

## CHAPTER IV

### RESEARCH FINDING AND INTERPRETATION

#### A. Research Finding

##### 1. Data description

In this chapter the reseracher would explain the result of the research, this research has been conducted on 4-20 April 2019. The researcher would attempt to submit the data as outcomes of reserach has hold in Second Grade of Junior High School 1 Karang Tanjung Pandeglang. The reseracher took 60 students as a subject in this reserach. It was devided into two classes. There were 30 students from VIII (A) as the experiment class and 30 students from VIII (B) as the control class.

The data were collected from students' pre-test and post test from two classes, first class and second class. The data is described into two tables. The achievements of students in the first class were presented in Table 4.1 and the achievements of the students in the second class were presented in Table 4.2. Table 4.1 consists of four columns, the first columns show the number of students in the experiment class (X), the second column shows the pre-test scores, the third column shows the post-test columns and the las column shows the gained scores which are resulted from the post-test score is subtracted the pre-test score.

**Tabel 4.1**

The Score of Individual Students on experimental class

Using Memory Matrix.

<b>Students (X)</b>	<b>Pre-Test</b>	<b>Post-Test</b>	<b>Geined (d) Score (Post- Test – Pre-Test)</b>
1	65	75	10
2	50	70	20
3	40	65	25
4	40	60	20
5	65	80	15
6	55	75	20
7	40	60	20
8	50	80	30
9	70	80	10
10	70	75	5
11	60	65	5
12	55	70	15
13	65	70	5
14	40	70	30
15	75	85	20
16	65	75	10
17	60	70	10
18	50	65	15
19	65	70	5
20	40	60	20
21	40	70	30
22	40	65	25
23	60	65	5
24	70	75	5
25	50	70	20
26	65	80	15
27	50	75	25
28	60	75	15
29	70	80	10
30	50	65	15
<b>Σ</b>	1,675	2,140	475
<b>Mean</b>	55.83	71.33	15.8

The Table 4.1 above describes that the lowest score in the pre-test is 40 and the highest score is 75. Mean while, the lowest score in the post-test is 60 and the highest score is 85. Therefore, it can be summarized that the lowest and the highest score in post-test is higher than in pre-test.

**Tabel 4.2**

The Interval Class of Gained Score of the Second Class in experiment class

Using Memory Matrix.

<b>Class Interval</b>	<b>Interval</b>
5 – 9	6
10 – 14	5
15 – 19	6
20 – 24	7
25 – 29	3
30 – 34	3

The Table 4.2 above describe that the most rate interval is 7 on class interval 20-24 gained score. Then the less score rate interval is 3 on interval 25-29 and 30-34 gained score.

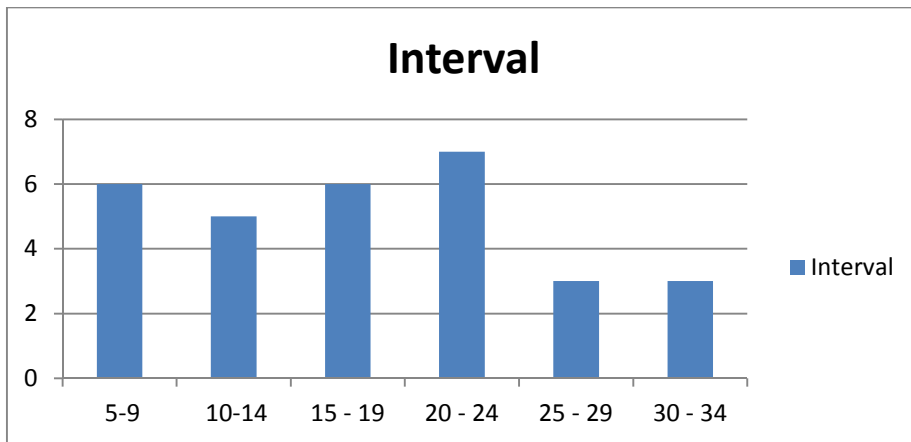


Figure 4.1

The Interval Class of Gained Score of the Second Class in experiment class  
by Using Memory Matrix.

Table 4.3 consists of four columns, the first columns show the number of students in the control class (Y) , the second column shows the pre-test scores, the third column shows the post-test columns and the last column shows the gained scores which are resulted from the post-test score is subtracted the pre-test score.

**Tabel 4.3**

The Score of Individual Students of control class

<b>Students (X)</b>	<b>Pre-Test</b>	<b>Post-Test</b>	<b>Geined (d) Score (Post-Test – Pre-Test)</b>
1	60	75	15
2	40	60	20
3	60	75	15
4	45	70	25
5	60	65	5
6	60	75	15
7	50	75	25
8	60	65	5

9	60	75	15
10	40	75	35
11	65	75	10
12	45	70	25
13	70	75	5
14	50	70	20
15	60	70	10
16	40	65	25
17	50	70	20
18	70	85	15
19	65	70	5
20	45	60	15
21	50	55	5
22	70	75	5
23	50	60	10
24	65	70	5
25	55	70	15
26	60	75	15
27	40	60	20
28	70	75	5
29	45	65	10
30	65	70	5
$\Sigma$	1,665	2,095	420
<b>Mean</b>	55.5	69.8	14

The Table 4.3 above describes that the lowest score in the pre-test is 40 and the highest score is 70. Meanwhile, the lowest score in the post-test is 55 and the highest score is 85. Therefore, it can be summarized that the lowest and the highest score in post-test is higher than in pre-test.

**Tabel 4.4**

The Interval Class of Gained Score of the Control Class

<b>Class Interval</b>	<b>Interval</b>
5 – 9	9
10 – 14	4
15 – 19	8
20 – 24	4
25 – 29	4
30 – 34	0
35 – 39	1

The Table 4.4 above describe that the most rate interval is 8 on class interval 15-19 gained score. Then the less score rate interval is 0 on interval 30-34 gained score.

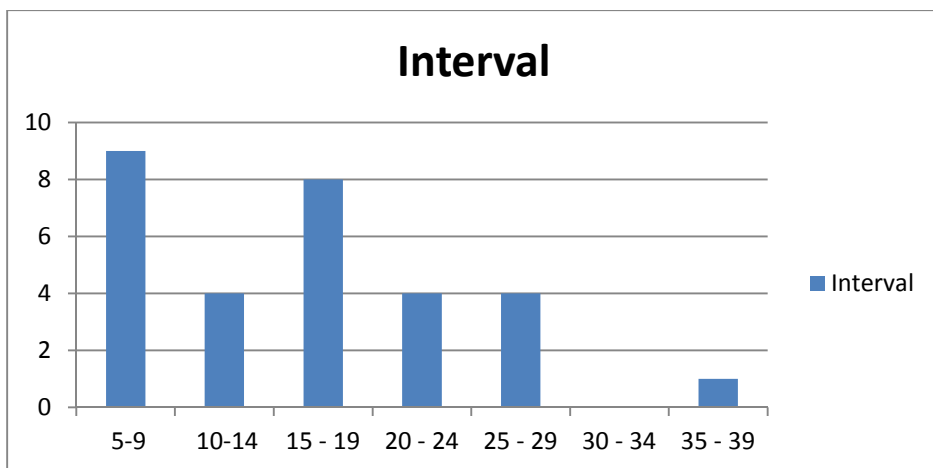


Figure 4.1

The Interval Class of Gained Score of the Second Class in control class.

## 2. Data Analysis

Before the data analyzed. Had calculated the data into the statistic calculation. The formula used to find the empirical evidences statistically and to make the testing of hypothesis will be easier.

Before it, the calculation table from two variables. The table consist of eight columns; the first column shows the number of students is the first class, the second column shows the number of students in the second class. The third column shows the students gained scores in the first class (X), the fourth column shows the students gained in the second class (Y), the fifth column shows the students' deviation scores in the first class (x) which are resulted from the students gained score subtracted the sum of the geined scores in the first class, the sixth column shows the students deviation scores in the second class (y) which are resulted from the student's gained score is subtracted the sum gained score in the second class, the seventh column shows the students squared deviation scores in the first class ( $1x2$ ); which are resulted from the multy-playing the student's deviation scores in the first class, and the eight column shows the student's square deviation scores in the second class ( $2x2$ ) which are resulted from the multy-playing the student's deviation scores in the second class.

**Tabel 4.5****The Configuration Score Between Students**

of Experiment Class by Usng Memory Matrix and by Students of Control Class

<b>Students'</b> <b>(X)</b>	<b>Students'</b> <b>(Y)</b>	<b>X</b>	<b>Y</b>	<b>X</b>	<b>Y</b>	<b>X<sup>2</sup></b>	<b>Y<sup>2</sup></b>
1	1	10	15	-5,8	1	33,64	1
2	2	20	20	4,2	6	17,64	36
3	3	25	15	9,2	1	84,64	1
4	4	20	25	4,2	11	17,64	121
5	5	15	5	-0,8	-9	0,64	81
6	6	20	15	4,2	1	17,64	1
7	7	20	25	4,2	11	17,64	121
8	8	30	5	14,2	-9	201,64	81
9	9	10	15	-5,8	1	33,64	1
10	10	5	35	-10,8	21	116,64	441
11	11	5	10	-10,8	-4	116,64	16
12	12	15	25	-0,8	11	0,64	121
13	13	5	5	-10,8	-9	116,64	81
14	14	30	20	14,2	6	201,64	36
15	15	20	10	4,2	-4	17,64	16
16	16	10	25	-5,8	11	33,64	121



17	17	10	20	-5,8	6	33,64	36
18	18	15	15	-0,8	1	0,64	1
19	19	5	5	-10,8	-9	116,64	81
20	20	20	15	4,2	1	17,64	1
21	21	30	5	14,2	-9	201,64	81
22	22	25	5	9,2	-9	84,64	81
23	23	5	10	-10,8	-4	116,64	16
24	24	5	5	-10,8	-9	116,64	81
25	25	20	15	4,2	1	17,64	1
26	26	15	15	-0,8	1	0,64	1
27	27	25	20	9,2	6	84,64	36
28	28	15	5	-0,8	-9	0,64	81
29	29	10	10	-5,8	-4	33,64	16
30	30	15	5	-0,8	-9	0,64	81
<b>Mean</b>		15.8	14			61,8	62,3
N1=30	N2=30	475	420			1854,2	1870
SD <sub>x</sub>	SD <sub>y</sub>					7,86	7,89
SE <sub>mx</sub>		$\frac{7,86}{5,38}$				1,46	
SE <sub>my</sub>		$\frac{7,89}{5,38}$					1,47

The calculated of the data based on the steps of the test. The steps are:

1. Determining Mean of Variable X:

$$M_x = \frac{\sum x}{N_1}$$

$$M_x = \frac{475}{30}$$

$$= 15.8$$

2. Determining Mean of variable Y:

$$M_y = \frac{\sum y}{N_2}$$

$$M_y = \frac{420}{30}$$

$$= 14$$

3. Determining Standard of Deviation Score of Variable X:

$$SD_x = \sqrt{\frac{\sum X^2}{N_1}}$$

$$SD_x = \sqrt{\frac{1854,2}{30}}$$

$$SD_x = \sqrt{61,8}$$

$$= 7,86$$

4. Determining Standard of Deviation Score of Variable X:

$$SD_y = \sqrt{\frac{\sum Y^2}{N_2}}$$

$$SD_y = \sqrt{\frac{1.870}{30}}$$

$$SD_y = \sqrt{62.3}$$

$$= 7,89$$

5. Determining Standard Error Mean of Variable X:

$$SEm_x = \frac{SD_x}{\sqrt{N_1 - 1}}$$

$$SEm_x = \frac{7,86}{\sqrt{30 - 1}}$$

$$SEm_x = \frac{7,86}{5,38}$$

$$= 1,46$$

6. Determining Standard Error Mean of Variable X:

$$SEm_y = \frac{SD_y}{\sqrt{N_2 - 1}}$$

$$SEm_y = \frac{7,89}{\sqrt{30 - 1}}$$

$$SEm_y = \frac{7,89}{5,38}$$

$$= 1,47$$

7. Determining Standard Error of Different Mean of Variable X and Mean of Variable Y:

$$SEm_x - m_y = \sqrt{SEm_x^2 + SEm_y^2}$$

$$SEm_x - m_y = \sqrt{1,46^2 + 1,47^2}$$

$$\begin{aligned} SEm_x - m_y &= \sqrt{2,1316 + 2,1609} \\ &= 2,07 \end{aligned}$$

8. Determine to:

$$t_o = \frac{m_x - m_y}{SEm_x - m_y}$$

$$t_o = \frac{15,8 - 14}{2,07}$$

$$t_o = \frac{1,8}{2,07}$$

$$= 2,87$$

9. Determining Degrees of Freedom:

$$df = N1 + N2$$

$$= 30 + 30$$

$$= 60$$

10. Determining df on t-table:

$$df = N1 + N2 - 2$$

$$df = 60 - 2$$

$$df = 58$$

### 3. Test of Hypotheses

The value of degrees of freedom (df) in this research is not available in the t-table so the writer uses the closer value to 59 to 60 as a degree of freedom.

1. The value of df 60 at the degree of the significance influence 5% on t-table = 2,00.
2. The value of df 60 at the degree of the significance influence 1% on t-table = 2,66.
3. The Hypotheses

The writer formulated Null Hypothesis ( $H_0$ ) and alternative Hypothesis ( $H_a$ ) as follows;

( $H_0$ ) There is no Significance Influence between students taught by using Memory Matrix on Classroom Assessment Technique (CATs) and without using Memory Matrix.

( $H_a$ ) There is the significance influence between students taught by using Memory Matrix on Classroom Assessment Technique (CATs) and without using Memory Matrix.

The assumption of these hypotheses as follows:

If to  $T_{\text{table}}$ , the Null Hypotheses ( $H_0$ ) is rejected. It means there is a significance Influence between students taught by using Memory Matrix on Classroom Assessment Technique (CATs) and without using Memory Matrix.

If  $t_{\text{table}}$  the Null Hypothesis ( $H_0$ ) is accepted. It means there is no a significance Influence between students taught by using Memory Matrix on Classroom Assessment Technique (CATs) and without using Memory Matrix.

Based on the analysis of the data, the reserach finding shows that:

- a. The value of  $T_{\text{table}}$  in the significance Influence on 5% is 2,00.
- b. The value of  $T_{\text{table}}$  in the significance Influence on 1% is 2,66.
- c. The value of  $t_0$  is 2,87.

### **B. Interpretation of Findings**

As it has been mentioned in chapter one the filed research was conducted in order to know whether the influence of Memory Matrix to improve student's English Vocabulary mastering at SMPN 1 Karang Tanjung Pandeglang Banten.

To answer those questions above, the writer hypotheiszed that:

The writer summarized that  $t_0$  and  $T_{\text{table}}$  both in the significance influence 5% and in the significance influence 1% ( $2,00, 2,66 < 2,87$ ), it means that the Null Hypotheses ( $H_0$ ) is rejected and the Alternative Hypothesis ( $H_a$ ) is accepted. It implies the memory matrix is success because there is a significance influence to Students' English Vocabulary.

From the explanation above, we can see that the Memory Matrix is success. It can be seen that the students who accept the Memory Matrix get higher scores than the students without memory matrix. It means using memory Matrix as a technique can help students to improve their vocabulary.

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### A. Conclusion

Based on the data describe previously, the conclusion can be darwn that Memory Matrix has given a significance influence, shown from mean from post-test. The mean of experment class which use Memory Matrix higher then the mean of controlled class which use without Memory Matrix. The students' of experment class is more active, so that they enjoy the class. In control class the students' seem les motivation and these all can seen from the result of the research wich is held by the writer.

The result of analysis data in the research, showed that the value of  $t_0$  is bigger than  $t_{table}$  ( $t_t$ ) at significance level it means that the Null Hypothesis ( $H_0$ ) is rejected and the alternative Hypothesis ( $H_a$ ) is accepted. Thus there is different effect between students vocabulary were taught by using Memory Matrix and without Memory Matrix.

Based on the results above it can be conclude that the Memory Matrix can improve the students' English vocabulary.

#### B. Suggestion

Based on the result of the research about the Influence of Memory Matrix on Classroom Assessment Technique (CATs) to Improve Students' English Vocabulary at The Junoir High School In Academic Year 2018/2019 the researcher would like to give some suggestion.



### 1. Suggestion for the Teacher

- a. Memory Matrix is a good media or technique that can help the students to mastery English Vocabulary, where the students can be stimulated to remember the words. So Memory Matrix is a media or techniqu to be used in teaching process especially in English Vocaulary.
- b. The teacher should not use monotonous media in teaching process. A teacher should choose appropriate media that can help the students to be more active in classroom.

### 2. Suggestion for the Students

The students should study hard and do more practice in speaking English to improve their English Vocabulary. They were should be active and creative in learning activity.

### 3. Suggestion for the Other Researchers

In this research the researcher used memory matrix on Classroom Assessment Technique (CATs) to help students of Junior High School especially in English Vocabulary. The next researcher can conduct this media or technique on different levels of students and other skills.

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