www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

Application of Cooperative Learning Model Teams Games Tournament to Improve Mathematics Learning Outcomes in Grade VI Students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency

Thofan Rame[1], Windhy C. Tulung[2], Angelina H. Semuruk[3]
[1,2,3]*Universitas Trinita Manado, Indonesia*
thofanrame11@gmail.com, windhytulung04@gmail.com, angelinaheldasemuruk@gmail.com

Abstract

The problem in this study is the low learning outcomes of mathematics in grade VI students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency. To improve student learning outcomes in mathematics, it is necessary to apply cooperative learning model team games tournament. Cooperative learning model team games tournament is a learning model in which students are divided into study teams consisting of 4-5 people with different levels of ability, gender and ethnic background. Learning activities with games designed in cooperative learning. The Team Games Tournament (TGT) model allows students to learn more relaxed, foster responsibility, cooperation, healthy competition and involvement in learning. So that the application of cooperative learning with the teams games tournament model can improve mathematics learning outcomes for grade VI students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency. The research was conducted on the sixth grade students of SDK Scriptura Bengel with 15 male students and 18 female students, the total is 33 students. The time of the research was carried out from October to December 2021. The research method used a classroom action research design (CAR) with several stages, namely Planning, Action Implementation, Observation and Reflection. Analysis of the data using the technique of complete learning outcomes (KB) with the formula: $KB = \frac{T}{T_1} x\ 100\%$. *The results of the research and discussion show that the application of the teams games tournament model of cooperative learning can improve mathematics learning outcomes from cycle I to cycle II. The results of learning mathematics through the material to determine the Least Common Multiple (KPK) with the application of cooperative learning model teams games tournament can improve student learning outcomes for grade VI SDK Scriptura Bengel.*

Keywords
application; cooperative learning model teams games tournament; mathematics learning outcomes

I. Introduction

The level of education unit which is the foundation of education is elementary school. Because in this school students experience the process of education and learning. In general, the definition of elementary school can be said as an educational institution that organizes the educational process and underlies the subsequent educational process. The operational objectives of elementary education, stated in the basic education curriculum, are to provide the ability to read, write and count, basic knowledge and skills that are useful for students according to their level of development and prepare them to attend junior high school education.

According to Astuti et al (2019) Education is an obligation of every human being that must be pursued to hold responsibilities and try to produce progress in knowledge and experience for the lives of every individual. Education is one of the efforts to improve the ability of human intelligence, thus he is able to improve the quality of his life (Saleh and Mujahiddin, 2020). Education is expected to be able to answer all the challenges of the times and be able to foster national generations, so that people become reliable and of high quality, with strong characteristics, clear identities and able to deal with current and future problems (Azhar, 2018).

Aspects of knowledge, skills and attitudes are the most important things in life. Because someone needs knowledge so as not to miss information. A person needs a positive attitude to life so that the process of life becomes smooth. Likewise, skills can make a person to develop his talents and abilities. Elementary education greatly determines the level of success of students to follow the next level. Therefore, education in elementary schools should be used as best as possible.

Ali Hamzah (2014:1,2) states: "In order to achieve the goals of education in schools, it is necessary to have a set of supportive curricula to be given to students at the level of their respective educational units. Once someone decides to teach something, it is necessary to think about what to do so that the teaching is successful. For the success of teaching, it is necessary to pay attention to several main things, namely setting goals to be achieved according to the teaching program, choosing teaching content procedures and methods that are relevant to the goals that have been set, encouraging students to interact with teaching materials according to good learning principles, evaluating what students make. in accordance with the stated teaching objectives.

Various efforts to reform the curriculum, improve the teaching system, improve the quality of teacher abilities are efforts towards improving the quality of learning. Many things can be done to achieve these goals, such as how to create a good learning atmosphere, knowing students' study habits, so that students are excited during the learning process. Therefore, teachers should seek information about which conditions can improve learning in elementary schools.

However, changing the curriculum can create new problems in the world of education. For example: many students' achievement has decreased, teachers feel confused in implementing the new curriculum because they have not received training on how to implement it. The inability of students has an impact on every subject given in elementary school, especially in mathematics.

Mathematics learning is the process of providing learning experiences through a series of planned activities so that students gain competence about the mathematical material being studied. So as teachers expect an increase in student learning achievement in the field of mathematics such as mathematics olympiad competitions and mathematics competitions which are carried out at the district, provincial, national and even international levels.

In principle, the teacher wants the mathematics learning outcomes achieved by students in each lesson to be good. With good learning outcomes will provide enthusiasm for teachers in the implementation of the learning process and enthusiasm for students in receiving mathematics lessons given by the teacher. The ultimate goal of the process is mastery of concepts and improvement of satisfactory mathematics learning outcomes.

A common problem that occurs in elementary schools is the low learning outcomes of students in mathematics. This is proven when there are daily tests, mid-semester tests, and semester tests where the results of learning mathematics are below average compared to other subjects. Mathematics learning outcomes are still low in the matter of determining

the Least Common Multiple (KPK) of a number. Students have not reached the Minimum Completeness Criteria (KKM) which has been set by the teacher, namely 65. Of the 33 students, it turns out that only 12 students can achieve minimum completeness, which is 36%. Meanwhile, the other 21 students have not achieved a minimum completeness of 64%.

The low student learning outcomes in the Least Common Multiples (KPK) material include: learning is dominated by the lecture method, the learning process is still teacher-centred, students tend to be passive and lack the courage to ask questions, students are rarely trained to express opinions in solving math problems, motivation and students' learning interest is low, mathematics learning outcomes are still low.

From the problems above, it is known that the learning process carried out in the classroom is only teacher-centered. Therefore, students do not understand what is taught by the teacher, because students only accept what is conveyed by the teacher.

In connection with the above description of the low learning outcomes of students in mathematics, it is necessary to have an appropriate learning model to improve student learning outcomes in mathematics. Cooperative learning model Teams Games Tournament, is one of the learning models where the planting of mathematical concepts is carried out in the form of collaboration in groups, then presented in the form of games and tournaments so that learning becomes fun. Ismail, (2003:18) states: "Cooperative learning is a learning strategy that prioritizes student cooperation in groups to achieve learning objectives".

Based on the problems above, a research was conducted with the title: "Application of Teams Games Tournament Model Cooperative Learning to Improve Mathematics Learning Outcomes in Grade VI Students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency.

The purpose of this study was to improve mathematics learning outcomes through the application of the Teams Games Tournament model of cooperative learning to the sixth graders of SDK Scriptura Bengel, Beo District, Talaud Islands Regency.

II. Research Method

Classroom Action Research Design (CAR) refers to the Kemmis and Taggart model in Suharsimi Arikunto (2010:67) which consists of several stages, namely: Planning, Action Implementation, Observation and Reflection. This research design uses two cycles which can be seen in the figure:

This Classroom Action Research procedure consists of two cycles, namely:

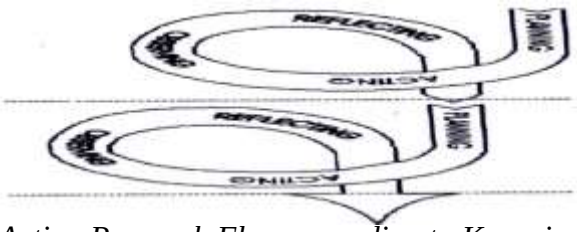

Figure 1. *Classroom Action Research Flow according to Kemmis and Taggart (Suharsimi Arikunto, 2010:67)*

The research subjects were students of grade VI SDK Scriptura Bengel, Beo District, Talaud Islands Regency, 2021/2022 Academic Year. Which amounted to 15 men, 18 women and a total of 33 people. The time of this research is scheduled from October to December 2021.

Based on the criteria of completeness described above, to determine the percentage of individual student abilities from each given test, the researcher uses the following learning outcomes (KB) mastery formula:

$$KB = \frac{T}{T1} x\ 100\%$$

Information:

KB = Complete Learning

T = Score obtained by students

T1 = Total score

Criteria: 0 % Family Planning < 70 %, students have not finished studying: 70% Family Planning 100 %, students have completed learning.

(Trianto 2010:241)

Meanwhile, to determine students' mastery classically, the researchers used the following formula:

$$PKK = \frac{X}{N} x\ 100\%$$

Information:

PKK = Classical Completeness Percentage

X = Number of students with family planning > 85%

N = Many research subjects

(Zainal Aqib, et al 2010)

Learning Implementation

To analyze the data from the implementation of learning, it can be known by the formula according to the Ministry of National Education (2004) as follows:

$$Prosentase = \frac{Jumlah\ Skor\ Yang\ Diperoleh}{Jumlah\ Skor\ Maksimal} x\ 100$$

The criteria for evaluating the results of these observations are grouped into the following intervals:

Table 1. Observation Results Assessment Criteria
(Ministry of National Education: 2004)

PROCENTAGE	CRITERIA
90% - 100%	Very good
70% - 89%	Well
50 % - 69 %	Not good
10 % - 49 %	Very Not Good

III. Results and Discussion

This research improves mathematics learning outcomes in grade VI students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency by applying the Teams Games Tournament (TGT) cooperative learning model. It consists of five stages, namely: class presentation, team/group learning, games, tournaments and group recognition (teams recognition). The division of students into groups is determined by the researcher who is also a class VI teacher, where each group consists of 5-6 students, divided heterogeneously based on the average ability of students in the class. Announcement of the division of the group made 3 days before the first meeting of mathematics learning cycle I.

The number of grade VI students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency was 33 people and during the research activity all were present from the first meeting to the fourth meeting. The table for the distribution of discussion groups consisting of 6 groups can be seen in Appendix 1.

This Classroom Action Research was carried out on October 15, 2021 until December 15, 2021. The main material studied was determining the Least Common Multiple (KPK). This research was conducted in 2 cycles. Cycle I consisted of 2 meetings and cycle II consisted of 2 meetings. The description of the research results is presented as follows:

3.1 Description of Research Results Cycle I

The implementation of classroom action research in cycle I consisted of planning, implementing, observing and reflecting. The description of the results of classroom action research on mathematics learning outcomes using the application of the Teams Games Tournament (TGT) model of cooperative learning is as follows:

a. Planning Stage

Researchers prepare the following things:

1. Make a Learning Implementation Plan (RPP) regarding the material of determining the Smallest Common Multiple (KPK) of two numbers, determining the Smallest Common Multiple (KPK) of three numbers and solving problems related to the Least Common Multiple (KPK). RPP can be seen in appendix 1.
2. Develop learning scenarios
3. Prepare learning media, namely: KPK boards, tournament tables.
4. Develop and prepare student activity observation sheets and student learning outcomes observation sheets. The observation sheet can be seen in appendix 2.
5. Prepare assessment instruments, namely Group Worksheets (LKK), Student Worksheets (LKS) and assessments.
6. Make an analysis sheet of learning outcomes to see classical and individual completeness.

b. Implementation Phase and Action Observation

The implementation and observation of the action will be carried out on October 7-14, 2021. At this stage the teacher carries out the learning process based on the Learning Implementation Plan (RPP). During the learning process, the researcher was carried out by two other observers, namely a senior teacher and the principal to carry out observations based on the observation sheet that had been made. Cycle I activities were carried out in 2 meetings. Each meeting takes place within 2 x 35 minutes. The following is a description of the implementation and observation of mathematics learning actions in class VI SDK Scriptura Bengel, Beo District, Talaud Islands Regency with the Application of Teams Games Tournament (TGT) Cooperative Learning Model.

c. The First Meeting

The first meeting was held on Thursday, October 7, 2021. At the first meeting of the research, the researcher and 2 other observers were present at the school at 07.00 WITA. Before entering the class, the researcher distributed observation sheets and explained how to fill them out.

d. Opening Activities

At 07.30 the researcher and 2 observers entered the VI class room. When the students saw the arrival of the researcher and 2 observers, they immediately returned to their seats with pleasure. After the researcher was in front of the class, the class leader immediately gave a signal to give greetings. After the researcher returned the greeting, the students were immediately directed to pray before the lesson began. The class leader immediately led the prayer. Next, students sit down and the teacher prepares students to take lessons, by checking the attendance of today's students. It turned out that all were present, then the teacher conveyed an apperception in which the students sitting at the back were asked to stand and then count from 1 to 8, then proceed with counting in multiples of 4 for students sitting in front.

e. Core activities

After the teacher conveys the learning objectives, the teacher displays on the blackboard the learning media in the form of the KPK Board. Students seemed very enthusiastic in welcoming the activities carried out. Then the teacher continues by explaining the names and instructions for using the KPK Board learning media on the blackboard. The teacher applies the Teams Games Tournament (TGT) learning model as follows:

Figure 2. *The teacher applies the Teams Games Tournament (TGT) learning model*

1. Class Presentation

In classical direct learning the teacher teaches how to determine the Least Common Multiple (KPK) through the following stages:

a) The teacher asks students to name a number between 1-10 to find its multiple. The number that students call is 4. Look for multiples of 4 by asking students to take turns writing on the board the multiples of 4 to 40. On the blackboard it can be written that multiples of 4 are 4, 8, 12, 16, 20, 24, 28, 32 , 36, 40 and so on. Multiples of 4 written by students are transferred to the KPK Board by sticking pieces of red paper in each column of multiples of 4. Then the teacher repeats the example above using other numbers, namely 6. Looking for multiples of 6 to 40 by asking students to alternately attach green paper to the board. KPK. On the LCM board it can be seen that the multiples of 6 are 6, 12, 18, 24, 30, 36 and so on.

b) Students are asked to observe the number column attached to red and green paper by affirming that the number is a multiple of 4 and 6. Next, determine the common multiples of 4 and 6 by paying attention to the number column pasted with red and green paper. So the common multiples of the numbers 4 and 6 are 12, 24, 36. Then the Least Common Multiple (LCM) of 4 and 6 is 12.

Figure 3. *The teacher is presenting the material using the KPK board*

2. Team / Group Study

After the teacher presented the KPK material through the KPK Board learning media. Next, divide students into 6 groups consisting of 5 to 6 people in one group heterogeneously. There are 3 groups consisting of 6 people and there are 3 other groups consisting of 5 people, because the number of students there are 33 people. Each group appoints a student who is the leader in their respective group. The teacher continues the lesson by distributing Group Worksheets (LKK) and each group discusses together to be able to solve problems, namely answering questions in the LKK. The teacher directs students in each group to give each other answers and corrects if there are group members who are wrong in delivering answers. Students work in groups and after the allotted time is over each group presents their results in front of the class.

Figure 4. *Activities Students study in groups to fill out the LKK*

3. Games (games)

The game is followed by members from each different group. Games consist of questions designed to test the knowledge that students gain during class presentations and during group discussions with simple numbered questions. Students choose a numbered card and answer the questions that correspond to that number. Students who answer correctly get a score.

Figure 5. *Students select numbered cards to answer questions at the tournament table*

a) Competition (tournament)

In this tournament each student in each group is placed at the tournament tables. Each tournament table is occupied by students from different groups. The game at the tournament table continues until 3 delegates from the group answer the questions.

Figure 6. *Students are answering questions at the tournament table*

b) Group Award

At this stage, the teacher announces the group that gets the highest score. However, in the first cycle of the first meeting, there was no award given because the value obtained did not match the specified criteria. There is still a second and third meeting. Together with the students, the teacher concludes.

c) End activities

At the end of the activity the teacher gives an evaluation and continues by giving conclusions with the students about the material that has been studied. The teacher closes the lesson with greetings and teaches a song entitled: "Learn KPK" Let's learn KPK (2 x), KPK 3, 4 is 12, let's learn KPK Let's think about learning KPK (2 x), KPK 4, 10 is 20. Let's study KPK let's study KPK (2 x) KPK 6, 9 is 18 let's study KPK.

The following presents the results of students' work on the material for determining the least common multiple (KPK) of two numbers.

The results of the practice questions determine the Least Common Multiple (LCM) of two numbers.

Table 2. The value of the practice questions to determine the LCM of two numbers

Number	Student's name	L/P	Student scores	Mastery learning	
				Complete	Not yet
1.	1.	L	20		Not yet
2.	2.	P	100	Complete	
3.	3.	L	25		Not yet
4.	4.	L	60		Not yet
5.	5.	L	50		Not yet
6	6	L	100	Complete	
7.	7.	L	100	Complete	
8.	8.	L	100	Complete	
9.	9.	L	100	Complete	
10.	10.	L	100	Complete	
11.	11.	P	100	Complete	
12.	12.	P	100	Complete	
13.	13.	P	25		Not yet
14.	14.	P	20		Not yet
15.	15.	P	100	Complete	
16.	16.	P	90	Complete	
17.	17.	P	100	Complete	
18.	18.	P	25		Not yet
19.	19.	L	100	Complete	
20.	20.	L	100	Complete	
21.	21.	P	45		Not yet
22.	22.	P	90	Complete	
23	23	L	50		Not yet
24.	24.	P	100	Complete	
25.	25.	P	100	Complete	

26.	26.	P	80	Complete	
27.	27.	P	100	Complete	
28.	28.	L	100	Complete	
29.	29.	L	100	Complete	
30.	30.	P	55		Not yet
31.	31.	P	80	Complete	
32.	32.	P	70	Complete	
33.	33.	L	25		Not yet
Total Value			2630		
% Average			79.69		

From table 4.1 it is known that the average value of students in the material determining the two-number Corruption Eradication Committee is 79.69 with the highest score of 100 and the lowest score of 20. In the first meeting, there were still students who could not follow the lesson well, namely number 1 and number 14. Since the core activities were group discussions, filling in the KPK boards, students numbered 1 and 14 even though the KPK boards were in front of them, students numbered 1 and 14 had no response to fill in. The KPK board is left alone. The reason these students can't study well is because they don't pay attention and there is no concentration when the teacher explains and they haven't really mastered multiplication.

From the explanation above, it is known that the implementation of the Teams Games Tournament (TGT) cooperative learning model has not been effective even though the results of the evaluation are good. This is because this learning model is still newly introduced.

The teacher announces the provisional results obtained by each group, but there is no award yet because it is still being continued with the third meeting in cycle II. The provisional results of the scores obtained by each group for the two tournaments are as follows:

Table 3. Scores of tournament results 1 and 2

Name Group	Score Tournament 1	Score Tournament 2	Amount Temporary
I	325	400	725
II	300	275	575
III	300	350	650
IV	250	350	600
V	300	400	700
VI	325	375	700

The provisional results that won first place were group I with a score of 725, followed by group V and group VI as second place.

f. End Activities

In the final activity the teacher gives an evaluation and continues with the students together giving conclusions about the material that has been studied, namely the steps taken to get the results of the least common multiple of three numbers. The teacher asks students to practice solving Least Common Multiples (KPK) at home and mastering multiplication more often. Then the teacher closed the lesson by singing the song: "Mathematics is Fun".

In the following, the results of students' work on the material for determining the Least Common Multiple (KPK) of Three Numbers are presented. The results of the practice of the Least Common Multiple (KPK) of Three Numbers matematika

Table 4. The value of the practice questions to determine the LCM of three numbers

Number	Student's name	L/P	Student scores	Mastery learning	
				Complete	Not yet
1.	1.	L	56		Not yet
2.	2.	P	100	Complete	
3.	3.	L	60		Not yet
4.	4.	L	100	Complete	
5.	5.	L	76	Complete	
6.	6.	L	92	Complete	
7.	7.	L	100	Complete	
8.	8.	L	100	Complete	
9.	9.	L	92	Complete	
10.	10.	L	92	Complete	
11.	11.	P	100	Complete	
12.	12.	P	100	Complete	
13.	13.	P	64		Not yet
14.	14.	P	60		Not yet
15.	15.	P	100	Complete	
16.	16.	P	84	Complete	
17.	17.	P	88	Complete	
18.	18.	P	52		Not yet
19.	19.	L	100	Complete	
20.	20.	L	100	Complete	
21.	21.	P	64		Not yet
22.	22.	P	72	Complete	
23.	23.	L	92	Complete	
24.	24.	P	100	Complete	
25.	25.	P	72	Complete	
26.	26.	P	88	Complete	
27.	27.	P	100	Complete	
28.	28.	L	88	Complete	
29.	29.	L	92	Complete	
30.	30.	P	76	Complete	
31.	31.	P	92	Complete	
32.	32.	P	80	Complete	
33.	33.	L	56	Complete	
Amount			2788		
% Average			84.48		

Table 5. The results of the implementation of the classic Teams Games Tournament (TGT) model of cooperative learning

Cycle I First Meeting	
Process	Success Criteria 70%
Class presentation (class presentation)	60%
Team / Group Study	56%

Games (games)	50%
Competition (tournament)	50%
Group Award (team recognition)	40%

Based on the average achievement of classical completeness for each stage using the Teams Games Tournament learning model for grade VI students of SDK Scriptra Bengel on the matter of determining the Least Common Multiple (KPK) of two numbers according to tabulation table 5, it shows that the expected success criteria has not been achieved > 70%.

Thus the results of observing student activities at each stage of the application of the classic Teams Games Tournament (TGT) cooperative learning model at the second meeting of the first cycle are as follows:

Table 6. The results of the implementation of the classic Teams Games Tournament (TGT) model of cooperative learning

Cycle I Second Meeting	
Process	Success Criteria > 70%
Class presentation (class presentation)	70%
Team / Group Study	64%
Games (games)	60%
Match (Tournament)	80%
Group Award (teams recognition)	50%

Based on the average achievement of classical completeness for each stage in the Teams Games Tournament (TGT) learning model, grade VI students of SDK Scriptura Bengel in determining the least common multiple (KPK) of three numbers according to table 6 shows the expected success criteria has not been achieved because < 70% .

The final scores obtained by each group for the 3 tournaments are:

Table 7. Final results of the tournament

Group	Tournament Score 1	Score Tournament 2	Score Tournament 3	Amount	Champion
I	325	400	450	1175	I
II	300	275	425	1000	
III	300	350	400	1050	
IV	250	350	425	1025	
V	300	400	450	1125	II
VI	325	375	400	1100	III

Figure 7. *The teacher gives awards to the winning group in the tournament*

In the final activity, the teacher gives an evaluation, after the evaluation is complete the student's work is examined and assessed and analyzed to determine the level of success achieved by students in the test. Together with students the teacher gives conclusions about the material that has been taught. The steps taken to get the results of solving story problems related to the KPK. The teacher closed the lesson by singing again the song entitled: “Mathematics is Fun” and saying hello.

1. Student Learning Outcomes Data for Solving Story Problems related to the KPK

Table 8. Evaluation scores for solving story problems involving Least Common Multiples (KPK)

Number	Student's name	L/P	Student scores	Mastery learning	
				Complete	Not yet
1.	1	L	76	Complete	
2.	2	P	84	Complete	
3	3	L	88	Complete	
4.	4	L	92	Complete	
5.	5	L	88	Complete	
6.	6	L	72	Complete	
7	7	L	100	Complete	
8	8	L	92	Complete	
9	9	L	92	Complete	
10	10	L	76	Complete	
11.	11	P	92	Complete	
12.	12	P	100	Complete	
13	13	P	100	Complete	
14	14	P	76	Complete	
15.	15	P	92	Complete	
16,	16	P	92	Complete	
17.	17	P	92	Complete	
18.	18	P	68	Complete	
19.	19	L	96	Complete	
20.	20	L	100	Complete	
21	21	P	76	Complete	
22	22	P	100	Complete	
23	23	L	100	Complete	
24	24	P	100	Complete	
25	25	P	100	Complete	
26	26	P	100	Complete	
27.	27	P	84	Complete	
28	28	L	76	Complete	
29	29	L	92	Complete	
30.	30	P	100	Complete	
31	31	P	92	Complete	
32	32	P	100	Complete	
33	33	L	100	Complete	
Total score			2996		
Average			90.78		

Thus the results of observing student activities at each stage of the application of the classical Teams Games Tournament (TGT) cooperative learning model in cycle II are as follows:

Table 9. Teams Games Tournament (TGT) cooperative learning model in cycle II

Meeting I Cycle II	
Process	Criteria Success 70%
Class Presentation (class presentation)	85 %
Team / Group Study	70%
Games (games)	75%
Competition (tournament)	80%
Group Award (team recognition)	73%

Based on the average achievement of classical completeness for each stage in the Teams Games Tournament (TGT) model learning, grade VI students of SDK Scriptura Bengel in solving story problems involving Smallest Common Multiples (KPK) according to table 8 shows the expected success criteria have been achieved because > 70.

Table 10. Final Test Results Cycle I and Cycle II for Least Common Multiples (KPK) material

Number	Student's name	L/P	Mark	Mastery learning	
				Complete	Not yet
1.	1.	L	76	Complete	
2.	2.	P	80	Complete	
3.	3.	L	64	Complete	
4.	4.	L	100	Complete	
5.	5.	L	92	Complete	
6.	6.	L	80	Complete	
7.	7.	L	92	Complete	
8.	8.	L	92	Complete	
9.	9.	L	92	Complete	
10.	10.	L	88	Complete	
11.	11.	P	92	Complete	
12.	12.	P	100	Complete	
13.	13.	P	76	Complete	
14.	14.	P	80	Complete	
15.	15.	P	100	Complete	
16.	16.	P	92	Complete	
17.	17.	P	92	Complete	
18.	18.	P	88	Complete	
19.	19.	L	92	Complete	
20.	20.	L	100	Complete	
21.	21.	P	76	Complete	
22.	22.	P	100	Complete	
23.	23.	L	92	Complete	
24.	24.	P	92	Complete	
25.	25.	P	100	Complete	
26.	26.	P	84	Complete	
27.	27.	P	92	Complete	
28.	28.	L	84	Complete	
29.	29.	L	76	Complete	
30.	30.	P	92	Complete	
31.	31.	P	80	Complete	
32.	32.	P	100	Complete	
33	33	L	84	Complete	

Total score	**2896**		
Average	**87.75**		

From table 10 it is known that the highest score obtained by students in the final test of Cycle I and Cycle II was 100 and the lowest score was 64. While the average score obtained in the final test of Cycle I and Cycle II was 87.75%.

IV. Conclusion

This study concludes that Cooperative Learning with the Teams Games Tournament Model can improve mathematics learning outcomes in grade VI students of SDK Scriptura Bengel, Beo District, Talaud Islands Regency. It is proven by the data of increasing student learning outcomes in learning activities in cycle I to cycle II.

References

Astuti, R.W., Waluyo, H.J., and Rohmadi, M. (2019). Character Education Values in Animation Movie of Nussa and Rarra. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. P. 215-219.

Aqib, Zainal, dkk. (2011). *Penelitian Tindakan Kelas Untuk Guru SD, SLB, dan TK*. Bandung: CV. Yrama Widya.

Azhar,A. (2018). Students' Trends in Islamic Communication Postgraduate in2010-2016 State Islamic University of North Sumatera (UINSU). *Budapest International Research and Critics Institute (BIRCI-Journal)*, P.206-214.

Bundu, Patta. (2008). *Asesmen Pendidikan*. Padang: UNP.

Depdiknas. (2003). *Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional*. Jakarta: Departemen Pendidikan Nasional.

Depdiknas. (2004). *Pedoman Penilaian Kelas*. Jakarta: Depdiknas.

Hamzah Ali. (2014). *Evaluasi Pembelajaran Matematika.* Jakarta: PT Raja Grafindo Persada.

Ismail. (2003). *Media Pembelajaran (Model-Model Pembelajaran)*. Jakarta: Proyek Peningkatan Mutu SLTP.

Istiqomah. (2006). *Model Pembelajaran Teams Games Tournament* (http://ekocin.wordpress.com, Accessed on 27 September 2021).

Rusman. (2011). *Model Model Pembelajaran Kooperatif*. Bandung: CV Pustaka Setia.

Saleh, A., Mujahiddin. (2020). Challenges and Opportunities for Community Empowerment Practices in Indonesia during the Covid-19 Pandemic through Strengthening the Role of Higher Education. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. Volume 3, No 2, Page: 1105-1113

Slavin. (2001). *Cooperative Learning: Teori, Riset dan Praktik*. Bandung: Nusa Media.

Sudjana Nana. (2009). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: PT Remaja Rosdakarya.

Suharsimi Arikunto. (2010). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.

Syah, (2004). *Psikologi Pendidikan*. Bandung: Remaja Rosda Karya.

Syaiful Basri. (2009), *Prestasi Belajar dan Kompetensi Guru*. Surabaya: Usana.

Trianto. (2010). *Metode Analisis Data.* Yogyakarta: Pustaka Belajar.