

Increase the Results of Learning Mathematics Material Area and Circumference Square, Rectangular Through Think Pair Share Model

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ABSTRACT

The low level of material mathematics learning outcomes and the circumference of a rectangular square is caused by students who are less active in learning and lack direct student involvement. Procedures in classroom action research include planning, carrying out observation, and reflection. The results of the analysis of teacher activities, student activities, and learning outcomes in each cycle have increased. The results of the study show that the application of the Think Pair Share model can improve material mathematics learning outcomes in a wide and perimeter square, rectangle.

Keywords: Learning Outcomes, Mathematics, Area, Circumference, Think Pair Share

1. INTRODUCTION

Based on observations and interviews. The results of studying grade IV mathematics at SDN Karangtengah 3 Blitar city are categorized as lacking. According to grade IV teachers, the lack of learning attributability in the material calculates the area and circumference of the square and rectangular, due to students still lacking understanding of the material of calculating the area and circumference of the square, rectangular. also, when working on the problem students are still fixated on looking at formulas. This is because when the teacher explains some students do not pay attention to the material that is being taught, such as joking or talking to a friend, thus causing the student not to focus on the material taught, as a result, the student lacks in understanding the material and difficulty working on the problem.

Based on observations and interviews with grade IV teachers, in teaching mathematics teachers still, often use lecture methods and Q&A. This allows the appearance of student saturation because it only listens to what is being explained, as a result of students venting their saturation by doing activities, such as joking or speaking that do not correspond to the material taught. In addition to using lecture methods and Q&A, teachers also often use group discussion methods. But in the application of this group method, there is a problem, namely when the discussion that plays an active role is only 1-2 students, and who work only his groupmates are good. While others are

passive, and unwilling to express their opinions. This is due to a large number of members in one group, resulting in a lack of attitude of responsibility and cooperation that makes learning run less effectively (Keyser, 2000).

Mathematics learning in grade IV requires a learning method or model that can make students more active to improve learning outcomes to the maximum. This can be done by changing the methods, strategies, and learning models that suit the conditions of students and curriculum in grade IV SDN Karangtengah 3 Blitar city. One of the models that can make students play an active role in learning is the cooperative learning model type Think Pair Share (TPS), the syntax in the model (TPS) according to Suprijono (2015) as follows: 1) think, 2) pair, 3) share. Judging by the synapses this model can get students actively involved by developing thinking skills through doing tasks either individually or in groups.

2. RESEARCH METHOD

This research uses a qualitative research approach and this type of research is class action research. According to Kurt Lewin (in Arikunto, 2010), there are 4 stages in class action research (PTK), namely planning, implementation, observation, and reflection. This study was conducted with 2 cycles and each cycle consisted of 2 meetings.

In this study, the data obtained is process data and result in data. Process data includes data on student activities and teacher activities when learning by

applying the Think Pair Share learning model. Process data is taken when implementing learning with the customized intrusion. In the instrument process data used are student activity observation sheets and teacher activities, field log sheets, and documentation. Learning data covers aspects of knowledge and skills. The data of learning aspects of knowledge is taken from the students' grades working on the evaluation sheet while the data of the results of learning aspects of skills obtained from the student's availability determines the breadth and circumference through the activities of creating and measuring the build of the square, rectangular

Data analysis includes data reduction, data presentation, conclusion drawing, evaluation, and reflection. The reduction of activity data that is done is to collect the results of observations and tests that are then selected, focused, and simplified as needed. Furthermore, in the presentation of data, in this study the data presented in the form of a table that includes data on students' learning aspects and aspects of skills as well as data on teacher activities and student activities. Furthermore, after the data is presented, conclude to find out the success rate of learning at each meeting in each cycle.

The success rate of teacher and student activities can be said to be successful if the aspect singed reaches 80%. Meanwhile, the completion of students' learning results can be said to be complete if students can obtain ≥ 75 KKM. And students who have not completed if the grades are below KKM. Meanwhile, students are said to have completed classical learning when 80% of students in one class had achieved a ≥ 75 . Furthermore, the evaluation stage, at this stage is used to know the whole learning process using the Think Pair Share model in grade IV students of SDN Karangtengah 3 Blitar city. And the next activity is a reflection to review existing events during the learning process based on evaluation results to improve and determine the next action in the research.

3. RESULT

The results of the research were conducted at SDN Karangtengah 3 Blitar city. It consists of the pre-acted stage, cycle I, and cycle II. In pre-boxing, the number of study scores was 1590 with an average of 66.2. In the pre-completion of the student's study results is quite low which is from 24 students who can be said to complete only 10 students with a percentage of completion of 41%. To improve students' learning outcomes of broad materials and square circumference, rectangles are carried out by applying the Think Pair Share learning model. In the cycle, I obtained some findings during learning, among others. (1) Students still feel confused when working on or doing activities individually (2) Some students who do not bring media according to the instruction given by the teacher. (3) When the discussion is still there are some groups that are less focused. (4)

When conveying the results of the discussion some students sometimes do not pay attention to the friend who is conveying in front. (5) In the learning process, teachers are better at improving classroom management, to make students more focused on learning.

The percentage of teacher activity in cycle I is 94% with very good criteria while student activity in cycle I is obtained 88% with very good criteria. In the grades of learning, results obtained the average learning aspect of knowledge in cycle I 73.8 with a classical completion percentage of 60% while the results of learning aspects of skills in Cycle I meeting I obtained 10 students were able to obtain a maximum score of 4 A predicates with excellent criteria and in meeting II obtained 13 students were able to obtain a maximum score of 4 predicate B with excellent criteria.

The percentage of teacher activity in cycle I am 94% with very good criteria while student activity in cycle I is obtained 88% with very good criteria. In the grades of learning, results obtained the average learning aspect of knowledge in cycle I 73.8 with a classical completion percentage of 60% while the results of learning aspects of skills in Cycle I meeting I obtained 10 students were able to obtain a maximum score of 4 A predicates with excellent criteria and in meeting II obtained 13 students were able to obtain a maximum score of 4 predicate B with excellent criteria.

In cycle, II obtained some findings during learning, among others: (1) Students can already perform activities following the steps of the learning model (2) there are still students who do not bring media or tools, but teachers already provide media to facilitate students who do not bring media or tools. (3) Students already appear to be active in having discussions in pairs. (4) The student has been courageous and in expressing his or her opinion (5) The Teacher conditioned the class by requesting or guiding the student if in the learning of the student appears inactive by reminding them to focus on the learning activity. The percentage of Teacher Activity in cycle II is 100% with excellent criteria. While student activity in cycle II is 100% with excellent criteria, and the average student learning score is 83.3 with a completion percentage of 83%. And the results of learning aspects of skills in cycle II meeting I obtained 17 students were able to obtain a maximum score of 4 A predicates with excellent criteria and in meeting II obtained 20 students were able to obtain a maximum score of 4 A predicates with excellent criteria.

The percentage of teacher activity in cycle I was 94%, and in the cycle, II increased to 100%. The percentage of student activity in cycle I is 88% and increased in cycle II to 100%. The results of learning aspects of skills in cycles I and II are obtained from the ability of students to perform achievement indicators. Here is a recapitulation of the skill aspect.

Table 1. Recapitulation of Student Learning Skills Aspects

Number of Students				Score	Predicate	Criteria
Cycle I Meetings I	Cycle I Meetings II	Cycle II Meetings I	Cycle II Meetings II			
10	13	17	20	4	A	Excellent
8	6	3	1	3	B	Good
4	3	3	2	2	C	Enough
2	2	1	1	0-1	D	Need guidance

Table 2 Recapitulation of student learning knowledge aspects

Learning Outcomes	Pre-action	Cycle I	Cycle II
<ul style="list-style-type: none"> • Average • Percentage • Criteria 	66,2 41% (less)	73,8 60% (enough)	83,3 83% (Good)

From table 1 obtained information that Cycle I meeting I obtained 10 students were able to obtain a maximum score of 4 A predicates with excellent criteria and at meeting II obtained 13 students were able to obtain a maximum score of 4 predicate B with excellent criteria. And the results of learning aspects of skills in cycle II meeting I obtained 17 students were able to obtain a maximum score of 4 A predicates with excellent criteria and in meeting II obtained 20 students were able to obtain a maximum score of 4 A predicates with excellent criteria. From the skill aspect assessment data seen improvement at the meeting of each cycle. The results of the learning aspects of knowledge are obtained from the results of students working on evaluation questions. The following is a recapitulation of the learning aspects of knowledge presented in table 2.

From table 2 obtained information that the value of learning aspects of the study aspect of the study at the average pre-performance stage of 66.2 obtained a complete percentage of 41% with fewer criteria. In cycle I, it increased by an average of 73.8 and obtained a 60% completion percentage with sufficient criteria. And in cycle II experienced an increase with an average of 83.3 and obtained 83% completeness with good criteria. It can be concluded that there are still 17% or 4 students who have not achieved KKM completed, this is because students still have difficulty in understanding the material and operation of multiplication and division count. However, because the results obtained by researchers have reached the criteria specified that is 80%. Thus, the results have shown that the application of the Think Pair Share model in broad materials, square and rectangular circumference can improve students' learning outcomes.

4. DISCUSSION

Implementation of the Think Pair Share (TPS) learning model. In grade IV SDN Karangtengah 3 material area and square circumference, rectangular are carried out through two cycles namely cycle I and cycle II, in each cycle held 2 meetings. Based on the exposure of data on pre-action, cycle I and cycle II can be known that the activities and learning outcomes of grade IV students at SDN Karangtengah 3 have increased. In

individual activities, students conduct activities individually to find information and concepts. this is in line with the opinion of Piaget (in Susanto 2016:191) suggesting that the student's knowledge or understanding was discovered, formed, and developed by the student himself.

In the implementation of individual activities in cycle I some students do not bring the media that has been informed. So, students who do not bring the media to borrow to the theme. this inhibits students' time in working on activities, as students have to take turns working on activity sheets. To minimize the time, at the next meeting the teacher provides media to facilitate students who do not bring media. This is done so as not to inhibit students' time in working and getting used to students learning independently (The Theory of Learning in Games, 1998).

In the implementation of discussion activities in cycle I there are still some students who are less focused on the activities, such as speaking outside the topic of discussion. In this activity the teacher strives to condition all students to interact with each other and stay focused on the topics under discussion so that learning can run effectively. So. it can be in line with Shaw's opinion (in Suprijono, 2015:76) which states that the characteristics of the group are that its members interact with each other and influence each other. In the implementation of the activity of conveying the results of the discussion and responding to answers in attention to friends who have advanced, and when the teacher allows the student to respond to the answer of the theme, the student looks still shy to raise his hand and express his opinion. In this activity, the teacher strives to guide and motivate students to be more active in learning activities by always reminding students to pay attention to the theme that is conveying the results of the discussion and participate in responding to the answers to the theme. this is in line with the opinion of Dimiyati (in Susanto, 2016:186) suggesting that learning is a diverse teacher activity in instructional design, to make students actively study

In cycle II teachers and students have done all activities following the learning steps following the TPS learning model. To solve the problem in cycle I on the

activity of doing individual tasks, some students do not bring media to inhibit the time of students in doing individual activities. Teachers do alternative problem solving by bringing media or tools to facilitate students in working on activity sheets. In cycle II all students have been facilitated by tools or media by teachers, so that students can do activities in a timely way (Argote et al., 2000).

On the issue in the discussion activities, teachers do alternative problem solving by always conditioning each group to interact. In the discussion activities, cycle II students already look enthusiastic by interacting with each other by exchanging opinions with their peers, and students are not shy about asking the teacher if they have difficulty during the discussion. Furthermore, in the activity of conveying the opinion of teachers doing alternative problem solving by always giving direction and guidance to all students to pay attention to friends who are conveying the results of the discussion. In this discussion delivery activity in cycle II, students have been seen to be active by responding to each other's answers to their advanced themes (Schmidt, 2010).

Based on exposure to cycles I and II it can be concluded that in individual activities, group discussions and conveying the results of discussions. Student participation and activity from cycle I to cycle II has increased, in line with the opinion of Huda (2013: 206) which states that the benefits of implementing the TPS model include: 1) allowing students to work alone and work with others; 2) optimize student participation; and 3) give opportunities to others.

Data on observation of teacher and student activities by applying model (TPS) in grade IV of SDN Karangtengah 3. In cycle, I obtained a percentage of 94%, and in cycle, II obtained a percentage of 100%. While student activity is obtained percentage in cycle I 88% and in cycle II 100% of the percentage of teacher and student activities in cycles I and II can be concluded that teacher and student activities have increased. By proving that the implementation of the model (TPS) can increase teacher activity during learning. This is following the opinion (Ghoniati: 2017) and (Hancock, 2014) which states that one of the advantages of the model (TPS) is that it can increase student participation in learning.

4.1 Improving the Learning Results of Material Area and Circumference Square, Rectangular through the application of The Think Pair Share Model.

The results of studying Broad material and Square Circumference, Rectangular through the application of think pair share model in grade IV include assessment of 2 aspects of assessment namely knowledge aspect and skill aspect. The value of students' knowledge is derived from the value of the evaluation results that have been done by the student. This is in line with Sunal's opinion in (Susanto, 2016: 5), (Rachman, 1987) which states that evaluation is a process of using the information to make

consideration of how effective learning is in meeting students' needs.

The results of the evaluation at the pre-performance stage obtained an average of 66.2. The completion of the student, learning results is quite low that of the 24 students who can be said to complete only 10 students with a percentage of 41%. This shows that the learning in this pre-action still needs improvement so that the improvement of learning results in the broad and circumference materials through the TPS model in cycles I and II.

In Meeting I cycle I an average value of 71.6 with a completion percentage of 58%. at the meeting, II averaged 76 with a completion percentage of 62% thus the knowledge value in cycle I obtained an average of 73.8 with a classical completion percentage of 60%. In general, it can be seen that the percentage of classical students has not yet achieved the grade of competence specified which is 80%. This is by the opinion of Sudjana (2009: 8) which states that students are declared complete if the percentage of classical completion reaches 80%. Therefore improvements are made in cycle II.

In Cycle II meeting I an average value of 82.1 with a completion percentage of 79%. At meeting II it earned an average of 84.5 with a completion percentage of 87%. Thus, the knowledge value in cycle II is obtained an average of 83.4 with a classic completion percentage of 83%. From the results of learning aspects of the knowledge cycle I and II. It can be noted that the study results of students subject spacious and circumference Square, Rectangular has improved. Things are viewed from flat and classical percentages. In cycle I, the average value was 73.8 with a completion percentage of 62%, and increased in cycle II by an average of 83.3, with a percentage of 83%. It can be found that the results of learning aspects of knowledge in cycles I and II have improved and have achieved a classical percentage that is determined at 80%. Based on the above exposure can be concluded that the application of the TPS model can improve the learning results of students of broad and circumference square, rectangular materials.

The value of skill aspects obtained from student activities shows the breadth and circumference by doing the activities of making and measuring the build of the square, rectangular. The learning aspect of skills is done by looking at the attainment of students doing achievement indicators. A maximum score of 4 A with criteria is very good if students can do 4 indicators, score 3 B predicate with good criteria if students can apply 3 indicators, score 2 C predicate with enough criteria if students can do 2 indicators, score 1 D predicate with fewer criteria if students can only do 1 indicator or students cannot do 4 indicators.

In Cycle I meeting I obtained the number of students who received a maximum of 4 A grades with excellent criteria there were 10 students so that the number of students who could not get a maximum score of 14 students and At meeting II the number of students who

obtained the maximum grade increased to 13 students able to get a score of 4 A grades with very good criteria so that the number of students who have not been able to get the maximum score is reduced to 11 students. The achievement of students who get the maximum score in cycle I is still quite low, therefore improvements are made in cycle II.

In cycle II of meeting I the number of students who get the maximum score increased. In cycle II of meeting I the number of students who get the maximum score increases to 17 students who can get a score of 4 A grades with excellent criteria, so that the number of students who have not been able to achieve the maximum score is reduced to 7 students. Furthermore, in the second cycle of the meeting, the number of students who scored the maximum increased. In cycle II meeting II to the number of students who can get a maximum score of improvement to 20 students who can get a score of 4 a predicate with excellent criteria. In cycle II meeting II, there are still 4 students who have not been able to get the maximum score.

From the results of learning aspects of skills in Cycles I and II it can be known that the results of learning aspects of skills have improved. This is seen in the increasing number of students in each cycle. So, it summed up as follows the implementation of The Think Pair Share (TPS) learning model on the material of the area and the circumference of the square, rectangular in grade IV SDN Karangtengah 3 Blitar city has gone well. Teachers and students have implemented learning measures following the TPS learning model. In the application of this learning model, students have been seen to be active and enthusiastic in conducting thinking, discussing, and expressing opinions. This is evident in the data on teacher activities and student activities. In cycle, I, the average percentage of teacher activity was 94%, and in the cycle II increased to 100% while the average percentage of students in cycle I was 88% and increased in cycle II to 100%. From exposure to teacher and student activities in cycles I and II, it can be concluded that the activities of teachers and students have increased. can be concluded that the implementation of the TPS model can improve students' learning outcomes.

5. CONCLUSION

Based on research conducted to increase the results of learning mathematics material broad and circumference square through cooperative type model Think Pair Share in grade IV SDN Karangtengah 3 Blitar city. Students' learning results are broad and circumference square, rectangular through the application of the TPS model can improve the learning results of grade IV students of SDN Karangtengah 3. This is shown from the average student's study results and the percentage of completion achieved. At the pre-action stage, the average study result was 66.2 with a completion percentage of 41%. Because the percentage of completeness is still quite low then in the improvement in cycle I. In cycle, I the results of learning aspects of

knowledge obtained an average of 73.8 with a completion percentage of 62% because the percentage has not reached the percentage of completion that is 80% then made improvements in cycle II. In cycle II it gained an average of 83.4 with a percentage of 83%. The results of learning aspects of cycle II have increased and the percentage of completion has exceeded 80%.

The value of skill aspects obtained from student activities shows the breadth and circumference by doing the activities of making and measuring the build of the square, rectangular. The final score of the skill aspect is obtained from the maximum score obtained by the student. The learning aspect of skills is done by looking at the attainment of students doing achievement indicators. In cycle I meeting I 10 students were able to get the maximum amount and increased in cycle I of meeting II to 13 students who scored the maximum, then in cycle II meeting I the number of students who scored the maximum increased to 16 students, and in cycle II the meeting II the number of students who get the maximum score increases to 20 students.

It can be noted that the results of the learning aspects of skills in cycles I and II improved at each meeting. This is seen in the increasing number of students in each cycle. From the results of learning aspects of knowledge and skills, so it can be concluded that the application of the TPS model can improve students' learning outcomes.

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