Journal of Classroom ActionResearch

JOURNAL OF CLASSROOM ACTION RESEARCH
Vol. 3 No. 1, February 2024
e- ISSN 2828-0601 , p-ISSN 2828 - 0695
Available online at:
https://journal.eltaorganization.org/index.php/jcar

Efforts to Improve Student Learning Outcomes Through The Two Stay-Two Stray (TS-TS) Type Cooperative Learning Model In Class VI Mathematics Subjects At SDN 108384 Lubuk Pakam

May Fitriana Hasibuan
Informatics Management Study Program
Widyaloka Computer Information Management Academy Medan, North Sumatra, Indonesia
mayfitriana88@gmail.com

Received : February 26th, 2024 *Accepted : February 27th,2023* *Published : February 28th, 2024*

Abstract

This research was carried out with the aim of improving the mathematics learning outcomes of class VI students at SDN 108384 LubukPakam by implementing the Two Stay-Two Stray (TS-TS) Cooperative learning model. This research is classroom action research. The data collection techniques used are conducting reviews, data collection and observation. The data collected is a test of student learning outcomes carried out in the third cycle, using the Cooperative Two Stay-Two Stray (TS-TS) method. From the analysis of the data obtained, it can be concluded that there is a significant increase in learning outcomes after learning using the Cooperative Two Stay-Two Stray (TS-TS) method. It can be seen from the average value (mean) of test I, which is 70.31, which is smaller than the average value (mean) of test II, namely 77.34. In test III, the average value (mean) was 86.90, which means that improvement with each test carried out. So we can know that learning using the Cooperative Two Stay-Two Stray (TS-TS) method can improve the mathematics learning outcomes of class VI students at SDN 108384 LubukPakam on the subject of operations to calculate mixed fractions.

Keywords: Learning Results;, Fractions; Cooperative Type Two Stay-Two Stray (TS-TS)

INTRODUCTION

A very important need for human life is education. The education that humans experience lasts a lifetime. As stated by Researcher Kurniawan (2017: 27), "education is preparing and growing students or individual humans whose process takes place continuously from birth until they die." Mathematics is one of the most important parts of education. Mathematics is taught from elementary school to college. However, we often find students who don't like mathematics lessons, because they think the lesson is quite difficult, because it requires a high level of thinking and reasoning to understand it. This assumption results in mathematics learning outcomes always being low and almost below average. Based on information obtained from the mathematics teacher at SDN 108384 LubukPakam, the grades for mathematics lessons have not shown satisfactory results. This can be seen from the average class score obtained by students, namely 60.3, this value does not

Published by English Lecturers and Teachers Association (ELTA)

DOI : 10.52622/jcar.v3i1.213

meet the completion standards set by the school, namely 70. So the students' learning completeness does not meet the KKM (Minimum Completeness Criteria). The main topic of discussion in this research is Determining Fraction Comparisons, where class VI students at SDN meet the completion standards set by the school, namely 70. So the students' learning completeness does not meet the KKM (Minimum Completeness Criteria). The main topic of discussion in this research is Determining Fraction Comparisons, where class VI students at SDN 108384 experience difficulty in comparing fractional values that are more, less or equal to. Some students do not understand how to solve the questions given, so students are lazy, passive and ultimately there is a commotion. Lack of student activity in asking the teacher if students do not understand the material or questions given. This happens because students do not understand the concept of the material taught by the teacher. This is the reason researchers conducted research where the problem of this research was related to the low mathematics learning outcomes of students on the subject of mixed fraction calculation operations. Soin mathematics learning at SDN 108384 LubukPakam, especially Class VI, improvements need to be made to improve student learning outcomes. This implementation begins by improving the learning process carried out by teachers, namely offering learning methods that can improve student learning outcomes in solving mathematical problems. One of the methods used is the Two Stay-Two Stray (TS-TS) Cooperative learning method. Cooperative Type Two Stay-Two Stray (TS-TS) is a group learning system with the aim that students can work together, be responsible, help each other solve problems, and encourage each other to excel, this model trains students to socialize well.

The Two Stay-Two Stray (TS-TS) Cooperative Type (Huda 2014:207-208) has 5 stages including preparation, teacher presentation, group activities, formalization, and evaluation. Teachers must encourage students to continue to improve learning outcomes in mathematics learning. Therefore, it is necessary to carry out classroom action research to prove that the use of the Cooperative Two Stay-Two Stray (TS-TS) method can help students improve their mathematics learning outcomes. Based on the problem limitations above, the problem formulation in this research is whether using the Cooperative Two Stay-Two Stray (TS-TS) method can improve the learning outcomes of class VI students at SDN 108384 LubukPakam in solving mathematical problems through learning mixed fraction arithmetic operations.

The aim of this research is to describe student learning outcomes and determine the effectiveness of mathematics learning using the Two Stay-Two Stray (TS-TS) cooperative learning method. The benefit of this research is that choosing the right learning method can increase student learning motivation, student activity in the learning process, so that good and improved learning outcomes are obtained.

METHOD

This research is classroom action research, so this research was carried out in several cycles. There are 4 stages in the procedure for implementing classroom action research based on the alumni (Arikunto 2013:17)

1. Planning
2. Implementation of Actions
3. Observation
4. Reflection

The subjects in this research were 29 class VI students at SDN 108384 Lubuk Pakam for the 2023/2024 academic year. And the object of this research is the results of students' mathematics learning on the operation of calculating mixed fractions and efforts to improve it. The research variable is the student learning outcomes in learning operations to calculate mixed fractions and the indicators in this research are the scores obtained from test results taken from each student's activity from the results of observations in each cycle. The tools used to collect data in this research are tests and observations.

FINDINGS

The results of observations in cycle I are shown in the following table:

Table I Cycle I Observation Results

NO	Assessment Aspects	Score		Avarage
		RPP I	RPP II	
1	Direction about learning objectives to students.	4	4	4
2	Preparation and use of learning media	4	4	4
3	Suitability of student groupings • Each group consists of 4-6 students • Homogeneity of each group • Activeness of each group member.	 2 2 2	 3 3 2	 2.5 2.5 2
4	Students' courage to express opinions or discuss between students and students and between students and teachers	2	2	2
5	Presentation of concepts in a real and clear manner	3	3	3
6	Students can draw conclusions from learning.	3	3	3
7	Students' ability to solve the problems presented	3	3	3
8	Efficient use of time from stage to stage	3	3	3
Results		28	30	29
Score max		40	40	40
Avarage		70	75	72.5
Information		Good	Good	Good

Student score data obtained from the first learning outcomes test is as follows:

Table 2. Results Scores and Values of Student Learning Results in Cycle I

No	Student Code	Total score	Student Learning Outcome Values	Information
1	S1	15	45	Not Completed
2	S2	13	43	Not Completed
3	S3	25	83	Complete
4	S4	9	30	Not Completed
5	S5	27	90	Complete
6	S6	17	56	Not Completed
7	S7	23	76	Complete
8	S8	18	60	Not Completed
9	S9	19	63	Not Completed

10	S10	17	56	Not Completed
11	S11	21	70	Complete
12	S12	19	63	Not Completed
13	S13	27	90	Complete
14	S14	18	60	Not Completed
15	S15	25	83	Complete
16	S16	22	73	Complete
17	S17	20	66	Not Completed
18	S18	27	90	Complete
19	S19	9	30	Not Completed
20	S20	25	83	Complete
21	S21	29	96	Complete
22	S22	29	96	Complete
23	S23	24	80	Complete
24	S24	29	96	Complete
25	S25	20	66	Not Completed
26	S26	23	76	Complete
27	S27	21	70	Complete
28	S28	19	63	Not Completed
29	S29	26	86	Complete
	Results	**616**	**2039**	
	Average	**21,24**	**70,31**	

From table II it can be seen that students' initial ability to solve fraction problems is still low, not as expected. Of the 29 students, 16 people (55.17%) have reached the level of learning completeness, while 13 people (44.83%) have not reached the level of learning completeness. The average student learning outcome score is 70.31, so that the learning process continues to cycle II.

The difficulties experienced by students in learning using the Reciprocal Teaching method are as follows:

Table 3. Difficulties Encountered in Learning

NO	Student difficulties	Solution
1	Group division takes up a lot of time.	The teacher divides student groups based on serial numbers so that students do not choose their own groups.
2	Students do not really understand the visual images given.	The teacher briefly explains the purpose of the picture and answer any questions asked by students.
3	Students do not understand the instructions given on the LKS.	The teacher comes to each group to ask questions and explain the instructions that must be carried out
4	Students are less active in have a group discussion.	The teacher orders the students to divide the work among themselves every member of the group
5	Students are still embarrassed inside delivery of discussion results	The teacher appoints groups to read the results discussion and provide motivation to students.

From the first learning outcomes test, the average score for student learning outcomes was 21.524 with an average score of 70.31. Of the 29 students, 16 (55.17%) have reached the level of learning completeness (total score ≥70), while 13 students (44.83%) have not reached the level of learning completeness (total score <70). So the completeness of classical learning in cycle I has not been achieved.

Cycle II

Observation results in cycle II:

Table 4. Cycle II Observation Results

NO	Assessment Aspects	Score		Avarage
		RPP I	RPP II	
1	Direction about learning objectives to students.	4	4	4
2	Preparation and use of learning media	4	4	4
3	Suitability of student groupings			
	• Each group consists of 4-6 students	3	3	3
	• Homogeneity of each group	3	3	3
	• Activeness of each group member.	3	3	3
4	Students' courage to express opinions or discuss between students and students and between students and teachers	3	3	3
5	Presentation of concepts in a real and clear manner	3	3	3
6	Students can draw conclusions from learning.	3	3	3
7	Students' ability to solve the problems presented	3	4	3,5
8	Efficient use of time from stage to stage	3	4	3,5
Results		32	34	33
Score max		40	40	40
Avarage		80,00	85,00	82,50
	Information	Good	Very Good	Good

Student score data obtained from the II learning outcomes test is as follows:

Table 5. Score Results and Values of Student Learning Results in Cycle II

No	Student Code	Total score	Student Learning Outcome Values	Information
1	S1	18	60	Not Completed
2	S2	17	56	Not Completed
3	S3	28	93	Complete
4	S4	15	50	Not Completed
5	S5	28	93	Complete
6	S6	19	66	Not Completed
7	S7	26	86	Complete
8	S8	23	76	Complete
9	S9	21	70	Complete

10	S10	20	66	Not Completed
11	S11	26	86	Complete
12	S12	22	73	Complete
13	S13	26	86	Complete
14	S14	19	63	Not Completed
15	S15	23	76	Complete
16	S16	26	86	Complete
17	S17	24	80	Complete
18	S18	24	80	Complete
19	S19	18	60	Not Completed
20	S20	28	93	Complete
21	S21	25	83	Complete
22	S22	24	80	Complete
23	S23	24	80	Complete
24	S24	28	93	Complete
25	S25	23	76	Complete
26	S26	25	83	Complete
27	S27	24	80	Complete
28	S28	23	76	Complete
29	S29	28	93	Complete
Results		**685**	**2243**	
Average		**23,62**	**77,34**	

From table V it can be seen that students' initial abilities in solving fraction problems are still low, not as expected. Of the 29 students, 22 people (75.86%) have reached the level of learning completeness, while 7 people (24.14%) have not reached the level of learning completeness. With the average value of student learning outcomes being 77.34, this result means an increase from the previous results.

Cycle III

The results in cycle II will be shown in the following table:

Table 6. Cycle III Observation Results

NO	Assessment Aspects	Score		Avarage
		RPP I	RPP II	
1	Direction about learning objectives to students.	4	4	4
2	Preparation and use of learning media	4	4	4
3	Suitability of student groupings			
	• Each group consists of 4-6 students	4	4	4
	• Homogeneity of each group	3	3	3
	• Activeness of each group member.	4	4	3,5
4	Students' courage to express opinions or discuss between students and students and between students and teachers	3	4	3,5
5	Presentation of concepts in a real and clear manner	3	3	3
6	Students can draw conclusions from learning.	3	3	3

7	Students' ability to solve the problems presented	3	4	3,5
8	Efficient use of time from stage to stage	3	4	3,5
Results		34	37	35,5
Score max		40	40	40
	Avarage	**85,00**	**92,50**	**88,75**
	Information	**Very Good**	**Very good**	**Very Good**

Test learning outcomes III are as follows:

Table 7. Scores and Values of Student Learning Results in cycle III

No	Student Code	Total score	Student Learning Outcome Values	Information
1	S1	23	76	Complete
2	S2	20	66	Not Completed
3	S3	29	96	Complete
4	S4	20	66	Not Completed
5	S5	30	100	Complete
6	S6	26	86	Complete
7	S7	29	96	Complete
8	S8	28	93	Complete
9	S9	26	86	Complete
10	S10	23	76	Complete
11	S11	24	80	Complete
12	S12	26	86	Complete
13	S13	26	86	Complete
14	S14	25	83	Complete
15	S15	30	100	Complete
16	S16	26	86	Complete
17	S17	25	83	Complete
18	S18	28	93	Complete
19	S19	23	76	Complete
20	S20	30	100	Complete
21	S21	26	86	Complete
22	S22	28	93	Complete
23	S23	28	93	Complete
24	S24	29	96	Complete
25	S25	28	93	Complete
26	S26	24	80	Complete
27	S27	25	83	Complete
28	S28	26	86	Complete
29	S29	29	96	Complete
	Results	**760**	**2520**	
Average		26,21	86,90	

DISCUSSION

From table VII it can be seen that the students' ability to solve fraction problems has increased even though there are still 2 more students who have not finished. However, of the 29 students, 27 people (93.10%) have reached the level of learning completeness, while 2 people (6.9%) have not reached the level of learning completeness. With the average student learning outcome score being 86.90, the line result means an increase from the previous result.

From the data analysis, it can be concluded that by using the Cooperative Two Stay-Two Stray (TS-TS) method, students can improve their learning outcomes on the subject of mixed fraction calculation operations.

In the third learning outcomes test the average student score was 86.90 with a completion level of 93.10%, an increase in the average student score of 16.59 and a classical increase of 57.20%. From the observation results, the learning activities carried out in cycles II and III were included in the good category with an average value of 85.00 and 92.50, an increase of 7.50 from cycle to cycle.

From the results of the research conducted, it can be concluded that using the Cooperative Two Stay-Two Stray (TS-TS) method can improve student learning outcomes on the subject of mixed fraction calculation operations in class VI SDN 108384 Lubuk Pakam TP 2023/2024.

CONCLUSION

1. Learning using the Cooperative Two Stay-Two Stray (TS-TS) method can improve student learning outcomes on the subject of mixed fraction calculation operations in class VI SDN 108384 Lubuk Pakam for the 2023/2024 academic year.
2. Student learning outcomes after implementing learning using the Cooperative Two Stay-Two Stray (TS-TS) method in cycle I through the learning outcomes test obtained 16 people (55.17%) who had reached the level of learning completeness, while 13 people (44 .83%) have not reached the level of learning completeness. The average student learning outcome score is 70.31. In cycle II there were 22 people (75.86%) who had reached the level of learning completeness, while 7 people (24.14%) had not reached the level of learning completeness. The average student learning outcome score is 77.34. Meanwhile, 27 people (93.10%) obtained the learning results of students in cycle III through the III learning results test who had reached the level of learning completeness, while 2 people (6.9%) had not yet reached the level of learning completeness. With the average student learning outcome score being 86.90, the line result means an increase from the previous result.
3. sheet during learning in cycle I which was 75 (good category) and in cycle II it was 85 (very good category) and in cycle III it was 92.50 (very good category). good), then there is an increase of 7.50.

REFERENCES

Ahmad, Susanto. 2016. Learning & Learning Theory in Elementary Schools. Jakarta: Prenadamedia.

Arikunto, S. 2013. Research Procedures for a Practical Approach. Revised Edition. Jakarta: PT. Rineka Cipta

Hasibuan, May.2023. Improving Student Learning Outcomes in solving mathematical problems through learning fraction comparisons using the Reciprocal teaching method in class VII MTs Nurul IttihadiyahLubukPakam Academic year 2022/2023. Widyaloka Journal of Science and Technology Volume 2, Number 1

Published by English Lecturers and Teachers Association (ELTA)

Huda, M. 2014. Teaching and Learning Models. Yogyakarta: Student Library

Kurniawan, S. 2017. Character Education: Integrated Concept & Implementation in the Family, School, College and Community Environment. Yogyakarta: Ar-Ruzz Media.

Liberna, H. 2018. The Relationship between Visual Learning Style and Mathematical Concepts in Class

Rosnawati.2020.Learning and Learning Theories.WestJava:CV.AdanuAbimata.

Samidi and Istarani. 2016. Competency & Professionalism of Natural Science (IPA) and Mathematics Teachers, Medan: Iscom Medan.

Slameto.2020.Learning and Factors That Influence It.RinekaCipta:Student Library.

Sri Wahyuni Endang.2020.Mastery Learning Model.Yogyakarta:Deepublising.

Published by English Lecturers and Teachers Association (ELTA)