APPLICATION OF JIGSAW TYPE COOPERATIVE LEARNING MODEL ON CLASS VII KRISTEN SMP STUDENTS OF KONDO SAPATA MAKASSAR

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ABSTRACT

This study aims to describe the improvement of students' mathematics learning outcomes using the Jigsaw Type Cooperative Learning Model in Class VII Christian Junior High School Students Kondo Sapata Makassar. The instrument used in this research is the learning outcome test instrument. Data analysis was carried out in two techniques, namely quantitative and qualitative by paying attention to student activities, teacher activities and the learning process. This study found that the Jigsaw type cooperative learning model can improve student learning outcomes. This condition can be seen from the increase in student activity, teacher activity, student response questionnaires, the average student learning outcomes from 59.47 in the first cycle increased to 77.73 in the second cycle from the ideal score of 100 and the standard deviation of the first cycle of 13,362 to 9,130 in cycle II. Therefore, the Jigsaw Type Cooperative learning model is a learning model that can improve student learning outcomes because it is a model that can make students active and not bored in learning

Keywords: Keywords: Model, Learning, Cooperative, Jigsaw Type, Origin Team, Expert Team.

1. Introduction

Education can be interpreted as a human effort to grow and develop the potentials possessed, both physically and spiritually in accordance with the values that exist in society and culture, where education is the result of national civilization developed on the basis of the nation's own view of life. can be said to be of high quality and quality if the teaching and learning process runs effectively, which is supported by resources and students experience the learning process (Nasruddin, 2017: 114). Basically, learning is a planned activity that conditions/designs a person to be able to learn well to suit the learning objectives (Majid, 2017:5). Mathematics is one of the fields of study that exist at all levels of education. Learning mathematics is a special requirement to continue education at the next level. Because by learning mathematics, we will learn to reason critically, creatively and actively (Susanto, 2016: 181).

The curriculum is an important thing for the running of educational activities. The 2013 curriculum has been used since the 2013/2014 school year in the Indonesian education system. The 2013 curriculum has been running until 2013-2019 but has become a problem since the Covid-19 outbreak. Educators are expected to be able to carry out varied learning such as determining basic competencies and materials to be simplified. Educators are expected to implement learning innovations without abandoning the principle of learning from home during the Covid-19 pandemic. (Yasir, 2021:14-16).

The results of initial observations about the learning process that takes place in schools using conventional methods that make teachers the center of teaching and learning activities. Researchers found several problems, namely (1) students were less active in the learning process this is because learning is still teacher-centered and rarely involves students as a result, teacher and student interactions are less so that students feel bored, (2) students are indifferent or lack of interest in learning so that mastery of the material students are still lacking, (3) the lack of student learning outcomes where the Minimum Completeness Criteria (KKM) in mathematics has not been achieved.

The existence of an independent learning program gives education units the freedom to make varied learning changes such as determining basic competencies and materials to simplify can help students learn from home. Along with the implementation of character education in Indonesia, issues regarding local wisdom have

been widely discussed by various parties in planning and classroom management. The learning model is a conceptual framework that describes a systematic procedure in organizing learning experiences to achieve predetermined learning goals, and serves as a guide for learning designers or teachers to plan and carry out learning activities. Therefore, a model is needed. learning that can make students actively learn and build their own understanding, especially for mathematics subjects (Nasruddin, 2017:114).

(Susilo, 2020), (Kastikasari, 2019), (Rosyidah, 2016), (Santoso, 2016). Finding that the jigsaw type cooperative learning model is effective in the learning process. However, some of these studies were carried out using the experimental method. Therefore, researchers are interested in further describing how the positive impact of the application of the Jigsaw Cooperative learning model on improving student learning outcomes in the classroom.

The cooperative learning model is a model that is commonly used in the application of subject matter based on a competency-based curriculum and also at the beginning of the implementation of the education unit level curriculum until now. Cooperative learning is a learning process in the form of groups that will help students find and build their own understanding of the material being taught. The cooperative learning model that can be used is the Jigsaw type cooperative learning model. Jigsaw Type Cooperative Learning is learning where in the application of learning several small groups are formed in each group, there is one who will be responsible for mastering the subject matter of study and one person who must be responsible for teaching to other groups and groups (Djabba, 2020: 21-26).

The purpose of the Jigsaw Type cooperative learning model according to Salvin (in Djabba: 2020) is to create a situation where individual success is determined by the success of the group. Meanwhile, according to Anurrahman (in Djabba: 2020) the purpose of the Jigsaw Type cooperative learning model is to achieve learning objectives effectively and efficiently. So it can be concluded that the purpose of the Jigsaw cooperative learning model is to develop teamwork, study skills, and master knowledge in depth that is impossible for them to try to learn the material alone. The advantage of the Jigsaw type cooperative learning model is that learning is used to create more interaction between teachers and

students and students with students and interdependence, thus encouraging students to be active and help each other in mastering the subject matter to achieve maximum achievement (Lubis, 2016:97-98).

2. Research Methods

The type of this research is CAR which was conducted at SMP Kondo Sapata Makassar. The data collection process was carried out by observing student activities, teacher activities, student response questionnaires and learning outcomes. The supporting instruments in this study were the test of learning outcomes, student response questionnaire tables, student activity tables and teacher activity tables carried out at the end of each cycle. In cycle I and cycle II.

3. Results and Discussion

This research was conducted for 8 meetings consisting of 2 cycles. The first cycle carried out 4 stages of research which are described as follows:

a. Planning
The planning stage was carried out at the first meeting by checking the research location and checking the readiness of students who would be given action as well as conducting direct interviews with teachers about how prepared students were to participate in the learning process by applying the Jigsaw Type cooperative learning model. At the planning stage of the first cycle, the researcher has prepared several supporting instruments which are then observed in the class to be studied. This is done because researchers will know more about the characteristics of students who will be given learning by applying the Jigsaw Type cooperative learning model. Researchers made improvements to the instrument at the planning stage in cycle II. The supporting instruments used by the researcher are trying to use supporting instruments that have been validated before this is done. Based on the data obtained from the study, the research requires an instrument to conduct an initial test in determining the research subject and an interview guide test to confirm students' abilities (Tasni, 2016).

b. Implementation
Implementation At the implementation stage of each cycle, seen from the first, second and third meetings, there was a significant increase in each meeting, this was because the students were

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already familiar with the Jigsaw type cooperative learning model. This is in line with Hasnawati and Hasmiati's research that student learning outcomes taught using the Jigsaw cooperative learning model are more effective than conventional learning (Hasnawati 2012:148). In essence, the teacher prepares a Jigsaw cooperative learning plan so that the implementation of learning can run well.

c. Observation

Observations were made by looking at student activities, teacher activities, student responses and student learning outcomes in the application of the Jigsaw type cooperative learning model. This is because it is known that Jigsaw cooperative learning is learning that encourages students and actively assists students in mastering the material so as to achieve maximum learning outcomes. Thus, they are interdependent with each other and must cooperate with the group cooperatively for the assigned material. The jigsaw type cooperative learning model can also increase students' motivation in learning mathematics (Dazrullisa, 2015:1).

Table 1. Statistics of Student Learning Outcomes Scores in Cycle I

Statistics	Value Statistic
Subject	15
Ideal Score	100
Maximum Score	78
Minimum Score	32
Score Range	46
Mean	59,47
Median	62
Mode	48
Variance	178,552
Standar Deviaton	13,362

Source: Processed Data

d. Reflection

Based on the results of the reflection of the implementation of the action in the first cycle, the results of the reflection are: (1) The completeness of student learning outcomes, namely 26.66% has not reached the classical standard of 85% above the school KKM and is not completed 73.33% (2) Students are still less serious in participating in learning, less attention to the teacher when explaining the material (3) In the learning process students are less active during discussions with group friends. The success or failure of a student in mathematics can be influenced by several factors, both from within and from outside the student. One of them is by providing a method that can make a positive contribution to mathematics learning outcomes (Tasni, 2017).

Based on the results of the reflection there has not been a significant increase so that the research continues to Cycle II.

a. Planning

At the planning stage the researchers made improvements to the supporting instruments. Cycle II was still the same as the steps taken in cycle I, but in cycle II essentially repeated the application in cycle 1 to correct errors that occurred in cycle 1 in order to improve students' mathematics learning outcomes. These factors can be overcome by testing the instrument with appropriate validity and reliability tests. Testing is done to maintain the validity and reliability. In addition, to overcome the influence of the user of the measuring instrument, the user must improve his ability to use the measuring instrument. No less important factor that affects the validity and reliability of the instrument is the factor of the subject being measured. To overcome this, researchers must be able to control the subject (Yusup, 2018: 18).

b. Implementation

At this stage the teacher carries out the learning process using the Jigsaw Type Cooperative learning model. Three meetings for presenting the material and at the end of the cycle a test of student learning outcomes was conducted. Implementation At the implementation stage of each cycle, seen from the first, second and third meetings, there was a significant increase in each meeting, this was because the students were already familiar with the Jigsaw type cooperative learning model. This is in line with Hasnawati and Hasmiati's research that student learning outcomes taught using the Jigsaw cooperative learning model are more effective than conventional learning (Hasnawati 2012:148). In essence, the teacher prepares a Jigsaw cooperative learning plan so that the implementation of learning can run well.

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Observations were made by looking at student activities, teacher activities, student responses and student learning outcomes. This is because it is

known that there are several advantages of the Jigsaw type cooperative learning model, this is in line with Isjoni's findings (in Lubis, 2016: 97) Jigsaw cooperative learning is learning that encourages students and actively helps students in mastering the material so as to achieve maximum learning outcomes. Thus, they are interdependent with each other and must cooperate with the group cooperatively for the assigned material. The jigsaw type cooperative learning model, this is in line with Isjoni's findings (in Lubis, 2016: 97) Jigsaw cooperative learning is learning that encourages students and actively helps students in mastering the material so as to achieve maximum learning outcomes. Thus, they are interdependent with each other and must cooperate with the group cooperatively for the assigned material. The jigsaw type cooperative learning model can also increase students' motivation in learning mathematics (Dazrullisa, 2015:1).

Table 2. Statistics of Student Learning Outcomes Scores in Cycle II

Statistics	Value Statistic
Subject	15
Ideal Score	100
Maximum Score	90
Minimum Score	56
Score Range	34
Mean	77,73
Median	78
Mode	74
Variance	83,352
Standar Deviaton	9,130

Source: Processed Data

d. Reflection
Based on the data of learning outcomes in cycle II, it has been seen an increase in the teaching and learning process. The research showed that in the second cycle the learning was quite good from the first cycle. The increase in student learning outcomes was seen from the class average score that had reached more than 70 with classical learning completeness reaching 85%. Because learning outcomes have increased, the researchers consider the Jigsaw type cooperative learning model to improve student learning outcomes, especially in mathematics. The results obtained are in the form of finding the level of effectiveness of the designed learning design and a list of problems that arise in the field which are then used

as a basis for re-planning where reflection is carried out to analyze learning outcomes and at the same time develop improvement plans for the next cycle (Wahyuni, 2021: 65).

4. Conclusion
Based on the results of classroom action research that was carried out at Kondo Sapata Junior High School Makassar, it can be concluded that the Jigsaw type cooperative learning model can improve student learning outcomes. This condition can be seen from the increase in student activity, teacher activity, student response questionnaires, the average student learning outcomes from 59.47 in the first cycle increased to 77.73 in the second cycle from the ideal score of 100 and the standard deviation of the first cycle of 13.362 to 9.130 in cycle II.
Limitations:
• The research is still carried out on a small scale so the researcher recommends that it can be applied on a larger scale
• Other researchers can develop the application of the Jigsaw model by integrating it with other approaches

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