

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents three topics related to research finding that are the description of data, hypothesis testing and discussion.

A. Findings

1. The Description of Data

This research was conducted at MTs Negeri 2 Tulungagung with population were all of the second students of MTs Negeri 2 Tulungagung. There were 12 classes at the second grade consisted of 420 students. The sample of this research was VIII E class with consisted of 36 students, 19 male and 17 female students as experiment and control class because the researcher was conducted pre experimental study so the researcher only used one class. This research used mnemonics device to teach vocabulary. This research was conducted on April 2019. The researcher used test to get data, those are pre-test and post-test.

a) The Data Before Using Mnemonics Device

In this study, the researcher presented the data of students' score in pretest and posttest. In this case, the researcher wanted to know the effectiveness of using mnemonics device in teaching students' vocabulary at the second grade of MTs Negeri 2 Tulungagung. The effectiveness could be seen from the significant

different score of students' score in vocabulary before and after being taught by using mnemonics device. Here, the researcher conducted pre-test, giving treatment about vocabulary by using mnemonics device and post-test. Before and after treatments the researcher done pre-test and post-test. Pre-test and post-test were done to obtain students' score in vocabulary.

Table 4.1 The Score's Criteria

No	Interval Class	Criteria
1.	85-100	Excellent
2.	71-84	Very Good
3.	60-70	Good
4.	40-59	Low
5.	0-39	Failed

(Adapted from article Riswanto and Haryanto E. 2012)

The scores were divided into five criterions. They were excellent, very good, good, low, and failed. The students categorized into excellent score if they got 85-100 score which means that they were able to memorize vocabulary very well. The students categorized into good score if they got 71-84 score which means that they were have a little doubt. In this category they were able to memorize well. The students categorized into average score if they got 60-70 score which means that they were able to memorize pretty well. The student categorized into poor score if they got 0-59 score which means that they need improvement. The last criteria were the students categorized into very poor score if they got 0-39 score which means that they could not memorize well.

b) The Data of Pre-Test

After conducting pretest, the researcher obtained the data.

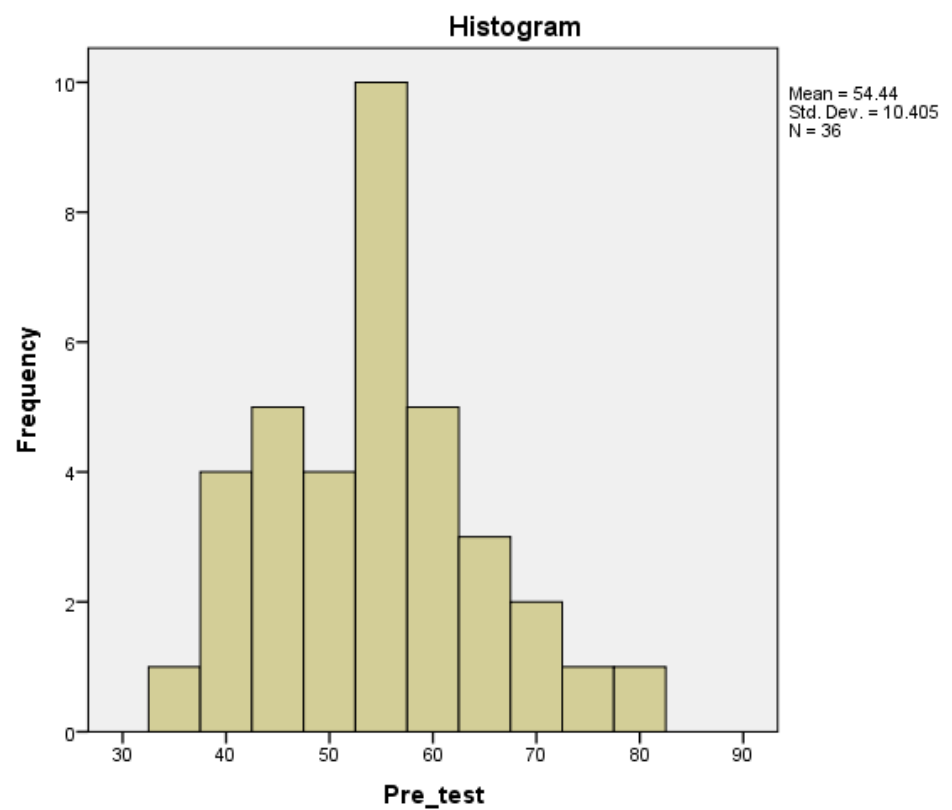
The data were as follows:

Table 4.2 Students' score before being taught by using mnemonics device

No	Name	Pre-test
1	A.B.M	55
2	A.M	40
3	A.J.M	45
4	A.W.K	45
5	A.D.L	40
6	A.L.P	55
7	A.A	60
8	B.Y.A	55
9	D.F	40
10	D.F	55
11	D.E.K	65
12	D.R.A	60
13	E.D	55
14	H.G.M	60
15	K.T.N	65
16	M.N	60
17	M.F	45
18	M.F.R	55
19	M.A	50
20	M.K.M	55
21	M.M.A	55
22	M.M.R	50
23	M.M.A	50
24	M.R.N	60
25	M.S.A	80
26	M.W.A	75
27	M.Z.M	70
28	M.S.F	70
29	N.S.R	45
30	N.I.S	65
31	P.I.N	55
32	R.P.R	45
33	S.E.P.S	55
34	S.D	50
35	V.E	40
36	Y.N	35

The researcher used SPSS 18.0 version to know the descriptive statistic and the percentage of students' score of pre-test. For easy to understand whether the students score, here the histogram charts:

Table 4.3 The Histogram Chart of Pre-test



The researcher used SPSS 18.0 version to know the descriptive statistic and the percentage of students' score of pre-test. The percentage was divided into five criterions: excellent, good, average, poor, and very poor (see table 4.1) the result of the calculation as follows:

Table 4.4 Descriptive Statistic of Pre-test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	36	35	80	54.44	10.405
Valid N (listwise)	36				

Based on the table 4.4 above, it showed that the minimum score of pre-test was 35, the maximum score was 80, and the mean was 54.44.

Table 4.5 Frequency of Students' Vocabulary Score Before Taught Using Mnemonics Device**Pretest**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 35	1	2.8	2.8	2.8
40	4	11.1	11.1	13.9
45	5	13.9	13.9	27.8
50	4	11.1	11.1	38.9
55	10	27.8	27.8	66.7
60	5	13.9	13.9	80.6
65	3	8.3	8.3	88.9
70	2	5.6	5.6	94.4
75	1	2.8	2.8	97.2
80	1	2.8	2.8	100.0
Total	36	100.0	100.0	

from the table 4.4, The frequency of pretest after being distributed there were 1 student who got score between 0-39 which means that the students' vocabulary score was failed, there were 23 students who got score between 40-59 which means that on the students' vocabulary score was low, there

were 10 students who got score between 60-70 which means that on the students' vocabulary score was good, there were 4 students who got score between 71- 84 which means that on the students' vocabulary score was very good, there were no students who got score between 85-100 which means that on the students' vocabulary score was excellent.

c) The Data of Post-Test

After conducting posttest, the researcher obtained the data.

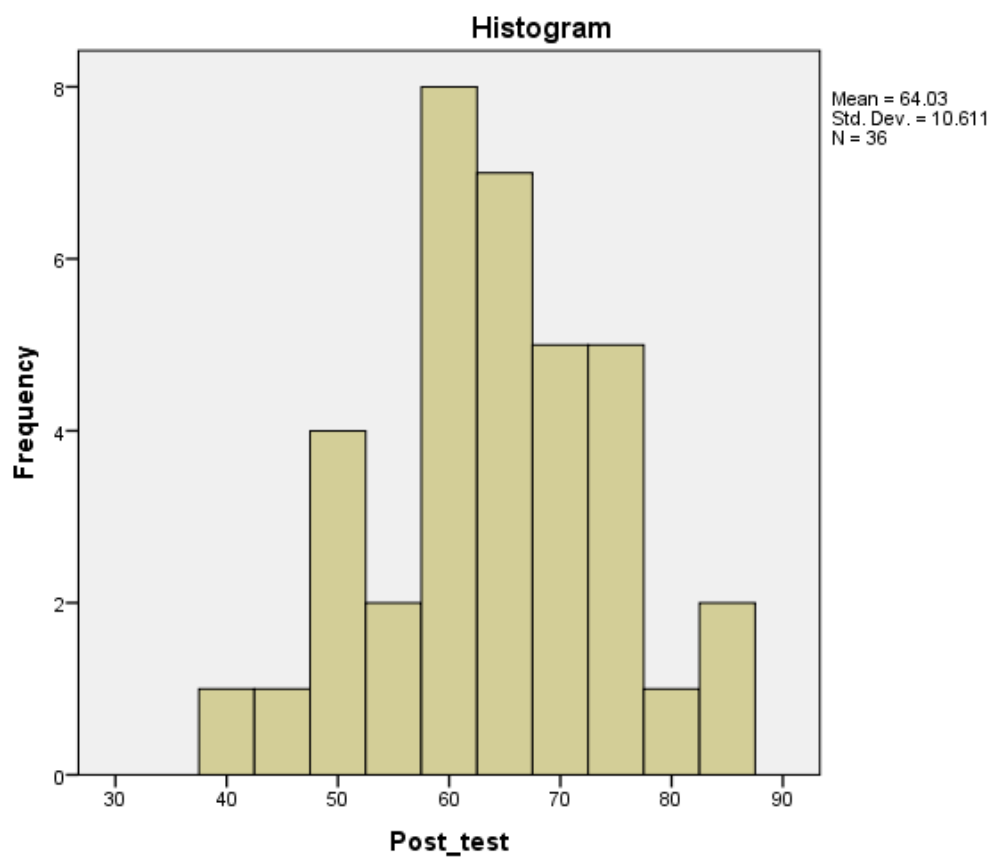
The data were as follows:

**Table 4.6 Students' score after being taught
by using mnemonic device**

No	Name	Pre-test
1	A.B.M	55
2	A.M	40
3	A.J.M	45
4	A.W.K	45
5	A.D.L	40
6	A.L.P	55
7	A.A	60
8	B.Y.A	55
9	D.F	40
10	D.F	55
11	D.E.K	65
12	D.R.A	60
13	E.D	55
14	H.G.M	60
15	K.T.N	65
16	M.N	60
17	M.F	45
18	M.F.R	55
19	M.A	50
20	M.K.M	55
21	M.M.A	55
22	M.M.R	50
23	M.M.A	50
24	M.R.N	60

25	M.S.A	80
26	M.W.A	75
27	M.Z.M	70
28	M.S.F	70
29	N.S.R	45
30	N.I.S	65
31	P.I.N	55
32	R.P.R	45
33	S.E.P.S	55
34	S.D	50
35	V.E	40
36	Y.N	35

Table 4.7 The Histogram Chart of Post-test



The researcher used SPSS 18.0 version to know the descriptive statistic and the percentage of students' score of pre-test. The percentage was divided into five criterions: excellent, good, average, poor, and very poor (see table 4.1) the result of the calculation as follows:

Table 4.8 Descriptive Statistic of Post-test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Posttest	36	40	85	64.03	10.611
Valid N (listwise)	36				

Based on the table 4.8 above, it showed that the minimum score of post-test was 40, the maximum score of post-test was 90, and the mean was 64.03.

Table 4.9 Frequency of Students' Vocabulary Score After Taught by Using Mnemonics Device

Posttest

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 40	1	2.8	2.8	2.8
45	1	2.8	2.8	5.6
50	4	11.1	11.1	16.7
55	2	5.6	5.6	22.2
60	8	22.2	22.2	44.4
65	7	19.4	19.4	63.9
70	5	13.9	13.9	77.8
75	5	13.9	13.9	91.7
80	1	2.8	2.8	94.4

85	2	5.6	5.6	100.0
Total	36	100.0	100.0	

From the table 4.9, The frequency of post-test after being distributed there were not student who got score between 0-39 which means that the students' vocabulary score was failed, there were 8 students who got score between 40-59 which means that on the students' vocabulary was low, there were 20 students who got score between 60-70 which means that on the students' vocabulary score was good, there were 6 students who got score between 71- 84 which means that on the students' vocabulary was very good, there were 2 students who got score between 85-100 which means that on the students' vocabulary score was excellent.

2. The Implementation

This research was conducted on April 29th until May 3rd 2019. On April 25th 2019, the researcher conducted try out in VIII F class that consisted of 34 students. After that the researcher computed the result of try out to calculate the validity of the test. When the test was valid, the researcher conducted pre-test at VIII E class on April 29rd 2019. The researcher conducted research while four meeting. The first meeting was doing pretest. The second meeting was conducted to give the first

treatment on April 30th 2019 to VIII E class, the researcher introduces and explains about mnemonics device in memorize vocabulary start from the purpose and steps in applying to the students. The third meeting was used to give the second treatment on May 2nd 2019, the researcher showed mnemonics device in recount text and memorize vocabulary. After all the treatments were done, the researcher conducted posttest on May 03rd 2019 to see the score of students is there any differences between pretest's score and posttest's score. If the posttest's score was higher than pretest's score so mnemonics device was effective to teach vocabulary to the second grade of junior high school. After the researcher computed the posttest's score, it was higher than pre-test's score. So this technique was effective to teach vocabulary.

3. The Result of Normality and Homogeneity Testing

In this sub chapter, the researcher presented and discussed the result of normality and homogeneity testing by using SPSS 18.0. Calculating normality is used to know the data has been normal contributed or not. Meanwhile, homogeneity is used to make sure whether the sample data is homogeneous or not. By knowing the result of the both testing, the researcher can decide what appropriate hypothesis testing type need to be used.

1. The Result of Normality Testing

Normality test is used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed. Normality test is intended to show that the sample data come from a normally distributed population. To know the normality, the researcher used the Kolmogorov-Smirnov test with SPSS 18.0. Kolmogorov-Smirnov test is a test of normality for large samples. A normal distribution is rejected. Simply put value less than 0.05 indicates that the data are non-normal.

The result can be seen in the below:

Table 4.10 The Student's Score

No	Name	Pre-test	Post-test
1	A.B.M	55	60
2	A.M	40	60
3	A.J.M	45	50
4	A.W.K	45	55
5	A.D.L	40	60
6	A.L.P	55	65
7	A.A	60	70
8	B.Y.A	55	65
9	D.F	40	50
10	D.F	55	60
11	D.E.K	65	70
12	D.R.A	60	65
13	E.D	55	70
14	H.G.M	60	75
15	K.T.N	65	70
16	M.N	60	70
17	M.F	45	65
18	M.F.R	55	60
19	M.A	50	55
20	M.K.M	55	65
21	M.M.A	55	60
22	M.M.R	50	60

23	M.M.A	50	65
24	M.R.N	60	75
25	M.S.A	80	85
26	M.W.A	75	80
27	M.Z.M	70	75
28	M.S.F	70	75
29	N.S.R	45	50
30	N.I.S	65	75
31	P.I.N	55	60
32	R.P.R	45	50
33	S.E.P.S	55	65
34	S.D	50	85
35	V.E	40	45
36	Y.N	35	40
Total Score		1.960	2.305
Mean		54.44	64.03

From the table 4.10 it showed that the total score of pre-test was 1.960 and the mean of students' score of pretest was 54.44. The total score of post-test was 2.305 and the mean of students' score of post-test was 64.03

Table 4.11 The Result of Normality Testing

One-Sample Kolmogorov-Smirnov Test

		Pre_test	Post_test
N		36	36
Normal Parameters ^{a,b}	Mean	54.44	64.03
	Std. Deviation	10.405	10.611
	Most Extreme Differences		
	Absolute	.145	.130
	Positive	.145	.102
	Negative	-.132	-.130
Test Statistic		.145	.130
Asymp. Sig. (2-tailed)		.052 ^c	.130 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

The Hypothesis for testing normality are:

H_0 : Data is in normal distribution

H_a : Data is not normal distribution

The table shows that the significance value of pre-test is 0.52, it is bigger than 0.05, it means the data distribution of pre-test is normal. The significance value of post-test is 0.130, it is bigger than 0.05, it means the data distribution of post-test is also normal. It can be concluded that both of the data (pre-test and post-test) are normal distributions.

2. Hypothesis Testing

- a. H_0 the students' score of vocabulary mastery after being taught by using mnemonics device is smaller than or equal to the students' score of vocabulary mastery before being taught by using mnemonics device.
- b. H_a the students' score of vocabulary recount text after being taught by using mnemonics device is bigger than the students' score of vocabulary recount text before being taught by using mnemonics device.

Based on the table 4.10 below, the significant value of this research is 0.000, standard significant level is 0.050. It

significant value is smaller than significant level ($0.000 < 0.050$). The interpretation can be concluded by saying “there is significant different of the students score before and after being taught by using mnemonics device in teaching vocabulary”. In other word, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. according to that evidence, it can answer the research problem or question that there is significant difference on students’ vocabulary mastery before and after being taught by using mnemonics device to second grade students’ at MTs Negeri 2 Tulungagung.

To know whether the post-test’s score was higher than pre-test score before and after using mnemonics device, the researcher computed *paired-sample test* by using SPSS 18.0 Version. The output was as follow:

Table 4.12 The Result of Paired Sample Test

Paired Samples 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_test - Post_test	-9.583	6.478	1.080	-11.775	-7.391	-8.876	35	.000

Based on table 4.10, the t was -8.876, with the $df = 35$, and the p -value (two-tailed) was 0.000. Given that the present test was one-tailed test, so the p -value (0.000) was divided into: $0.000 / 2 = 0.000$. The significance level was 0.05. For interpretation of decision based on the result of probability, it was:

- 1) If the probability value (sig) > 0.05 then the null hypothesis was not rejected.
- 2) If the probability value (sig) < 0.05 then the null hypothesis was rejected.

Since 0.000 was smaller than significance level (α) 5% or 0.05, so the null hypothesis was rejected. In other word, the hypothesis said that the mean of the pre-test was smaller than or equal to the mean of the post-test was rejected. It automatically accepted the alternative hypothesis saying that the mean of post-test was higher than the mean of pre-test. It means that there was significance different before and after being taught using mnemonics device.

B. Discussion

As discussed of research method in the teaching and learning process was divided into three steps. The first step was given pre-test. The researcher

wanted to know the students' vocabulary score before being taught using mnemonics device. The second step the researcher gave treatments to the student two meetings. The first treatment the researcher introduces and explains about mnemonics device start from the purpose and steps in applying to the students. The second treatment the researcher showed mnemonics games. After all the treatments were done, the researcher conducted the two steps that was post-test to see the score of students is there any differences between pretest's score and posttest's score.

Students' vocabulary score was low. It was proved when they were taught before used mnemonics device. From the research findings, the students' score before used mnemonics device was lower than the students' score of post-test. It was proved by the calculation of mean score on pre-test 54.44 and mean score on post-test 64.03. From the research finding, the students' score of post-test was higher than students' score of pretest. So, the researcher concluded that this technique was useful to make students more active, enjoy and easy to develop their idea when they memorize vocabulary.

Based on table 4.10, the t is -8.876, with the $df = 35$, and the p -value (two-tailed) was 0.000. Given that the present test was one-tailed test, so the p -value (0.000) was divided into: $0.000 / 2 = 0.000$. The significance level was 0.05. Since 0.000 was smaller than significance level (α) 5% or 0.05, so the null hypothesis was rejected. In other words, the hypothesis said that the mean of the pre-test was smaller than or equal to the mean of

the post-test was rejected. It accepted the alternative hypothesis which said that the mean of post-test was higher than the mean of pre-test. It means that there was significance differences before and after being taught using mnemonics device.

The finding of this research stating that mnemonics device was considered as an effective for the students' ability in vocabulary. It could be seen in the treatment process, the students are more interested when the researcher applied this technique. The teacher could help the students easy to memorize vocabulary by mnemonics device.

Regarding on the result of data analysis above, it was also strongly with previous study as stating that mnemonics device was considered as an effective technique in teaching vocabulary. The first study conducted by Gofar (2008) with the title "*The Experiment Study at the Second year of SMP As-syuja'iyah Sukaraja Bogor*" in this research it can be conclude that mnemonics device is useful in teach vocabulary. This technique can motivate the students more active and easy to understand.

The second study from Sari. (2013) with the title "*Improving Students' English Achievement Through Mnemonic for The Fourth Grade Students of SMPN 3 Karanganom Klaten In The first Semester of The Academic Year of 2012/2013*" in the researcher used mnemonics because it was easy to memorize and enjoyable. It was easy for them to memorize the word. It can stimulate the students to develop their ideas in memorize vocabulary.

Another research from Rosidina (2009) with the title “*The Effectiveness of Mnemonics Device in Vocabulary Learning Process (a Study at The fifth Grade of MTsN Babakan 1)*” in Journal of English Language Teaching. Vol.1 No.1. page 24. this study the writer using mnemonics technique to teaching vocabulary a recount text. The differences with the study before is this study use a recount text. From this research I can conclude that by using mnemonics device to memorize vocabulary of the interesting teaching and learning technique in second grade of junior high school. It can help the students to develop their English vocabulary, especially in memorize and understanding vocabulary in a recount text.

From the explanation above, it could be concluded that mnemonics device was effective in this research. And the strategy above was accepted by the researcher, especially it could use to teach vocabulary to the second grade of MTs Negeri 2 Tulungagung.