BAB IV

FINDINGS AND DISCUSSIONS

This chapter covers about research findings and discussion that include data of research findings, hypothesis testing, the result of normality and homogeneity testing, and discussion.

A. Description of Data

In this chapter, the researcher presented the data of mean score in vocabulary mastery score taught by memrise Strategy. The participants of this research consisted of two classes, they were VII A as experimental group and VII B as control group. The purpose of this research was to know the effectiveness of memrise to improve VII grade student's vocabulary mastery in SMPN 2 Wonotirto Blitar. The data were collected from students‟ score in post-test from the two classes.

1. The Data of Experimental Class

The table below showed the student's score of post–test of Experimental class that consisted of 20 students. The test were multiple choices consisted of 10 items and fillin the blanks consisted 10 items. The students‟ score post-test can be seen on table 4.1 as follows:

Table 4.1 The experimental class score

Students' No	Post-test Score
1	8
2	8
3	10
4	10
5	11

6	13
7	16
8	16
9	16
10	16
11	20
12	20
13	20
14	18
15	10
16	20
17	20
18	11
19	12
20	17

As stated above, the table showed the student's individual scores. In this research the minimum score is 8, while the maximus score is 20. The average or mean score is 14.6 with standard deviation 4.33.

2. The Data of Control Class

The table below showed the student's score of post–test of control class that consisted of 20 students. The test were multiple choices consisted of 10 items and fillin the blanks consisted 10 items. The students‟ score post-test can be seen on table 4.2 as follows

Table 4.2 The Control Class Score

Students' No	Post-test Score
1	3
2	13
3	18
4	14
5	18
6	18
7	4
8	12
9	7
10	16

11	14
12	10
13	14
14	8
15	2
16	16
17	5
18	18
19	2
20	2

As stated above, the table showed the student's individual scores. In this research the minimum score is 2, while the maximus score is 18. The average or mean score is 10.7 with standard deviation 6.045.

B. Result of Normality and Homogeneity Testing

1. Normality Test

Normality testing is conducted to determine whether the gained data was normal distribution or not. The researcher used SPSS 26.0 One Sample Kolmogorov-Smirnove test by the value of significance (α) = 0.05. The result can be seen in table below:

Table 4.6 The result of 1-KS Test (Normality test)

One-Sample Kolmogorov-Smirnov Test

		Experiment	Control
N		20	20
Normal Parameters[a,b]	Mean	14.60	10.70
	Std. Deviation	4.333	6.045
Most Extreme Differences	Absolute	.177	.157
	Positive	.147	.127
	Negative	-.177	-.157
Test Statistic		.177	.157
Asymp. Sig. (2-tailed)		.102[c]	.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

From the result on table 4.6 it found the significance on asymp. Significance that stated post test of experiment is 0,102 and the post test of control is 0.2. This result can be answer the hypothesis of the distribution of data those are:

Ho : If the sig < 0.05, the data distribution is not normal

Ha : If the sig > or = 0.05, the data distribution is normal.

From the data in table 4.6 both of significance of post test from each group are higher than 0.05, thus Ho rejected or it can stated that the data distribution in post test score of experimental and control class are normal

2. Homogeneity Test

Homogeneity testing is conducted to determine whether the gained data was have same varians or not. The researcher used SPSS 26.0 Levene‟s test by the value of significance (α) = 0.05. The result can be seen in table below:

Table 4.7 The result of Levene's 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
Nilai	Equal variances assumed	4.490	.041	-2.345	38	.024	-3.900	1.663	-7.267	-.533
	Equal variances not assumed			-2.345	34.450	.025	-3.900	1.663	-7.278	-.522

From the result on table 4.7 it can found the significance on "Sig." that stated the data between post test of experiment and control group are have a 0.041 that is lower than 0.05. From the data in table 4.7, the Ho is accepted that can be stated the data is heterogen or have unequal variance. Because of the data is not homogen, the hypothesis testing were used a T'-test (independent sample T-test unequal variances) that using SPSS 26.0

C. Result of Hypothesis Testing

Because of the data was not homogen then the hypothesis testing conducted by using Mann-Whitney U Test. The MWU test was conducted to measure the differences between data from two sample that not homogeny.. The result can be showed on table 4.8 below:

Table 4.8 The result of Mann-Whitney U Test

Test Statistics[a]

	Nilai
Mann-Whitney U	127.500
Wilcoxon W	337.500
Z	-1.970
Asymp. Sig. (2-tailed)	.049
Exact Sig. [2*(1-tailed Sig.)]	.049[b]

a. Grouping Variable: Kode

b. Not corrected for ties.

From the result on table 4.8 it can found the significance on "Sig. (2-tailed)" that stated the data between post test of experimental and control class was 0.49 that is lower than 0.05. From the data in table 4.8, the Ha is accepted that can be stated the data from two group have the significance different.

Table 4.9 The result of Mann-Whitney U Test

Ranks

	Kode	N	Mean Rank	Sum of Ranks
Nilai	1	20	16.88	337.50
	2	20	24.13	482.50
	Total	40		

Thus, from the table 4.9 the post test result of experimental group have a 7.25 of difference mean with control. It can be concluded that the post-test of experimental group is higher and have difference with the result of the post test control group. It can be concluded that Ha was accepted that stated that

there is any significant difference of using Memrise to improve students vocabulary mastery in 7th Grade of SMPN 2 Wonotirto.

D. Discussion

From the research in the finding above, the data were analyzed with SPSS 26.0, the students of experimental class whom were taught by using Memrise resulted significant different scores of vocabulary mastery than the control class. It can be seen at the result of Mann Whitney U that stated that the post test experimental have a significance difference with control group and the difference is 7.25 of mean score between them. The mean of post test score gained by experimental class was 24.13. Meanwhile, the students of control class only gained 16.88 as the mean of their post-test score.

As the requirement of hypothesis, if the significant value is smaller than significant level (0.050), it means that the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected. It can be said that there is a significant difference score on the student's vocabulary mastery with and without being taught by using Memrise. In fact based on the table of Independent sample t-test, the result shows that the number of the significant value is 0.049 at significant level is 0.050. It means that there is a significant difference between posttest of experimental group and control group.

Memrise uses a drill technique in the form of a question repetition. The advantages of using the Memrise application have a positive effect to improve students vocabulary mastery. This result have a similarity with previous study that conducted by Eka Wahyuning Tyas and Dede Nurdyawati (2019). *The*

Effectiveness of Memrise Online Application on Vocabulary Mastery of the Tenth Grade BDP Students of SMK Al-Furqon Bantarkawung. This study stated that Memrise is effective to improve Tenth Grade BDP Students of SMK vocabulary mastery.

The second is by Nurul Izah (2019) *Upgrading Students' Vocabulary Through "Memrise" Ap.* This study stated that Memrise could improve the student vocabulary mastery. Similar with that, Ai Siti Nuralisah and Evie Kareviati (2020) with their research entitled *The Effectiveness Of Using Memrise Application In Teaching Vocabulary* also stated that Memrise was effective to teach vocabulary to students.