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The Role of Student Teams Achievement Divisions (STAD) in Improving Student's Learning Outcomes

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Abstract

This study addressed to cope with the student's problems in the classroom by implementing cooperative learning methods with the Students Team Achievement Division (STAD) technique. The study followed a classroom action research through four stages namely planning, implementing, observing, and reflecting action. This research subjected to SMA Negeri 7 Malang in Indonesia in economics subject. This research was conducted in two cycles consisting of two meetings for each. The data were gathered using observation, tests, and documentation. The results of the study showed the implementation of the Students Team Achievement Division (STAD) learning technique on economic subjects showed that it could improve students' learning outcomes from the cognitive domain. The increasing of cognitive learning outcomes is indicated by an enhancement in the average value and the percentage of mastery learning in classical. Furthermore, the application of this technique can also increase the role, enthusiasm, and cooperation between students in heterogeneous groups.

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INTRODUCTION

The success and failure in economic learning are not only based on the ability of students but also the role of teachers in designing the learning and teaching process. It implies that a teacher should be creative in developing and choosing a learning model that appropriate with characteristics of students. For instance, a teacher could apply problem-based learning, readers theater, mind mapping and so forth in order to enhance the nature of learning (Wulandari & Narmaditya, 2017).

In the selection of learning methods, there are various considerations are needed that must be appraised by the teacher such as the suitability of the subject matter, the level of students' abilities, and the ability of the teacher to manage the class (Han & Yin, 2016). By considering the various aspects mentioned, a teacher could choose the learning method that will be used appropriately. There are several learning methods that can be used by teachers an attempt to facilitate the teaching and learning process in the classroom such as cooperative learning methods.

Mulyasa (2014) argues that Curriculum 2013 in Indonesia that based on character and competence, among others, wants to change the pattern of education from result orientation and material to education as a process, through an integrated thematic approach with Contextual Teaching and Learning (CTL). Learning must involve students as much as possible so that they are able to explore to form competencies by exploring various potentials, and scientific truths. Within this framework is the need for teacher creativity, in order to be able to become facilitators and learning partners for students. This opinion is also in line with Hidayatullah (2017) that learning has two characteristics, namely, first, student involvement is maximally not only requires students to just listen and take notes but more emphasis on students' thinking processes. Second, the learning process aims to improve and improve students' thinking abilities.

In addition, there are various types of learning approaches such as the scientific approach. This learning approach is suitable for the characteristic of the application of the 2013 Curriculum in Indonesia. The application of a scientific approach to learning involves process skills such as observing, classifying, measuring, predicting, explaining, and concluding (Zeidan & Jayosi, 2015; Andini et al., 2018). In addition, Zaim (2017) states that learning with a scientific approach as learning is designed so students actively gain knowledge, skills, and attitudes. The steps taken are observing, formulating questions, collecting data or information with various techniques, processing or analyzing data or information and drawing conclusions, communicating the results of data analysis, and can proceed with creating.

Based on previous observations in a senior high school in Malang, it is known that student learning outcomes are one of existed problem. Many students in the economic class cannot reach the least minimum criteria. There are various things that become inhibiting factors in achieving learning completeness, one of which is the learning method that is still carried out with a teacher-centered approach and teachers rarely use learning in groups. An effort to overcome the

problems, improvement efforts are needed by the economic subject teachers in the learning process. One improvement effort that can be done is by applying cooperative learning methods that are recommended in the 2013 Curriculum in Indonesia. Lie (2010) states that cooperative learning with the term mutual cooperation learning is a teaching system that gives students the opportunity to work together with other students in structured assignments. In the cooperative learning method, there are various learning techniques that can be applied by the teacher, one of which is the STAD learning technique.

STAD allows students in providing opportunities to work together and help each other fellow students, students can master the lessons delivered, in the learning process students positively interdependence, each student can mutually fill each other, improve individual skills, improve group skills, increase commitment, prejudice peers, and have no resentment. In addition, Maelasari (2017) remarked that this technique is conducted by grouping students in various ways based on ability, gender, race, and ethnicity. First of all, students study the material together with their group mates, then do individual testing through quizzes. Quiz scores obtained by each member will determine the score obtained by the group. Therefore, each member should make an attempt to get the maximum score in the quiz if they want their group to get the highest award.

In the other hand, Ratumanan (2015) explained that STAD students were placed in mixed groups according to performance, gender, and tribes consisting of four to five members. The learning process begins with the teacher delivering the subject matter and then the students in groups to ensure that all group members have mastered the subject matter. In the end, the teacher gave a test of the material to all students. When the tests are carried out, students cannot help each other. Furthermore, points from each member are added to get the group score. Groups that achieve certain criteria are given certificates or other awards by the teacher.

Previous studies have conducted research implementing Students Team Achievement Division (Balfakih, 2003; Karim et al., 2012; Yasir & Karlina, 2015; Murni & Hutapea, 2016; Hidayatul, 2017). Murni & Hutapea (2016) addressed the research on an elementary school in Mathematics subject while Karim et al. (2012) implemented on Junior high school. In the other hand, Balfakih (2003) carried out the effectiveness of STAD on Chemistry in Senior High School. However few studies focusing on economics lesson particularly in senior high school. In economics subject, Hidayatul (2017) applied STAD as an attempt to improve students' activities. Therefore, this study intended to understand the implementation of STAD in overcoming problems in the classroom related to students' learning outcomes.

METHOD

This type of research is classroom action research. This research was carried out in using two cycles consisting of two meetings for each. While each cycle incorporates four stages, namely the planning, implementing, observing, and reflecting. Classroom action research that carried out by the researcher in collaboration with economic subject teachers addressed to make improvements in

the learning process in the classroom. In carrying out the action, the researcher is assisted by economics teachers and two university students who have the role of observers in the action observation phase. The research subjects in this study were students of class SMA Negeri 7 Malang with 35 students consisting of 15 male students and 20 female students. The sources of data in this study are writers, students, and economics teachers. The data needed in classroom action research is divided into primary and secondary data. Primary data is obtained from observation sheets, field notes, and test results while data analysis is carried out through three sequential stages as follows: data reduction, data presentation, and conclusion find.

RESULTS AND DISCUSSION

The results of the previous observation, the researchers look at the learning process carried out by teachers is more like conventional learning. The learning process in the classroom tends to be dominated by the role of the teacher. Moreover, the teacher conveyed the subject only by using the lecture method interspersed with the use of question and answer methods and rarely using group activities. The application of conventional methods in the form of lectures tends to involve less the role of students in the learning process then students are only accustomed to hearing and recording explanations from the teacher.

The implementation of classroom research consists of planning, implementing, observing, and reflecting. The planning phase includes the preparation of the learning design, the format of the observation sheet for the actions of the researcher, learning media, and test. The stage of implementation and observation of the first cycle was conducted twice. The first meeting was held on March 4, 2018, with a time allocation about two hours of lessons (2 x 45 minutes) and the second meeting was on March 8, 2018, with the same time allocation. The subject matter of the first meeting of the first cycle was about the understanding of economic actors in the Indonesian economic system and at the second meeting in the first cycle, it discussed the roles of economic actors in the Indonesian economic system.

Based on observation results in the first cycle, it can be seen that the implementation of the 1st cycle was not run optimally, because there are several stages of learning actions that are not carried out by the researcher. This is indicated by the scores obtained in the implementation of actions by the researcher amounting to 110 of the total. In addition, the learning outcomes in this stage covers the cognitive domain (knowledge) which is measured using a pre-test and post-test. These findings in line with the previous study by Yasir & Karlina (2015) which mentioned that STAD stimulates on students learning outcomes on the cognitive domain.

Learning outcomes in this cycle showed that the average student learning outcomes in the pre-test before the application of the STAD learning technique amounted to 56.67 percent, with the percentage of learning completeness of 6.06 percent. The number of students who completed the pre-test 1st cycle was two people and those who had not finished were 31 people. Whereas, the average student learning outcomes after the application of the STAD learning technique obtained from the post-test results were 78.64 percent with learning completeness

of 72.72 percent which was included in the good category. The number of students who completed the 1st cycle in the post-test was 24 people and 9 students who had not finished.

In the next cycle also consists of the same stages. The action plan includes the preparation of the learning materials, the format of the observation sheet for the actions of the author, learning media, and test questions. The implementation phase and observation of 2nd cycle were carried out two times with the same time allocation as a 1st cycle. In the third meeting of the 2nd cycle was conducted on March 11, 2017, while the fourth meeting was held on March 15, 2017. The results of observing the application of STAD 2nd cycle learning techniques were measured using observation sheets and carried out at the stage of implementation of the action taking place. In the 2nd cycle, it can be seen that the scores obtained in the implementation of the author's actions amounted to 120 of a total of 123 students. From these results obtained the level of activity 2nd cycle amounted to 97.56 percent and included in the excellent category.

The learning outcomes of the 2nd cycle in this study also included the cognitive domain (knowledge) which was measured using the value of the pre-test and post-test. In the 2nd cycle, it can be seen that the average student learning outcomes in the pre-test before the application of the STAD learning technique amounted to 63.44 percent with the percentage of learning completeness of 9.38 percent. The number of students who in the 2nd cycle pre-test as many as 3 people have been completed and students have not completed as many as 29 people. Whereas, the average student learning outcomes after the application of the STAD learning technique obtained from the post-test results were 86.56 percent with learning completeness of 87.5 percent which was included in the excellent category. The number of students who completed the post-test 2nd cycle as many as 28 people and students have not finished as many as 4 people.

The implementation of the action in the 2nd cycle shows the results that are as expected by the author. This is indicated by an increase in learning outcomes from the cognitive domain. Learning outcomes in the 2nd cycle indicate that there is an increase in student learning outcomes. This is indicated by an increase in the average student learning outcomes of 11.97 percent. In addition, the percentage of classical learning completeness also increased by 66.67 percent which was obtained from the difference in the percentage of learning completeness in the pre-test and post-test in the 1st cycle. In the implementation of the action in the 2nd cycle, there was also an increase. The increase in student learning outcomes can be indicated by an increase in the average student learning outcomes of 23.12 percent and the percentage of mastery learning classically amounting to 78.12 percent obtained from the difference between the percentage of mastery learning post-test with the percentage of post-test mastery in 2nd cycle. Based on the exposure of the data it can be concluded that the application of STAD learning techniques can improve learning outcomes from the cognitive domain (Anto et al., 2013; Hariadi & Wuriyanto, 2016).

The application of the STAD learning technique in the 1st cycle has not been carried out optimally. This is caused by the presence of several deficiencies

in the process of implementation. One of the drawbacks in implementing 2nd cycle actions is the lack of understanding of students regarding STAD learning techniques. The students' incomprehension is shown when the formation and activities of heterogeneous groups. Students' lack of understanding of the learning process is also indicated by the complaints of students when giving tests both in the form of pre-test and post-test is done so that the execution time of the test questions exceeds the specified time.

The group activities that have been carried out have not run optimally. There are still groups working on the questions individually rather than in groups. When discussion assignments are conducted by other group members, students who do not do make noise by talking to themselves and disturbing other students. Heterogeneous group activities in STAD learning techniques are not the same as conventional or traditional group activities. Heterogeneous groups are one of the main components of this learning technique. Where students help and support each other among friends in a group to understand the material being studied so that it can achieve the best results in individual tests. When students cannot do group activities properly and do not provide support or assistance to other group members, it means that the application of the STAD learning technique does not work as it should. This is because group activities that are one of the main components in them are not fulfilled.

In addition to students' lack of understanding of the learning path, deficiencies that occur during the implementation of 1st cycle actions are time management. This is indicated by the existence of the learning activities phase that was passed both at the first meeting and the second meeting. Another disadvantage in implementing 1st cycle actions is class management. Then 2nd cycle was carried out to correct deficiencies that appeared in the 1st cycle. The application of STAD learning techniques in 2nd cycle occurred well and smoothly. This can be indicated by the level of students' understanding of learning techniques getting better, enthusiasm and involvement of students in following the learning process are also better, both in question and answer activities and group activities compared to the learning process in the 1st cycle. In the next cycle, most groups have can work together and help each other group members to work on the discussion assignments given by the author. In addition, time management and classroom management by writers are better than the previous cycle.

The cognitive learning outcomes achieved by students in 1st cycle experienced an increase but still not maximal. The percentage of student mastery learning does not meet the standards set by the school at 80 percent. While student learning outcomes from the cognitive realm in the 2nd cycle also experienced an increase, although not yet achieving 100 percent learning completeness due to the role of students who were not optimal in the learning process. However, student learning outcomes have met the criteria set by the school, namely 80 percent mastery learning classically so that it can be stated that the application of STAD learning techniques on economic subjects that can improve student learning outcomes.

CONCLUSION

The conventional methods in the form of teachers tend to involve less the role of students. Meanwhile, the implementation of the STAD learning technique on economic subjects showed that it can improve students' learning outcomes from the cognitive domain. The increasing of cognitive learning outcomes is indicated by an enhance in the average value and the percentage of mastery learning in classical. Furthermore, the application of this technique can also increase the role, enthusiasm, and cooperation between students in heterogeneous groups. For further research, it is expected to be able to prepare more carefully about action planning including the preparation of lesson plans, learning media, and learning evaluation so that the application of STAD learning techniques can run more optimally.

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