

CHAPTER IV FINDING AND DISCUSSION

4.1 Research Finding

The data of this research was analyzed using SPSS 17.0. The researcher conducted 2 types of test in order to get the actual data. Those types of test are: pre-test and post-test were conducted in both of the experimental and control class to analyze the students' achievement after being given the treatment.

The researcher gave students' pre-test because she wanted to know the students' ability before the treatment was given. From the analysis of the pre-test result, it was found that the mean score of the experimental class and the control class that students' achievement in both of the class was relatively the same between the experimental and control class, it shown in the table 4.1. In conclusion, the students of both experimental and control class had a similar ability in teaching vocabulary before the treatment was given. The treatment of both experimental and control class was conducted on October until November 2019.

Furthermore, Post-test was conducted to measure the students' achievement. By conducting post-test, it was to prove the effectiveness of the treatment given. Through the post-test result, it was assumed that the students' achievement before and after the treatment was able to analyze. The post-test of the experimental and control class was held on November 2019. Based on the post result, the mean score of the experimental class and control

class has the students' achievement of experimental class is higher than the control class.

The quantitative data were taken from the mean of the students score in vocabulary test. This research was conducted at the seventh grade in to two classes they are experimental class and control class, VII.2 as the experimental groups and VII.1 as the controll groups consist of 20 students.

4.2 The Calculation of SPSS 17.0

The students' composition was scored using SPSS 17.0. The following are the chart showing students' mean score on both pre-test and post-test. There are data descriptive, normality test, paired test, homogeneity test and independent test:

4.2.1 Data Descriptive

Descriptive statistical data is useful for explaining and describing research data including the amount of data, maximum score, minimum score, average score and other.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Experimental	20	25	55	38.75	9.301
Post-Test Experiental	20	40	75	53.75	10.622
Pre-Test Control	20	15	45	33.00	8.176
Post-Test Control	20	25	50	39.75	7.159
Valid N (listwise)	20				

Based on the table above shows that in the pre-test experimental N Variable shows the number of students as many as 20

students, the minimum value is 25, maximum value 55, the mean value is 38.75 and the Std. Deviation is 9.301, in the post-test the minimum value is 40, maximum value is 75, the mean is 53.75 and the Std. Deviation is 10.622, in the pre-test control N Variable shows the number of students as many as 20 students, the minimum value is 15, the maximum value is 45, the mean is 33.00 and the Std. Deviation is 8.176, in the post-test, the minimum value is 25, maximum value is 50, the mean is 39.75 and the Std. Deviation 7.159.

4.2.2 Normality Test

Normality test is done to find out whether the research data is normally distributed or not. Normal data is an absolute requirement before we do parametric statistical analysis. In parametric statistics there are two types of normality tests that are often used, namely Kolmogorov-Smirnov and Shapiro-Wilk test.

According to Singgih Santoso (2014: 191), the data is said to be normally distributed (symmetrical) in the Kolmogorov-Smirnov test Shapiro-Wilk test, if the Sig. greater than 0.05.

Table 4.2 Tests of Normality

Kelas		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Students Achievement	Pre-Test Experimental	.147	20	.200*	.924	20	.120
	Post-Test Experimental	.188	20	.062	.928	20	.141
	Pre-Test Kontrol	.157	20	.200*	.945	20	.302
	Post-Test Kontrol	.168	20	.140	.938	20	.216

Based on the above output there was a significance value (Sig.) for all data both in the Kolmogorov-Smirnov test and the Shapiro-Wilk test of 0.05, it can be concluded that the research data was Normal 2 distributed. Then we can test using parametric statistics (test paired samples of independent sample t-test) to analyze the research data.

4.2.3 Paired Test

Test paired sample t-test is used to determine whether there are differences in the average of two samples in pairs. Guidelines for decision making in the Paired Sample Test. According to Singgih Santoso (2014:265), guidelines for decision making in the Paired sample test based on significance values (sig). SPSS output results are as follows:

- a. If the value is sig. (2-tailed) < 0.05, then Ho is rejected and Ha is accepted.

- b. Otherwise, if the value is sig. (2-tailed) > 0.05, then Ho is accepted and Ha is rejected.

Table 4.3 Paired Sample 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 Experimental - Post-Test Experimental	-15.000	6.882	1.539	-18.221	-11.779	-9.747	19	.000
Pair 2	Pre-Test Control - Post-Test Control	-6.750	3.726	.833	-8.494	-5.006	-8.102	19	.000

Based on the "paired sample test" output table above, the Sig. (2-tailed) is 0,000 < 0.005, then Ho is rejected and Ha is accepted. So that it can be concluded that there are differences in the average between the learning outcomes of the pre-test with the post-test which means the use of quartet cards game as a media has effective in teaching vocabulary at the seventh grade students of SMPN 2 Empang in academic year 2019/2020.

From the above table also shows that the value of "mean paired differences" in pair 1 is equal to -15,000 and in pair 2 is equal to -6,750. This value shows the difference between the average pre-test and post-test learning outcomes in the experimental class (pair 1) or $38.75 - 53.75 = -15,000$ with the difference between -18,221 to -11,779 (95% confidence interval of the difference lower and upper). While the difference between the average pre-test and post-test learning

outcomes in the control class (pair 2) or $33.00 - 39.79 = 06,750$ with the difference between $-8,494$ to $-5,006$ (95% confidence interval of the difference lower and upper).

4.2.4 Homogeneity Test

Homogeneity test is used to determine whether the variant of the post-test data of the experimental class and the post-test data of the control class are homogeneous or not.

According to Joko Widiyanto (2010:51), the basis or guidelines for decision making in the homogeneity test are as follows:

1. If the significance value (sig) < 0.05 , it is said that the variance of two or more population data groups is not the same (not homogeneous).
2. If the significance value (sig) > 0.05 , it is said that the variance of two or more data population groups is the same (homogeneous).

Table 4.4 Test of Homogeneity of Variance

		Levene	df1	df2	Sig.
		Statistic			
Students Achievement	Based on Mean	5.390	1	38	.126
	Based on Median	2.832	1	38	.101
	Based on Median and with adjusted df	2.832	1	30.876	.102
	Based on trimmed mean	5.207	1	38	.128

Based on the above output it is known the value of Significance (Sig.) Based on Mean is equal to $0.126 > 0.05$, so it can be conclude that the variance of the post-test experimental class and

Post-test data of the control class is the same or homogenous. Thus, one of the (not absolute) conditions of the independent sample t-test has been fulfilled.

4.2.5 Independent Test

The independent sample t-test is used to determine whether there are differences in the average of two unpaired samples. The basic requirements in the independent sample t-test are data that is normally distributed and homogeneous. The independent sample t-test in this research is used to answer the problem formulation.

Table 4.5 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
Students Achievement	Equal variances assumed	5.390	.126	4.888	38	.000	14.000	2.864	8.202	19.798
	Equal variances not assumed			4.888	33.308	.000	14.000	2.864	8.175	19.825

From Independent Test above if sig. (2-tailed) of $0,000 < 0,05$, it means that the use of quartet cards game has significant different in students' score between students who are taught using quartet cards game than without using quartet cards game at the seventh grade

students of SMPN 2 Empang in academic year 2019/2020 Alternative Hypothesis (Ha) is accepted, and Null Hypothesis (Ho) is rejected.

Table 4.6 Statistics

Kelas		N	Mean	Std. Deviation	Std. Error Mean
Students Achievement	Post-Test Experimental Class	20	53.75	10.622	2.375
	Post-Test Control Class	20	39.75	7.159	1.601

For student learning outcomes for experimental class post-test using quartet cards game is equal to 53.75 while for post-test control that did not use was 39.75. So, that the greater the value of the experimental post-test using quartet cards game rather than post-test controls that did not use quartet cards game can also be concluded that using quartet cards game is effective than those who did not use quartet cards game.

The improvement of their vocabulary could be seen in their pre-test and post-test in Data Descriptive. Based on the table above shows that in the pre-test experimental N Variable shows the number of students as many as 20 students, the minimum value is 25, maximum value 55, the mean value is 38.75 and the Std. Deviation is 9.301, in the post-test the minimum value is 40, maximum value is 75, the mean is 53.75 and the Std. Deviation is 10.622, in the pre-test

control N Variable shows the number of students as many as 20 students, the minimum value is 15, the maximum value is 45, the mean is 33 and the Std, Deviation is 8.176, in the post-test, the minimum value is 25, maximum value is 50, the mean is 39.75 and the Std. Deviation 7.159. Based on the score it can be seen that the score of the experimental class was higher than the control class. Based on the "paired sample test" output table above, the Sig. (2-tailed) is $0,000 < 0.005$, then H_0 is rejected and H_a is accepted. So that it can be concluded that there are differences in the average between the learning outcomes of the pre-test with the post-test. From Independent Test above if sig. (2-tailed) of $0,000 < 0,05$, it means that the use of quartet cards game has significant different in students' score between students who are taught using quartet cards game than without using quartet cards game. Which means the use of quartet cards game as a media is effective in teaching vocabulary at the seventh grade students of SMPN 2 Empang in academic year 2019/2020 Alternative Hypothesis (H_a) is accepted, and Null Hypothesis (H_0) is rejected.

4.3 Discussion

This study is aimed to investigate and analyze students ability in vocabulary skill at seventh grade students of SMPN 2 Empang in academic year 2019/2020, who taught using quartet cards game than without using quartet cards game. Then, to investigate whether there is any significant difference in the vocabulary test achievement between them.

The achievement of their vocabulary could be seen in their pre-test and post-test in Data Descriptive. The result of the average pre-test of the experimental and control class were 38.75 and 33.00. From this result, it was found that the ability of both classes was relatively the same. Furthermore, based on their pre-test scores, we can see that the students have some difficulties of materials about noun in the kitchen in teaching vocabulary. After giving treatment, the students' ability in vocabulary has progress which was proved by the result of post-test score of experimental class is 53.75 there was an upgrading score from the pre-test. Meanwhile, the control class, those who taught using other media also gained their score into 39.75. Based on the score it can be seen that the score of the experimental class was higher than the control class.

From the table above, we can see that there is effective in experimental class vocabulary skill. The treatment that using quartet cards game is effective on students' vocabulary skill when the researcher taught by using quartet cards game the students' vocabulary becomes easier to understand and enjoyed the process. The students are more motivated and interest than before taught by using quartet cards game because in teaching vocabulary more make the students fun and enjoy the lesson. According to the researcher previously Finayatul Maula (2014) said that the using quartet cards gives good effect on the improvement of the students' vocabulary skill. Then, another study by Sri Rahayu (2013) said that the students became more active and enjoyable in the teaching and learning process. All of them were

able to join in this game and they were more enthusiastic in joining the lesson.

Meanwhile in the control class was taught without using quartet cards game, but the teacher and the material were the same as the experimental class. They were less of motivation in their vocabulary skill. From the explanation above, it can be conclude the use of quartet cards game is effective and different significant between students who is taught by using quartet cards game than without using quartet cards game in teaching vocabulary at the seventh grade students of SMPN 2 Empang. Then, this research was evidently the score of the pre-test and post-test of the experimental class was higher than the control class (see data descriptive) furthermore, the mean score of the experimental class was higher than the control class.

