CHAPTER 4

RESULT AND DISCUSSION

4.1 Result of The Research

In this chapter, the researcher will discuss about the result of the research. The result include the score of pre-test and post-test. In this research, the researcher uses experimental research to get the data. It means that the research is implemented to find out the comparison among two groups, experiment and control group, which both get different deal. The experiment group gets the treatment but the control group does not. Comparison here realtes to the value or achievement among both class. In this case, the treatment is scrabble game.

This research conducted is about a month, 20th April 2015 untill 15th May 2015 at SMP Muhammadiyah 6 Surabaya. Before starting the learning, the researcher choosed 2 of 4 classes as a sample, experiment and control class, based on the teacher suggestion. This way calls snowball sampling. After choosing the class, the pre-test was held to 42 students. In the pre-test, students were asked to make a short paragraph about description place. Furthermore giving a treatment for experiment class by playing the scrabble game. The last step was giving postest. Post test was held after the treatment had done. The post test was the same as the pre-test.

4.1.1 Pre-Test of Both Class

In this occasion, the researcher will discuss about the pre-test score. The pre-test had given before the gave treatment. Yet the treatment just only gave for the experiment class. The pre-test was taken at 28th May 2015 for the experiment

class and 29th May 2015 for the control class. The score of the pe-test can be seen in the tabel below:

Table 4.1

Pre-test score of experiment and control class

No	Passing Grade	Experiment Class	Control Class
1	75	60	60
2	75	**100***	**80***
3	75	**80***	60
4	75	40	40
5	75	40	**100***
6	75	60	60
7	75	40	**80***
8	75	40	60
9	75	60	60
10	75	**80***	**100***
11	75	40	40
12	75	60	**80***
13	75	40	40
14	75	60	60
15	75	**80***	40
16	75	20	40
17	75	40	60
18	75	40	**80***
19	75	40	40
20	75	20	60
21	75	60	40
Average Score		**52,3**	**60,9**

Explanation : * Students who exceed the passing grade.

From the data above, 4 students of experimental class exceed the passing grade. The maximum score is 100 and the minimum score is 20. This class has average score 52,3. Meanwhile the control, 6 students exceed the passing grade. The maximum score of this class is 100 and the minimum score is 40. Control class has average score 60,9.

4.1.2 Post of Both Class

After learning process, the students of both class were given a test. It calls post test. The aim of the post test is to measure the achivement students' spelling mastery after got the learning process. The score are presented in the tabel below:

Table 4.2

The post test score of experiment and control class

No	Passing Grade	Experiment Class	Control Class
1	75	80	80
2	75	100	80
3	75	80	100
4	75	80	80
5	75	100	100
6	75	80	80
7	75	80	80
8	75	80	80
9	75	80	80
10	75	100	100
11	75	**60***	80
12	75	80	80
13	75	100	100
14	75	80	80
15	75	80	80
16	75	**60***	**60***
17	75	80	80
18	75	80	80
19	75	80	80
20	75	**60***	**60***
21	75	**60***	**60***
Average Score		**80**	**80,9**

Explanation : * Students who do not exceed the passing grade

The data above shows that experiment class has 17 students exceed the passing grade. The average score of experiment class is 80 with 60 the minimum score and 100 for maximum score. Then for control class, it has 80,9 for average

score. While the minimum score is 60 and the maximum score is 100. 18 students are exceed the passing grade for this class.

4.1.3 Percentage Students' Score Improvement of Passing Grade

Next the researcher is going to discuss about the percentage pre-test and post test value. The data are as belows:

Table 4.3

The number of students exceeding the passing score

In the pre-test and post test (Experiment Class)

Passing Grade	Experiment Class		Percentage of The Test	
	Pre-test	Post test	Pre-test	Post test
75	4	17	4,76%	80,95%

Based on thepercentage in tabel above, the result of the comparison of pre-test and post-test shows that the students' precentage which exceed the passing grade of pre-test is 4,76% and post-test is 80,95%.So the increasingis 76,19%.

Table 4.4

The number of students exceeding the passing score

In the pre-test and post test (Control Class)

Passing Grade	Both Class		Percentage of The Test	
	Pre-test	Post test	Pre-test	Post test
75	6	18	28,57%	85,71%

Based on the data above, the result of comparison the students who exceed the passing grade in the pre-test is 6 students or equal to 28,57% and in the post test is 18 students or equal to 85,71%. The increasing number is 57,14%.

Table 4.5

The comparison percentage of post test

For both class (Experiment and Control Class)

Passing Grade	Control Class		Percentage of The Test	
	Experiment	Control	Experiment	Control
75	17	18	80,95%	85,71%

Based on the data above, the percentage of students exceeding the passing grade 80,95% for experiment class and 85,71% for control class. The difference percentage is 4,76%. From these data, the control class has higher score than experiment. It is influenced by the students' attitude. During the learning process, the control class is more decipline. They pay attention to what the teacher's say. But in other class, experiment class, the students need more time to understand the material.

4.2 Data Analysis

4.2.1 Normality Distribution

4.2.1.1 Normality Distribution based on the pre-test of both classes.

To show the distribution is normal or not, the score of pre-test that had been given by the researcher was counted.Test of normality distribution of both classes in pre-test used statistics with hypothesis formulate as below:

H_0 $: \rho > \alpha$ The data normality distribution.

H_1 $: \rho < \alpha$ The data is not normality distribution.

In processing the data, the researcher uses SPSS 16.0 software of Kolmogorov-Smirnov test. In here, there are 2 terminologies. They are ρ-value and α (alpha)-value. Probability-value symbolized ρ means the significant value

of the data. Then alpha symbolized α means the standard of the significancy. In this test, the researcher uses 0,05 as α-value. The result of test as below:

Table 4.6

One-Sample Kolmogorov-Smirnov Test

		Control	Experiment
N		21	21
Normal Parameters[a]	Mean	60.9524	52.3810
	Std. Deviation	1.94691E1	20.47065
Most Extreme Differences	Absolute	.234	.251
	Positive	.234	.251
	Negative	-.147	-.177
Kolmogorov-Smirnov Z		1.071	1.151
Asymp. Sig..(2-tailed)		**.201**	**.141**

a. Test distribution is Normal.

Based on the result of processing, the data is nomality distribution. It can be seen from the ρ-value of both classes. The experiment class has ρ-value 0,141 and 0,201 for the control class. It means that ρ-value is more than α-value. Based on the hypothesis, H_0 is accepted if the $\rho > 0,05$. So the H_0 is accepted.

4.2.2 Hemogenity Test

To know what the both class have same characteristic, the researcher measure the pre-test score of both class by using Levene test of homogeneity of variances. Here the result.

Table 4.7

Test of Homogeneity of Variances

VAR00001

Levene Statistic	df1	df2	Sig.
1.758	3	16	.196

Based on the result above, ρ value (significant value) is higher than α value. $\rho > \alpha$, 0,196 > 0,05. Back to the hypothesis, H_0 is accepted if $\rho > \alpha$. So it means that the classes are homogenie.

4.2.3 T-Test

To know the effectiveness of the scrabble game for students' spelling mastery in vovabulary learning, the reseacher measures the pre-test and post test score of experiment class. The reseacher uses T-Test to measure it. The hyothesis and result as below:

H_0 $: \rho > \alpha$ The scrabble game is not effective for students' spelling mastery.

H_1 $: \rho < \alpha$ The scrabble game is effective for students' spelling mastery.

Table 4.8

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
VAR00 008	Equal variances assumed	7.923	.008	-5.260	40	.000	-27.61905	5.25107	-38.23185	-17.00625
	Equal variances not assumed			-5.260	33.329	.000	-27.61905	5.25107	-38.29841	-16.93968

Based o the hypothesis and the result above, the using of scrabble game proved effective for students'spelling mastery in vocabulary learning. It can be seen from the Sig.(2-tailed) value. T-Test for Equality of Means showed the same number, Sig.(2-tailed) is 0,000. It means that ρ-value less thanα-value or $\rho < 0,05$. So H_0 is pushed away.

4.2.4 Eta Square

After getting the result of T-Test, the researcher measure the effect size of treatment given by a calculation of Eta Square. This calculation is used to support the result of the T-Test. According to Pallant (2010:243) there are three scales of this calculation, 0.01 is small effect, and 0.06 is moderate effect and 0.14 or above is large effect. The calculation of this research as seen below:

$$etasquared = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}$$

$$= \frac{(-5,260)^2}{(-5,260)^2 + (21 + 21 - 2)} = \frac{27,67}{27,67 + 40} = 0,41$$

From the calculation above, the Eta square value is 0,41. This number is higher than 0,14. It means that the treatment give large effect to the post-test form. This number also support the T-Test result that substitute hyphotesis is confirmed and the null is rejected. So the scrabble game is effective for spelling students's mastery in vocabulary learning.

4.4 Discussion

In this session, the researcher will answerthe research question namely whether scrabble game is effective for students' spelling mastery in vocabulary learning or not. Based on the hypothesis, the null hypothesis is rejected and the substitute hypothesis is accepted if there is different score between experimental and control group after conducting the treatment. On the cotrary, the null hypothesis is accepted and the substitute hypothesis is rejected if there is no different score between experimental and control group after conducting the treatment.

To answer those hypothesis, the researcher does some calculations using SPSS 16.0 software. Firstly the reseacher calculated the students' homogeneity namely homogeneity test. This test is used to measure the ability the students of both class whether the students' ability of both experimental and control groups are equal or not. The test was counted from the pre-test score among both classes. The result shown that both classes are homogene or have same characteristic.

The second is measuring of normality distribution. The normality distribution is needed to know whether the sample represent the population or not. To test the data distribution is normal or not, the researcher uses Kolmogorov-Smirnov test with the hyphotesis, H_0 is accepted if ρ-value > alpha (α) 0.05 and rejected H_1 which means the data normality distribution. In the other hand, H_0 is pushed away if ρ-value $<\alpha$, and accepted H_1 which means this research is not normality distribution. The calculation shows that the result of pre-test score from both classes is significant. The ρ-value of experimental is 0,141 and controlled class is 0,201. So, H_0 is accepted and the data is normality distribution.

The third is measuring the effectiveness of scrabble gamefor students' spelling mastery in learning vocabulary using T-test. The hypotheses are:

H_0 :Scrabble game is not effective for students' spelling mastery in learning vocabulary.

H_1 :Scrabble game is effective for students' spelling mastery in learning vocabulary.

Based on the calculation, the data shows the same significance. The result is 0.000. The ρ-value less than 0,05. It means that H_0 is pushed away. Finally the

researcher concludes that Scrabble game is effective for students' spelling mastery in learning vocabulary.

In other side, during implementation this treatment, the researcher finds some adventages of scrabble game. Such as the students so not realize that they are in learning process. Sometimes they feel bored when they are in learning process. By appliying this treatment, the learning process more attractive. As known, scrabble game has many aspect, for example visual and dynamic. By all these aspect,the students more anthusiasm and their learning interest are built.