

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

This chapter presents research findings and discussion. It consists of data description, hypothesis testing, and discussion of the research findings.

A. The Description of Data

Refer the last chapter, the researcher use test in collecting data. It was given to the second grade students of D class at MTsN 4 Tulungagung as a subject of the research. The test is consist of 30 questions which 20 questions are multiple choice and 10 questions are open-ended question. There were 39 students as a subject at the research.

The students were given pre-test before giving treatment. The result of pre-test indicated that students mastery in vocabulary is good although sometimes they are difficult to interpret the words in a context.

After getting th result of students pre-test, the researcher gave treatment for the students by teaching them using mnemonic method. When teaching learning process was running, the students felt happy, enjoy and seem comfortable in paarticipating the learning process.

After the treatment done, the researcher gave a post test to all the students. This post-test used to know students vocsbulary mastery after taught by using mnemonic method. The researcher wanted to know how far the students understanding about the use of some vocabulary in a context and remember about some word that given to the students hen treatment process

is done. Apparently, the result of the test showed that vocabulary mastery improved significantly.

1. Students' Vocabulary Achievement before being Taught by using Mnemonic Method

The number of item in pre-test was 30 questions were administered for 39 students. The pre-test was done before teaching vocabulary by using mnemonic method. This test was given to know students' vocabulary achievement before they get treatment. The data of students score on pre-test can be seen in the table 4.1.

**Table. 4.1 Students' Achievement before using Mnemonic Method
(Pre-test)**

| No | Subject | Pre-test Score |
|----|---------|----------------|
| 1 | APP | 70 |
| 2 | ARA | 72 |
| 3 | ARA | 69 |
| 4 | AKW | 66 |
| 5 | DSA | 67 |
| 6 | EMH | 61 |
| 7 | EDY | 77 |
| 8 | E | 77 |
| 9 | FZ | 81 |
| 10 | FMM | 63 |
| 11 | FSP | 60 |
| 12 | HAR | 78 |
| 13 | IHA | 69 |
| 14 | INU | 74 |
| 15 | INA | 72 |
| 16 | LNI | 65 |
| 17 | LIL | 81 |
| 18 | MFA | 60 |
| 19 | MBRS | 60 |
| 20 | MDA | 66 |
| 21 | NH | 78 |
| 22 | NKZ | 75 |
| 23 | NDFS | 81 |
| 24 | PP | 72 |
| 25 | PDP | 69 |
| 26 | RDP | 82 |
| 27 | RS | 63 |
| 28 | RAA | 59 |
| 29 | RYS | 75 |
| 30 | RBA | 78 |
| 31 | RA | 69 |
| 32 | SEJ | 69 |
| 33 | SFA | 69 |
| 34 | SN | 75 |
| 35 | TH | 69 |
| 36 | WK | 75 |
| 37 | YDW | 73 |

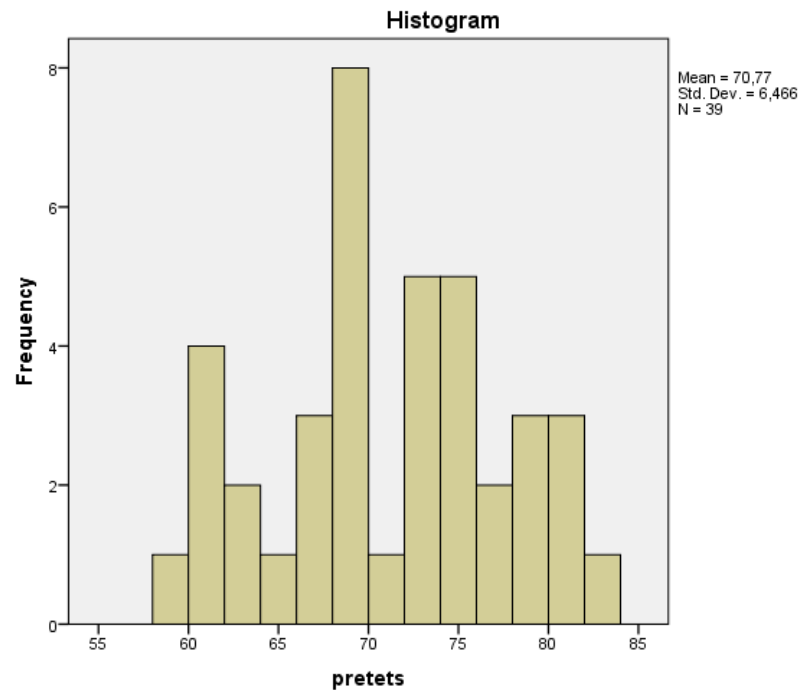
| | | |
|----|-----|----|
| 38 | YAR | 69 |
| 39 | YAC | 72 |

The frequency of pretest consisted of score, frequency, percent, valid percent and cumulative percent were presented in the following table.

Table 4.2 Frequency Distribution and Percentage of Pre-test

| Pre-test | | | | |
|-----------------|-----------|---------|---------------|--------------------|
| | Frequency | Percent | Valid Percent | Cumulative Percent |
| 59 | 1 | 2,6 | 2,6 | 2,6 |
| 60 | 3 | 7,7 | 7,7 | 10,3 |
| 61 | 1 | 2,6 | 2,6 | 12,8 |
| 63 | 2 | 5,1 | 5,1 | 17,9 |
| 65 | 1 | 2,6 | 2,6 | 20,5 |
| 66 | 2 | 5,1 | 5,1 | 25,6 |
| 67 | 1 | 2,6 | 2,6 | 28,2 |
| 69 | 8 | 20,5 | 20,5 | 48,7 |
| 70 | 1 | 2,6 | 2,6 | 51,3 |
| Valid 72 | 4 | 10,3 | 10,3 | 61,5 |
| 73 | 1 | 2,6 | 2,6 | 64,1 |
| 74 | 1 | 2,6 | 2,6 | 66,7 |
| 75 | 4 | 10,3 | 10,3 | 76,9 |
| 77 | 2 | 5,1 | 5,1 | 82,1 |
| 78 | 3 | 7,7 | 7,7 | 89,7 |
| 81 | 3 | 7,7 | 7,7 | 97,4 |
| 82 | 1 | 2,6 | 2,6 | 100,0 |
| Total | 39 | 100,0 | 100,0 | |

Figure 4.1 Histogram of Pretest



From those data above it can be summarized as in Table 4.3 below:

Table 4.3 Statistical Data Summary of Pre-test

Statistics

| Pre-test | | |
|----------|---------|-------|
| N | Valid | 39 |
| | Missing | 0 |
| Mean | | 70,77 |
| Median | | 70,00 |
| Mode | | 69 |

The table 4.3 above showed that there were 39 test takers. The means score was 70,77. The mean 70,77 meant that the average of 39 students score was 70,77. Meanwhile, the median was 70 and the mode was 69.

2. Student's Vocabulary Achievement after being Taught by using Mnemonic Method

The number of item on post-test was 30 questions were administered for 39 students. The post test was done after teaching vocabulary by using mnemonic method. This test was given to know students' vocabulary achievement after they get treatment. The data of students score after taught by using mnemonic method described on the table 4.4 in the next page:

**Table 4.4 Students' Achievement after using Mnemonic Method
(Post-test)**

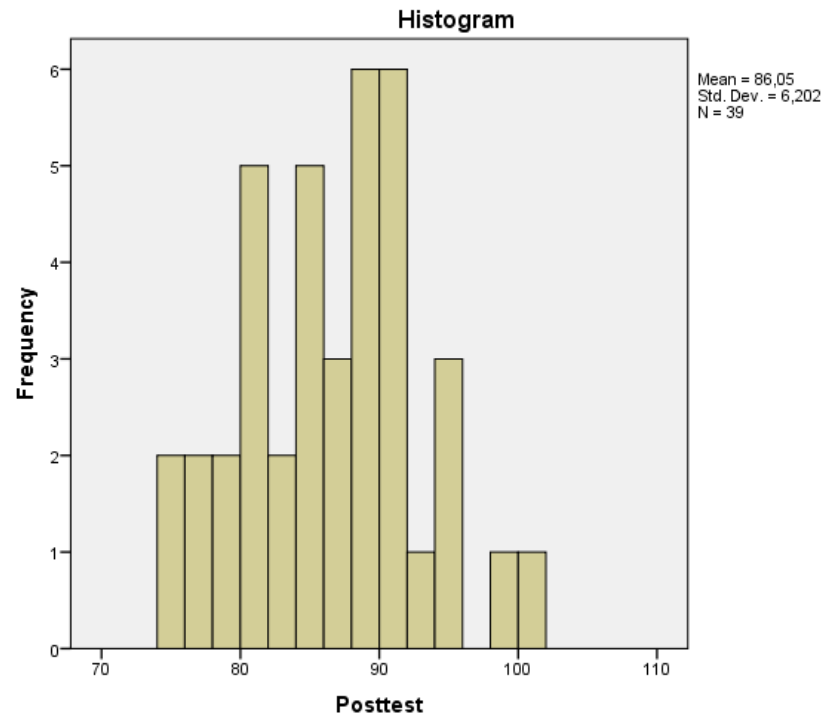
| No | Subject | Pre-test Score |
|----|---------|----------------|
| 1 | APP | 83 |
| 2 | ARA | 85 |
| 3 | ARA | 81 |
| 4 | AKW | 78 |
| 5 | DSA | 81 |
| 6 | EMH | 75 |
| 7 | EDY | 89 |
| 8 | E | 89 |
| 9 | FZ | 98 |
| 10 | FMM | 80 |
| 11 | FSP | 79 |
| 12 | HAR | 100 |
| 13 | IHA | 83 |
| 14 | INU | 87 |
| 15 | INA | 86 |
| 16 | LNI | 90 |
| 17 | LIL | 95 |
| 18 | MFA | 76 |
| 19 | MBRS | 80 |
| 20 | MDA | 77 |
| 21 | NH | 90 |
| 22 | NKZ | 88 |
| 23 | NDFS | 95 |
| 24 | PP | 90 |
| 25 | PDP | 87 |
| 26 | RDP | 94 |
| 27 | RS | 80 |
| 28 | RAA | 75 |
| 29 | RYS | 90 |
| 30 | RBA | 90 |
| 31 | RA | 84 |
| 32 | SEJ | 84 |
| 33 | SFA | 85 |
| 34 | SN | 89 |
| 35 | TH | 92 |
| 36 | WK | 88 |
| 37 | YDW | 90 |

| | | |
|----|-----|----|
| 38 | YAR | 85 |
| 39 | YAC | 88 |

The frequency of post-test consisted of score, frequency, percent, valid percent and cumulative percent were presented in the following table.

Table 4.5 Frequency Distribution and Percentage of Post-test

| Posttest | | | | |
|-----------------|------------------|----------------|----------------------|---------------------------|
| | Frequency | Percent | Valid Percent | Cumulative Percent |
| 75 | 2 | 5,1 | 5,1 | 5,1 |
| 76 | 1 | 2,6 | 2,6 | 7,7 |
| 77 | 1 | 2,6 | 2,6 | 10,3 |
| 78 | 1 | 2,6 | 2,6 | 12,8 |
| 79 | 1 | 2,6 | 2,6 | 15,4 |
| 80 | 3 | 7,7 | 7,7 | 23,1 |
| 81 | 2 | 5,1 | 5,1 | 28,2 |
| 83 | 2 | 5,1 | 5,1 | 33,3 |
| 84 | 2 | 5,1 | 5,1 | 38,5 |
| 85 | 3 | 7,7 | 7,7 | 46,2 |
| Valid 86 | 1 | 2,6 | 2,6 | 48,7 |
| 87 | 2 | 5,1 | 5,1 | 53,8 |
| 88 | 3 | 7,7 | 7,7 | 61,5 |
| 89 | 3 | 7,7 | 7,7 | 69,2 |
| 90 | 6 | 15,4 | 15,4 | 84,6 |
| 92 | 1 | 2,6 | 2,6 | 87,2 |
| 94 | 1 | 2,6 | 2,6 | 89,7 |
| 95 | 2 | 5,1 | 5,1 | 94,9 |
| 98 | 1 | 2,6 | 2,6 | 97,4 |
| 100 | 1 | 2,6 | 2,6 | 100,0 |
| Total | 39 | 100,0 | 100,0 | |

Figure 4.2 Histogram of Posttest

From those data above it can be summarized as in Table 4.6 below:

Table 4.6 Statistical Data Summary of Pre-test

| Statistics | | |
|------------|---------|-------|
| Posttest | | |
| N | Valid | 39 |
| | Missing | 0 |
| Mean | | 86,05 |
| Median | | 87,00 |
| Mode | | 90 |

The table 4.6 above showed that there were 39 test takers. The means score was 86,05. The mean 86,05 meant that the average of 39 students score was 86,05. Meanwhile, the median was 87 and the mode was 90.

**Table 4.7 The Result of Pre-test and Post-test of One Group
Experimental**

| No | Subject | Pre-test Score | Post-test Score |
|-----------|----------------|-----------------------|------------------------|
| 1 | APP | 70 | 83 |
| 2 | ARA | 72 | 85 |
| 3 | ARA | 69 | 81 |
| 4 | AKW | 66 | 78 |
| 5 | DSA | 67 | 81 |
| 6 | EMH | 61 | 75 |
| 7 | EDY | 77 | 89 |
| 8 | E | 77 | 89 |
| 9 | FZ | 81 | 98 |
| 10 | FMM | 63 | 80 |
| 11 | FSP | 60 | 79 |
| 12 | HAR | 78 | 100 |
| 13 | IHA | 69 | 83 |
| 14 | INU | 74 | 87 |
| 15 | INA | 72 | 86 |
| 16 | LNI | 65 | 90 |
| 17 | LIL | 81 | 95 |
| 18 | MFA | 60 | 76 |
| 19 | MBRS | 60 | 80 |
| 20 | MDA | 66 | 77 |
| 21 | NH | 78 | 90 |
| 22 | NKZ | 75 | 88 |
| 23 | NDFS | 81 | 95 |
| 24 | PP | 72 | 90 |
| 25 | PDP | 69 | 87 |
| 26 | RDP | 82 | 94 |
| 27 | RS | 63 | 80 |
| 28 | RAA | 59 | 75 |
| 29 | RYS | 75 | 90 |
| 30 | RBA | 78 | 90 |
| 31 | RA | 69 | 84 |
| 32 | SEJ | 69 | 84 |
| 33 | SFA | 69 | 85 |
| 34 | SN | 75 | 89 |
| 35 | TH | 69 | 92 |
| 36 | WK | 75 | 88 |

| | | | |
|----|-----|----|----|
| 37 | YDW | 73 | 90 |
| 38 | YAR | 69 | 85 |
| 39 | YAC | 72 | 88 |

Based on the table 4.7, there were 39 students as the sample of the research. The test was conducted by the researcher before and after implementing mnemonic method.

The researcher used statistical tests with paired sample t-test stated by SPSS 20.0 to convince of pre-test and post-test of the effectiveness of using mnemonic method towards students' vocabulary mastery. The result is as follow:

Table 4.8 Paired Sample Statistic

| | Mean | N | Std. Deviation | Std. Error Mean |
|------------|-------|----|----------------|-----------------|
| Pair 1 pre | 70,77 | 39 | 6,466 | 1,035 |
| post | 86,05 | 39 | 6,202 | ,993 |

The table 4.8 above showed that the mean score of pretest was 70,77, while Standard deviation for pretest was 6,466. Meanwhile, standard error mean for pretest was 1,035. And for the posttest, the mean score was 86,05. meanwhile the standard deviation was 6,202 and the standard error mean was 0,993.

Table 4.9 Paired Sample Correlation

| Paired Samples Correlations | | | |
|------------------------------------|----|-------------|------|
| | N | Correlation | Sig. |
| Pair 1 pre & post | 39 | ,871 | ,000 |

The table of paired sample correlation above showed that the large correlation between samples, the numeral of both correlation was 0,871 and numeral significance was 0,000

Table 4.10 Paired Sample Test

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-------------------|--------------------|----------------|-----------------|---|---------|---------|----|-----------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Pair 1 pre - post | -15,282 | 3,228 | ,517 | -16,328 | -14,236 | -29,567 | 38 | ,000 |

The table 4.10 above showed that the result of analysis using T-test. The mean of the pretest and posttest was -15,282, standard deviation was 3,228, mean standard error was 0,517. The lower different was -16,328, while the upper different was -14,236. The result test $t = -29,567$ with $df = 38$ and significance 0,000.

Interpretation toward t_{count} conducted by two methods:

1. Based on the test score t compared with t_c (t count) with t_t (t table), where $df = 38$, the result of numeral: 2,024 for standard significant 5% and 2,712 for standard significant 1%. With $t_0 = -29,567$, it means that

more large from t_{table} (symbol minus in this matter ignored at standard significant 5% as well at standard significant 1%, it means the hypothesis null was rejected).

2. Based on large digit significant. In this case decision taken from the following consideration:
 - a. If probability > 0.05 then the null hypothesis was accepted
 - b. If probability < 0.05 then the null hypothesis was rejected

With the numeral of significant value $0.000 <$ than significant level 0.05 , then the hypothesis null stated that there is no significant different score by using Mnemonic Method on the students' vocabulary mastery at the second grade students of MTsN 4 Tulungagung was rejected.

B. Hypothesis Testing

The hypothesis testing of this study as follows:

- a. If the significant value $<$ significant level, the alternative hypothesis (H_a) was accepted and null hypothesis (H_0) was rejected. Its means that there was different score on the students' vocabulary achievement before and after taught by mnemonic method. The different was significant.
- b. If the significant value $>$ significant level, the null hypothesis (H_0) was accepted and alternative hypothesis (H_a) was rejected. It means that there was not different score on the student's vocabulary achievement before and after being taught by mnemonic method. The different was not significant.

Based on statistical calculation using SPSS 20.0, the researcher gave interpretation to significant value. The significant value of the researcher was 0.000, significant level 0.05 and the t_{table} 2.024 the df : 38 whereas the t_{count} 29,567. When the significant value (0.000) < significant level (0.05) the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. While significant value (0.000) > significant level (0.05) the null hypothesis (H_0) was accepted and the alternative hypothesis (H_a) was rejected. Because significant value (0.000) was smaller than significant level (0.05), it can be conclude that alternative hypothesis (H_a) was accepted and the null hypothesis was rejected. It means that there is different score on the students' vocabulary achievement before and after being taught by using mnemonic method. There was different on *paired sample statistic* that the mean before taught using Mnemonic Method is 70,77, and after being taught using Mnemonic Method was 86,05, it means that the mean before being taught using Mnemonic Method was lower than after being taught using Mnemonic Method. Thus, it can be conclude that the Mnemonic Method is effective used on the students' vocabulary mastery in second grade of MTsN 4 Tulungagung.

C. Discussion

Based on the explanation and calculation above, Mnemonic Method gave positive effect on the students' vocabulary mastery and it might become an alternative way to teach vocabulary. It was proved by the

gained significance value which less than 0.05, thus the null hypothesis is rejected

Based on the hypothesis testing, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. Thus, the finding indicated that the use of Mnemonic Method gives significant effect on the students' vocabulary mastery. The Mnemonic Method can make students' vocabulary mastery increased.

In the research method, the study is done into three steps. The first step is giving pretest for the students. It used to know their ability before giving a treatment. The test consists of 30 questions include Multiple Choice test and Open Ended test. Multiple Choice test include 20 questions and Open Ended test include 10 questions.

The second step is giving treatment for the students. The treatment here is teaching vocabulary by using Mnemonic Method. The students are given material of new vocabularies that these vocabs is strange for the students. The researcher gives new vocabularies and its meaning, and then explains how to memorize a lot of vocabularies easily by using Mnemonic Method. Carlson (1992: 238) define mnemonic method as a memorial technique used to help human beings remember easily. To apply this method, the researcher use two ways to teach the students. The first way is the students memorize some vocabularies individually and the second way is they memorize the vocabularies by grouping. For the first, the researcher asks the students read some vocabularies that have been given loudly.

Then they memorize the vocabularies individually by using Mnemonic Method. For the second, the researcher gives a command to the students to make five groups consist of 7-8 students. Next they have to memorize some vocabularies by using mnemonic method.

After getting treatment, the last step the researcher giving a posttest to the students. The posttest used to know the ability of the students after giving treatment. The test consists of 30 questions include 20 Multiple Choice questions and 10 Open Ended questions.

Mnemonic Method makes students to memorize the strange words easily. Not only that, this method uses of both visual and verbal mental imagery it make the words more memorable. Safa and Hamzavi (2013: 2) Mnemonic method involve the use of both visual and verbal mental imagery to relate a word to be memorized with some previously learned knowledge. By memorize some vocabularies, the students will understand with the text they read. Thus they can do the test both oral test and written test easily and correctly.

In the pretest, the everage score was 70,77. While the everage score in posttest was 86,05. The score showed that posttest was better than pretest. From the result above, it can be concluded that the students got good achievement in mastering vocabulary after taught by using Mnemonic Method.

Based on the result above, teaching voccabulary by using Mnemonic Method makes the students understand the meaning of

vocabularies easily and they can write vocabularies correctly. So, Mnemonic Method is alternative for the students in learning English especially in vocabulary. This reason is based on the result of of test after getting treatment.

From the explanation above, the implementation of Mnemonic Method in teaching and learning process gives a positive effect on the students' achievement, because they can study vocabulary and memorize some vocabularies easily and memorable. The method also invite the students in a joyful atmospher, they can imagine everything freely that connect with the new words.