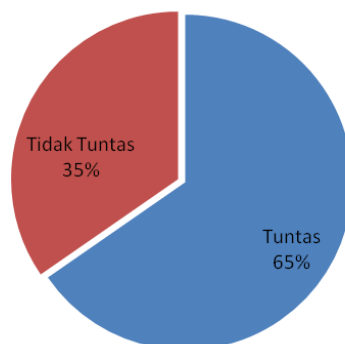


Figure 2: Learning Outcomes of Student Cycle II

From the results of the quiz that has been given to students, the number of students who have not completed 9 people or 34.62%, the highest score is 80 and the lowest value is 60, and the average value of the second cycle is 72.05.

Related to the results of the final test conducted at the end of learning in cycle 2, it was found that the average test results in this cycle were 84.61.

Although there are still 4 passive students in learning, namely Tridita Adam, Alifia Yantu after further investigation it turns out that the child is weak in thinking and Haikal Hasan, Fadel R. Adam turns out that the child has a problem in his family, following the development graph in cycle III.

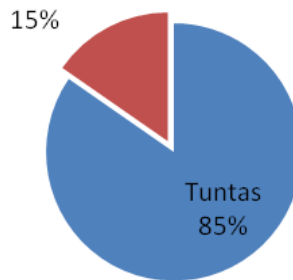


Figure 3: Learning Outcomes of Student Cycle III

Student learning completeness before the action to the first cycle was 42.31%, 65.38% in the second cycle, while 84.61% in the third cycle. This shows that from before there is action to cycle I and from cycle II to cycle III student learning outcomes increase. This is because the student learning outcomes are getting better from each cycle, and the teacher has also mastered the STAD type cooperative learning model.

The results of student learning completeness through the STAD type cooperative learning model can be presented in the following figure.

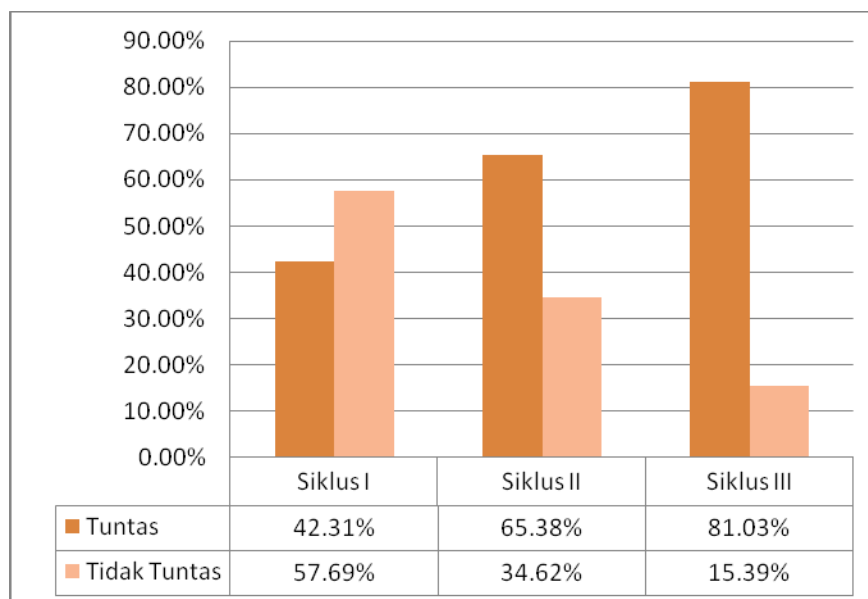


Figure 4: Bar graph of the development of students' mastery learning cycle I, II and III

Based on the description above, it can be concluded that cooperative learning type STAD (Student Teams Achievement Devision) can increase students' interest in learning, with increasing interest in student learning it also increases the learning outcomes of fifth grade students of SDN 8 Kwandang North Gorontalo Regency.

IV. CONCLUSION

This study draws some conclusions, as follows:

1. During the application of STAD cooperative learning, it is revealed in the questionnaire that students' interest has an improvement from cycle I to cycle II and from cycle II to cycle III by which cycle I achieves the percentage of 34.62% with a poor category, cycle II gets 42.31% with a moderate category, and cycle III arrives at 80.77% with a very good category.
2. Students' learning interest does influence their learning outcome. If their interest is enhanced, the learning outcome will also be increased. Students' learning outcome is improved from cycle I to cycle II and from cycle II to cycle III by which cycle I get the percentage of 42.31% with a poor category, cycle II reaches 65.38% with a moderate category, and cycle III achieves 84.61% with a very good category.
3. STAD cooperative learning model is able to improve students' learning interest and outcome at grade V of SDN 8 Kwandang, North Gorontalo Regency.

Implication

This study provides several implications, which are:

1. Teachers need to conduct classroom action research to grow academic culture in schools, to enhance professional competence in dealing with learning problems, and to improve the quality of the learning process and outcome.
2. Teachers are demanded to apply learning models and methods to make students accustomed to working in groups and communicating.
3. To implement a learning activity employing the STAD model, teachers should be able to choose a material that is suitable with students' characteristics, so that the activity will be well-performed.

Suggestion

Teachers' effort to improve students' learning interest and outcome in Natural Sciences learning in the topic of earth structure is the lack of creativity of the teachers to choose and determine an appropriate model to be applied as in compliance with the context and problem that the students face in the learning process.

On that ground, by the implementation of teachers' professional capacity enhancement, this study suggests that:

1. Teachers should analyze learning materials and prepare a method before coming to the class in order to help students master the materials.
2. Natural Sciences learning should be started from an easy topic to the complex one that is adjusted to students' development level.
3. Students are expected to be more creative and engaged in Natural Sciences learning to reach an active, innovative, creative, effective, and fun learning.
4. This study is expected to motivate readers and to give innovative works in improving an interesting learning process.

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