

IMPLEMENTATION OF STAD-BASED LEARNING MODEL IN IMPROVING STUDENTS' LEARNING OUTCOMES

Erlina Tamo Ina¹, Yohana Makaborang², Riwa Rambu Hada Enda³

¹ Universitas Kristen Wira Wacana Sumba
Waingapu, 87116, Indonesia
erlinatamoina96@gmail.com

² Universitas Kristen Wira Wacana Sumba
Waingapu, 87116, Indonesia
yohanamakaborang@unkriswina.ac.id

³ Universitas Kristen Wira Wacana Sumba
Waingapu, 87116, Indonesia
riwa@unkriswina.ac.id

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ABSTRACT

This research was conducted with the aim of increasing student learning outcomes using the STAD learning model on the topic of human digestive system at Payeti Christian Middle School. This research is included in a Class Action Research designed by the Khemis & Mc Tanggart model for this study which consists of cycle I and cycle II. Of the four stages, namely planning, implementation, observation, and reflection. The research subjects were 28 grade VIII students. The results showed that the application of the student teams achievement divisions model could improve student learning outcomes in science subjects at Payeti Christian Middle School. The enhancement of students' learning achievements can be seen from the pre-cycle, cycle I, and cycle II through the learning carried out. This enhancement of student learning outcomes in the cognitive domain at the pre-cycle stage average value of 47.8 cycle I average value of 72.2, experienced an increase in cycle II average value of 80%. In the psychomotor aspects of the first cycle, the average value is 75, with a percentage of 80%. Meanwhile, the psychomotor aspects of cycle II averaged 89.75 with a percentage of 94%. Thus, it can be concluded that the implementation of the student teams achievement divisions model can improve student learning outcomes in biology subjects on the topic of the human digestive system at Payeti Christian Middle School.

Keywords: *Implementation, Improvement, Learning Outcomes, Learning Model, STAD-based*

² Corresponding Author

Introduction

Students' skills can be developed through education. All efforts made with the intention of encouraging students to engage in learning activities are considered learning. The learning process and learning outcomes show quality learning of students. The attitude of students who are involved, productive, entertaining, and creative shows a quality learning process. in the classroom to help students learn learning outcomes (Bahi, 2016). The main instrument that must be managed methodically and consistently based on various theoretical perspectives and life experiences is education. The higher a person's aspirations, the more difficult it is for them to improve the quality of their education (Megasari, 2014).

Student success is influenced by internal and external factors, respectively. Internal factors are one's internal factors from students by themselves in appreciate the motivation and desire to learn. While the learning methods used, facilities and infrastructure, and interrelationships are examples of external factors. External factors are supporting factors or sources of encouragement for students with teachers, classroom environment, and so on. Students gain good knowledge which is affected by student motivation, and also supported by class facilities and a fun learning environment. (Setyosari, 2014).

The use of appropriate learning models by teachers in the learning process will certainly have a positive influence. Science learning that builds teaching and learning activities is related so that a learning model is needed that can make it easier for students to understand and complete the material. it is necessary that the discussion method which is capable of involving the active role of students as a whole is used together with the Student Teams Achievement Divisions learning model so that the learning process is no longer dominated by certain students (Rusman, 2019). The purpose of STAD is to help students improve their skills by having them complete tasks in groups. Students learn in a group setting by working on tasks together and have the opportunity to present and discuss their ideas to the group while working on the task in a work group. They therefore divide up the jobs among themselves to be solved.

One of the most straightforward models for cooperative learning with diverse populations is STAD. STAD consisted of a number of actions, which include: 1) delivering a presentation in class; 2) forming teams; 3) administering a quiz; 4) keeping track of each student's progress; and 5) bestowing group prizes. STAD-based learning

model gives a positive effect to students' social life. Another advantage of STAD is the lower achiever can also participate more in the classroom. Besides that, this technique can also increase students' self-esteem and motivate the students to learn more. In addition, according to Ramli (2017), student teams achievement divisions learning model is a group working together and respecting groups that achieve positive and satisfying learning outcomes according to criteria based on student points (Rusman, 2019).

As for research that is relevant and stated by Sudarma (2016), said that the use of STAD-based learning model is a type of cooperative learning model with student teams and distribution of achievements that is able to improve critical thinking and student learning outcomes increased in cycle 2 with a percentage of 88.89%, so in conclusion the Division of Achievement for Student Team can improve student learning outcomes and critical thinking skills. According to the description above, this research aims at implementing the STAD-based learning model to improve students' learning outcomes.

Research Methods

This research is included in a type of classroom action research in which a research activity carried out by educators or teachers to solve a problem that exists in the school environment both concerning the learning process in the classroom. The research approach used in this research is descriptive quantitative. This research was conducted at Payeti Christian Middle School in the Prailiu Village, Address Jl. Umbu Rara Meha No. 31 Kelurahan Kampera, Kab. East Sumba, East Nusa Tenggara Province.

In this study, the subjects were students in class VIII A Christian Payeti Junior High School consisting of 28 students, consisting of 10 males and 18 females. There were two variables in this study, namely the independent variable (X) The achievement portion of the exemplary student team assisted poster media, the dependent variable (Y) the learning outcomes of class VIII A students at Payeti Christian Middle School. The model used in this class action research is the Kemmis and Taggart models. Each cycle consists of 4 stages, namely planning, implementation of actions, observation and reflection.

Result and Discussion

After conducting the research, data can be obtained that describe whether the classroom action research that has been carried out has achieved the goals to be achieved by the

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researcher. In the process of carrying out research, researchers can improve in each cycle to find the most effective and efficient way of implementing the media-assisted learning model used. Cooperative learning model Students Teams Achievement Divisions allows students to obtain information about material, express opinions, become more active and understand learning well, besides that students are not bored with the learning being carried out. This is in line with the opinion of Sugiyanto (2014) which states that in the Student Teams Achievement Divisions, students can study with friends, listen to the opinions of other students, be productive, and be active. In carrying out the research, the research was carried out in the teaching and learning process during three meetings, namely, pre-cycle, cycle 1 and cycle 2.

Pre-cycle

In the early stages of the pre-cycle, it was known that student learning outcomes were obtained by 4 students who had completed grades and 24 students who scored below the standard score. In the pre-cycle activities, researchers have not used the learning model that was made before. According to Asyafah (2019) the learning model is an important component that can develop effective learning so that it helps students in the learning process so that learning objectives can be achieved. It can be concluded that pre-cycle activities have a low percentage value because they do not use a learning model. In this activity, the learning process is still teacher-centered, students are still busy telling stories with their classmates so that students are less active in class and the grades on their assignments are still low.

Table 1. Pre-Cycle Results

Number of students who completed	4
Number of students who did not complete	24
Percentage of students who complete	15%
Percentage of students who did not complete	85%

Based on the findings in table 1, it is known that the average student test result for the pre-cycle is 47.8 with students who experience completeness of 4 students (15%), the average value is still relatively low because they have not reached the standard score of 69.

Cycle I

Cycle I activities with a percentage of 57% had a significant increase from pre-cycle activities so that student learning outcomes also increased. In cycle I, STAD-based learning model applied to

improve student learning outcomes. In the learning process cycle I, the researcher explained the material on the digestive system in humans, the groups created were discussion groups between fellow students. Students are more active than before because the learning model used is successful in making students active so that student learning outcomes increase after the application of this model. In addition to the psychomotor scores of students in cycle I with an average of 75.00% with good criteria this can be increased in cycle II.

Table 2. Recapitulation of student learning outcomes

Learning Activities	Average value	Total Completed Students	Percentage	The number of students who do not complete	%
Pra-cycle	47,8	4	15%	24	85%
Cycle I	70,2	16	43%	12	57%
Cycle II	80,0	25	90%	3	10%

Based on the results of cycle 1 which was carried out at Payeti Christian Middle School in Science Subject class VIII A, 28 students only 12 students had not reached ≥ 70 while 16 students achieved standard score this means that there are 43% of students who did not reach standard score and 57% of students who achieved standard score, therefore the implementation of the STAD-based learning model can improve student learning outcomes at Payeti Christian Middle School, and it will be continued to conduct cycle II to get even better results. Furthermore, data on student assessment results project (psychomotor) taken from the results of project (Psychomotor) poster media with the group for cycle I.

At the cycle 1 reach on the average percentage of students' psychomotor was 75.00 with good criteria. This shows that students' psychomotor scores need to be increased in cycle 2. Yantik et al. (2022) states the STAD-based learning model with peer discussions makes students interested in participating in the learning process because students feel happier. In addition, students also find it easier to understand the material because students are directly involved and carry out group discussions on the material of the digestive system in humans as well as conducting questions and answers between fellow students and researchers controlling the ongoing discussion.

Students also stated that they were happy if science learning was carried out using learning media in the form of pictures about the digestive system because students could clearly understand the material about the parts of the digestive system in humans and disorders of the digestive system.

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This happens because with direct interaction students better understand the material provided, not only imagining it but seeing it directly and the learning atmosphere becomes more enjoyable. This is in line with Rosmi's statement (2017) that involving students directly in learning can make students more interested, motivated, and easier to understand the concepts being studied.

From the several statements above, it can be concluded that the STAD-based learning model can improve student learning outcomes through material on the digestive system in humans so that from pre-cycle and cycle I activities there is a very significant change in student learning outcomes.

Cycle II

Activities in cycle II with a percentage of 90% had a very significant increase in learning outcomes. In cycle II the researcher reviewed the learning process that had been carried out in cycle I where different test questions were given to retest students' understanding of the material provided. Based on the results of observations that the researchers made during the learning process, group learning carried out could foster interest in learning because students exchanged ideas and understandings, this can be seen from the group discussion of questions and answers between peers. This was also supported by the responses of the researchers who stated that the Student Teams Achievement Divisions is very good to apply because it can improve student learning outcomes. For the percentage of students' psychomotor scores in cycle II, it has increased with an average score of 89.75%, very good criteria. This shows that there is a good increase from good criteria in cycle I to an increase in cycle II with very good criteria.

Based on the results of cycle II which was conducted at Payeti Christian Middle School in Science Subject class VIII A, 28 students only 3 students had not reached ≥ 70 while 25 students achieved standard score, this means that there were 10% of students who did not reach standard score and 90% students who achieve standard score, therefore the STAD-based learning model can improve student learning outcomes at Payeti Christian Middle School.

Score on student learning outcomes before the implementation of the Student Team Achievement Divisions was still below the average, there were 4 students who scored above 70 at the pre-cycle stage and 24 students who did not reach the completeness criteria. It can be concluded, before the implementation process, students have low mastery while after the application of the learning model, 16 students experienced an increase in learning outcomes from

25 students. Student learning outcomes have increased significantly which is also influenced by the learning model used, which can train students to be responsible and students carry out activities directly in group discussions. In cycle II there was a more significant increase, namely the completeness of student learning outcomes from 16 people increased to 25 people and 3 students who scored below the completeness criteria.

Based on the results obtained, it can be assumed that the learning model can improve student learning outcomes in the digestive system material in human because this learning model trains students to be directly involved and makes students understand the concept of the material directly because of group discussions that make students exchange ideas between peers, the other thing that is most influential is the means used by researchers in the learning process such as learning media in the form of pictures about the digestive system in humans.

The purpose of STAD is to help students improve their skills by having them complete tasks in groups. Students learn in a group setting by working on tasks together and have the opportunity to present and discuss their ideas to the group while working on the task in a work group. They therefore divide up the jobs among themselves to be solved.

Conclusion

This research aims at implementing the STAD-based learning model to improve students' learning outcomes. This enhancement of student learning outcomes in the cognitive domain at the pre-cycle stage average value of 47.8 cycle I average value of 72.2, experienced an increase in cycle II average value of 80%. In the psychomotor aspects of the first cycle, the average value is 75, with a percentage of 80%. Meanwhile, the psychomotor aspects of cycle II averaged 89.75 with a percentage of 94%. Thus, it can be concluded that the implementation of the student teams achievement divisions model can improve student learning outcomes in biology subjects on the topic of the human digestive system at Payeti Christian Middle School.

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