CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presents research finding and discussion. It is divided into the calculation of tryout test, the data description, the data analysis, and discussion.

4.1 The Calculation of Tryout Test

The calculation of tryout test was used to find out the validity and reliability of the instruments. It was conducted on January 16th, 2020. It was given to class VIIIB where there were 26 students who joined tryout test. After the writer gave tryout, the writer analyzed the validity and reliability of the test. Each of the result was presented as follows:

4.1.1 The Validity of Tryout Test

The researcher used SPSS to find the validity of the instrument. The result of the validity can be seen on the table as follows:

Table 4. The Calculation of Validity by Using SPSS

Item Number	Rtable	Count of r_{xy}	Criteria
1	0.404	-0.114	
2	0.404	0.502	Valid
3	0.404	0.231	
4	0.404	0.108	
5	0.404	0.457	Valid
6	0.404	0.153	
7	0.404	0.606	Valid
8	0.404	0.43	Valid
9	0.404	0.114	
10	0.404	0.434	Valid
11	0.404	0.287	

12	0.404	0.489	Valid
13	0.404	0.344	
14	0.404	0.029	
15	0.404	0.405	Valid
16	0.404	0.445	Valid
17	0.404	-0.029	
18	0.404	0.433	Valid
19	0.404	0.453	Valid
20	0.404	0.149	
21	0.404	0.607	Valid
22	0.404	0.359	
23	0.404	0.641	Valid
24	0.404	0.276	
25	0.404	0.404	Valid
26	0.404	-0.174	
27	0.404	0.516	Valid
28	0.404	0.317	
29	0.404	0.648	Valid
30	0.404	0.756	Valid
31	0.404	0.566	Valid
32	0.404	0.756	Valid
33	0.404	0.308	
34	0.404	0.307	
35	0.404	0.476	Valid
36	0.404	0.198	
37	0.404	0.506	Valid
38	0.404	0.363	
39	0.404	0.456	Valid
40	0.404	0.166	
41	0.404	0.605	Valid
42	0.404	0.231	
43	0.404	0.231	
44	0.404	0.417	Valid
45	0.404	0.283	
46	0.404	0.321	
47	0.404	0.549	Valid
48	0.404	0.332	
49	0.404	0.495	Valid
50	0.404	0.56	Valid

The writer consulted the table of *r* with df = n - 2, df= 26 - 2 = 24 and significant level 0,05 was 0,404. So, the rtable is 0,404. The item was valid if rxy > rtable. Based on the calculation using SPSS above, it showed that there were 26 items numbers were valid and 24 items were invalid. Then, the researcher took 25 items to be the instrument of pre-test and post-test.

4.1.2 The Reliability of Tryout Test

The researcher used SPSS to find the reliability of the instrument. The result of the reliability can be seen on the table as follows:

Table 5. The Reliability Computation Using SPSS Calculation

Case Processing Summary

		N	%
Cases	Valid	26	100.0
	Excluded[a]	0	.0
	Total	26	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.696	51

From the SPSS calculation above showed that in Cronbach's Alpha was 0.696. the item test is reliable when $r_{11} > r_{table}$. So, the instrument of the test was reliable.

4.2 The Data Description

The purpose of this study is to know the effectiveness of Scrabble Game in teaching at the eighth grade students of MTs Mamba'ul Ulum Mambak Pakis Aji Jepara in the academic year of 2019/2020. The writer collected the data from students' pre-test and post-test scores. Both of pre-test and post-test consist of 25 questions in the form of multiple choices.

4.2.1 The Pre-Test Scores

The pre-test was conducted on January 30th, 2020. The sample of the research was the students of VIIIC and VIIID. Each class consists of 25students. The students were given 25 question items of multiple choices. The purpose of the test was to know the students' capability in vocabulary mastery before the treatment given. The result of pre-test scores of the experimental group and control group could be seen as follows:

Table 6. The Pretest Scores of Experimental and Control Group

No.	Experimental Group	Control Group
1	68	60
2	60	60
3	60	56
4	64	70
5	60	56
6	60	64
7	64	56
8	76	68

9	60	54
10	56	64
11	60	56
12	60	56
13	56	56
14	52	56
15	60	52
16	52	56
17	60	60
18	64	52
19	52	48
20	60	68
21	56	56
22	64	60
23	68	68
24	64	60
25	60	52
∑	1516	1464
Mean	60.64	58.56

The table above showed the students' pre-test scores of the experimental and control groups. Both of the experimental and control groups had different scores. In the experimental group, the lowest score was 52 and the highest score was 76. While in the control group, the lowest score was 52 and the highest score was 70. The mean score of experimental group was 60.64 and the mean score of control group was 58.56. It meant that the Experimental and Control group has the close mean in initial level of students.

4.2.2 The Post-Test Scores

The posttest was conducted after the researcher gave treatment to the experimental group. The purpose of posttest was to know the students' ability in mastering vocabulary after the treatment was given. The result of posttest scores of the experimental group and control group could be seen as follows:

Table 7. The Post-test Scores of Experimental and Control Group

No	Experimental Group	Control Group
1	80	72
2	76	64
3	76	60
4	80	64
5	64	68
6	76	64
7	84	64
8	84	56
9	76	72
10	72	68
11	68	72
12	64	72
13	68	40
14	76	44
15	80	64
16	76	60
17	72	60
18	72	44
19	76	44
20	80	64
2	80	64
22	68	64
23	76	60
24	76	56
25	68	64

∑	1868	1524
Mean	74.72	60.96

The data above showed the students' posttest scores of the experimental and control group. In the experimental group, the lowest score was 64 and the highest score was 84. While in the control group, the lowest score was 40 and the highest score was 72. The mean score of the experimental group was 74.72 and the mean score of experimental group was 60.96. Therefore, it could be conclude that the experimental group had higher score than the control group.

4.3 The Data Analysis

In this research the researcher use SPSS to analyze the data by using T-test formula. This technique was useful to prove statically whether there was any significant difference between students' vocabulary mastery in experimental group and control group.

4.3.1 The Analysis of Pre-Test Scores

To know the result analysis of pre-test score, can be seen from the table and explanation below.

Table 8. The T-test Result of Pre-test Scores Both Experimental and Control Group

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest Scores	Experimental Group	25	60.6400	5.37649	1.07530
	Control Group	25	58.5600	5.73062	1.14612

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
Equal variances assumed	.775	.383	1.324	48	.192	2.08000	1.57158	-1.07988	5.23988
Equal variances not assumed			1.324	47.806	.192	2.08000	1.57158	*-1.08021*	*5.24021*

The calculation of pre-test score using SPSS above describe the T-test analysis of pre-test in experimental and control group. There were two tables, first table was named "Group Statistics"

presented the statistical result of pre-test in the experimental and control group. The group statistic showed that the average between experimental and control group were different. The mean score of experimental group was 60.64 and the mean score of control group was 58.56. It meant that the experimental group was the higher score than control group. It can be conclude that the experimental and control group had different in vocabulary mastery.

. The second table was named "Independent Sample Test" described the statistical calculation of this research. The result of t-count was 1.324. Furthermore, the t-count was compared to know whether through Scrabble can help the students in improving vocabulary mastery or not. The degree of freedom (df) was 48 by using the degree of significance 5% was 2.021. It can be known that t-count (1.324) < t-table (2.021). It means that there was no significant difference between the experimental group and the control group in vocabulary mastery at the eighth grade students of MTs Mamba'ul Ulum Mambak Pakis Aji Jepara in the academic year of 2019/2020. So, it was needed to be done a treatment by using scrabble game to know the significant difference between the experimental and control group.

4.3.2 The Analysis of Post-Test Scores

To know the result analysis of post-test score, can be seen from the table and explanation below.

Table 9. The T-test Result of Post-test Scores Both Experimental and Control Group

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Posttest Scores	Experimental Group	25	74.7200	5.62376	1.12475
	Control Group	25	60.9600	9.18550	1.83710

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
Equal variances assumed	2.957	.092	6.388	48	.000	13.76000	2.15407	9.42896	18.09104

Equal variances not assumed			6.388	39.776	.000	13.76000	2.15407	9.40571	18.11429

The calculation of post-test score using SPSS above describe the T-test analysis of post-test in experimental and control group. There were two tables, first table was named "Group Statistics" presented the statistical result of post-test both the experimental and control group. The group statistic showed that the average between experimental and control group were different. The mean score of experimental group was 74.72 and the mean score of control group was 60.96. It meant that the experimental group was the higher score than control group. It can be conclude that the experimental and control group had differences in vocabulary mastery.

. The second table was named "Independent Sample Test" described the statistical calculation of this research. The result of t-count was 6.388. Furthermore, the t-count was compared to know whether through Scrabble can help the students in improving

vocabulary mastery or not. The degree of freedom (df) was 48 by using the degree of significance 5% was 2.021. It can be known that t-count (6.388) > t-table (2.021). It means that there was significant between the experimental group and the control group in vocabulary mastery at the eighth grade students of MTs Mamba'ul Ulum Mambak Pakis Aji Jepara in the academic year of 2019/2020.

4.3.3 Hypothesis Testing

In this section, the researcher described the interpretation of the research finding and summarized the hypothesis. The research was to answer the problem statement whether the use of scrabble game was effective to improve vocabulary mastery at the eighth grade students' of MTs Mamba'ul Ulum or not. In order to answer the problem statement, the researcher writes the Alternative Hypothesis (H_a) and the Null Hypothesis (H_o) as follow:

a. Alternative Hypothesis (H_a)

There was a significant difference of the students' achievement in improving vocabulary mastery between students who were taught by using scrabble game and students who were not taught by using scrabble game.

b. Null Hypothesis (H_o)

There was no a significant difference of the students' achievement in improving vocabulary mastery between students who were taught by using scrabble game and students who were not taught by using scrabble game.

To know the hypothesis, the data obtained In the experimental group and the control group were calculated by using t-test formula with assumption as follow:

a. If t-count > t-table, the Null Hypothesis (H_o) was rejected and the Alternative Hypothesis (H_a) was accepted. It was known that Scrabble Game was effective to improve students' vocabulary mastery.
b. If t-count < t-table, the Null Hypothesis (H_o) was accepted and the Alternative Hypothesis (H_a) was rejected. It was known that Scrabble Game was not effective to improve students' vocabulary mastery.

According to the analysis of the results above, there was a significant different between students' post-test score In the experimental and control group. The t-test results of experimental group and control group by using SPSS showed that the experimental group got higher gained score than the control group. The result of t-test was higher than t-table (6.388 > 2.021). it was known that using scrabble game to improve students' vocabulary

mastery was significant. So, the Alternative Hypothesis (H_a) was accepted and the Null Hypothesis (H_o) was rejected. In other words, using scrabble game in teaching vocabulary can improve students' vocabulary mastery and make students' interest in learning it.

4.4 Discussion

Based on the analysis of the data, the writer found that Scrabble Game is effective to improve students' vocabulary mastery. The data consists of pre-test and post-test data. The result of pre-test and post-test are taken from both group, experimental group and control group. Experimental group was taught by using scrabble game and the control group was taught by using conventional method. Based on the data, experimental group which was taught by using scrabble game was higher to improve the students' vocabulary mastery than control group which was taught by using conventional method. The mean score from pre-test of experimental group was 60.64 and mean score of post-test was 74.72. Meanwhile, the mean score of pre-test in control group was 58.56 and mean score of post-test was 60.96. It showed that the mean score of experimental group and control group were close.

In other word, data analysis used SPSS statistic 20.0 program and t test was applied. The t count of pre-test of experimental group and control group was 1.324 with the degree of freedom (df) 48 in the level

significance (α) of 0.05, t-table was 2.021 and the t-count of post-test in experimental and control group was 6.388 with the degree of freedom 48 in the level significance (α) of 0.05, t table was 2.021. it meant that t-count was higher than t-table in post-test.

From the result above, it can be concluded that Scrabble Game was effective to improve students' vocabulary mastery. It was related with the findings done by (Asmaharesti, 2015) that there was different significant effect of using Scrabble Game on the seventh grade students" vocabulary mastery at SMPN 6 Bondowoso It means that Ha was accepted and Ho was rejected. It could be drawn a conclusion that Scrabble Game can significantly impact the students' vocabulary mastery of the eighth grade students' of MTs Mamba'ul Ulum Mambak Pakis Aji Jepara in the academic year of 2019/2020.