

## INCREASING LEARNING ACTIVITIES USING COURSE REVIEW HOORAY LEARNING MODELS FOR STUDENTS OF GRADE VII

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### ABSTRACT

This research's background problem is that the lack of students' activities in learning activities because of the learning model is not innovative. This research aims to increase students' learning activities using cooperative learning model type Course Review Hooray (CRH) on the subject of plane figures: quadrilaterals on students class VII A of Muhammadiyah Junior High School (SMP Muhammadiyah) 5 Yogyakarta the academic year 2016/2017. These research subjects are students of class VII A of SMP Muhammadiyah 5 Yogyakarta in 2016/2017. This research's object is the mathematics learning process using cooperative learning model type CRH. The subject of plane figures: quadrilaterals on students class VII A of SMP Muhammadiyah 5 Yogyakarta. The techniques of data collection are observation and interview. The data are analyzed by qualitative descriptive analysis. This research is included in class action research consists of two cycles. The result of this research showed that cooperative learning model type CRH could increase students' learning activities in the mathematics of class VII A in SMP Muhammadiyah 5 Yogyakarta academic year 2016/2017. It can be seen from the result of the observation sheet about students' learning activities in each cycle, which is the percentage of students' learning activities in mathematics in cycle I is 45,63% with the criteria of enough and in cycle II was increased to 69,22% with the criteria of good. Moreover, each cycle's test result also increased, which can be seen from the test result in cycle I, which has 79,36, and in cycle II the mean was increased to 88,93.

**Keywords:** students' activities, cooperative learning model, Course Review Hooray

### INTRODUCTION

Mathematics is one of the compulsory subjects for elementary, secondary, to high education. However, in reality, many students do not like and even hate mathematics. Not a few students still have difficulty learning mathematics, but also do not rule out the possibility that there are students who like this subject. It is the level of mastery that distinguishes students from one student to another. The lack of student interest in learning is very likely to occur because the specter of complicated mathematics has indeed spread and become a mindset for some people. One of the determinants of learning outcomes is external factors or factors outside the students themselves, including teaching methods and teacher relations with students. In the world of education, many learning models can be used as teaching methods, but not all teachers know these learning models and use the same learning models for certain materials, although sometimes teachers also add practical drawing or painting activities in geometry material.

In teaching and learning activities, selecting appropriate learning methods and existing conditions creates a good interaction between teachers and students. If this is achieved, students can easily understand the material presented and achieve improvement in learning outcomes. Therefore, the selection of learning methods is very important to do. Based on interviews with mathematics teaching teachers for grade VII in SMP Muhammadiyah 5 Yogyakarta and observations made by researchers before the research was conducted on December 6, 2016, most students did not concentrate. They paid less attention to the teacher when explaining the material. Furthermore, according to interviews conducted by researchers and VII grade students at SMP Muhammadiyah 5 Yogyakarta, students lack an understanding of the subject matter delivered and are not even interested in learning mathematics.

To support the data, the researcher made observations at SMP Muhammadiyah 5 Yogyakarta and obtained the scores of Middle-Class Semester Deuteronomy of Grade VII students in the 2016/2017 school year as follows:

**Table 1.** Middle Semester Deuteronomy Grade VII grade students of SMP Muhammadiyah 5 Yogyakarta 2016/2017 school year

Kelas	VII A	VII B	VII C	VII D
Rata-Rata	76,16	54,53	48,4	52,57
Jumlah Siswa	31	30	30	30

From table 1, the average grade of UTS grade VII students included in the category enough. In some classes, the average value does not exceed the MCC, which is more than 75. The explanation above needs to be done to make learning activities exciting and fun, namely by changing cooperative learning methods. The aim to be achieved in this research is to increase mathematics learning activities through cooperative review models of CRH grade VII A students of SMP Muhammadiyah 5 Yogyakarta.

Research has been conducted by Eka Hendriyati F (2012), which discusses the Application of Course Review Hooray Learning Method to Improve Student Learning Activities Subject of Class VII Association of SMP Negeri 1 Silo. These studies found that the Course Review Hooray Learning Method can improve student learning activities and outcomes. The first cycle of student learning activities reached a score of 76.45% and in the active category. In comparison, classical learning completeness was 55.6% or did not meet the Minimum Completeness Criteria(MCC). In cycle II, student learning activities increased to 84.41%, and included in the very active category; classical learning completeness also increased to 83.33%.

A study was conducted by Indrawati Rohana (2013) who discussed the Implementation of the Course Review Hooray Type of Cooperative Learning Method in Improving Student Learning Activity Class VII B in SMP Negeri 15 Purworejo in the 2012/2013 academic year. From this research, an increase in student learning activeness was obtained. The first cycle of student learning activities reached a 62.50% score and, in the second cycle, increased to 81.25%. Student learning outcomes also increased from 50.00% in the first cycle to 84.37% in the second cycle.

According to Sadirman (2011: 100), learning activities are defined as physical and mental activities. In learning activities, the two activities must always be bonded. The link between the two will produce optimal learning activities. According to the Directorate of High School Development (2010: 57-58), student activities in learning can be seen from student efforts, namely:

1. Enthusiastic students participate in learning.
  - a. Students pay attention to the teacher's explanation.
  - b. Students do not do other work.
  - c. Students spontaneously work when given an assignment
  - d. Students are not affected by situations outside the classroom
2. Student interaction with the teacher
  - a. Students ask the teacher
  - b. Students answer teacher questions
  - c. Students use the teacher as a resource
  - d. Students use the teacher as a facilitator
3. Interaction between students
  - a. Students ask friends in a group
  - b. Students answer questions of peers in one group
  - c. Students ask friends in other groups
  - d. Students answer questions in other groups
4. Group collaboration
  - a. Students help friends in groups who encounter problems
  - b. Students ask friends for help if they experience difficulties

- c. Students match the answers/concepts in one group
- d. The division of tasks in groups
- 5. Student activities in groups
  - a. Students express their opinions
  - b. Students respond to questions/opinions of peers
  - c. Students work on group assignments
  - d. Students explain their opinions/work
- 6. Student participation in concluding the results of the discussion
  - a. Students raise their hands to conclude
  - b. Students respond to questions/conclusions of friends
  - c. Students perfect the conclusions expressed by their friends
  - d. Students respect the opinions of their friends

According to Wena, Made (2009: 189), cooperative learning is one group learning model with specific rules. The basic principle of cooperative learning is that students form small groups and teach each other to achieve common goals. Meanwhile, according to Suprijono, Agus (2014: 54), Cooperative learning is a broader concept covering all types of group work, including forms more led by the teacher or directed by the teacher.

According to Slavin in Isjoni (2012: 15), cooperative learning is a learning model where students learn and work in small groups collaboratively with 4-6 people with heterogeneous group structures. Heterogeneous means to consist of a mixture of students with different abilities, sexes, and ethnicities. This is useful for training students to work with their backgrounds. Moreover, another opinion, namely Johnson in Isjoni (2012: 23), Cooperative learning is grouping students in class into small groups; students learn and work together with the maximum ability they have and learn from each other in groups.

From the explanation above, it can be concluded that cooperative learning is one of the models of group learning with specific rules with students forming small groups. Students learn and work together with the maximum ability they have and learn from each other. With these small groups' existence, it is expected that the activities in the group and its surroundings can be carried out well.

According to Sohimin, Aris (2014: 54), Learning Course review Hooray is one of the cooperative learning defined teaching and learning activities by grouping students into small groups. This learning test of students' understanding of concepts using boxes filled with questions and numbered to write the answers. The student who gets the correct sign immediately shouts Hooray or other yells. Whereas in Suprijono, Agus (2014: 129), the steps of learning using Course Review Hooray are as follows.

- a. The teacher conveys the competencies to be achieved.
- b. The teacher demonstrates/presents the material.
- c. The teacher allows students to ask questions and answers.
- d. To test understanding, students are told to make 9/16/25 boxes according to their needs. Each box is filled with numbers according to each student's tastes.
- e. The teacher randomly reads the questions and the students write the answers in the box where the teacher mentions the number and immediately discussed if correctly filled with a sign ( $\checkmark$ ) and incorrectly filled in with a cross ( $\times$ )
- f. Students who have  $\checkmark$  vertically or horizontally, or diagonally sign must shout hooray ... or other yells.
- g. Student scores are calculated from the correct number of answers obtained.
- h. Cover

From some of the above meanings, it is concluded that grouping students carry out a Course Review Hooray review type of cooperative learning into small groups. Each group uses a box filled with questions and numbered to write the answers. Student scores are calculated from the correct number of answers obtained.

## METHODS

This type of research is a Classroom Action Research (CAR) conducted collaboratively. Collaborative means the researcher collaborates with or collaborates with a grade VII mathematics teacher A. The planned action is the use of the CRH cooperative learning model to improve mathematics learning activities for students in grade VII of SMP Muhammadiyah 5 Yogyakarta. This class action research model outlines four stages are passed, namely (1) planning, (2) implementation, (3) observation, and (4) reflection. As for the classroom action research design:

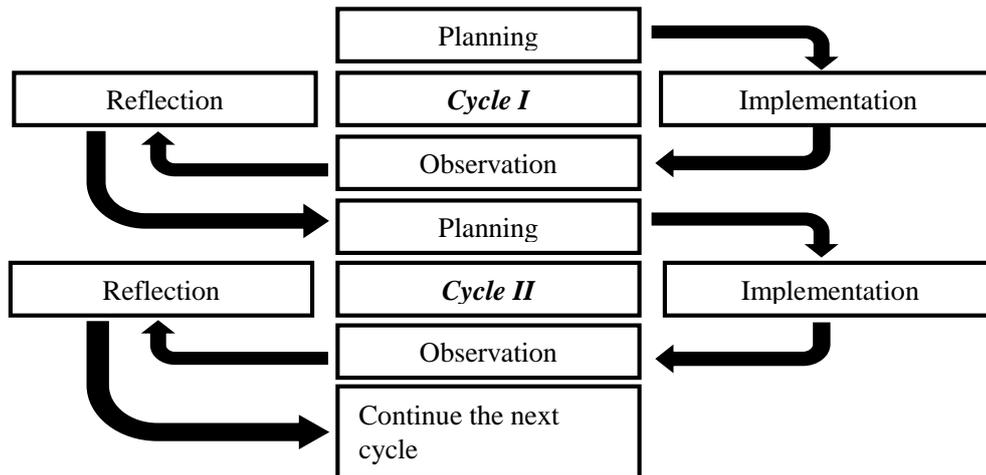


Figure 1. Research Design

The study was conducted at SMP Muhammadiyah 5 Yogyakarta. The research was conducted in the even semester of the 2016/2017 school year. This study's subjects were students of class VII A SMP Muhammadiyah 5 Yogyakarta with 33 students consisting of 20 male students and 13 female students. This research's object is the whole learning process in the application of the CRH type of cooperative learning model on the subject of rectangular structure in class VII A of SMP Muhammadiyah 5 Yogyakarta. Research procedures are steps that must be done in a study. This study aims to determine the increase in students' mathematics learning activities using the CRH cooperative learning model. The action research procedure is described as follows:

### 1. Cycle I

- a. Action Planning. The planning phase of the action in the first cycle was preceded by consultation with a mathematics teacher in class VIIA SMP Muhammadiyah 5 Yogyakarta regarding the subject matter used as a research and determining the time to conduct research. The following planning activities are:
  - 1) Arrange Learning Implementation Plan
  - 2) Make observation sheets of teacher and student activities.
  - 3) Arrange questions for evaluation activities
- b. Acting. The teacher implements the learning plan planned in the previous stage, namely learning using the CRH learning model. In this study, the researchers acted as teachers. The actions taken are as follows:
  - 1) The researcher conveys the learning objectives and motivates students to participate actively in the learning process.
  - 2) Researchers carry out teaching and learning activities as usual.
  - 3) Researchers provide opportunities for students to ask for difficulties encountered in learning the material provided.
  - 4) Researchers form groups of 4-5 students in each group

- 5) Each group is given a sheet of paper containing nine boxes. Each box is filled with numbers with each student's tastes and several blank papers to answer the questions to be given.
  - 6) The researcher randomly reads the questions. Students write the answers on the blank paper given and immediately discuss, if true, fill in the correct / checklist mark and cross fill in the box with the number of the question.
  - 7) Students who have gotten the correct mark / vertical or horizontal checklist or diagonal must shout hooray or other yells.
  - 8) Student scores are calculated from the correct answer or the number of hoorays obtained.
- c. Observing. Observation is an effort to observe the implementation of class action. Observations were made by observers in class VII A during the learning process using observation sheets that have been made. Observation activities were carried out to find out things that happened during the learning activities, including teacher activities, student learning activities, and the obstacles students faced during the learning process. Each cycle is given an evaluation test in the form of problem-solving questions that are done individually.
  - d. Reflection. Researchers conduct data processing and conduct discussions with partner teachers to consider the good or bad actions taken, then formulate a plan of action to be carried out in the next cycle.

## 2. Cycle II

The stages in the second cycle of activities that are almost the same as the previous activities. However, the activity plan in cycle II was prepared based on the results of reflections in cycle I, which were shown to improve the implementation of the cycle I actions.

- a. Planning. It is planned again about the action of learning mathematics using the CRH learning model, which is focused on cycle I, to correct and improve cycle I.
- b. Acting. The teacher implements the learning plan that was planned in the previous stage, namely learning by using the CRH learning model in the mathematics learning process that has been refined or improved and at the end of the activity students who complete the questions are first given an award in the form of prizes so that the activities and student learning outcomes in mathematics learning are increased.
- c. Observing. The researcher observes all activities during learning with the CRH learning model in the mathematics learning process. So that the information obtained is more accurate, the researcher prepares observation guidelines. Researchers write the results of these observations on the observation sheet that has been made every activity that occurs during the teaching and learning process takes place to be noted.
- d. Reflection. Researchers conduct data processing and conduct discussions with partner teachers to consider the good or bad actions taken in the second cycle and formulate an action plan that will be carried out in the next cycle.

In this research, data collection techniques are to use the method of observation, test methods, interview methods, and triangulation. Data collection instruments used in this study were observation sheets and daily tests. There are two observation sheets, namely the observation sheet of students' interest in learning mathematics and teacher activities.

1. Analysis of observational data. Data were analyzed descriptively and analyzed using the following percentage formula:

$$P = \frac{nm}{N} \times 100\%$$

Information:

P: Percentage of students' interest in learning mathematics

nm: Number of items checked

N: The sum of all items

2. Analysis of test resultan. The test results were analyzed as follows:

- a. Determine the test scores of each student
- b. Calculate the class average, using the formula:

$$\bar{X} = \frac{\sum X}{\sum N}$$

Information:

$\bar{X}$ : Average value

$\sum X$ : The sum of all student grades

$\sum N$ : The number of students

## RESULTS AND DISCUSSION

Based on observations obtained the results of the percentage of student learning activities in cycle I and cycle II in table 2 as follows:

**Table 2.** Increased Student Mathematical Learning Activities Each Cycle

Cycle	Percentage	Category
Cycle I	46,53%	Less
Cycle II	69,22%	Good

In cycle I, the learning process went well, even though there were still many students who were noisy and chatting with their friends at the beginning of the implementation. In this cycle, students also do not play an active role in learning activities, especially asking teachers to solve problems for groups. Students tend to hand over the work to students who feel more capable. In delivering the conclusions, there were no students who volunteered to express their opinions. After reflection on the implementation of learning in the first cycle, the shortcomings that existed in the first cycle were also tried by researchers to be corrected in the second cycle. Hence, students were more active in the second cycle. Students begin to participate in group discussions actively and work on questions. Questions and answers began to look good in the group and outside the group. Students are bolder in delivering conclusions. Based on observations, student activities in learning mathematics have increased in every aspect. This is seen in table 3.

**Table 3.** Increased Student Mathematical Learning Activities Based on Observation results

No	Aspect	Percentage	
		Cycle I	Cycle II
1.	Enthusiastic students in following the lessons	65,72%	77,68%
2.	Student interaction with the teacher	43,22%	71,79%
3.	Interaction between students	42,22%	66,35%
4.	Group collaboration	44,80%	81,81%
5.	Student activities in groups	44,72%	65,91%
6.	Student participation in concluding the results of the discussion	38,48%	51,77%
	<b>Percentage of total</b>	<b>46,53%</b>	<b>69,22%</b>

In this study, in addition to using data from observations, researchers also used data in the form of interviews conducted with teachers and students. Based on the results of teacher interviews obtained positive response results from students and teachers towards mathematics learning using the Course Review Hooray type of cooperative learning model. Mathematics learning with the Course Review Hooray type of cooperative learning model can improve student mathematics learning activities.

## CONCLUSION

Based on the study results, it can be concluded that mathematics learning using the CRH cooperative learning model can increase mathematics learning activities for students of class VII A,

even semester of SMP Muhammadiyah 5 Yogyakarta 2016/2017 school year. This can be seen from the following indicators:

- a. An increase in student activity in the process of learning mathematics from cycle I to cycle II. Based on observational data, there is an increase in the average percentage of activity in each cycle equal to 46.53% (enough) in the first cycle and 69.22% (good) in the second cycle.
- b. Based on the results of student interviews showed a positive response to the CRH type of cooperative learning model in its use in mathematics learning activities.

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