EFFORT TO IMPROVE STUDENTS MATHEMATICS TEAMWORK LEARNING SKILL USING TYPE OF COOPERATIVE LEARNING COURSE REVIEW HORAY (CRH)

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ABSTRACT

Students were demanded to get a good mark on each subject; nevertheless, their teamwork learning skills were lack asked to participate in the learning process. This research had the aim to improve the students' mathematics teamwork learning skills using the model of cooperative learning CRH. This research was a type of classroom action research. Subjects of research were the student's VII D grades of SMP Negeri 11 Yogyakarta on even semester in the academic year of 2016/2017. The object of research was mathematics teamwork learning skills using the model of cooperative learning CRH. The data collecting technique consisted of an interview, observation, triangulation, and test. The instrument of the research consisted of observation sheets and interview guides. This research was conducted in two cycles. The cycle was stopped after the result of the indicator was reached out to a minimum of 61% or good criteria. The research results showed that the model of cooperative learning CRH could improve VII D grades students' mathematics teamwork learning skills. It was proved that there was an increase in every cycle from the result of observation analysis toward students. In cycle 1, the percentage of students' teamwork learning skills reached out 50 % in enough criteria. Then, cycle II increased to be 69,93 % in good criteria. It means that there was an increase of 19,93 %. Based on the result of the interview with the students, it also showed that there was a positive response from the students.

Keywords: Teamwork Learning Skill, Cooperative Learning, Course Review Horay (CRH)

INTRODUCTION

Today the learning process is quality as a vehicle so that students can get optimal learning results not much noticed by the teachers. Students are required to obtain good learning outcomes on each subject while the learning process that students are not able to involve the ability to study students optimally. Based on the results of observations in class VII SMP Negeri 11 Yogyakarta on Saturday, 5 November 2016 obtained the fact that most students still lack cooperation in mathematics learning. It was seen when students were given exercises and assigned to discuss groups by the teacher, some students did not want to discuss groups and chose to work individually, students rarely asked other friends or to teachers. Students who are already familiar will not teach another friend. Few students dare to submit ideas or opinions that respond to the opinions of other students.

Teachers have made several efforts to overcome the lack of student cooperation skills, directing students to work together when learning with group discussions but have not given much change. Therefore, there is a need for innovations as a solution to improve students ' collaboration skills in mathematics learning through the selection of appropriate learning models and varied from previous learning. According to Huda, Miftahul (2015:229), Horay's Course Review is a learning method that can create a lively and enjoyable class. Every student who can answer correctly is obliged to shout Horee! Or other Preferred. This method seeks to test the students' understanding in answering questions, where the answer to this question is written on a card or box that has been completed with a number. According to Shoimin, Aris (2014:54) Horay Course Review Study is cooperative learning, which is learning activities by grouping students into small groups. This study is a test of understanding students' concept using a box filled with questions and numbered to write down the answer. The most former

students get the right sign immediately shouting horay or other ones. Through the Course Review, Horay learning is expected to train students in solving problems with the formation of small groups.

A study related to this study was a study conducted by Triyanti (2015), suggesting that the motivation to learn and understand the student's mathematical concept increased after being administered with a CRH learning model. This can be seen from the percentage of student motivation to study on cycle I of 72.95% increase in cycle II at 80.10%. The average test result of the concept in the cycle I of 63.53 with a classical distance of 62.50% increased on the average II cycle to 73.66 with a classical-proof of 87.50%. This research aims to improve the ability to learn mathematics cooperation with the cooperative learning model of Horay Course Review (CRH) in class VII D SMP Negeri 11 Yogyakarta in the semester. 2016/2017 teaching of the quadrivalent matter.

METHODS

The type of research conducted is class action research. The design of the research used is as follows:

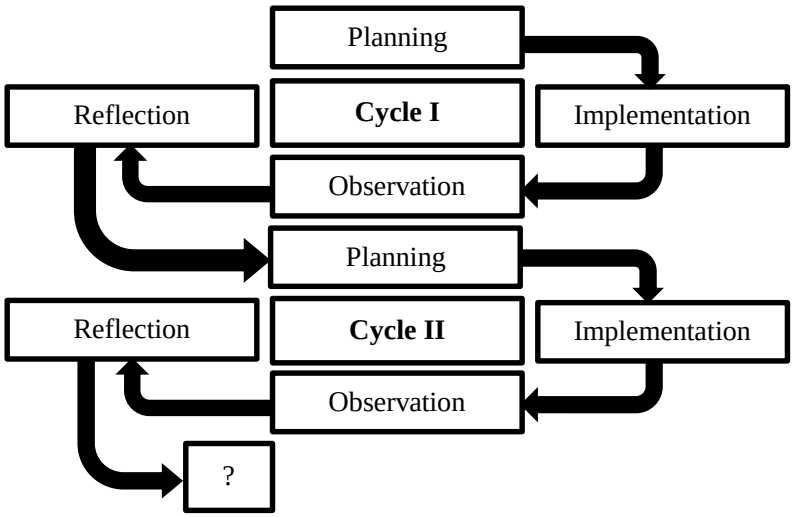

Figure 1. Classroom Action Research Design
(Arikunto, Suharsimi dkk: 2014)

This class of action research has been implemented in class VII D SMP Negeri 11 Yogyakarta on 28 April 2017 until 23 May 2016 adapting to the schedule of mathematics class VII D. Subjects examined in this study were All students in grade VII D SMP Negeri 11 Yogyakarta even semester 2016/2017 school year amounting to 32 students. The procedure of class action research is described as follows:

1. Cycle I
    a. Planning, Activities carried out in the planning phase include drafting the draft to be implemented: Learning Device Preparation The compiled learning devices include: a) Plan of learning by using a cooperative model of CRH type, b) The study plan was compiled by researchers and consulted with mathematics teacher class VII D, c) Making a test problem understanding concepts. It contains questions related to the material. Each test question concept consists of 9. Research instrument Preparation: a) Observation sheet, a prepared observation sheet, is an observation sheet for students ' learning cooperation. b) Interview guidelines for Students, Student interview guidelines are organized to facilitate the observer in response to the implementation of the learning that has been implemented. The questions asked for students consist of 8 questions. This interview guideline is developed based on aspects of Students ' learning cooperation skills.
    b. Action execution**.** Researchers carry out actions by the Lesson plan that have been compiled by researchers and have been approved by the mathematics teacher of class VII D. The

learning activities are divided into preliminary activities, core activities, and closing activities. The stages in cooperative learning of CRH type lie in the core activities. In the core activities, teachers in order convey the competencies to be achieved, demonstrate/present the material, provide students with the opportunity to question and continue the division of groups that have been designed by the researcher based on the Academic ability value of mid-semester even mathematics and advice from mathematics teacher class VII D. Further, to test the understanding of the teacher gave a piece of paper to each student group. Each group of students was told to make nine boxes in the paper to write down the answers. Then each group of students was also told to write a number in each box as the number of the question according to the tastes of each student group. Then the teacher reads a random question and each group of students writes an answer in the box that the teacher mentions after reading about and writing the answers in the box, then the answers that have been written by each group The students are pinned on the board to overcome the opportunity of cheating. Teachers and students discuss answers to questions that have been read. Researchers ask one representative of each group of students on duty to provide the correct sign (√) for the question answered correctly. The cross (X) for the question answered incorrectly.

c. Furthermore, teachers check the answer of each group of students and to reduce the risk of disturbing the learning atmosphere of other classes then the group of students who have got the correct sign (√) in the form of 3 squares vertically or horizontally shaped, or Diagonal in the boxes can shout hurrah or other. The student group value is calculated from the correct answer, and the number of hurrahs gained. One box that gets the correct sign (√) is given a value of 1, but if it gets a sign (√) three boxes vertically, or horizontally, or diagonally shaped, each box is rated 2. If the vertical, horizontal, or diagonal intersection occurs, the boxes remain rated 2. The teacher (researcher) gives a reward to the group of students who get the highest score or most often get hurrah.

d. Observation**,** At the observation stage, researchers were assisted by three observers to observe the skills of student learning that occurred during the mathematics learning process using CRH type Cooperative learning model which includes 4 (four) aspects of how to submit ideas/opinions, how to ask questions, how to convey answers and how to respond to others ' opinions. Observation is done by using an observation sheet for students ' learning cooperation.

e. Reflection**,** Based on the implementation of the observation in cycle I, implementation of the learning process is not optimal, so that there is a reflection on the observation result that has been done as a material to determine the action in cycle II.

2. Cycle II

a. At this stage, planning re-planned the learning action as in cycle I to correct and correct deficiencies in the I cycle.

b. Action execution, At this stage, the implementation of the action is not much different from the implementation of the action in cycle I. It has only been several revisions based on the reflection on cycle I in order to improve further the ability of student learning cooperation in mathematics learning.

c. Observation, This stage is similar to the observation in Cycle I but focuses more on observing the students learning skills during the learning process.

d. Reflection, At this stage, is done data processing and discussion between researchers and teachers of mathematics subjects. This reflection will be used to determine how much improvement in students ' learning cooperation skills in mathematics learning.

If there is no increase in the learning ability of student cooperation, then the research activity continues in the next cycle. However, if there is an increase in student learning cooperation capacity of at least 61.00%, then the research activity is terminated.

RESULTS AND DISCUSSION

The results of a class action study consisting of two cycles of the cycle I and cycle II on learning Mathematics using a cooperative learning model of CRH type demonstrates the enhancement of students learning cooperation skills in Learn Math. This is evident from the observation and the results of the student interviews indicating an increase. Increased percentage of student learning cooperation skills based on students observation sheets from cycle I and cycle II can be seen in table 1 and figure 2 below:

Table 1. Percentage of student learning capacity improvement On every aspect observed

No	Observed aspects	Mean percentage		Information
		Cycle I	Cycle II	
1	How to submit ideas/opinions	50%	71,88%	Increased
2	How to ask questions	46,88%	67,19%	Increased
3	How to submit an answer	60,94%	78,13%	Increased
4	How to respond to other people's opinions	42,19%	62,51%	Increased
	Average	50%	69,93%	Increased
	Criteria	Cukup	Good	Increased

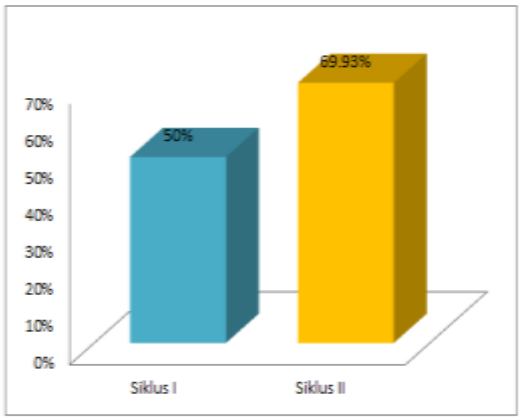

Figure 2. Improving the Ability of Student Learning Cooperation Cycle I and Cycle II

Based on table 1 and Figure 2 can be seen that there is an increase in the average percentage of students learning cooperation ability. In cycle, I obtained 50% while in cycle II increased to 69.93% so that it can be concluded that there has been an increase of 19.93% and has managed to achieve good criteria. The enhancement of students learning cooperation is due to changes in the use of learning models used by teachers in the learning process. At initial conditions, before being given the cycle I action, most students lack cooperation in mathematics learning. Students are not willing to discuss groups and choose to work on the assignments assigned by individual teachers. When discussing, only a few students dare submit ideas or opinions that respond to other students' opinions. Students also rarely ask other friends. Students who are already familiar will not teach another friend. At the time of submission of group discussion results in front of the class, only a small portion of students are actively answering questions or asking questions. In contrast, others are less attentive, tend to be passive, and rarely help group friends Deliver answers.

The aspect of cooperation capability also needs to be improved so that learning can go well as Rusman's opinion (2012:206-207) which suggests that the objectives that want to be achieved in learning not only the academic ability in the understanding of material mastery alone but also the element of cooperation for material assignment. Based on existing issues, researchers devise a plan to use a learning model that can improve student learning cooperation in mathematics learning. The learning model used is a cooperative learning model of Horay's Course Review (CRH).

Horay's Course Review learning Model (CRH) is a learning model that demands cooperation between one student and another or a group member to solve a problem to achieve learning objectives and create an atmosphere of Teaching and learning activities. Each group that gets the right mark three squares vertically, horizontally, or diagonally must shout hurrah or sing his liking. So it can improve students learning cooperation skills towards what they learn through a fun and engaging way. The application of the Horay Course Review (CRH) model has increased in every cycle.

In cycle I, The learning material has been prepared in advance by cooperating between researchers and teachers of class VII mathematics subjects and other preparations. Learning activities are taking place according to RPP and more emphasis on core activities where students work according to the group. The success of action in cycle I is seen in the observation results of student learning cooperation ability. The average percentage of students ' learning cooperation ability fulfills enough criteria of 50%. Researchers decided to continue the action on cycle II because although at cycle I percentages have reached sufficient criteria, not all aspects of learning cooperation ability of students reach sufficient criteria.

In cycle II is expected in addition to an increase but also able to meet good criteria. After given the action in cycle II turns out there is an increase again, and changes criteria of the criteria are enough 50% to meet the good criteria of 69.93% meaning there has been an increase of 19.93% even in this cycle II all aspects Learning ability of student cooperation demonstrates good criteria.

Improvements that occur in cycle II actions occur due to corrective actions based on the reflection of the cycle I. In this research researchers as teachers always give motivation that further encourages the spirit of students to propose ideas/opinions, make the simple way of delivering material so that students easily understand, rebuke and firmer in noisy students, visit each group and ask the obstacles faced by the students, more emphasis and invite to each group of students To ask each other group mates if they encounter difficulties in discussing, remind students to be more thorough, not rushed and more carefully before answering the questions asked, remind students to be more active, critical and Respond to group friends ' opinions so that the condition after given cycle II action is that students have begun to adapt to the CRH type Cooperative learning model and further optimize the ability to learn cooperation in learning Math.

Student's responses to mathematical learning by using the CRH type Cooperative learning model are also good. This can be seen from the results of a research interview with some students of grade VII D. Based on the results of the interview obtained the following results:

1. A positive response from students to the CRH cooperative learning model is that students are passionate and not bored during learning, math learning becomes more enjoyable and more comfortable by using learning models CRH-type Cooperative.
2. CRH's cooperative learning Model can improve student learning cooperation skills in the mathematical learning process so that student learning results are also gradually increasing.

From the overall data above, research objectives are achieved in cycle II. So the research is considered complete, and the results showed an increase in students learning cooperation skills. This can be seen from the increased observation results and the results of the student interviews. If the research conducted by Triyanti (2015) Model of cooperative learning CRH type can increase the motivation and understanding of mathematical concepts while the research conducted by Wilda Ruandini, R. Wakhid Akhdinirwanto and Nurhidayati (2012) through cooperative learning of the STAD type can improve the ability of cooperation so that the research found innovations that are models of cooperative learning CRH type can be used as an effort to improve the ability of student learning cooperation Grade VII D Semester of SMP Negeri 11 Yogyakarta school year 2016/2017. Thus the hypothesized action proved.

CONCLUSION

Based on the results of the study by using a model of cooperative learning CRH type in a rectangular subject can be concluded that there is an increase in the ability to learn mathematics students

in grade VII D SMP Negeri 11 Yogyakarta Semester School year 2016/2017. It can be seen from the following indicators:

1. There is an increase in the learning skills of students in mathematics learning. This can be demonstrated by the number of students who propose ideas/opinions, ask questions, convey answers, and respond to group friends ' opinions. Even based on the observation data there is an increase in the average percentage of students ' study cooperation ability in each cycle is a cycle I of 50% in criteria quite than in cycle II increased to 69.93% in good criteria, This means that there has been an increase of 19.93%.
2. Mathematics learning using the CRH type Cooperative learning model gets a positive response from students meaning that students can receive well and quickly adapt and are interested in following the learning by using models CRH type Learning. This is evident from interviews with students who demonstrated learning to run smoothly and received a positive response from students.

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