PAPER NAME

The Implementation of Reciprocal Teaching Model at Grade 7th of SMPN 7 Bulukumba.pdf

WORD COUNT	CHARACTER COUNT
2752 Words	**14867 Characters**
PAGE COUNT	FILE SIZE
5 Pages	**381.4KB**
SUBMISSION DATE	REPORT DATE
Jun 26, 2023 5:26 PM GMT+8	**Jun 26, 2023 5:26 PM GMT+8**

● 11% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

- 11% Internet database
- 0% Publications database

● Excluded from Similarity Report

- Crossref database
- Submitted Works database
- Quoted material
- Small Matches (Less then 10 words)
- Crossref Posted Content database
- Bibliographic material
- Cited material
- Manually excluded sources

The Implementation of Reciprocal Teaching Model at Grade 7th of SMPN 7 Bulukumba

*Asmaul Husna Rasyid[1], Nurwati Djam'an[2], Awi Dassa[3]

[1] *Mathematics Education, Postgraduate Program, Universitas Negeri Makassar*
[2] *Department of Mathematics, Universitas Negeri Makassar, Makassar, Indonesia*
[3] *Department of Mathematics, Universitas Negeri Makassar, Makassar, Indonesia*
Email: a.husna.rasyid@gmail.com

ABSTRACT

This classroom action research aimed to improve mathematics learning outcomes and students' responses by implementing the Reciprocal Teaching-Learning Model. There were 22 students of class VII B of SMPN 7 Bulukumba as participants. This research was conducted in two cycles, namely, cycle I and cycle II. Throughout the action research cycles, data was collected using learning outcomes tests, observation sheets, and students' response questionnaires. The result showed an increase in the average score of students' learning outcomes which at pre-action only reached an average of 52.95, and in cycle I, it reached an average of 70.5, and in cycle II, it reached 82.36 average scores. Based on the completeness category of learning outcomes on pre-action, it did not reach the minimum limit of 75, whereas in cycle I, it was obtained 54.55% and met the KKM, and in the second cycle, 90.91% of students reached KKM. Students' responses to mathematics learning at the pre-action stage were still negative. Only a small number of students gave a positive response. Nevertheless, in cycle I of this classroom action research, 72.72% of students responded positively to mathematics learning with the reciprocal teaching model. It increased until cycle II, where 91.47% of students responded positively to reciprocal teaching-learning in mathematics learning.

Keywords: *Mathematics, Learning outcomes, Responses, Reciprocal Teaching Models.*

1. INTRODUCTION

Education is essential for human life because education is something that is needed anytime and anywhere. Education is a process to influence students to adapt as best they can to their environment. Besides that, education also needs special attention from families, governments, and communities to realize a good quality education and be able to compete both locally and globally.

Mathematics is one of the basic sciences that students need to succeed in education. Therefore, mathematics must be learned at every level of education and must be understood. Good learning outcomes indicate a good understanding of mathematics. However, student learning outcomes can be influenced by several factors, both internal and external. The internal factor includes students' abilities, interests and attention, attitudes, and perseverance in learning, while the external factors can be the environment and the quality of teaching. The problem is that most students think that mathematics is difficult to understand, scary and tedious. Besides that, most students respond negatively to learning mathematics, causing a lack of attention during the learning process. The learning model used is still less creative and innovative, which makes students bored.

Based on the results of observations and interviews with SMPN 7 Bulukumba, researchers found the problems: (1) lack of active learning from students in this case because the learning process was still teacher-centered and slightly involved students. As a result, in the learning process, the interaction between teachers and students was not good enough so that in situations like this, students feel bored, (2) the lack of self-confidence and the courage of students to express their opinions due to the lack of motivation given by the teacher to students, (3) lack of independence because the opportunity given by the teacher to students to explore knowledge was very limited, (4) the low mathematics learning outcomes of students obtained before giving the action, i.e., 52.95 which was still below the score of Minimum Completeness Criteria (MCC), i.e., 75.

The teacher should do something to overcome the existing problems. One way is the selection of learning models. The chosen model should allow students to develop their own opinions, make them bravely speak in class, develop self-confidence, and train students' independence in learning. As a consequence, it was expected that students' learning

achievement would improve. One model that could be used was the Reciprocal Teaching model.

The reciprocal teaching-learning model is a learning model in the form of activities to teach the learning material to friends. In this learning model, students act as "teachers" to convey material to their friends. Meanwhile, the teacher acts more like a model who becomes a facilitator and mentor who does scaffolding. According to Palinscar in [1], there are four strategies, namely, question generating, clarifying, predicting, and summarizing. Through this learning model, students can develop their creativity in learning. This learning has the advantage of improving the courage to think and speak in front of the class, learn independently, and foster cooperation between students since students learn by understanding which makes them not easily forget what they have learned. This study aims to determine whether mathematics learning outcomes and student responses can be improved through reciprocal teaching.

2. METHODS

This type of research is classroom action research using reciprocal teaching. This research was carried out in two cycles. "Each cycle consisted of four stages, namely 1) Planning, 2) Implementation, 3) Observation, 4) Reflection" [2]. The research instruments used were: a) test of learning outcome carried out at the end of each cycle to determine the success and completeness of learning mathematics using the reciprocal teaching; b) Teacher activity observation sheet and student activity observation sheet to see teacher activities or teacher performance and student activity during the learning process using reciprocal teaching; c) Student response questionnaire given at the end of each cycle to determine students' learning responses to mathematics by using the reciprocal teaching.

The results of the learning outcome test were analyzed quantitatively using descriptive statistics consisting of mean, median, mode, standard deviation, variance, maximum and minimum values obtained by students. The data from teacher and student observations were analyzed qualitatively using observation sheets of teacher and student activities in the teaching and learning process and data on student responses carried out by providing student response questionnaires.

2.1. Learning Achievement

For quantitative purposes, a categorization technique was used to classify the score of learning outcomes into 4 categories based on the Minimum Completeness Criteria (MCC) set by [3], as follows:

Table 1. Categorization of Achievement Score

Scores	Categories
91-100	Very high
83-90	High
75-82	Medium
<75	Low

2. 2. Learning Activities

Data obtained from teacher and student activity observations were processed by percentages (%), namely the number of frequencies for each activity divided by all activities multiplied by 100, with the following formula:

$$P = \frac{A}{B} x \ 100\%$$

where:

P = Student response percentage

A = Number of selecting students

B = Total number of students (respondents) (Trianto, [4])

The categories of learning activities adapted from Supriyadi (2013: 120) are as follows:

Table 2. Categorization of Learning Activities

Percentages of student activity (%)	Categories
$85 - 100$	Very good
$70 - 84$	Good
$55 - 69$	Sufficient
$50 - 54$	Low
$0 - 49$	Very Low

2.3. Student Responses

Data about student responses were obtained from student response questionnaires. Student responses were analyzed by counting the number of students

who responded to the questions and then calculating the percentage.

The categories of student learning responses adapted from Supriyadi [5] are as follows:

Table 3. Categorization of Student Responses

Percentages of student responses (%)	Categories
85 − 100	Very positive
70 − 84	Positive
55 − 69	Neutral
50 − 54	Negative
0 − 49	Very negative

3. RESULTS AND DISCUSSION

This study was conducted to analyze students' mathematics learning outcomes. This research was carried out in class VIIB of Junior High School 7 Bulukumba with two cycles, i.e., cycle 1 and cycle 2. Each cycle was carried out in 3 meetings and consisted of planning, implementation, observation, and reflection stages.

3.1. Results

3.1. 1. Student Learning Outcomes

3.1.1.1 Cycle 1

Data on students' mathematics learning outcomes in cycle 1 were obtained by giving the written test in an essay after presenting the material for 3 meetings. The descriptive analysis of the scores of mathematics learning outcomes after applying the reciprocal teaching is as follows:

Table 4. Statistics of Student Learning Outcomes Scores in Cycle 1

Statistik	Nilai Statistik
Student number	22
Ideal score	100
Maximum	84
Minimum	46
Score range	38
Mean	70,5
Median	75
Mode	69, 75 and 76
Variance	115,30952
Standard deviation	10,73822

The description of students' complete mathematics learning outcomes after applying the reciprocal teaching in cycle 1 can be seen in the following table.

3.1.1.2 Cycle 2

Data on students' mathematics learning outcomes in cycle 2 were obtained by giving the written test in an essay after presenting the material for 3 meetings. The

Table 5. Description of Students' Mathematics Learning Completeness in Cycle 1

Scores	Criteria	f	Percentages (%)
< 75	Incomplete	10	45,45
75-100	Complete	12	54,55
Total		**22**	**100**

descriptive analysis of the scores of mathematics learning outcomes after applying the reciprocal teaching is as follows:

Table 6. Statistics of Student Learning Outcomes Scores in Cycle 2

Statistik	Nilai Statistik
Student number	22
Ideal score	100
Maximum	93
Minimum	65
Score range	28
Mean	82,36
Median	84
Mode	79
Variance	47,099567
Standard deviation	6,862

The description of students' complete mathematics learning outcomes after applying the reciprocal teaching in cycle 2 can be seen in the following table.

Table 7. Description of Students' Mathematics Learning Completeness in Cycle 2

Scores	Criteria	Frequency	Percentages (%)
< 75	Incomplete	2	9,09
75-100	Complete	20	90,91
Total		**22**	**100**

3. 2. Discussion

3.2.1. Cycle I

Cycle I was carried out for 4 meetings using reciprocal teaching, where one meeting was used for giving learning outcomes tests. Based on descriptive data analysis that the mathematics learning outcomes of class VIIB SMPN 7 Bulukumba after the action in cycle I, there were no students who scored in the very high category, there were 2 students with a score in the high category with a percentage of 9.09%, there were 10 students with a score in the interval range of 75-82 with a large percentage of 45.45% which was categorized as a medium, and there were 10 students who scored in the low category with a large percentage of 45.45%.

Based on the observation results of student activity in cycle I, the percentage of each indicator increased from the first to third meetings. The average percentages were 93.94%, 90.90%, 53.84%, 19.23%, 93.94%, 71.20%, 19.69%, 6.05%, 21.20%, 93.94%, 56.05%, and 24.24% for the indicator one to twelve, respectively. Therefore, it can be said that at meetings one to three, the indicators one, two, five, and ten were in a very good category, the indicators six were in a good category, indicators three and eleven were in a sufficient category. Indicators four, seven, eight, nine, and twelve were in a low category.

In the first meeting of cycle 1, the teacher did not give learning motivation to students so that students were less active in the learning process. In addition, the teacher did not give homework. In the second meeting, the teacher carried out all activities related to the learning process to reach 100%, categorized as very good. In the third meeting, the teacher's activities in classroom management also went well, but at this meeting, the teacher did not give homework.

Based on student responses obtained by applying the reciprocal teaching, students responded in cycle I, indicators one, two, three, four, five, and eight were positive. Meanwhile, indicators six and seven were in the neutral category.

Hence, compared to mathematics learning at the pre-action stage, there was an increase in mathematics learning outcomes by 33.14%. Likewise, student responses also increased significantly.

3.2.2. Cycle II

Cycle II was held for 4 meetings where three meetings for presenting the topic and one meeting for learning outcomes. Best on the learning outcome scores, 3 students got scores in the very high category range of 91-100 with a percentage of 13.64, 9 students got scores in the high category range of 83-90 with a percentage of 40.91, 8 students got scores in the medium category range of 75-82 with a percentage of 36.36%, and 2 students got scores in a low category with a percentage of 9.09%.

Student activity in cycle 2 for the fifth to the seventh meeting each indicator increased with an average of 96.97%, 96.97%, 87.87%, 87.87%, 96.97%, 84.84%, 36.36%, 12.11%, 45.45%, 96.97%, 96.97%, and 36.27% for the indicator one to twenty, respectively. Therefore, it can be said that at meetings, five to seven of the indicators one, two, three, four, five, ten, and eleven were in a very good category, indicator six was in a good category, and indicators seven, eight, nine and twelve were in a low category which increased in percentage even though they were still in the low category.

For teacher activities in cycle 2, the learning process in the fifth and sixth meetings carried out all activities very well so that its percentage reached 100%, which was categorized as very good. In the seventh meeting, the teacher's activities in classroom management also went well, but at this meeting, the teacher did not give homework because it was the end of the learning process. It was found that student responses in cycle 2 increased, which were categorized as very positive for indicators one, two, three, four, five, and eight, and positive for indicators six and seven.

The description above shows an increase in the mathematics learning outcomes of class VIIB students of Junior High School 7 Bulukumba from 70.5 with a percentage of completeness of 54.55% in cycle 1 to 82.36 with a percentage of completeness of 90.91% in

cycle 2. Therefore, the increase in students' mathematics learning completeness from cycle 1 to cycle 2 is 36.36%. This follows from the increased activity of students and teachers as well as student responses, where the percentage of student responses also increased by 18.75% from cycle 1 to cycle 2.

Relevantly, According to [6], research on reciprocal teaching has shown that there are improved comprehension results and transfer of skills to other curriculum areas

4. CONCLUSION AND SUGGESTION

4. 1. Conclusion

Based on the research results, it can be concluded that reciprocal teaching can improve the learning outcomes of class VIIB students of SMPN 7 Bulukumba on the topic of integer and fractions. It can be seen from the average learning outcome scores, which were 70.5 categorized in a low category in cycle 1 and 82.36 categorized in a medium category in cycle 2. This can also be seen from the increase in student activity and teacher activity. Student responses in the first cycle were in the average percentage of 72.72% categorized in a positive category and 91.47% in the very positive category in cycle 2.

4. 2. Suggestion

Based on the results of research that has been carried out in two cycles, there are many benefits and results obtained by researchers. However, there were also some obstacles faced during this research. Therefore, to anticipate these obstacles happen in future applications or research, the researcher provides the following recommendation as follow:

4.2.1. Mathematics teachers should be more creative in using learning models appropriate to learning material so that students are not bored in participating in learning.

4.2.2. For further research, the researcher should pay more attention to students who are less active in their groups and less confident to convey opinions in front of the class by guiding students more and providing motivation.

REFERENCES

[1] Shoimin, Aris. 2014. *68 Model Pembelajaran Inovatif Dalam Kurikulum 2013*. Yogyakarta: AR-Ruzz Media.

[2] Iskandar. 2012. *Penelitian Tindakan Kelas*. Jakarta: Referensi (GP Press Group).

[3] Direktorat Pembinaan Sekolah Menengah Atas. 2017. *Panduan Penilaian Oleh Pendidik dan Satuan Pendidikan Sekolah Menengah Atas*. Jakarta: Kementrian Pendidikan dan Kebudayaan Tahun 2017

[4] Trianto. 2012. *Panduan Lengkap Penelitian Tindakan Kelas (Classroom Action Research)*. Jakarta: Prestasi Pustakaraya.

[5] Supriyadi. 2013. *Strategi Belajar & Mengajar*. Yogyakarta: Dua Satria Offset.

[6] Ruth McAllum. Reciprocal Teaching: Critical Reflection on. Weaving educational threads. Weaving educational practice. Kairaranga – Volume 15, Issue 1: 2014

● **11% Overall Similarity**

Top sources found in the following databases:

- 11% Internet database
- 0% Publications database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	**researchgate.net** Internet	**2%**
2	**journal.uad.ac.id** Internet	**2%**
3	**jurnal.radenfatah.ac.id** Internet	**1%**
4	**eprints.unm.ac.id** Internet	**<1%**
5	**garuda.kemdikbud.go.id** Internet	**<1%**
6	**journal3.uin-alauddin.ac.id** Internet	**<1%**
7	**files.eric.ed.gov** Internet	**<1%**
8	**valleyinternational.net** Internet	**<1%**
9	**clinicaltrials.gov** Internet	**<1%**

● **Excluded from Similarity Report**

- Crossref database
- Submitted Works database
- Quoted material
- Small Matches (Less then 10 words)

- Crossref Posted Content database
- Bibliographic material
- Cited material
- Manually excluded sources

EXCLUDED SOURCES

download.atlantis-press.com Internet	**94%**
atlantis-press.com Internet	**11%**