



THE EFFECT OF MEMRISE APPLICATION ON STUDENTS VOCABULARY MASTERY

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ABSTRACT

Vocabulary mastery is one of the factors to master English as foreign language. The mastery of English vocabulary itself is closely related to the ability of the learner in acquiring the vocabulary. This research investigates “The Effect of Memrise Application on Students Vocabulary Mastery.” This research method is quantitative method in the form of quasi experimental design with non-equivalent group model at the tenth grade of SMKN 4 Bone. Where this research involving two groups; an experimental class (X MPLB) utilizing the Memrise application and a control class (X TKJ) not using the Memrise application. This research aims to determine whether the use of the Memrise application enhances vocabulary mastery among students. Pre-test and post-test were administrated to measure vocabulary proficiency. The results indicate the significance value (Sig 2 tailed) is $0.117 > 0.05$, so as the basis for decision-making in the independent sample t-test, it can be concluded that H₀ is accepted and H₁ is rejected.

Keywords: *Memrise Application, Students' Vocabulary Mastery, Learning Media*

1.1. Introduction

Technology advancements have been utilized to lessen classroom limits during learning and to tailor learning materials to the knowledge levels of individual students include computer-assisted learning, intelligent tutoring systems, and open learning environments. In particular, learners may learn what, when, where, and how they want when they combine portable gadgets with clever teaching strategies (Sandberg et al., 2011). The efficient application of technology use is thought to improve student motivation for studying and facilitate teachers' tasks. In actuality, the teacher plays a special role in fusing technology into English lessons because they are the primary participants in the teaching and learning process in the classroom (Indriani & Wirza, 2020). Achieved a learning naturally must supported by the election method and learning media. A teacher must choose the right media for the learning process to teach more effective and fun. Based on our experience during PLP 2 or (Internship program) at SMK Negeri 4 Bone, there are still teachers not yet use or appropriate creative learning media such as implementing an application. In internship program is the second stage in the introduction to the schooling field of the bachelor of education



program which is carried out in the six semester. So, during the program we encountered many problems in learning English such as the lack of vocabulary possessed by students. If so that the researcher can understand the difficulties and problems experienced by students and teacher in English. As result, the researcher decided to conduct research by using the Memrise application in learning and teaching English vocabulary. By utilizing educational games and creative media to teach English, teachers may make learning fun and engaging for their students, preventing boredom in the classroom. (Agung Cahyono et al., 2023) assert that using games to teach English can also improve student engagement and yield positive outcomes for teaching-learning. Based on the description above, teachers need to use media to assist students in solving their vocabulary problems and improving their English vocabulary. In learning English language at the school stage is first taught to students that is with introducing vocabulary so they can practice skills language with good. As said by (Tarigan 2015: 2 in (Yani Octafia, 2020) quality skills in language somebody depends on the quantity and quality of his vocabulary. The richer vocabulary is the possibility of great skilled language and media plays a role important in the success of the learning process. Selecting the right media can motivate students to increase their ability vocabulary and many students utilize learning applications especially for English in the mobile phone. They can access the content of learning anywhere and anytime.

One of the good application in teach English is the Memrise Learn Languages application. Memrise application is educational software for android users to learn English. The Memrise application is possible to use inside or outside the classroom. The use of the Memrise application tends to build students' vocabulary. So, it is possible to apply this application in the teaching and learning process because it is very simple and easy to operate. Acquiring new vocabulary is a crucial aspect of language acquisition. Reading, speaking, writing, and listening all depend on vocabulary acquisition. People are unable to adequately express their emotions and communicate in (Zuniati et al., 2023).

Some previous research related to the research that will be carried out by the researcher. Firstly, according to (Zuniati et al., 2023) state that Students' vocabulary knowledge can be enhanced by teaching vocabulary using the *Memrise application*. Second, according to (Zulhantiar, 2022) state that there was the effect of using memrise application as digital media



skill for students' vocabulary enrichment at eight grade student. This research is based on the use of the *Memrise application* in eight grade students' vocabulary learning.

Based on the description above the researcher is interested to conduct research under the title “The effect of *Memrise Language Learning Application* on student’s vocabulary mastery at the tenth grade of SMKN 4 Bone”. The hypothesis of this research is whether there is a significant effect of *Memrise application* on students' vocabulary mastery.

1.2. Research questions

Based on the background above, the research problem formulate as follow: “Does the use of *Memrise application* has significant effect on students' vocabulary mastery at the tenth grade of SMKN 4 Bone?”

2. METHOD

2.1. Research Design

In this research uses a design study a *quasi-experimental design* with a *non-equivalent control group design*. According to Sugiyono (2014:77) in (Sugiono, 2015) time-series design and nonequivalent control group design are the two different quasi-experiment designs. A group experiment or group control is the sole thing that is randomly selected in a nonequivalent control group design, which is the same design as a pretest-posttest control group design. Regarding the design research, the picture that follows shows it.

Table 2. 1 Design Research

Class Experiment	O₁	X	O₂
Class Control	O₃		O₄

Source : adaptation from book Sugiyono (2014:76)

Note : O1: Class pretest experiment

X1: Treatment use *Memrise application*

O2 : Results study student class experiment

O3 : Class pretest control

O4 : Results study student control class



2.2. Samples/Participants

The sample used in this research is *total sampling* that is sample determined in a way direct through consideration from the teacher's lessons learned represent population .

Table 2. 2 Research Sample

No.	Class	Gender		Total
		Male	Female	
1.	Class Experiment	7	1	8
2.	Class Control	8	1	9
		15	2	17

Source : Class X SMKN 4 BONE 2023/2024

2.3. Instruments

According to Sugiyono (2014) a tool used to measure phenomena, neither natural nor observed social issues" is what instrument research is. Instrumental analysis this research tries to demonstrate how much the Memrise application affects the study uses tests namely pre-test and post-test.

2.4. Data analysis

a. Normality test

The normality test is used to find out whether the data in the variables are normal used in research. Data that is good and suitable for use in research is data that has a normal distribution. Data normality can be seen using Shapiro-Wilk test. The normality test uses the help of IBM SPSS software statistics 23. Criteria for detecting normality using the Shapiro-Wilk test are as follows:

- * If Sig > 0.05 then the data is normally distributed
- * If Sig < 0.05 then the data is not normally distributed

b. Hypothesis Test (T-test)

The t-test is used to test a hypothesis between an independent variable and a dependent variable. T-test is statistical test that is able to use in testing the differences equality of two conditions/treatment or two different groups which the principle is mean comparison of both groups. Testing hypotheses is intended to determine whether there



is or is not a significant influence between independent and dependent variables. In testing the hypothesis, the researcher set the test significant, the determination hypothesis zero (H₀), and the hypothesis alternative (H₁). Hypothesis zero (H₀) is the stated hypothesis that there is no a significant influence between independent and dependent variables. Whereas hypothesis alternative (H₁) states that there exists a significant influence between variables independent and dependent. The t-test uses the help of IBM SPSS software statistics 23 or hypothesis this done with use the " t test " formula is :

$$t_{hitung} = r \frac{\sqrt{n-2}}{\sqrt{(1-r^2)}}$$

Figure 2 1. Hypothesis Test Formula

Notes :

t = value t test

r = coefficient relation

r² = coefficient determination

n = number observed samples

The result calculation is then compared with the (*t table*) with a level error of 0.05. Criteria used as a base comparison are as follows:

H₀ was rejected if mark "t count" < "t table" or sig value > α

H₀ was accepted if mark "t count" > "t table" or sig value < α

3. FINDINGS AND DISCUSSION

3.1. Finding

a. Data Description

This research was conducted in the even semester 2023/2024 at SMKN 4 Bone, Barebbo district, Bone Regency, South Sulawesi. In this section, the researcher presents a description of the data results, the data used in this research were quantitative. The



quantitative data obtained from test consisted of pre-test and post-test. The research was conducted for 6 meetings and as many as 17 students were present. The pre-test was given before giving the treatment and material to the students and the post-test was given in the last meeting the result of the students' score.

1) Using Memrise Application

Application This data was conducted by using experimental research. There were two groups in this research, namely experimental group and control group. Firstly the experimental group was given pre-test before giving the treatment. Then the experimental group that treated by using memrise application. after giving the treatment, the experimental group was given the post-test. The students' score of experimental group could be seen in the following table;

Table 3.1 The Result of Pre-test and Post-test of Experimental Class

NO.	INITIAL NAME	SCORE	
		Pre Test	Post Test
1.	AA	25	55
2.	MR	30	45
3.	A	45	45
4.	MF	30	60
5.	N	30	55
6.	RA	30	55
7.	N	40	40
8.	AA	55	55

Based on the table above of pre-test and post-test from the experimental class, it showed that the lowest score of pre-test was 25 and the highest score of pre-test was 55, while in the lowest score of post-test was 40 and the highest score of post-test was 60. Secondly, the control group was given of pre-test and learning as usual without providing treatment or applying memrise application to the control group. Then the control class was given post-test. The students' score of control group could be seen in the following table.

Table 3.2 The Result of Pre-test and Post-test of Control Class

NO.	INITIAL NAME	SCORE	
		Pre Test	Post Test
1.	A	45	45
2.	GR	55	55
3.	BA	40	40
4.	AFA	40	40
5.	AA	60	60
6.	MA	30	35

7.	MI	45	45
8.	AD	50	50
9.	A	20	20

Based on the table above of pre-test and post-test from the experimental class, it showed that the lowest score of pre-test was 20 and the highest score of pre-test was 60 while in the lowest score of post-test was 20 and the highest score of post-test was 60.

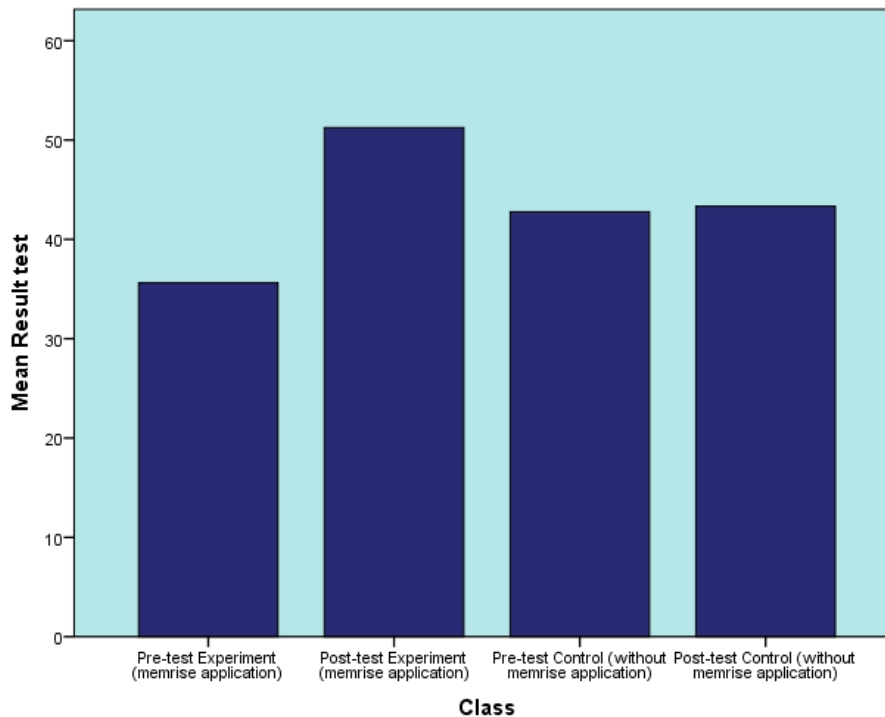


Figure 3.1 Chart of the score of Pre-test and Post-test

The chart aboved showed that there was improvement of the students vocabulary mastery by using memrise application from the pre-test and post-test of experimental class with the mean score 35.63 to post test with the mean score was 51.25. This shows that there is an effect from the Memrise application when applied in the experimental class. Meanwhile, the control class that was not given treatment had scores that were almost the same as the experimental class. This shows that there is no significant effect between classes that use the memrise application and the classes do not use the memrise application.

b. Data Analysis Using SPSS

In processing the data, firstly the researcher tried to collect the data of students vocabulary achievement through pre-test and post-test. The students divided into two



groups; *X MPLB use (Memrise Application) as Experimental Group* and *X TKJ (without Memrise Application) as control group*.

1) Normality Test

The purpose of normality test is to find out whether the data are distributed normally or not. In normality, the researcher uses *SPSS 23 program*. In this research, the data collected is data related to "The Effect of Memrise Application on the Students Vocabulary Mastery at the Tenth Grade of SMKN 4 Bone". The data was analyzed for normality test using the normal Shapiro-Wilk test with the help of the SPSS 23 program. The *Shapiro-Wilk* test is a hypothesis test applied to samples with the null hypothesis that the samples results from a normal distribution. If the (*p*) value is low, we can reject the null hypothesis and say that the sample was not generated from a normal distribution.

Table 3.3 Normality Test Using SPSS 23

		Tests of Normality					
Class		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statisti c	Df	Sig.	Statistic	Df	Sig.
Test result	Pre-test Experiment (memrise app)	.335	8	.009	.842	8	.078
	Post-test Experiment (memrise app)	.330	8	.010	.858	8	.114
	Pre-test Control (without memrise app)	.188	9	.200*	.965	9	.850
	Post-test (without memrise app)	.166	9	.200*	.960	9	.794

We can see in the table above that the significance value (*p*) in the Shapiro-Wilk test is $> 0,05$ so that based on the normality test the Shapiro-Wilk data is normal distributed.

2) Hypothesis Test (T-test)

According to Patel, A. D (20111), "*T-test is statistical test that is able to use in testing the differences equality of two conditions/treatment or two different groups which the principle is mean comparison of both groups*".

The hypothesis test in this study used a t-test with a sample of 17 students divided



into groups, namely experimental class and control class through test in the form of pre-test and post-test. To find out whether or not there is an influence in this research, it can be seen in the table below.

The basis for making t-test decisions are as follow:

- 1) If the significance value (2-tailed) < 0.05, then H₀ is rejected and H₁ is accepted.
- 2) If the significance value (2-tailed) > 0.05, then H₀ is accepted and H₁ is rejected.

In the t-test used is the independent sample t-test with help of SPSS 23 program.

a) Independent Sample T-test

Table 3.4 Independent Samples T-Test

Group Statistics											
	Class	N	Mean	Std. Deviation	Std. Error Mean						
Result test	Post-test Control (without memrise application)	9	43.33	11.726	3.909						
	Post-test Experiment (memrise application)	8	51.25	6.944	2.455						
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	
Result test	Equal variances assumed	.842	.373	-1.664	15	.117	-7.917	4.757	4.757	-18.056	2.222
	Equal variances not assumed			-1.715	13.208	.110	-7.917	4.616	4.616	-17.872	2.039

Based on the output above, the Sig value is known Levene's Test for Equality of variances is 0.373 > 0.05, so it can be interpreted that the data variance between the experimental class and the control class is homogeneous or the same. (V. Wiratna Sujarweni, 2014:99). So the interpretation of the independent sample t-test output table above is guided by the values contained in the "Equal variances assumed" table.

Based on the "Independent Sample Test" output table in the "Equal variances assumed" section, it is known that the Sig. (2-tailed) is 0.117 > 0.05, so based on the independent sample t-test decision making basis it can be concluded that there is no



significant difference between the average test results for the experimental class and control class (H_0 is accepted and H_1 is rejected).

3.2. Discussion

Based on the "independent sample t-test" output table in the "equal variances assumed" section, the sig value is known. (2 tailed) is $0.117 > 0.05$, so as the basis for decision-making in the independent sample t-test, it can be concluded that H_0 is accepted and H_1 is rejected. So it can be conclude that there is no a significance difference in the mean score between the pre-test and post-test learning outcomes, which means there is no significance effect of Memrise application on students vocabulary mastery at the tenth grade of SMKN 4 Bone.

There are scientific reasons why this study accepts H_0 and rejects H_1 . Firstly, there is no continuity in the use of the Memrise application or the limited time for implementing the Memrise application at the school. These two applications only include vocabulary translation, which is different from the pre-test and post-test which contains language order, synonyms, reference words, and underlined words. So it can be concluded that the Memrise application alone is not enough as the main learning media. There must be other supporting media in the learning process. The findings from this study are not comparable to previous research which had a positive impact. Firstly, according to findings from (Nisa Bela Deputril Kosakata et al., 2023) concluded that the Memrise app effectively motivates students to learn English vocabulary in 8th grade students at SMPN 24 Serang. this is based on the result of hypothesis testing from the quistionnaire and observation that show sig. (2- tailed) = 0.000, which means < 0.005 . Secondly, according to findings from (Zuniati et al., 2023) conclude that there is a significant difference in students vocabulary mastery before and after using the memrise application. the result showed that using the memrise application can improve students vocabulary mastery. The result of significant (2-tailed) was $0.000 < 0.05$ since the sig. (2-tailed) is smaller than 0.05, proving a significant difference between the pre-test and post-test. It means that the H_1 was accepted and H_0 was rejected. Lastly, according to findings from (Theodoridis & Kraemer, n.d.) conclude that everyone can try the memrise application that can help everyone to improve their English vocabulary starting from the basic.



4. CONCLUSIONS

4.1. Conclusion

Based on the data analysis of the research result, then an analysis was carried out through an "independent sample t-test". In independent sample t-test output table in the "equal variances assumed" section, the sig value is known (2 tailed) is $0.117 > 0.05$, so as the basis for decision-making in the independent sample t-test, it can be concluded that H_0 is accepted and H_1 is rejected. It can be concluded that there is no significant influence between classes that use the Memrise application and classes that do not use the Memrise application in learning English.

In short, there are scientific reasons why this study accepts H_0 and rejects H_1 . Firstly, there is no continuity in the use of the Memrise application or the limited time for implementing the Memrise application at school. These two applications only include vocabulary translation, which is different from the pre-test and post-test which contains language order, synonyms, reference words, and underlined words. So it can be concluded that the Memrise application alone is not enough as the main learning medium. There must be other supporting media.

4.2. Suggestions

Based on the conclusion above, some suggestions will be directed to English teachers, students and the other researchers.

a. For English teacher

The English teacher can use Memrise application as learning media in the learning process. Because based on the result of the research, the teachers should use other learning media and not only rely on memrise applications as the main learning media.

b. For the students

Students should always pay close attention to the learning delivered by the teacher and develop creativity so that the learning outcomes achieved are better.

c. For other researchers

This research is mainly intended to describe how the effect of Memrise application. The other researchers may follow this research in the different context to find more actions to now the effect of Memrise application on student's vocabulary



mastery. This may be used as one of the resources before the researchers do action research related to students' vocabulary.

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