



The Effect Of Using Memrise Application On Students' Vocabulary Mastery At The Fifth-Grade Of SD IT Ar-Refah

Taqiyuddin^{1*}, Rezita Estika²

¹STAIN Sultan Abdurrahman Kepulauan Riau

²STAIN Sultan Abdurrahman Kepulauan Riau

*Corresponding Author. Email: taqiyuddin@stainkepri.ac.id

ARTICLE INFO

Keywords:

*Memrise Application,
Technology-based
Learning Media,
Vocabulary Mastery*

ABSTRACT

This study aims to determine whether there is a significant effect of using the Memrise Application on the students' mastery of the vocabulary of fifth-grade students at SDIT Ar-Refah Tanjungpinang, the research design used a quantitative research method with a quasi-experimental research design. With a population of There 58 students consists of two classes, namely class V Al-Zahrawi as the experimental class and V Al-Ghazali as the control class. The sampling technique used a total sampling. The data were collected by using tests, namely pre-test and post-test. The data were analyzed by independent sample t-test and paired sample t-test statistically by using IBM SPSS version 26. The results showed that there was no significant difference in the two classes before being taught by using the Memrise application. This is shown after analyzing by using the Independent Sample T-test pre-test and the sig value. 2-tailed value of $0.138 > 0.005$. So, H_0 is accepted while H_a is rejected. Based on the results of the study, show that there is a significant difference in the two classes after being taught by using the Memrise application. after being analyzed using the Independent Sample T-test post-test and the sig value 2-tailed value of $0.001 < 0.05$. So, H_0 is rejected while H_a is accepted.

The results showed that there was a significant difference in the Experiment class after being taught using the Memrise application after being analyzed by using the Paired Sample T-test post-test and post-test and the sig value 2-tailed was $0.000 < 0.05$ which means H_0 was rejected and H_a was accepted. Thus, there is a significant effect of using the Memrise Application on students' vocabulary mastery in class V Al-Zahrawi SDIT Ar-Refah Tanjung Pinang.

Introduction

Technology is developing rapidly every day, and it has become a part of our daily lives. With the rapid development of information technology in this era of globalization, it is undeniable that it has an impact on the world of education. The development of the educational world is not only influenced by science but also by the development of digital technology (Rohman, 2022). Nowadays, the development of technology is very important, and the community widely uses it not only in communication but also in education, business, and obtaining information. The use of online learning has become a hallmark of modern educational technology. With the help of different learning platforms and technologies, students and teachers can now use learning material according to individual learning needs. According to Kiswanto in addition, the use of technology in the form of eBooks, educational videos, and interactive learning applications has improved the quality of learning and made it even more relevant, dynamic, and responsive to students' needs (Trenggono, 2023).

The development of technology and communication has a huge impact on the world of education. One of them is the use of applications as one of the learning environments in teaching and learning, especially in learning English. Learning media play an important role in supporting the achievement of learning objectives. Media learning also helps to increase students' motivation to participate in learning by increasing students' focus while observing the learning done by the teacher, and media learning can promote the achievement of learning goals. Hamalik in Febyanti et al. suggest that the use of educational media in teaching and learning activities can awaken new will and interest, increase motivation, stimulate learning activities, and even have a psychological effect on students. Learning English is very important in this era of globalization to be involved in the development of science and information technology worldwide. Teaching English focuses on students' ability to acquire four language skills, for example, listening, speaking, reading, and writing.

For language learners, vocabulary is an essential and crucial component. A person cannot properly convey and explain his ideas in writing orally without a sufficient vocabulary. One of the key elements of learning English as a foreign language at the beginner, intermediate, and advanced levels is vocabulary management. According to Endang Handayani states that mastery vocabulary is a crucial aspect of acquiring the four language abilities, which are speaking, listening, reading, and writing. This makes sense if

you consider that knowing the four languages requires knowing the words because without a vocabulary you can't get anything out of them. According to Lindawati, vocabulary itself is about words and meanings. A good vocabulary check means that students understand and use the vocabulary. However, when students have limited vocabulary, they struggle to acquire reading and other skills. Besides the fact that it is difficult for students to acquire vocabulary, the laziness of students to memorize vocabulary is also one of the reasons that students have to face.

Thus, one of the challenges facing millennial school teachers today is that teachers must be creative in delivering materials. This may be because the teaching methods used in the classroom are less varied, so students are not able to actively participate. English teachers must find an appropriate way to deliver the material and apply it in class. It is important to have the right learning materials or tools to teach vocabulary so that students do not get bored and memorize. An interesting learning environment can encourage students to feel comfortable learning and understand the material.⁸ Therefore, there is a need for learning methods that can increase motivation and encourage students to be active in the learning process. To keep students motivated and from forgetting the allocated study or review time, the app also offers reminders to study and review the course material (Huda, 2023).

Currently, every school implements an independent curriculum where English language learning is included in Mulok (Muatan Lokal) learning. Local content is related to one of the characters in the Pancasila student profile, namely global diversity, where the Indonesian generation can raise regional diversity into a local advantage and can go global with that local advantage. Local wisdom-based schools provide facilities for students to learn about the local culture in the area where they live. These activities can be in the form of extracurricular or school activities. Not only local culture but also foreign culture, one of which is language, namely learning English (Kurniawan & Yanti, 2023). At SDIT Ar-Refah, English is used as a foreign language habituation subject, while the purpose of learning English is only as a habit for students to be able to practice or mention vocabulary learned from the module.

Based on the data above and the results of the researcher observations, elementary school children up to senior high school still have difficulties in learning English, especially in learning vocabulary. The fifth-grade students of SDIT Ar-Refah also experienced this. On Friday, September 15, 2023, the researcher interviewed and observed English teachers at SDIT Ar-Refah School. The difficulty of students to learn English vocabulary is influenced by several factors, the students still find the difficult remember and pronounce English words, students are lack of interest and motivation to learn, and the teaching methods are less interesting. In addition, there is still a lack of teaching media learning that every student can acquire while learning English vocabulary. In the school, the teacher did not use the teaching media to convey the material. The teacher reads the dialogue and orally gives the meaning of the vocabulary being taught, and the students are randomly asked to answer orally the teacher's questions about the

meaning of the vocabulary in the dialogue. Students are asked to read the vocabulary in the module book English, and students do not understand of English vocabulary mastery. Students pronounce and master the vocabulary only by the teacher's example and written in the book. In several studies, special attention was paid to vocabulary.

Mastery of vocabulary is essential for good English language skills (Nur, n.d.) In his article entitled "Memrise Application as Digital Media Skill to Enrich Students' English Vocabulary at Junior High School in Medan Jurnal Education and Development", Lubis et, al. Researchers from the Faculty of Teacher Education and Educational Sciences found that it is tough for others to articulate their ideas when they have a limited vocabulary. Since the majority of students view learning as a means to an end, vocabulary is one of the language components that plays a significant part in the development of language skills. communication skills. The results showed that many students still struggle to master English vocabulary.

One of the students' Lack of mastery of English vocabulary means low motivation, self-confidence in learning English, and less variety of teaching methods in the classroom. Therefore, there is a need for learning methods and media that can increase motivation and Motivate pupils to engage in active learning. In his article entitled "The Use of Memrise Application to Improve Students' Vocabulary Mastery at The Eighth Grade of Junior High School", Cendekia: Journal of Social Sciences, Language and Education Zuniati et al. Researchers define that Teaching vocabulary in the context of learning English requires the use of appropriate methods and media. Learning should be enjoyable for students, not tedious. By using educational games and media to teach English, teachers may better engage their students and keep them engaged in the process classroom (Zuniati, 2023).

According to a study by Berne and Blachowicz, teaching vocabulary can be challenging since many educators are not confident in best practices and are not always clear on how to prioritize vocabulary learning in the classroom. According to the researcher and observations, many English teachers continue to teach English vocabulary by using outdated translation methods. They often use too Many new words and ask their students to translate the vocabulary, students are only given vocabulary in the module and told to copy them into a notebook. The teacher often gives students words and suggests looking at vocabulary boxes in their modules that already have meaning; but once students have done this, the vocabulary is forgotten. Children can lose interest in learning and become confused. Students feel forced and soon get bored. Therefore, with current technological developments, English teachers are expected to be more creative. in the use of techniques, methods, or media in learning, and attention and boredom can help students learn vocabulary. Modern technology has brought many developments to learning English.

Technology Enhanced Learning (TEL) is a tool that teachers can use to facilitate learning. According to Thanaraj and Williams, TEL is any learning tool that a teacher uses to make the learning environment more interesting and effective (Ndraha, 2023).

Thus, TEL is a channel through which a knowledge agent communicates with students without space and time limits. In addition, the effective implementation of technology in higher education requires that teachers are trained you possess the abilities needed to utilize technology in the classroom. One element that is crucial to teaching and learning is media learning. In teaching, teachers usually use educational media as a mediator in conveying material so that students can understand it. The importance of media in the teaching and learning process has also been demonstrated by several studies. Based on the research of Wulandari et al., Whoever the author of “The importance of media learning in the teaching and learning process” study conducted. Utilizing media learning in the classroom can inspire students to pursue new interests and goals, as well as even have a psychological effect on learning (Wulandari, 2023).

Educational technology is the research and moral practice of developing, utilizing, and responsibly managing technology resources to enhance performance and support learning. Information and Communication Technology (ICT) in the teaching and learning process, has now undergone a major change; the teacher (educators/teachers) and students (learners) have been placed in a position that is equally active in using technology and media in the learning process (Yonantha, 2018). Educational technology is a field that facilitates learning and improves efficiency through the design as well as the administration of suitable technology resources. Educational technology is a field of applied sciences that synergistically combines several disciplines to facilitate learning, improve the quality of learning, and improve performance (Agustian, 2021). In the era of the 21st century, which is characterized by the development of communication and information Technology, technology plays a critical part in education. Technology has altered how we interact, acquire information, and learn in the setting of education. Using technology in the classroom has offered students and teachers new opportunities to improve the quality of education and achieve better results. The role of technology as a learning environment today and in the 21st-century era (Said, 2023).

Some applications offer different ways to learn English. It can help students and teachers learn English, especially if they use mobile apps to acquire vocabulary. It can also be accessed through laptops or websites. The Memrise app is just one of them. The Memrise app is one of the researcher's selected apps that can be used to learn English vocabulary. The Memrise app is one of the best apps that can be used to learn foreign languages, one of which is to enrich English vocabulary. In the history of technology, the memrise app was founded by Ed Cooke and neuroscientist Greg Detre, the app was created using a process that both founders consider to be the easiest way to learn a language effectively despite the psychological distance effect. The Memrise application is an English language platform that uses standard memory card repetition with GPT 3 support to increase learning speed and AI-Language Partner this allows students to practice having human conversations.

Memrise is a free online, iOS, and Android language study app, according to Nayla. Portability and accessibility (via computers, mobile phones, and tablets) are its

primary benefits. Furthermore, Memrise offers a variety of features, including audio, visuals, and entertaining and imaginative games, to assist students in learning English vocabulary. In addition to vocabulary, students may also learn how to talk, listen, and read. Memrise can be used in or out of the classroom. Using Memrise as a learning tool can be a solution to student laziness caused by school-age children's addiction to devices. They can replace the games they usually play with educational programs. So that their time is not wasted. They can learn by playing. So, this application can be applied due to its extreme simplicity and ease of use in the teaching and learning process. Given the background information given, the author explained several factors that cause students' laziness in learning and memorizing vocabulary. Using interesting media has a great impact on motivating students to learn.

Therefore, teachers must be creative to solve the problem. Today and in the digital age, the use of technology to solve this problem is more effective. Technology and games are also very close to the students. So, the researcher is interested in learning more about the effect of the Memrise application on students' vocabulary mastery to help the students in improving their English vocabulary by using Memrise in fifth-grade SDIT Ar-Refah, Tanjung Pinang. The researcher chose this school as the study site because it is one of the elementary schools (SD) that still teach English by using modules as a teaching tool.

So, researcher a interested in researching the topic “The Effect Of Using Memrise Application On Students’ Vocabulary Mastery At The Fifth-Grade Of SD IT Ar-Refah”. The purpose of this study is to find out if the use of Memrise has a significant effect on improving students' vocabulary learning and memorization through a fun way to learn and play using Memrise. The researcher formulates the problem as follows: Is there any significant difference in students’ vocabulary mastery before being taught by using Memrise application for the experimental class and traditional method for the control class of fifth-grade students at SD IT Ar-Refah?; Is there any significant difference in students’ vocabulary mastery after being taught by using Memrise application for the experimental class and the traditional method for the control class of fifth-grade students at SD IT Ar-Refah?; Is there any significant improvement on students’ vocabulary mastery after being taught by using Memrise application for an experimental class of fifth-grade students at SD IT Ar-Refah?

Method

This study used an experimental design. Quantitative research is traditionally conducted using experimental design. The researcher used quasi-experimental research with the non-equivalent control group design which is a comparison group that is similar as possible to the treatment group.³¹ The objective is to determine whether or not students benefit of using Memrise depends on several factors. There are two classes in this study: the control group and the experimental group class. The pre-test Before and following treatment, there is a pre-test and a post-test. Following the treatment, the experimental group utilized the Memrise program from the researcher, while the control group continued to use the traditional method. Here is an explanation of the designs:

Table 1: The Research Design

Group	Pre-test	Treatment	Post-test
Experimental (Class V Al-Zahrawi)	√	Using Memrise Application	√
Control (Class V Al-Ghazali)	√	X	√

The activities with the experimental group only, and the administers a post-test to asses difference between the two groups. A variation on this approach, similar to the experiment, uses only a posttest in the design.

This study was conducted at SDIT Arrear. Jl. Jaya Kelana Sungai Timun, Kampung Bugis, Kec. Tanjung Pinang Kota, Kota Tanjungpinang, Kepulauan Riau 2023/2024 academic year, SDIT fifth-grade students. The subjects in this research were fifth-grade students from Al-Ghazali and fifth-grade students' from Al-Zahrawi in English subject at SDIT Ar-Refah. The choice of these classes is based on interviews that the researcher conducted with the English teacher at this school. The object of this research is to know the effect of the students' vocabulary mastery of fifth-grade students at SDIT Ar-Refah. According to Djarwanto in Iskandar, the population also known as the units of analysis, is the total score of persons whose attributes need to be examined. These units can be individuals, organizations, or objects (Sahir, 2022). In this study, the target group was the fifth-grade students of SDIT Ar-Refah Tanjungpinang in the academic year 2023/2024. Consists of two classes namely Class V Al-Zahrawi with 29 students and Class V Al-Ghazali with 29 students. Thus, the total population of this study was 58 students. A sample is a subset of the research population. The demographic samples that are drawn must be accurately representative. The scientists employed total sampling of the study sample to select the students. Sampling was chosen because it was total and facilitated data collection by the researchers. The researcher took two classes. There are 29 students in the experimental group of Class V Al-Zahrawi and 29 students of Class V Al-Ghazal in the control group. There were 58 students in total.

In data collection techniques, researcher used quantitative data or tests, namely vocabulary tests as instruments. The tests conducted pre-test and post-test it much 20 questions, 10 multiple-choice questions and 10 fill the blank. Before working with the content, the pre-test is the first test that is given to ascertain starting ability. Following the delivery of material derived from the use of the Memrise program, the second post-test display the students' vocabulary proficiency. Once the pre-test and post-test results were known, the researcher analyzed the data. According to Cameron in Andriani et, al., vocabulary skills include: Pronunciation, Spelling, and meaning (Andriani & Sriwahyuningsih, 2019)

Finding and Discussion

The research findings and discussion are presented in this chapter. There was a total of 29 students in the experimental class and 29 students in the control class throughout the two classes used for this research.

Whether the dependent and independent variables are regularly distributed is determined by the normality test., close to normal, or not. Several methods are available to perform the normality test, but in this study, the researchers used the Kolmogorov- Smirnov test with a rule of $\alpha = 0.05$. If the normality test result $> \alpha = 0.05$, then the data is not

normally dispersed and H0 is rejected. Conversely, if the results of the normality test are less than $\alpha = 0.05$ if the not normality test result $< \alpha = 0.05$, the data is normally distributed and H0 is accepted. The IBM SPSS software version 26 was employed by the researchers for the study's normalcy test.

Table 2: The normal test results are displayed below.

Tests of Normality							
	Kelas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
learning outcomes Vocabulary	Pre-Test	.155	29	.072	.949	29	.172
	Experiment						
	Post-Test	.130	29	.200*	.959	29	.303
	Experiment						
	Pre-Test Control	.129	29	.200*	.956	29	.254
	Post-Test Control	.121	29	.200*	.959	29	.316
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

The researcher conducted this research employed pre-test and post-test as were indicated in the preceding chapter. The pre-test and post-test were designed to measure students' vocabulary mastery using a quasi-experimental method with the non-equivalent control group design. The procedure can be seen as follows:

1. Pre-Test

This is the first step where the pre-test on vocabulary. The students were instructed to answer 20 vocabulary questions consisting of 10 multiple choice questions and 10 fill-the-blank questions. The purpose of this test was to determine the students' vocabulary mastery. In this case, the researcher also provided a difficult vocabulary that had not been learned in class. The difficult vocabulary is as follows: delicious, fun, farmer, walking. Based on the equipment tests carried out the following table displays the equivalent results for the pre-test experimental and the pre-test control group:

Table 3: Homogeneity Test

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Pre-test	Based on Mean	1.524	1	56	.222
	Based on Median	1.349	1	56	.250

Experiment and Pre-test Control	Based on Median and with adjusted df	1.349	1	53.774	.251
	Based on trimmed mean	1.475	1	56	.230

Based on the homogeneity test results Based on Mean above, sig 0.222, it can be concluded that sig value > 0.05 , it can be said that the test findings demonstrate the homogeneity of the data.

2. Treatment

Following a pre-test, students received treatment over the course of multiple appointments, the steps of the treatment are:

a. First meeting

The researcher explains the Memrise app to the students. Next, the researcher taught them how to use the Memrise application, starting from logging into the application to finding materials to learn vocabulary. Then, the researcher provided some vocabulary in the Memrise application. The researcher asked the students to note down some of the vocabularies in Memrise. Finally, the researcher concluded the lesson and delivered the lesson plan for the next meeting.

b. Second meeting

The researcher asks the students to watch the video from the Memrise application. The students were asked to practice writing vocabulary from what they had watched through the video about "family". With the vocabulary notes watched, the researcher gives 10 minutes for students to memorize 5 vocabulary words about the family and then report them. The researcher asked the students to note down some of the vocabularies in Memrise. Finally, the researcher concluded the lesson and delivered the lesson plan for the next meeting.

c. Third meeting

The researcher provides vocabulary explanations about professions from the memrise app. Researcher provide opportunities for students to answer questions from the memrise application. for example, students listen to the sound after that and then write down what the vocabulary. The researcher asked the students to note down some of the vocabularies in Memris .Finally, the researcher concluded the lesson and delivered the lesson plan for the next meeting.

d. Fourth meeting

The researcher provides vocabulary explanations about hobbies from the Memrise app. The researcher provides opportunities for students to answer questions from the Memrise application. for example, students write down what vocabulary is heard from the sound, and reorder random vocabulary into one vocabulary. The researcher asked the students to note down some of the vocabulary in Memrise. The researcher concluded the lesson and delivered the lesson plan for the next meeting.

3. Post-Test

After giving four meetings where students received treatment, the researcher gave a post-test to find out if there was a significant change after students received treatment. Instructions: The researcher provided four different materials at each meeting, namely materials about basic expressions, family, profession, and hobbies. Furthermore, the researcher employed Memrise application as a media to effect students' vocabulary mastery during the learning process. The researcher gave the pre-test and post-test instructions by asking students to retell a selection of vocabulary mastery. In this chapter, the researcher describes the data results from the sample, which consists of fifth-grade students at SDIT Ar-Refah. The outcome served as empirical proof of the use of Memrise application to the students' vocabulary mastery. The pre-test and post-test results from the experiment and control classes were used to gather the data.

The data of this research were obtained from the students' pre-test and post-test scores. The researcher used an oral test to measure the students' vocabulary mastery.

1. The Data Presentation of Students' Vocabulary Mastery Before Being Taught by Using Memrise Applications for Experimental Class and Traditional Method for Control Class of the Fifth-grade Student at SDIT Ar-Refah

Table 4: The Classification of Experimental and Control Class Pre-test Score

No.	Classification	Score	Experimental		Control	
			Frequency	Percentage	Frequency	Percentage
1.	Very Good	86-100	1	3%	0	0%
2.	Good	71-85	16	56%	5	17%
3.	Fair	56-70	11	37%	14	48%
4.	Poor	41-55	1	3%	8	28%
5.	Very Poor	≤ 40	0	0%	2	6%

Based on the table above, shows us the classification of the Experimental scores 1 student achieved "Very Good" which accumulated 3%, 16 students achieved "Good" which accumulated 56%, 11 students achieved "Fair" which accumulated 37%, 1 student who achieved "Poor" which accumulated 3% and there is 0 student who achieved "Very Poor". And the classification of the Control score 0 students achieved "Very Good" which accumulated 0%, 5 students achieved "Good" which accumulated 17%, 14 students achieved "Fair" which accumulated 48%, 8 students achieved "Poor" which accumulated 28% and there is 2 student who achieved "Very Poor" which accumulated 6%.

Table 5: Independent Sample Test Pre-Test Score

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
Learning outcome Vocabulary	Equal variances assumed	.104	.748	-1.506	56	.138	-5.172	3.433	-12.050	1.706
	Equal variances not assumed			-1.506	55.731	.138	-5.172	3.433	-12.051	1.706

In light of the outcomes shown in the above table, the results of vocabulary learning (Memrise application) of grade V Al-Zahrawi and V Al-Ghazali (Traditional method) significantly affect the pre-test results sig= (2-tailed) of 0.138 > 0.05. So, Ho is accepted while Ha is rejected. Thus, there was a significant difference effect in the vocabulary mastery of the experimental class's students before using the memrise application and the conventional teaching technique for the control class. This proves that the class who taught by using vocabulary mastery is better than the class who taught by using traditional methods.

2. The Data Presentation of Students' Vocabulary Mastery After Being Taught by Using Memrise Applications for Experimental Class and Traditional Method for Control Class of the Fifth-grade Student at SDIT Ar-Refah

Table 6: The Classification of Experimental and Control Class Pre-test Score

No.	Classification	Score	Experimental		Control	
			Frequency	Percentage	Frequency	Percentage
1.	Very Good	86-100	8	28%	3	10%
2.	Good	71-85	13	44%	9	31%
3.	Fair	56-70	8	28%	11	37%
4.	Poor	41-55	0	0%	6	20%
5.	Very Poor	≤ 40	0	0%	0	0%

Based on the table above, shows us the classification of the Experimental scores 8 students achieved “Very Good” which accumulated 28%, 13 students achieved “Good” which accumulated 44%, 8 students achieved “Fair” which accumulated 28%, 0 students who achieved “Poor” which accumulated 0% and there is 0 student who achieved “Very Poor”. And the classification of the Control score 3 students achieved “Very Good” which accumulated 10%, 9 students achieved “Good” which accumulated 31%, 11 students achieved “Fair” which accumulated 37%, 6 students achieved “Poor” which accumulated 20% and there is 0 student who achieved “Very Poor”.

Table 7: Independent Sample T-Test of Post-Test Score

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
Learning outcome Vocabulary	Equal variances assumed	.803	.374	3.662	56	.001	11.207	3.060	5.077	17.337
	Equal variances not assumed			3.662	54.788	.001	11.207	3.060	5.074	17.340

In light of the outcomes shown in the above table, the results of vocabulary learning (Memrise application) of grade V Al-Zahrawi and V Al-Ghazali (Traditional method) significantly affect the post-test results sig= (2-tailed) of $0.001 < 0.05$. So, H_0 is rejected while H_a is accepted. It can be concluded that there is a difference in learning results between the students of the experimental class using (Memrise) as a learning tool and the students of the reference class using (Lecture or traditional methods) without the help of

technology or other media. As a result, the Memrise application has an effect that improves students' vocabulary.

Table 8: The Paired Sample T-Test of Experimental Class

Paired Samples 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 Eksperimental - Post-Test Eksperimental	7.414	4.355	.809	-9.070	- 5.757	9.168	28	.000

The output above showed that the t-test result was 9.168, the df was 28, significances was 0.000, mean differences was 7.414, standard deviation was 4.355, the lower differences interval was -9.070 and the upper differences interval was -5.757. The data illustrated that the sig. (2-tailed) was $0.000 < 0.05$ which means H_0 was rejected and H_a was accepted. This shows us there is a significant difference in the effectiveness of students' vocabulary mastery after being taught by using Memrise applications.

The results of the study can be known through the hypothesis above about whether or not there is a significant effect on students' vocabulary skills before being taught by using the memrise application for the experimental class and the lecture or traditional method for the control class in class V SDIT Ar-Refah Tanjung Pinang. Then to answer the first hypothesis or H_a (Alternative Hypothesis) and the second H_0 (Null Hypothesis), the researcher concludes by the data that has been obtained and processed using the IBM SPSS version 26 program. Based on the results of the Independent Sample T-test output data, the Experimental class pre-test and the Control class pre-test showed that the significant results sig= (2-tailed) of $0.138 > 0.05$. So, H_0 is accepted while H_a is rejected. Thus, there was a significant difference in the vocabulary mastery of the experimental class's students before using the memrise application and the conventional teaching technique for the control class. This proves that the class who taught by using vocabulary mastery is better than the class who taught by using traditional methods.

The known hypothesis above is about whether or not there is a significant effect on students' vocabulary skills after being taught using the memrise application for the experimental class and the lecture or traditional method for the control class in class V SDIT Ar-Refah Tanjung Pinang. Then to answer the third hypothesis or H_a (Alternative

Hypothesis) and the fourth H_0 (Null Hypothesis), the researcher concludes in accordance with the data that has been obtained and processed using the IBM SPSS version 26 program. Based on the results of the Independent Sample T-test output data Post-test Experimental class and Control class post-test show that the significant effect of the post-test results $\text{sig} = (2\text{-tailed})$ of $0.001 < 0.05$. So, H_0 is rejected while H_a is accepted. It can be concluded that there is a difference in learning results between the students of the experimental class using (Memrise) as a learning tool and the students of the reference class using (Lecture or traditional methods) without the help of technology or other media. As a result, the Memrise application has an effect that improves students' vocabulary.

Then it can be known through the hypothesis above whether or not there is a significant effect on students' vocabulary skills before being taught by using the memrise application for the experimental class and the lecture or traditional method for the control class in class V SDIT Ar-Refah Tanjung Pinang. Then to answer the fifth hypothesis or H_a (Alternative Hypothesis) and the sixth H_0 (Null Hypothesis), the researcher concludes in accordance with the data that has been obtained and processed using the IBM SPSS version 26 program. Based on the results of the Paired Sample T-test Pre-test and Post-test output data of the experiment class, it shows that the t-test result was 9.168, the df was 28, significances was 0.000, mean differences was 7.414, standard deviation was 4.355, the lower differences interval was -9.070 and the upper differences interval was -5.757. The data illustrated that the sig. (2-tailed) was $0.000 < 0.05$ which means H_0 was rejected and H_a was accepted. This shows us there is a significant difference in the effective of students' vocabulary mastery after being taught by using Memrise applications.

Based on studies that demonstrate the findings of research by Ramdhanti et al., it has been determined that using the Memrise application as a learning tool can pique students' interest in teaching and learning English vocabulary⁴⁰. The application, being a new learning tool, is highly appropriate for helping students learn vocabulary. Furthermore, research by Fadhilah (2020) lends credence to the notion that students perform better when they use the Memrise app as a tool for vocabulary review and learning. The study's findings so demonstrate that the researcher work is consistent with some other studies that have shown how beneficial the Memrise app is for helping students learn. Students also become more engaged and pay closer attention when they are studying. Additionally, because Memrise can be accessed anywhere and at any time, it can assist students in reviewing material at home. However, as further research may be needed, identifying junior high or high school kids is essential because using application learning media may be more appropriate in these settings.

Conclusion

Based on the statistical analysis using SPSS, this study confirms that the application of Memrise significantly improves the vocabulary mastery of fifth-grade Al-Zahrawi students at SDIT Ar-Refah Tanjungpinang. Although the initial pre-test results

revealed no significant difference between the experimental and control classes (Sig. = 0.138 > 0.05), the post-test results indicated a statistically significant difference (Sig. = 0.001 < 0.05). Furthermore, the Paired Sample T-test yielded a significance value of 0.001 < 0.05, leading to the acceptance of the alternative hypothesis (Ha) and the rejection of the null hypothesis (Ho). Consequently, it can be concluded that utilizing the Memrise application is an effective instructional medium for enhancing fifth-grade students' English vocabulary achievement compared to traditional teaching methods.

Acknowledgements

The authors would like to thank STAIN Sultan Abdurrahman Kepulauan Riau for providing the research facilities and technical support necessary to complete this study.

References

- Agustian. (2021). Peran Teknologi Pendidikan Dalam Pembelajaran. *Islamika*, 3(1), 123–133.
- Andriani, & Sriwahyuningsih, V. (2019). An Analysis of Students' Mastery of Vocabulary. *ELT-Lectura*, 6(1), 169–176.
- Huda, N. (2023). *The Effectiveness of Quizizz Game Application in Teaching*.
- Kurniawan, & Yanti, H. (2023). Manajemen Kurikulum Merdeka Belajar Dalam Menerapkan Nilai-Nilai Kearifan Lokal Pada Pembelajaran Di SD Negeri 16 Meulaboh-Aceh Barat. *Journal Ilmiah Profesi Pendidikan*, 8(4), 1927–1935.
- Ndraha, M. (2023). The Importance of Learning English ' Vocabulary For. *Journal of Community Empowerment and Innovation*, 2(3), 114–125.
- Nur, B. et al. (n.d.). Memrise Application As Digital Media Skill To Enrich Students ' English Vocabulary At Junior Highschool In. *Jurnal Education and Development*, 11(1), 459–467.
- Rohman, A. (2022). Literasi Digital: Revitalisasi Inovasi Teknologi. *Information Systems and Management*, 1(4), 1–4.
- Sahir. (2022). *Metodologi Penelitian*.
- Said, S. (2023). Peran Teknologi Sebagai Media Pembelajaran Di Era Abad 21. *Jurnal PenKoMi : Kajian Pendidikan & Ekonomi*, 6(2), 194–202.
- Trenggono, H. (2023). Urgensi Aplikasi Teknologi Dalam Pendidikan Di Indonesia. *Journal of Information Systems and Management (JISMA)*, 7(3), 70–73.
- Wulandari. (2023). *Pentingnya Media Pembelajaran Dalam Proses Belajar Mengajar*. 05(02), 3928–3936.
- Yonantha, F. (2018). A Comparative Study Between Four Corners Strategy and Group Work Strategy on Students' Speaking Ability. *Perada*, 1(1), 13–27. <https://doi.org/10.35970/madani.v1i1.7>
- Zuniati, R. (2023). The Use Of Memrise Application To Improve Students Vocabulary Mastery At The Eighth Grade Of Junior High School. *Journal Social Bahasa Dan Pendidikan*, 3(4), 1–8.