

# THE EFFECTIVENESS OF PEER TUTOR LEARNING MODEL ON MATHEMATICS LEARNING OUTCOMES ON SOCIAL ARITHMETIC MATERIAL

(Efektifitas Model Pembelajaran Tutor Sebaya Terhadap Hasil Belajar Matematika Pada Materi Aritmatika)

# Vivi Rahim Hentihu & Ratni Siompo Universitas Iqra Buru JL. Universitas, Namlea, Kabupaten Buru, Maluku, Indonesia

Email: vivihentihuu89@gmail.com ratnisiompo97@gmail.com

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#### Abstract

Mathematics is one of the subjects in schools that gets the most significant attention from educators, parents, and children. The problem in this research is how the Effectiveness of Peer Tutor Learning Model on Mathematics Learning Outcomes in the Social Arithmetic Material of Class VII Students of SMP Negeri 40 Buru ". This research method is pre-experimental with a one-group pretest-posttest design to know the peer tutor learning model's effectiveness in learning mathematics on social arithmetic material. The population in this study was all class VII students. SMP Negeri 40 Buru for the 2019/2020 school year, totaling 34 students and two classes, namely class VIII and VII2. This study sample was one class from the entire population selected using the quota sampling technique, namely class VIII. The results showed that based on the results of the student activity analysis, it was found that the average score of the observed student activity was 3.47, the average was in an outstanding category. This shows that learning using the peer tutor learning model can activate students in education. This is marked by a decrease in the number of students who are less active in group work and doing other activities outside of learning activities. Most students have great interest and enthusiasm in learning mathematics on social arithmetic material using the peer tutor learning model. Based on the student response questionnaire results as a whole, learning mathematics using the peer tutor learning model gets a positive response with the acquisition of an average percentage of student responses that is 80.5%. Using the peer tutor learning model in learning mathematics in the classroom provides opportunities for students to exchange ideas with friends or teachers in solving problems so that this condition creates a positive response from students in learning.

Keyword; Mathematics, SMP Negeri 40, Buru

#### Abstrak

Matematika merupakan salah satu mata pelajaran di sekolah yang mendapat porsi perhatian terbesar baik dari pendidik, orang tua maupun anak. Permasalahan dalam penelitian ini adalah Bagaimana Efektifitas Model Pembelajaran Peer Tutor terhadap Hasil Belajar Matematika pada Materi Aritmatika Sosial Siswa Kelas VII SMP Negeri 40 Buru ". Jenis penelitian yang digunakan dalam penelitian ini adalah penelitian pra eksperimental dengan satu jenis penelitian. -group pre-test post-test design, dengan tujuan untuk mengetahui keefektifan model pembelajaran tutor sebaya dalam pembelajaran matematika pada materi aritmatika sosial. Populasi dalam penelitian ini adalah seluruh siswa kelas VII SMP Negeri 40 Buru Tahun 2019 / Tahun pelajaran 2020 yang berjumlah 34 siswa dan terdiri dari dua kelas yaitu kelas VII1 dan VII2, sedangkan sampel dalam penelitian ini adalah satu kelas dari seluruh populasi yang dipilih dengan menggunakan teknik quota sampling yaitu kelas VIII. Hasil penelitian menunjukkan bahwa berdasarkan Hasil analisis aktivitas siswa diperoleh nilai rata-rata aktivitas siswa yang diamati adalah 3,47, rata-rata berada pada kategori sangat baik,

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hal ini menunjukkan bahwa pembelajaran menggunakan Model pembelajaran tutor sebaya dapat mengaktifkan siswa dalam belajar. Fakta tersebut ditandai dengan menurunnya jumlah siswa yang kurang aktif dalam kerja kelompok maupun melakukan kegiatan lain di luar kegiatan pembelajaran. Sehingga sebagian besar siswa memiliki minat dan semangat yang besar dalam mempelajari matematika pada materi aritmatika sosial dengan menggunakan model pembelajaran tutor sebaya. Berdasarkan hasil angket respon siswa secara keseluruhan, pembelajaran matematika dengan menggunakan model pembelajaran tutor sebaya mendapat respon positif dengan perolehan persentase rata-rata respon siswa yaitu 80,5%. Karena dengan menggunakan model pembelajaran tutor sebaya dalam pembelajaran matematika di kelas memberikan kesempatan kepada siswa untuk bertukar pikiran dengan teman atau guru dalam menyelesaikan masalah sehingga kondisi ini menimbulkan respon yang positif dari siswa dalam pembelajaran.

Kata Kunci; Matematika, SMP Negeri 40, Buru

## **INTRODUCTION**

Education is a conscious and planned effort to create an atmosphere of learning and the learning process so that students actively develop their potential to have spiritual strength, religion, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation, and state (UUSPN 2003 Chapter I article 1: 1)

According to Muhibbin Syah (2010), education comes from the word "educate," then this word gets the prefix "me," so it becomes the word "educate." This means that maintaining and providing training requires teachings, demands, and leadership regarding morals and intelligence. In line with that, it was also stated that education is a conscious effort to develop the potential of students' human resources by encouraging and facilitating their learning activities (Muhibbin Syah: 2012)

Based on some of the opinions above, it can be concluded that education is a conscious effort to create a particular situation or situation desired by society.

Mathematics is one of the subjects in schools that gets the most significant attention from educators, parents, and children. The existence of forced math learning demands causes many children to experience failure and frustration, impacting children's personalities such as reluctance to learn, hate to lessons, already going to school, feelings of inferiority, and other adverse effects. This causes student learning outcomes to decline.

Based on the facts in the field at SMP Negeri 40 Buru, especially in class VII1, the learning outcomes of mathematics are classified as low because of the 17 students only five students or 29.4% have completed learning with the maximum completeness criteria (KKM) of 61. Simultaneously, the rest are 12 students, or 70.5%, who have not finished learning and have reached the KKM. Referring to these data, the student learning outcomes in mathematics in class VII1 SMP Negeri 40 Buru are said to have not been successful.

Thus, it is necessary to find a problem in determining the right learning strategy and model while still considering the classroom conditions (Magfirah et al., 2021. All of them try to find a suitable learning model for all students. Therefore, the researcher stated that he offered mathematics teachers to use peer tutor learning methods, especially social arithmetic material. Sometimes, a student can quickly receive letters given by friends because there is no reluctance or embarrassment ask questions.

Based on the description of the background above, the formulation of the problem in this study is how the Effectiveness of the Peer Tutor Learning Model on Mathematics Learning Outcomes in the Social Arithmetic Material of Class VII Students of SMP Negeri 40 Buru ".

#### RESEARCH METHOD

This research's type of research is preexperimental research with a one-group pretest-posttest design to know the effectiveness of the peer tutor learning model in learning mathematics on social arithmetic material.

The design used in this study was a onegroup pretest-posttest design with the scheme of this model as follows:

Table 1. Research Design One Group Pre-Test Post-Test

| Pre-test | Treatment | Post-test |
|----------|-----------|-----------|
| Oı       | Х         | 02        |

(Sugiyone: 2012).

#### Information:

O1: Pretest is a test to measure the initial abilities of students in solve the problem

X: Treatment (treatment)

O2: Post-test, namely a test of learning outcomes student mathematics after being taught using a learning model peer tutor in learning social arithmetic mathematics material.

The population in this study were all class VII students of SMP Negeri 40 Buru in the 2019/2020 academic year, totaling 34 students and consisting of two classes, namely classes VII1 and VII2, while the sample in this study was one class from the entire population selected by using a quota sampling technique, namely class VII1. The instruments used in this study were student learning outcomes tests in the form of preliminary and final examinations, student activity observation sheets, and student response questionnaires. The data analysis technique used in this research is descriptive statistical analysis technique and inferential statistical data analysis. This study's descriptive analysis is the mathematics learning outcomes of students before receiving treatment and learning outcomes after being treated using peer tutor learning models. To find out the test scores of student learning outcomes are carried out using the following formula:

$$Score = \frac{score \ is \ obtained}{maximum \ score} x100\%$$

The criteria used as follows: Table 2. Categories of Learning Outcomes

| Mastery level | Category  |
|---------------|-----------|
| 85 – 100      | Very high |
| 65 – 84       | High      |
| 55 – 64       | Moderate  |
| 35 – 54       | Low       |
| 0 – 34        | Very low  |

Then to determine the completeness of student learning outcomes, namely by using the KKM value applicable at SMPN 40 Buru, namely 61. Based on the KKM, it can be concluded that students who get a score of more than 60.9 then these students achieve individual completeness. While completeness of student teaching materials classically is achieved if at least 75% of students in that group have completed or obtained a score of more than 60.9. They knew the magnitude of the increase in student learning outcomes before and after learning is calculated by the normalized gain value.

#### **FINDINGS**

## Data Description

This study was a pre-experimental study with a one-group pretest-posttest design. This study's data consisted of a pretest and a final test on social arithmetic material using peer tutor learning models. The data analyzed were data on student pretest and posttest learning outcomes, student activity data, and student response questionnaire data.

Table 6. Learning Outcomes of Pretests and Posttests for Class VII1 SMP Negeri 40 Buru

| Statistik          | Protest | Post-test |
|--------------------|---------|-----------|
| Total students     | 17      | 17        |
| Ideal value        | 100     | 100       |
| The highest score  | 85      | 100       |
| Lowest score       | 40      | 70        |
| Mean               | 59      | 83        |
| Standard deviation | 15      | 9         |

Based on table 6, the average score of students 'mathematics learning outcomes in the pretest is 59, with a standard deviation of 15 from the ideal score of 100. This means that the students' initial ability before learning using the peer tutor learning model

on social arithmetic material is still categorized as low. Whereas in the posttest data, the average score of mathematics learning outcomes is 83, with a standard deviation of 9. This means that after learning using the peer tutor learning model, student learning outcomes are high.

If the students' mathematics learning outcomes are grouped into five categories, then the frequency distribution and proportion are obtained as follows:

Table 7. Frequency Distribution of Pre-and Post-Test Learning Outcomes for Class VII1 Students of SMP Negeri 40 Buru

| No | Interval | Category   | Pre-test |      | Post-test |      |
|----|----------|------------|----------|------|-----------|------|
|    |          |            | F        | (%)  | F         | (%)  |
| 1  | 85 – 100 | The Higest | 1        | 5,9  | 8         | 47,0 |
| 2  | 65 – 84  | Higest     | 4        | 23,5 | 9         | 53   |
| 3  | 55 - 64  | Middle     | 6        | 35,3 | 0         | 0    |
| 4  | 35 - 54  | Low        | 6        | 35,3 | 0         | 0    |
| 5  | 0 – 34   | The Lowstr | 0        | 0    | 0         | 0    |
|    | Sumeriz  | e          | 17       | 100% | 17        | 100% |

In table 7. for the pretest score that of the 17 students who were the research subjects, one student obtained a very high category learning outcome score; for the high category learning outcome score, there were 4 students, for the medium category learning outcome score there were 6 students, for There are 6 low category learning outcomes scores, for the posttest, it can be seen that of the 17 students who were the research subjects, 8 students obtained very high category learning outcomes scores, for the high category learning outcomes scores there were 9 students. The pretest and test results show that the student learning outcomes after being taught using the tutor learning model are better than before being given learning using the peer tutor learning model on social arithmetic material.

Based on the appropriate minimum completeness criteria (KKM) in SMP Negeri 40 Buru, namely 61, the completeness of classical students' mathematics learning outcomes in class VII1 with the peer tutor learning model can be seen in table 7.

Table 8. Classical Completeness of Class VII1 Student Learning Outcomes at SMP Negeri 40 Buru

| K | CKM | Classical    | Total students |           | Percentage |           |
|---|-----|--------------|----------------|-----------|------------|-----------|
|   |     | Completeness | Proj-test      | Post-test | Prot-test  | Post-test |
|   | 61  | Completed    | 5              | 17        | 29,4%      | 100%      |
|   |     | Not complete | 12             | 0         | 70,6%      | 0%        |
|   | Δ   | mmonnt       | 17             | 17        | 100%       | 100%      |

Table 8. This shows that the number of students who passed the pretest was 5 people (29.4%), while 12 people did not complete the pretest. In the posttest, the number of students who completed was 17 (100%). This shows that learning using the peer tutor learning model effectively affects student learning outcomes because classical completeness is> 75%, which is 100%.

Knowing the magnitude of the increase in student learning outcomes before and after learning was analyzed using the gein value.

Table 9. Descriptive Gein Value of Class VII1 Student Learning Outcomes at SMP Negeri 40 Buru

| Statistics         | Statistical values |
|--------------------|--------------------|
| Total students     | 17                 |
| Ideal score        | 1                  |
| Maximum Score      | 0,5                |
| Minimum Score      | 1,0                |
| Average score      | 0,6                |
| Standard deviation | 0,17               |

Based on table 9, it can be stated that the increase in student learning outcomes using the peer tutor learning model is a minimum score of 0.5, a maximum score of 1.0, an average of 0.7 with a standard deviation of 0.17. The gein average value shows that learning using the peer tutor learning model is adequate for student learning outcomes because the gein average value is  $0.3 \le 0.6 < 0.7$  and is in the moderate classification.

If the increase in student learning outcomes is grouped into 3 categories, the frequency distribution and percentage are obtained as shown in table 10:

Table 10. Distribution of Frequency and Percentage of Increased Yield Class VII1 students of SMP Negeri 40 Buru

| Score             | Classification | Frquency | Persentage(%) |
|-------------------|----------------|----------|---------------|
| $g \ge 0.7$       | High           | 7        | 41,1%         |
| $0.3 \le g < 0.7$ | Moderate       | 10       | 58,9%         |
| g ≤ 0.3           | Low            | 0        | 0%            |

In table 10 it can be seen that of the 17 students who were research subjects, 7 students obtained high classification scores with a percentage of 41.1%, and 10 students obtained average classification scores and none for low classification scores. Because no one gets a low classification value, after learning using the peer tutor learning model, the student learning outcomes are better.

Student activity data were obtained through the instrument of observing student

activity during the learning process. The data obtained from these instruments are summarized at the end of the meeting.

The average score of student activity based on the category of activity aspects is presented in table 11:

Table 11 Categories of Student Activity

| Observation aspect | Average score | category  |
|--------------------|---------------|-----------|
| 1                  | 3,7           | Very good |
| 2                  | 3,1           | Good      |
| 3                  | 3,6           | Very good |
| 4                  | 2,9           | Good      |
| 5                  | 3,6           | Very good |
| 6                  | 3,3           | Good      |
| 7                  | 3,8           | Very good |
| Total average      | 3,47          | Very good |

Based on table 11. it appears that the category of student activity is in the excellent category. Thus, students' learning mathematics activities using the peer tutor learning model descriptively meet the effectiveness criteria.

Student response data were obtained using a questionnaire sheet for class VII1 students of SMP Negeri 40 Buru to Mathematics learning using peer tutor learning models. Student Responses During Learning Are Presented in Table 12.

Table 4.7 Student Response Criteria

| Student Response      | Persentage | Response Criteria |
|-----------------------|------------|-------------------|
| $76 \leq R_i \ 100$   | 80,5%      | Positive          |
| $56 \le R_i \le 75$   | 0%         | Moderate          |
| $0 \le R_{ij} \le 55$ | 18,7%      | Negative          |

The results of the analysis from table 12. show that the percentage of students who positively responded to the peer tutor learning model was 80.5%. Thus in the aspect of student response descriptively fulfills the effectiveness criteria.

#### Data Analysis

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The closing chapter is the answers to the

The data analysis meant here is inferential analysis. This analysis is carried out to test the hypothesis, which begins by testing the statistical requirements required. The data analysis used was normality and hypothesis testing.

#### a. Normality test

The normality test is done to test whether all variables are normally distributed or not. The normality test uses the Shapiro Wilk formula in calculations using the SPSS 16.0 program. To determine whether it is normal is if sig> 0.05 then usual and if sig <0.05 can be said to be abnormal.

a) Normality test pretest and posttest After processing the data using SPSS 16.0, the results of the pretest and posttest normality testing are obtained in table 4.8 below:

Table 4.8 Normality Test of Pretest and Post-Test Learning Outcomes

Class VII1 students of SMP Negeri 40 Buru

| Tes     | Kolmogorov-Smirnova | Shapiro-Wilk |
|---------|---------------------|--------------|
| 105     | Sig.                | Sig          |
| Pretes  | .003                | .024         |
| Posttes | .002                | .028         |

Table 4.8 For the Shapiro Wilk test on the pretest data, the p-value (Sig.) It is obtained of 0.24 because the p-value is  $\geq$  0.05, so the pretest data for learning outcomes are normally distributed. Meanwhile, for the Posttest data, the p-value (sig.) Was obtained of 0.28. Because of the p-value  $\geq$  0.05, the posttest data on learning outcomes are normally distributed.

# b. Gain Normality Test

After processing the data using SPSS 16.0, the results of the data gain normality test for the learning outcomes

of class VII1 students of SMP Negeri 40 Buru are in table 4.9 as follows:

Table 4.9 Normality Test of Learning Outcomes Class VII students of SMP Negeri 40 Buru

|           | Kolmogorov-Smirnova | Shapiro-Wilk |
|-----------|---------------------|--------------|
|           | Sig.                | Sig          |
| Nilaigain | .024                | .080         |

In table 4.9 for the Shapiro Wilk test, the p-value (sig.) Is obtained of 0.80 because the p-value is  $\geq 0.05$ , it can be said that the data gain on learning outcomes is typically distributed.

## Hypothesis testing

This hypothesis test aims to determine the peer tutor learning model's effectiveness on learning outcomes in class VII1 students of SMPN 40 Buru. The analysis used is the t-test one-sample t-test with the help of SPSS 16.0 by testing the pretest, posttest, and gain learning outcomes, which can be explained in detail as follows:

## a. Post Test T-Test

After testing using SPSS 16.0, it can be seen that the t-test results for the posttest learning outcomes of class VII1 students of SMP Negeri 40 Buru are in the following table 4:12:

Table 4:12 Test Results One-Sample Test On Learning Outcomes Post-Test Students Class VII1 SMP Negeri 40 Buru

|          | Sig. (2- | Mean       | 95% confidence interval valu |       |
|----------|----------|------------|------------------------------|-------|
|          | tailed)  | Difference | Lower                        | Upper |
| Post tes | .000     | 82.647     | 78.28                        | 87.02 |

In table 4.11, it can be seen in the posttest results, the p-value test (sig.2 tailed) is  $0.000 \le 0.05$  with a mean difference value of 82,647, and the 95% confidence interval value is between 78.28 to 87.02. Because the

value of P≤0.05 and the confidence interval passes zero, it can be concluded that statistically, the peer tutor learning model is effective on mathematics learning outcomes in the social arithmetic material of class VII1 students of SMP Negeri 40 Buru.

## b. T Gain test

After testing using SPSS 16.0, it can be seen that the t-test results for the gain of learning outcomes of class VII1 students of SMP Negeri 40 Buru are in the following table 4:13:

Table 4:13 Test Results One-Sample Test on Student Learning Outcomes Class VII1 SMP Negeri 40 Buru

|           | Sig. (2- | Mean       | nilai interval kepercayaan 95% |       |
|-----------|----------|------------|--------------------------------|-------|
|           | tailed)  | Difference | Lower                          | Upper |
| Nilaigain | .000     | .6588      | .572                           | .746  |

In table 4:13 it can be seen that the results of the t-test One Sample T-test (one-sample test) for the gain of the learning outcomes of class VII1 students of SMP Negeri 40 Buru that on the p-value test (sig.2 tailed) is  $0.000 \le 0.05$  with the mean value. A difference of 0.6588 and the value of the 95% confidence interval is between 0.572 to 0.746. Because the value of  $P \le 0.05$  and the confidence interval passes zero, it can be concluded that the peer tutor learning model is effective on mathematics learning outcomes in the social arithmetic material of class VII1 students of SMP Negeri 40 Buru.

## Mathematics Learning Effectiveness Achievement Data

Achievement of the effectiveness of learning mathematics using the peer tutor learning model can be seen in table 4:14 below:

Table 4.14 Achievement of Mathematics Learning Effectiveness Using Peer Tutor Learning Model for Class VII1 Students of SMP Negeri 40 Buru

| Indicator                               | Criteria         | achievement     | Decision  |
|---|------------------|-----------------|-----------|
| a. Learning outcomes                    | $\bar{x} > 60,9$ | 83              | Fulfilled |
| <ol> <li>Statistical average</li> </ol> |                  |                 |           |
| posttest score                          |                  |                 |           |
| 2. Statistical average                  | $\bar{x} > 0.29$ | 0.659           | Fulfilled |
| gain score                              |                  |                 |           |
| <ol> <li>Ketuntasan klasikal</li> </ol> | $\bar{x} > 75\%$ | 100%            | Fulfilled |
| 4. Statistical average                  | $\mu > 0.05$     | Nilai p (sig) = | Fulfilled |
| gain score                              |                  | 0,28            |           |
| 5. Parameter average                    | $\mu > 0.05$     | Nilai p (sig) = | Fulfilled |
| gain                                    |                  | 0,80            |           |
| b. Statistics on the average            | $\bar{x} > 2,4$  | 3,429           | Fulfilled |
| score of student activity               |                  |                 |           |
| c. The average score of                 | $\bar{x} > 76\%$ | 80,5%           | Fulfilled |
| student response scores                 |                  |                 |           |

In table 4:12 the criteria used are the benchmark for statistical hypotheses. At the same time, the achievement is based on the average score obtained, while the parameters are based on the Wilk Shapiro test used. It can be seen that the intermediate statistical student learning outcomes are more than 60.9 with an achievement level of 83, the average statistical gain score is more than 0.29 with an achievement level of 0.659, classical completeness is more than 75%, namely 100%, the intermediate parameter -The average posttest and gain for the Shapiro Wilk test must be more than 0.05 with a significant posttest value, namely = 0.28, and a considerable gain value, namely = 0.80, 92.4% with an achievement level of 3,429 and an average The student response score was more than 76% with achievement level of 80.5%. Thus, the criteria for the peer tutor learning model's student effectiveness on mathematics learning outcomes in the social arithmetic material of class VII1 students of SMP Negeri 40 Buru are fulfilled.

## **Discussion of Research Results**

Based on the identification of students' initial conditions, it is known that the obstacles in the learning process are that students tend to be passive and tend to ask more students or between peers. Students are less active and creative; students prefer to ask their friends rather than to the teacher because they feel embarrassed to ask questions directly to their teachers.

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Based on the results of the hypothesis test with the t-test, it shows that there is a significant difference between the learning outcomes before and after learning with the peer tutor learning model. According to Abu Ahmadi and Widodo Supriyono (2011), tutors are students of the same age appointed or assigned to help friends who have learning difficulties because the relationship between friends is generally closer than the teacher-student relationship. In line with that, Indrianie (2015) argues that peer tutoring is how to optimize students who excel in one class to teach or transmit to their underachieving peers to overcome being left behind.

Students will be given a pretest to find out the students' initial abilities in the first stage. In the second stage, learning is carried out using the peer tutor learning model of social arithmetic material. At this learning stage, the teacher is the seventh-grade mathematics teacher at SMP Negeri 40 Buru, while the observer is the researcher himself. Learning is carried out by following the learning steps listed in the Learning Implementation Plan (RPP). Researchers will observe student activities during the learning process. After the learning process, the researcher distributes questionnaire sheets to each student to be filled according to the indicators listed.

Students are given a posttest in the third stage to determine student learning outcomes after learning using the peer tutor learning model. Based on the results of the study showed that the mathematics learning outcomes of students after learning using the peer tutor learning model were in the high category, namely 83 with a classical completeness level reaching 100% because all students got a score of ≥61 and the average score of the mathematics learning outcomes test measured through The pretest and final test using normalized gain values after learning using the peer tutor learning model experienced a significant increase, namely  $0.3 \le 0.659 < 0.7$  and were in the

moderate category. This is because students understand the material more easily when studying with peers.

During the learning process, the researcher will observe student activities using student activity observation sheets. This student activity observation sheet is used to determine student activity during the learning process. So it can be seen how many students are serious and not severe in learning using the peer tutor learning model. Because student activities also influence student learning outcomes, if student activities in the learning process play more and ignore the teacher's explanation, then the student learning outcomes do not reach the Maximum Completion Criteria (KKM) and are declared incomplete in the learning. According to Mulyono (2001), activity means activity or activity, so everything that is done or activities that occur both physically and non-physically is an activity. In line with that Sriyono also believes that activities are all activities that are carried out both physically and spiritually. While student activity during the teaching and learning process is an indicator of the desire of students to learn (Rosalina: 2005)

Based on the results of the analysis of student activities, it was obtained that the average score of the observed student activities was 3.47, the average was in the very good category. This shows that learning using the peer tutor learning model can activate students in learning. This fact is marked by a decrease in the number of students who are less active in group work and doing other activities outside of learning activities. So that most students have great interest and enthusiasm in learning mathematics on social arithmetic material using the peer tutor learning model.

After the learning process, the researcher will distribute student response questionnaires to be filled in by each student. The student response questionnaire was used to see students' opinions about the peer tutor learning model and the progress

students felt after learning using the peer tutor learning model. From the student response questionnaire, it can be seen that students' responses or feelings participating in learning use the peer tutor learning model. This is in line with Poerwadarminta's (2003) opinion response means a reaction or response, namely acceptance or rejection, and an indifferent attitude towards what is conveyed by the communicator in the message. Based on the student response questionnaire results as a whole, learning mathematics using the peer tutor learning model received a positive response with the average value of the percentage of student responses, namely 80.5%. Because using the peer tutor learning model in learning mathematics in the for classroom provides opportunities students to exchange ideas with friends or teachers in solving problems so that this condition creates a positive response from students in learning. This is in line with Arikunto's (2016) opinion that good learning outcomes can be seen from a good learning process. Based on the discussion of the research results and the above theories, it can be concluded that the peer tutor learning model is effective on students' mathematics learning outcomes in class VII1 social arithmetic material at SMP N 40 Buru.

#### **CONCLUSION**

Based on the results of the study showed that the mathematics learning outcomes of students after learning using the peer tutor learning model were in the high category, namely 83 with a classical completeness level reaching 100% because all students got a score of  $\geq$ 61 and the average score of the mathematics learning outcomes test measured through The pretest and final test using normalized gain values after learning using the peer tutor learning model experienced a significant increase, namely  $0.3 \leq 0.659 < 0.7$  and were in the moderate category. This is because students understand the material more easily when

studying with peers. During the learning process, the researcher will observe student activities using student activity observation sheets. This student activity observation sheet is used to determine student activity during the learning process. So it can be seen how many students who are serious and not serious in learning using the peer tutor learning model.

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