

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

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

A. The Description of Data

In this study, the researcher presented the data of students' score in vocabulary mastery between students who taught by using mnemonic keyword method and students who taught without any strategy. Here, the researcher wanted to know the effectiveness on mnemonic keyword method on students' vocabulary mastery of the eight graders at MTs Al-Ma'arif Tulungagung. The effectiveness can be seen from the significant different score of students vocabulary mastery before and after being taught by using mnemonic keyword method. Here, the researcher gave pretest and posttest to the experimental class and control class.

First, the researcher makes the criteria of students' score to describe and easy to categorize the students' scores. This criteria aims to know the students' score of vocabulary mastery is better or not. The researcher classifies the categories into five variances. The categories will be represented below:

Table 4.1 Scores Criteria

NO	Interval class	Criteria
1.	90-100	Very Good
2.	70-89	Good
3.	50-69	Enough
4.	30-49	Bad
5.	0-29	Very bad

From the table above, the researcher explains the criteria of students' score in vocabulary mastery in both experimental and controlled class in order to know the percentages of students' score both pre-test and post-test. The results of the test will be presented below:

1. The Data of Experimental class

The researcher gave pretest and posttest in experimental class.

The pretest and posttest score in experimental class can be seen below:

Table 4.2 Pretest and Posttest Score in Experimental Class

No	Name	Pretest Score	Posttest Score	Gain Score
1	AFA	55	70	15
2	ANC	60	75	15
3	ANF	80	85	5
4	AMF	65	70	5
5	ASH	75	85	10
6	ACI	60	75	15
7	ASD	80	80	0
8	ADF	75	80	5
9	ANF	70	85	15
10	APS	50	60	10
11	DESC	75	85	10
12	FAMS	50	75	25
13	FNU	60	70	10
14	HR	70	85	15
15	IEV	75	90	15
16	II	60	75	15
17	IP	65	85	20
18	MAPS	60	75	15
19	MMAR	45	65	20
20	MDRS	65	75	10
21	MMYH	65	80	15
22	MAM	80	95	15
23	MAZ	35	55	20
24	MB	45	70	25
25	MT	70	90	20
26	MFR	35	55	20
27	MHKA	55	70	15
28	MNNF	60	65	5
29	MSP	45	70	25
30	MUA	60	70	10

31	NFM	75	80	5
32	NK	70	85	15
33	SQAR	70	75	5
34	SA	80	85	5
35	SLA	60	80	20
36	VFA	50	85	35
TOTAL		2250	2755	505

The data that will explain first is the data pretest score in experimental class that conducted on 2nd August 2018 in VIII A class which consist of 36 students. There were 20 items in the form of multiple choice items about descriptive text and the students were given 45 minutes to do the test. After conducting pre-test, the researcher made the descriptive statistic of the data. Descriptive statistics are used to describe the basic futures of data in this study. The researcher used SPSS windows 16.0 version to formulate the descriptive statistics. It means that the researcher measured central tendency of pre-test score. Measures of central tendency are used to know whether the data values cluster around the mean. They are included mean, median, and mode. The table of descriptive statistic will be presented below:

Table 4.3 Descriptive Statistics of Pretest in Experimental Class Statistics

Pretest_Exp		
N	Valid	36
	Missing	0
Mean		62.50
Median		62.50
Mode		60
Minimum		35
Maximum		80

Based on the table above, it shows that the mean score in pretest is 62.50. It means that the average score from all of students is 62.50. Based on the criteria of the students score, 62.50 is enough score.

Table 4.4 Frequency of Pretest Score in Experimental Class
Pretest_Exp

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 35	2	5.6	5.6	5.6
45	3	8.3	8.3	13.9
50	3	8.3	8.3	22.2
55	2	5.6	5.6	27.8
60	8	22.2	22.2	50.0
65	4	11.1	11.1	61.1
70	5	13.9	13.9	75.0
75	5	13.9	13.9	88.9
80	4	11.1	11.1	100.0
Total	36	100.0	100.0	

Based on the table above, the students who got the bad score are 5 students or 13.9 %. Then, students who got enough score are 17 students (47.2%). Also, students who got good score are 14 students (38.9%).

After the researcher calculated the pre-test scores from experimental class, then the researcher calculated the post-test scores one. The test was conducted on 16th August 2018 in the same class. The test used for either pretest or posttest were different question, but the indicators tasted was same. This test was conducted after giving the treatment in experimental class. The aim was to know it can be

difference between before and after being taught by using mnemonic keyword method. To know the students' score, the researcher measured central tendency and frequency of the score. The table of descriptive statistic will be presented below:

Table 4.5 Descriptive Statistics of Posttest in Experimental Class Statistics

Posttest_Exp		
N	Valid	36
	Missing	0
Mean		76.53
Median		75.00
Mode		85
Minimum		55
Maximum		95

From the table above, the researcher can conclude that the mean of posttest in experimental class is 76.53. Based on the criteria of students' score, the mean has a good score.

Table 4.6 Frequency of Posttest Score in Experimental Class Posttest_Exp

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 55	2	5.6	5.6	5.6
60	1	2.8	2.8	8.3
65	2	5.6	5.6	13.9
70	7	19.4	19.4	33.3
75	7	19.4	19.4	52.8
80	5	13.9	13.9	66.7
85	9	25.0	25.0	91.7
90	2	5.6	5.6	97.2
95	1	2.8	2.8	100.0
Total	36	100.0	100.0	

The table shows that students who got enough are 5 students (14 %), while students who got good score are 28 students (77.7%). It means that students in experimental class got higher score than pretest. Most of them got a good score and 3 students (8.4%) got very good score based on the criteria students' score above.

2. The Data of Control Class

The researcher also conducted the test in control class. The test was same as the experimental class which the question consist of 20 items in the form of multiple choice items about descriptive text and the students were given 45 minutes to do the test. The pretest and posttest score in control class can be seen below:

Table 4.7 Pretest and Posttest Score in Contol Class

No	Name	Pretest Score	Posttest Score	Gain Score
1	ANF	75	75	0
2	ATAF	60	75	15
3	AS	45	55	10
4	AS	30	45	15
5	AN	70	60	-10
6	ANAFS	45	55	10
7	ACA	55	75	20
8	AVR	75	80	5
9	ASH	40	50	10
10	BAS	60	65	5
11	CW	30	45	15
12	CNNH	70	75	5
13	CV	65	70	5
14	DRP	55	65	10
15	DM	65	70	5
16	DWH	70	75	5
17	DP	55	45	-10
18	ER	50	55	5
19	EP	55	65	10
20	FEP	80	80	0
21	FN	40	55	15
22	GKF	65	70	5

23	HSA	75	75	0
24	HMA	55	65	10
25	INNS	50	60	10
26	IN	65	70	5
27	IAH	55	65	10
28	JAS	60	60	0
29	JW	70	75	5
30	KH	50	55	5
31	LF	60	65	5
32	LT	55	70	15
33	MH	70	75	5
34	MNR	80	90	10
35	MFAP	70	70	0
36	MSF	70	65	-5
37	NR	70	60	-10
38	RS	70	60	-10
39	ZFM	60	65	5
TOTAL		2340	2550	210

The pretest was conducted at on 2nd August 2018 in VIII B class. Then, the researcher calculated the score to know the descriptive statistics, it can be seen below:

Table 4.8 Descriptive Statistics of Pretest in Control Class Statistics

Pretest_Control		
N	Valid	39
	Missing	0
Mean		60.00
Median		60.00
Mode		70
Minimum		30
Maximum		80

Based on the table above, it shows that the mean score in pretest is 60.00. Based on the criteria of the students score, 60.00 is enough score.

Table 4.9 Frequency of Pretest Score in Control Class

		Pretest_Control			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30	2	5.1	5.1	5.1
	40	2	5.1	5.1	10.3
	45	2	5.1	5.1	15.4
	50	3	7.7	7.7	23.1
	55	7	17.9	17.9	41.0
	60	5	12.8	12.8	53.8
	65	4	10.3	10.3	64.1
	70	9	23.1	23.1	87.2
	75	3	7.7	7.7	94.9
	80	2	5.1	5.1	100.0
Total		39	100.0	100.0	

Based on the table above, there are some students who got bad score in this test. It means that they failed in this test because they got bad score. There are 6 students (15.3 %). But some students got enough score in this test. There are 19 students (48.7 %). Finally, most students got good score in this test, there are 14 students (35.9 %).

Then, the researcher calculated the post test scores from control class. The test was conducted on 16th August 2018 in the same class. The test was same with experiment class. The test used for either pretest or posttest were different question, but the indicators tasted was same.

Table 4.10 Descriptive Statistics of Posttest Score in Control Class Statistics

Posttest_Control		
N	Valid	39
	Missing	0
Mean		65.38
Median		65.00
Mode		65 ^a
Minimum		45
Maximum		90

Based on the table above, it shows that the mean score in posttest is 65.38. Based on the criteria of the students score, 65.38 is enough score.

Table 4.11 Frequency of Posttest Score in Control Class Posttest_Control

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 45	3	7.7	7.7	7.7
50	1	2.6	2.6	10.3
55	5	12.8	12.8	23.1
60	5	12.8	12.8	35.9
65	8	20.5	20.5	56.4
70	6	15.4	15.4	71.8
75	8	20.5	20.5	92.3
80	2	5.1	5.1	97.4
90	1	2.6	2.6	100.0
Total	39	100.0	100.0	

Based on the table above, the students who got the bad score are 3 students (7.7 %) but there is a student got very good score. Then, students who got enough score are 19 students (48.7 %). Also, students who got good score are 15 students (41 %).

B. Hypothesis Testing

To know whether there is any significant difference on students' vocabulary mastery taught with and without using mnemonic keyword method, the researcher computed Independent Sample Test by using SPSS 16.0 Version. The outputs are as follows:

Table 4.12 The Output of Group Statistic
Group Statistics

Class		N	Mean	Std. Deviation	Std. Error Mean
The result of Vocabulary Mastery	Experimental Class	36	76.53	9.548	1.591
	Control Class	39	65.38	10.348	1.657

Table 4.13 The Output of Independent Sample Test
Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Gain_score	.087	.769	4.834	73	.000	11.143	2.305	6.549	15.737
Equal variances assumed									
Equal variances not assumed			4.850	73.000	.000	11.143	2.297	6.564	15.722

Before compute the t-test, the researcher did the homogeneity testing using F test (Levene's Test) to know whether to use *Equal Variance Assumed* or use *Equal Variance Not Assumed*. If the variance is the same, then the t-test use equal variance assumed. If the variance is different, then the t-test use equal variance not assumed. The hypotheses in F test are as follows:

1. Ho: both variance are the same (experimental and control class).
2. Ha: both variance are different (experimental and control class).

Ho is accepted if $F > 0.05$. Then, Ho is rejected if $F < 0.05$. According to the table 4.13 above, it shows that F is 0.087. It means the F (0.087) is bigger than 0.05 and Ho is accepted. It can be concluded that both variance (experimental and control class) are the same and that the researcher used Equal Variance Assumed in making decision of T-test.

First, see the hypothesis testing of this study before explains the table above, the hypothesis testing of this study is mentioned as follows:

1. Alternative Hypothesis (Ha): There is any significant difference on students' vocabulary mastery taught and without using mnemonic keyword method.
2. Null Hypothesis (Ho): There is no significant difference on the students' vocabulary mastery taught and without using mnemonic keyword method.

According to statement above, the basic statement in t-test is Ho is accepted if P value > 0.05 and Ho is rejected if P value < 0.05 . Here, from the table 4.13 above, the score of P value (Sig. (2-tailed)) is 0.000 and the

significant level is 0.05. It can be concluded that significant value (0.000) is smaller than the significant level (0.05). In other words, H_0 is rejected and H_a is accepted. It means that there is different score in the students' vocabulary mastery between experimental group and control group.

According to the table 4.12 (Group Statistics) above, it shows that there is different in mean of gained score in both experimental class and control class, also the mean of gained score in experimental class is bigger than the mean of control class. The mean of gained score in experimental group is 14.03 and 5.38 is the mean of gained score in controlled group. Then, the mean of experimental class after taught by using mnemonic keyword method is 76.53 and the mean of control class after taught without using mnemonic keyword method (using conventional learning method) is 65.38. The mean difference is 11.143 and the interval of the differences ranged from 6.549 to 15.737. Finally, taught by using mnemonic keyword method in the students' vocabulary mastery is effective for the eight grade of MTs Al-Ma'arif Tulungagung.

C. Discussion

This research is about the use of mnemonic keyword method in teaching vocabulary of the eighth grader of MTs Al Ma'arif Tulungagung. This section is intended to analyze the result of research finding based on the related theory. All data collected from the research instrument provides information of the research finding. The result of the students' score is calculated by using t-test.

The researcher conducted the research in three steps. In the first meeting, pretest was administered in both of the experimental and control group. The purpose of conducting pretest was to know the students' score before the treatment. Beside that, pretest was conducted to ensure that both of experimental and control group have similarity of vocabulary mastery. The second step is giving treatment for the students. The treatment was teaching vocabulary using mnemonic keyword method in the experimental group. 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 the teacher uses spesific word in other to students can memorize easily. The student is asked to make an association between the target word and the keyword. Meanwhile, the control group was taught by using conventional method. In the last step, the students were given posttest after they got the treatment. It was conducted to measure the effectiveness of mnemonic keyword method after getting the treatment.

The researcher assumed that there was a significant difference on students' vocabulary mastery between the experimental and the control groups after they got the treatment. To prove this assumption, the researcher used independent sample t-test to test the hypothesis. To analyze using independent sample t-test, the data must be normal and homogeneous.

The output of the t-test statistical analysis on the table 4.12 performed the mean of the experimental group was 76.53 and the mean of control group was 65.38. The mean of the experimental group was higher than the mean of

the control group and based on table 4.13 above showed that the significant (2-tailed) coefficient was 0.000. Because the significant (2-tailed) coefficient was lower than the significant coefficient 5% (0.05), the null hypothesis (there is no significant difference on students' vocabulary mastery between the experimental and the control groups) was rejected. On the contrary, the alternative hypothesis (there is a significant difference on students' vocabulary mastery between the experimental and the control groups) was accepted. The result of the t-test statistical analysis proved that there was a significant difference on students' vocabulary mastery between the experimental and the control groups after they got the treatment. It indicates that mnemonic keyword method is effective in vocabulary mastery.

The previous researchers also had proved that mnemonic keyword method can be effective and improve the students' vocabulary mastery. It is supported by some previous studies done related to the implementation of mnemonic keyword method in vocabulary mastery. A study conducted by Rochimah (2016) in her research proves that using mnemonic technique is effective in teaching vocabulary at the seventh grade of SMP N 2 Prembun. Second study conducted by Sujarwo (2017), the result of the research is the use of mnemonic technique can improve the students' English vocabulary achievement at the twelfth grade students of SMA Tut Wuri Handayani Makassar. Third conducted by Ina Rosdiana (2009) proves that using mnemonic technique is also effective to help the fifth grade of elementary schools in SDN Babakan I learn and memorize vocabulary.

From the explanation above, it can be said that mnemonic keyword method could become the appropriate method in vocabulary mastery. Dehn (2008: 283) states that mnemonic keyword method can be used when learning new vocabulary, especially when learning second language. Atkinson (1975:175) argue that in this method a foreign word is connected to its English translation by a chain of 2 links similarity in sound (accoustic link) and a mental image of the interaction between the two words. The method uses a means to aid in the information recall in learners with their short term-memory (Condus, Marshall, & Miller, 1986: 69). It takes unfamiliar information and makes it more meaningful and concrete and thus, easier to remember.

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. 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.

From the explanation above, it can be said that mnemonic keyword method could become the appropriate method on students' vocabulary mastery. It can help students to improve vocabulary mastery, so this research can be concluded that mnemonic keyword method was effective on students' vocabulary mastery of the eighth grader of MTs Al Ma'arif Tulungagung.