CHAPTER IV

RESEARCH FINDING & DISUSSION

4.1 Research Finding

Before conducting the research, the researcher made a research instrument in the form of a written test, where this study used 2 classes, namely the experimental class and the control class. After the instrument is carried out, the learning outcomes instrument is validated using the SPSS application before being used as a research tool. After that, the result was that the test instrument was valid and then applied to second semester students at UIN North Sumatra.

4.1.1 Validity of Question Items

From the data above, the analysis of the validity of the items in order to use the SPSS application version 23. In order to interpret the validity value of each question, the value is adjusted according to the r-value table product moment at N = 54 (df=N-2) and a significant level (= 0.05 using the criterion rcount> rtable with rtable = 0.268 The results of the item analysis showed that 15 questions were valid.

Table 4.1 Validity Test

Items	R-Count	R-Table	Information
Q1	0.314	0.268	Valid
Q2	0.514	0.268	Valid
Q3	0.770	0.268	Valid
Q4	0.662	0.268	Valid
Q5	0.696	0.268	Valid
Q6	0.736	0.268	Valid
Q7	0.357	0.268	Valid
Q8	0.494	0.268	Valid
Q9	0.406	0.268	Valid
Q10	0.375	0.268	Valid

Q11	0.587	0.268	Valid
Q12	0.346	0.268	Valid
Q13	0.757	0.268	Valid
Q14	0.508	0.268	Valid
Q15	0.534	0.268	Valid

4.1.2 Reliability Test

The reliability of the instrument refers to In his book (V. Wiratna Sujarweni. 2014. SPSS for Research. Yogyakarta: Pustaka Baru Press. Page-193) explains that the reliability test can be carried out jointly on all items or question items in the research questionnaire. The basis for decision making in the reliability test is as follows:

1. If the value of Cronbach's Alpha > 0.60 then the questionnaire questionnaire is declared reliable or consistent.
2. Meanwhile, if the Cronbach's Alpha value is <0.60 then the questionnaire or questionnaire is declared unreliable or inconsistent.

Based on the students' data conducted to 54 respondents with oral test related to describing picture, it was found that the instrument used is reliable with the reliability 0.839 > 0.7 as table below :

Table 4.2 Reliability test

Reliability Statistics

Cronbach's Alpha	N of Items
.839	15

4.2 Analysis and Result

4.2.1 Normality Test

The normality test is a part of the data analysis requirements test or the classic assumption test, meaning that before we carry out statistical analysis to test the hypothesis, in this case is regression analysis, the research data must be tested

for normal distribution. Of course, we also know that good data is normally distributed data.

1. If the significance value (Sig.) is greater than 0.05, the research data is normally distributed.

2. Conversely, if the significance value (Sig.) is less than 0.05, the research data is not normally distributed.

Based on the data above, the significance value for the data pre-test and posttest obtained from the Experiment class and Control class is greater than (0.05), indicating that the research data obtained is normally distributed.

Table 4.3 Normality Test
NORMALITY TEST

Tests of Normality

Class		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Result of the effect wow application on students' vocabulary mastery	Pretest Experiment	.177	27	.030	.926	27	.054
	Posttest Experiment	.146	27	.147	.937	27	.101
	Pretest Control	.213	27	.003	.930	27	.070
	Posttest Control	.219	27	.002	.929	27	.064

a. Lilliefors Significance Correction

4.2.2 Homogeneity Test

After doing the normality test, the researcher did the homogeneity test that would be calculated by using SPSS to test the similarity of both experimental and control class. The data shows that the significance of post-test in experimental and controlled classes is 0.559. That result indicates that it is higher than 0.05

(0.559 > 0.05) which means that both experimental and controlled classes have the same variances and they are homogenous.

Table 4.4 Homogeneity Test

HOMOGENEITY TEST

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Result of the effect wow application on students' vocabulary mastery	Based on Mean	.692	3	104	.559
	Based on Median	.252	3	104	.859
	Based on Median and with adjusted df	.252	3	99.508	.859
	Based on trimmed mean	.692	3	104	.559

4.3 Hypothesis T-Test

To test   Hypothesis testing is a way of making decisions based on data analysis, either from controlled trials, or from observation (uncontrolled). In statistics, an outcome can be said to be statistically significant if it is almost impossible for the event to be caused by chance factors, according to predetermined probability limits. Hypothesis testing is sometimes called "data analysis confirmation". Decisions from hypothesis testing are almost always made on the basis of testing the null hypothesis. This is testing as answering questions that assume the null hypothesis is true.

To test the hypothesis test used the t test which shows the partial effect of each independent variable on dependent variable. Statistical t test can be seen from the table bellow:

Table 4.5 Hypothesis T-Test

HYPOTHESIS TEST

Group Statistics

Class		N	Mean	Std. Deviation	Std. Error Mean
Result of the effect wow application on students' vocabulary mastery	Posttest Experiment	27	89.07	6.939	1.335
	Posttest Control	27	67.41	8.011	1.542

Based on the, it was found that there was a significant difference between experimental class and controlled class. It can be seen from the group statistics which presents the mean (M) of gained score of experimental class is 89.07 while the mean (M) of gained score in controlled class is 67.41. Thus, statistically descriptive it can be concluded that there is a difference in the average student learning outcomes between experimental class and control class. Furthermore, to prove whether the difference is significant or not, we must interpret the following independent test output below:

Table 4.3 Independent sample test

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
Result of the effect wow application on students' vocabulary mastery	Equal variances assumed	1.257	.267	10.623	52	.000	21.667	2.040	17.574	25.759
	Equal variances not assumed			10.623	50.963	.000	21.667	2.040	17.572	25.761

Based on the analysis data in Arabic Education Department Second Semester UIN North Sumatera there is Based on the output table "Independent Samples Test" in the "Equal variances assumed" section, it is known that the value of Sig. (2-tailed) of 0.000<0.05, then as a basis for decision making in the independent sample t-test it can be concluded that H0 is rejected and Ha is accepted. Thus it can be concluded that there is a significant difference between the average student learning outcomes in Experiment Class and Control Class. So, the conclusion as follows:

H_1 : There is significant The Effect of Using WOW Application on Students' Vocabulary Mastery At Arabic second semester UIN North Sumatera

H_0 : There is no significant The Effect of Using WOW application on Students' Vocabulary Mastery A Arabic second semester UIN North Sumatera

Then, the criteria of the hypothesis test as follows:

1. H_1 accepted if the Sig. (2-tailed) < 0.05
2. H_0 accepted if the Sig. (2-tailed) > 0.05.

Based on the t-test counting of post-test in experimental and controlled classes, it was found that the Sig. (2-tailed) is 0.000 < 0.05. Therefore, the Ha is accepted which means the WoW Application is effective on the students' ability in vocabulary mastery.

4.4 Discussion

Based on Based on learning media has become an integral part in the world of education. Media is defined as an introduction that connects the interest in messages and ideas in each learning process. researchers try to utilize the media in the process of learning Arabic by using the WOW interactive game. This research was conducted to find out the results of using the WOW interactive game to improve English vocabulary mastery of second semester students of Arabic Language Education at Uin Sumatera Utara. Problem happened.

Learning game application media as one to add insight to one's vocabulary. Currently being widely used by users to add insight into vocabulary. learning media using WOW interactive games. WOW is one of the learning media in

which the learning process uses each smartphone by downloading it on the Playsstore and App Store in which there are empty box columns, then students will fill them in with the available random letters so that they become a vocabulary. By starting from an easy to difficult level, according to the researcher, this application is very useful for adding insight into the vocabulary of semester 2 students of Arabic Language Education at Uin North Sumatra

In the research process using the WOW interactive game, it can be seen that students are quite enthusiastic, active, and enthusiastic to answer the problems available in the game. Learning is said to have succeeded in making the class effective and students excited by the existence of existing learning media.

data analysis at the Department of Arabic Language Education Semester Two, UIN North Sumatra, there was a significant result of vocabulary mastery using the WOW application. There was a significant result of using the WOW (word of wonders) game application on vocabulary mastery. The results of the data from the test are divided into pretest and post test. Students who were introduced to the WOW (word of wonders) application were higher than students who were not introduced to the WOW (word of wonders) application.

After calculating the normality test by using SPSS, it can be provided that the data of both pretest and post test data in the experimental class and control class are normally distributed. It can be said that the experimental and control group data is much less than the Lilliefors table calculations. The results of the experimental group's pretest data were 0.054 while the control class pretest data were 0.070.

In analyzing the data, the researcher a analyzed the pre-test and post-test hypotheses from the experimental group and the control group to find out whether the use of the direct method had a significant effect on students' speaking ability or not. The researcher analyzed by conducting a t-test using SPSS analysis data in Arabic Education Department Second Semester UIN North Sumatra there is Based on the output table "Independent Samples Test" in the "Equal variances assumed" section, it is known that the value of Sig. (2-tailed) of $0.000 < 0.05$, then as a basis for decision making in the independent sample t-test it can be concluded

that H0 is rejected and Ha is accepted. Thus it can be concluded that there is a significant difference between the average student learning outcomes in Experiment Class and Control Class. the t-test counting of post-tests in experimental and controlled classes, it was found that the Sig. (2-tailed) is 0.000 < 0.05. Therefore, the Ha is accepted which means the WoW Application is effective on the students' ability in Vocabulary Mastery At Arabic second semester UIN North Sumatra.

Based on the elaboration above, it can be conclusion that the use of the WOW interactive game to increase vocabulary mastery has proven to be quite effective, students have also achieved indicators of vocabulary mastery, namely being able to translate vocabulary well, and re-understand vocabulary that has been taught, but to write vocabulary students still feel difficulty. On the other hand, student learning outcomes increased after the implementation of the WOW interactive game for second semester students of Arabic language education at Uin Sumatra Utara.

From the exposure of a series of studies that have been carried out using the WOW interactive game in learning Arabic vocabulary, it runs smoothly and well. It is hoped that this interactive game media can be used as an alternative option to support learning English vocabulary mastery.