



The Effect of Memrise Application on Student's Vocabulary Mastery at the Tenth Grade of SMKN 4 Bone

Yardina Ulfaeni^{1*}, Gunawan², Andi Achmad Dahlan³

Universitas Muhammadiyah Bone

Corresponding Author: Yardina Ulfaeni Yardinaulfaeni@Gmail.Com

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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 study looks at how students' vocabulary enrichment is affected when they use the Memrise app as a learning media. Using a non-equivalent group model and a quasi-experimental methodology, this study employs a quantitative approach in 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. Since the significant value (Sig 2 tailed) is $0.117 > 0.05$, it may be concluded from the results that H₀ is accepted and H₁ is rejected in the independent sample t-test

INTRODUCTION

To support the four English language abilities of speaking, writing, listening, and reading, vocabulary is crucial. It is generally accepted that the creative application of techniques, instruments, supplies, machinery, systems, and strategies that are directly relevant to teaching English and result in the achievement of desired outcomes constitutes the use of contemporary technology in English instruction (H & Dewi, 2024).

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. Without the use of appropriate methods and media, teaching vocabulary in English is difficult. (Zuniati et al., 2023) state that learning should not be dull for students; it should be enjoyable. Students will find studying English easier and more engaging if instructional videos and games are used. They will also avoid boredom in the classroom.

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 this is the case, the researcher will be able to comprehend the challenges and issues that both teachers and students have when speaking English. Therefore, in order to study and teach English vocabulary, the researcher chose to use the Memrise application. 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. According to (Agung Cahyono et al., 2023), employing games to teach English can also increase student involvement and produce fruitful teaching-learning results. According to the above statement, educators must use media to help students with their vocabulary problems and to help them expand their vocabulary in English. 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. Acquiring new vocabulary is a crucial aspect of language acquisition. Reading, speaking, writing, and listening all depend on vocabulary acquisition.

LITERATURE REVIEW

A. Definition of Vocabulary

Several experts expressed their opinions about the meaning of vocabulary. There are many items dealing with vocabulary, such as prepositions, adjectives, nouns, conjunctions, adverbs, verbs, interjections, and pronouns Thus, vocabulary is the set of terms that a person is familiar with. There are some instructions on how to help students expand their vocabulary. People who have a rich vocabulary tend to make sense of communication. They can use various vocabularies in their communication. (Keraf, 1991:24) in ((Yani Octafia, 2020) also stated that vocabulary is a language's vocabulary consist of all of it terms.

B. Memrise Language Learning Application as Learning Media

Learning Application Technology's rapid growth significantly impacts education, enabling access to various English language sources through computers, laptops, and smartphones, with numerous applications available for teaching and learning English language instruction (Puspitorini & Handani, 2021) in (Theodoridis & Kraemer, n.d.). Grandmaster of Memory Ed Cooke and Princeton neurologist Greg Detre launched Memrise in 2010. Memrise is a free online learning tool that combines the most effective learning resources with an engaging interface. The Memrise application is quick and really useful. It helps students grasp the content being taught quickly by utilizing the most recent findings in cognitive science.

The following is previous research related to the research that will be carried out by the researcher:

1. Zuniati and colleagues, 2023 Learning English is one of the most crucial things junior high school students can accomplish. With a one-group pre- and post-test, the researcher employed quantitative research methods and a pre-experimental design. The t-test score is 11,128 and the t-table value is 1.699, according to the examination of the t-test and t-table values. This demonstrates that the t-test value exceeds the t-table. This implies that the pre- and post-test results differed significantly. Using the Memrise app to teach vocabulary helps improve students' vocabulary knowledge.
2. (Zulhantiar, 2022) The foundation of this study is the vocabulary learning of eighth-grade students using the Memrise app. Pretest and posttest were employed as data gathering tools in this study's methodology. The normality test and the homogeneity test were the data analysis methods used in this investigation. (3) Using the t-test for hypothesis testing. A normality test and a homogeneity test come before

the t-test formula, which is used for hypothesis testing. Ho is rejected and Ha is accepted when the t-test findings indicate a significant enrichment effect (sig (2-tailed) = 0.001 < 0, 05). In conclusion, there was an impact on eighth-grade students' vocabulary enrichment when they used the Memrise app as a digital media skill. In conclusion, the effects of teaching eighth-grade students to use the Memrise app as a digital media skill for vocabulary enrichment were investigated.

METHODS

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 1. Design Research

Class	O	X	O
Experiment	1		2
Class Control	O		O
	3		4

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

Samples/Participants

The The sample used in this study is “total sampling”, which is a sample that is directly chosen by taking into account the population represented by the teacher’s lesson learnt.

Table 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

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.

Data analysis

A. Normality test

To determine whether the data in the variables used in research are normal, the normality test is utilized. 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 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:

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

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

RESULTS

Steps of Your result test here

In order to process the data, the researcher initially attempted to gather information on students' vocabulary proficiency using pre- and post-tests. The students were split into two groups: X TKJ (without the Memrise application) served as the control group, while X MPLB (with the Memrise application) served as the experimental group.

A. Normality Test

The purpose of the normality test is to determine whether or not the data are regularly distributed. The SPSS 23 program is usually used by the researcher. For this study, information about "The Effect of Memrise Application on the Students Vocabulary Mastery at the Tenth Grade of SMKN 4 Bone" was collected. Using the SPSS 23 software, the data was examined for normality using the standard Shapiro-Wilk test. A hypothesis test known as the Shapiro-Wilk test is used on samples whose null hypothesis is that they come from a normal distribution. We can declare that the sample was not drawn from a normal distribution and reject the null hypothesis if the (p) value is small.

Table 3. Normality Test Using SPSS 23

	Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	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.

B. Hypothesis Test (T-test)

A t-test with pre-test and post-test was used in this study's hypothesis test, which involved dividing a sample of 17 students into two groups: the experimental class and the control class. Details on the presence or absence of impact in this study are given in the table below. The following forms the basis for t-test judgments:

1. H0 is rejected and H1 is accepted if the significance value (2-tailed) is less than 0.05.
2. H0 is accepted and H1 is rejected if the significance value (2-tailed) is greater than 0.05.

With the aid of the SPSS 23 software, the independent sample t-test is employed in the study.

a. Independent Sample T-test

Table 4. Independent Samples T-Test

	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

Table 5. 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
Equal variances assumed	.842	.373	-1.664	15	.117	-7.917	4.757	-18.056	2.222
Equal variances not assumed			-1.715	13.208	.110	-7.917	4.616	-17.872	2.039

The output above indicates the Sig value. The data variance between the experimental class and the control class can be interpreted as homogenous or equal as Levene's Test for Equality of Variances is 0.373 > 0.05. Sujarweni, V. Wiratna (2014), p. 99. Therefore, the numbers in the "Equal variances assumed" table serve as a guide for interpreting the independent sample t-test output table above.

The independent sample t-test decision making basis indicates 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) based on the "Independent Sample Test" output table in the "Equal variances assumed" section, which shows that the Sig. (2-tailed) is $0.117 > 0.05$.

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. Thus, the mean score for the pre-test and post-test learning outcomes does not differ significantly, indicating that the Memrise program has no discernible impact on students' vocabulary mastery in the tenth grade at 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 quistionnare and observation that show sig. (2-tailed) = 0.000, which means < 0.005 . Secondly, according to findings from (Zuniati et al., 2023) students vocabulary proficiency before and after using the Memrise app differs significantly. The outcome showed that students' vocabulary mastery can be enhanced by utilizing the Memrise app. Since the sig. (2-tailed) is less than 0.05, the significant (2-tailed) result was $0.000 < 0.05$, demonstrating 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.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

An "independent sample t-test" analysis was performed based on the data analysis of the research findings. 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 H0 and rejects H1. 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.

Suggestions

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 impact of using memrise application on student's ability to master vocabulary. This may be used as one of the resources before the researchers do action research related to students vocabulary.

FURTHER STUDY

The study aims to ascertain how students' vocabulary mastery is impacted by the Memrise program. This study used a non-equivalent group quasi-experimental design using a quantitative methodology. Both a pre-test and a post-test were used to gauge vocabulary proficiency. For future, more thorough research, it is better to use a variety of research tools in addition to tests. Additionally, examining the perspectives of educators and learners regarding this methodology may be an intriguing topic for further study.

REFERENCES

- Agung Cahyono, M. F., Puspita Sari, H., & Primasari, Y. (2023). a Solution To the Difficulty of Vocabulary Mastery Trough Memrise. *JARES (Journal of Academic Research and Sciences)*, 8(2), 10–16. <https://doi.org/10.35457/jares.v8i2.2658>
- H, Y. A. D., & Dewi, K. (2024). *The Impact of Students ' Vocabulary Mastery by Using Memrise Application in Senior High School 6 Muaro Jambi*. 8(2).
- Indriani, R., & Wirza, Y. (2020). Praktik Guru dalam Pemanfaatan Teknologi di Kelas Bahasa Inggris. *Jurnal Penelitian Pendidikan*, 20(1), 98–110. <https://doi.org/10.17509/jpp.v20i1.24560>

- Kosakata, P., Inggris, B., Deputri, A. B., Hamidiyah, A., Baihaqi, A., Sultas, U., Tirtayasa, A., Sultas, U., Tirtayasa, A., Sultas, U., & Tirtayasa, A. (2023). *THE USE OF MEMRISE APPLICATION ON STUDENTS ' MOTIVATION IN LEARNING ENGLISH VOCABULARY*. 2135(2016), 1-10.
- Sandberg, J., Maris, M., & De Geus, K. (2011). Mobile English learning: An evidence-based study with fifth graders. *Computers and Education*, 57(1), 1334-1347. <https://doi.org/10.1016/j.compedu.2011.01.015>
- Sugiono. (2015). Metode Penelitian Metode Penelitian. *Metode Penelitian Kualitatif*, 17, 43.
- Theodoridis, T., & Kraemer, J. (n.d.). *No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析* Title. 2012.
- Yani Octafia. (2020). Inflection Of Students' Vocabulary Mastery On Multiple Choice Test Students' At Vocational High School In Bogor. *Buana Ilmu*, 5(1), 158-165. <https://doi.org/10.36805/bi.v5i1.1226>
- Zulhantiar, P. A. (2022). *the Effect of Using Memrise Application As Digital*. 1-44.
- Zuniati, R. D., Suwarti, T. S., & Setyorini, A. (2023). *The Use Of Memrise Application To Improve Students ' Vocabulary Mastery At The Eighth Grade Of Junior High School* . 3(4).

