

THE EFFECT OF MEMRISE APPLICATION ON STUDENTS' VOCABULARY MASTERY

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Abstract

The purpose of this study is to describe the use of Memrise application on students' vocabulary mastery, to find out the effect of using Memrise application on students' vocabulary mastery. This research uses the True-Experimental method, which uses an experimental class and a control class. The population in this study were X grade students of SMA Negeri 1 Bulakamba in the academic year 2021/2022 with a total of 432 students, while the samples in this study were class X 9 as the experimental group and class X-11 as the control group, the total sample size was 71 students with simple random sampling technique. This study used vocabulary test instruments. Researchers gave 40 questions for pretest and posttest to both samples. The data collected in this study were analysed using SPSS version 26, the results obtained the average posttest results of the experimental group of 77.57 outperformed the control group of 75.64. Based on the results of hypothesis testing using paired sample t-test, the significance value is 0.000 which means <0.05 , meaning that H_a in this study is accepted. This can be interpreted that there is a significant difference between the experimental group and the control group. In conclusion, the use of memrise application as learning media has a positive effect on students' vocabulary mastery. This study suggests teachers are also advised to use new techniques and activities in English learning to increase students' interest by using appropriate media to support English learning.

Keywords: Memrise Application, Vocabulary

1 INTRODUCTION

Vocabulary is one of the important elements that must be taught if we want to master a foreign language, especially in learning English. According to Putri et al., (2020) which states that the most essential aspect of acquiring a language is vocabulary, followed by pronunciation, the writing system, syntax, pragmatics, rhetorical modes for reading and writing, culture, and spelling. It means that in mastering English, learners need a wide range of vocabulary, because the acquisition of language aspects will not be effective without vocabulary mastery. Sulistianingsih & Aflahatun, (2021) states that when learners have a lot of vocabulary, it becomes easier to learn English, because having sufficient vocabulary is one of the requirements for mastering English.

Vocabulary is the main key to building all four language skills. According to Sulistianingsih et al., (2019), vocabulary helps learners to develop their language through four skills, including: reading, writing, listening and speaking. In other words, to acquire the four language skills, the main step that learners must learn is to master the elements of language first, one of which is vocabulary. According to Alqantani (2015), a good command of vocabulary can affect a learner's language skills, whereas without mastering vocabulary, learners cannot communicate their ideas, thoughts, feelings, and desires because vocabulary is very important to understand the meaning of words.

Although many experts emphasise the importance of vocabulary in English, the difficulties of vocabulary learning cannot be avoided in the learning process especially in senior high school. Alqahtani (2015) argues in her research that teaching vocabulary can be problematic as many teachers lack confidence in the best practices for teaching vocabulary, and often do not know where to start to develop an instructional focus on word acquisition. Based on Nababan & Simanjuntak, (2023) the factors that cause teachers to struggle in teaching vocabulary are laziness, lack of motivation, and students' vocabulary. In this case, teachers need to motivate students to learn English by using methods that are in accordance with students' interests.

Based on the preliminary study conducted at SMA N 01 Bulakamba. Teachers and students were interviewed by the researcher. For the teacher interview, he stated that students have low interest in vocabulary learning. When the teacher's intonation is firm, students pay attention. Then according to the students' interviews, they stated that they had difficulty in using vocabulary. After students learn some words, it is difficult for them to use the word because they can only remember the meaning, not how to use it in a sentence. The next problem is that students cannot pay attention in class. Most of the time, learning English is just listening to the teacher explain something, and students don't do much. In this case, students do nothing but sit on their chairs and listen to their teachers. Since most of what they learn is passive and repetitive, students lose interest and find it difficult to understand the words the teacher teaches.

To overcome this problem, it is recommended that teachers use different teaching methods and media to make students enjoy learning English, especially when learning new vocabulary. In teaching, media is often used as an auxiliary tool. We can choose from different types of media including text, audio, video and images. One of the latest media is an app for teaching and learning English on smartphones. Kassim & Said, (2020) stated that using smartphones for learning is an effective technique to increase vocabulary. The use of smartphones also shows that people acquire new vocabulary more regularly. Students can easily learn new words by using their smartphones. There are many ways to learn. Students can easily learn English by going online or downloading apps for Android and iOS that help them learn English. As students in the era of globalisation want to learn more words in a fun and easy way on smartphones, online English learning sites and learning apps are in high demand.

According to Nuralisah & Kareviati, (2020) memrise is one of the many effective learning tools available. Memrise's learning system ranges from beginner to advanced levels. The app combines various factors, including knowledge, learning enjoyment, and a learning community. Memrise app is an excellent, fast, entertaining, and high-quality online learning tool. There are several studies that explain how memrise app can support learning in students' vocabulary acquisition. Research from Rohim, (2022) explains that memrise app can help vocabulary acquisition and can inspire students to improve their vocabulary. Research from Putri Aulia, (2022) explains that the Memrise application gets a positive perception from students because the Memrise application provides many benefits by presenting interesting features. Based on the description above, the researcher is interested in conducting a study that focuses on the use of Memrise application on students' vocabulary mastery.

2 METHODOLOGY

This research was conducted using a quantitative method approach with experimental research type. The researcher chose to use experimental research, so the researcher must know the effect of the application of treatment. Experimental research can be interpreted as a search method to find the effect of certain treatments on other treatments under controlled conditions. Sugiyono, (2010:107). Therefore, the purpose of this study is to determine the effect of the application of memrise to enrich students' vocabulary mastery. The participants in this study were two classes of tenth grade students of SMA N 01 Bulakamba. This study used a True Experimental design, the researcher used a pretest post-test control group design. In this design, two groups were taken by using sampling technique. The first group is called the experimental group and the second group is called the control group. The experimental group will be given treatment using the memrise application during the treatment. The researcher took the population of tenth grade students at SMA N 01 Bulakamba in the 2021/2022 school year consisting of 432 students. For this study, researchers took only two classes. The first class used as the experimental group was class X-9, and the second class used as the control group was class X-11. The overall sample consisted of 71 students, with the experimental class consisting of 35 students, and the control class consisting of 36 students. In this study, researchers used observation and tests to collect data. Observation was conducted to find out the general state of English language teaching and learning in the school. This included observing the content and teaching style of the teachers as well as the demographics of the students. Before entering the classroom, observation data was collected to conduct the research.

The researcher used a test in the form of multiple choice questions on vocabulary material for data collection in the form of pre-test and post-test that had been given at the time of the study. The pre-test was given at the beginning of the study. This research was conducted in the experimental class and control class. Then the post-test will be given after treatment in the classroom. This test was given to the experimental class and also the control class. The purpose of this test is to determine students' learning progress and also the impact of the application of memrise on students' vocabulary mastery. The instrument in this study is a vocabulary test with vocabulary material in the linguistic elements of recount text in the form of a multiple choice test. There are 40 multiple choice questions on vocabulary material in recount text that have been tested for validity and reliability. Data analysis techniques using spss version 26 which includes descriptive analysis, normality test, homogeneity test, and hypothesis testing (Paired t-test).

3 RESULTS

This chapter shows a description of the data, which includes pre- and post-test scores from experimental and control groups. Both are used to obtain empirical evidence of the effect of the Memrise application on the vocabulary mastery of tenth-grade SMAN 1 Bulakamba students in the academic year 2022/23. Then the data analysis and discussion of research findings are also interpreted in this chapter.

3.1 Research Result

3.1.1 Descriptive Statistics

Before students were given treatment, researchers first conducted a pretest to the experimental class and also the control class. On 2 June 2023, the test was given to 71 students in class X-9 as the experimental class and X-11 as the control class. Students were given a test with 40 multiple choice questions about vocabulary material in recount text. The pre-test results between the experimental and control classes can be seen from the descriptive analysis results below.

Table 1. Descriptive Statistics

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|-------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Pre_Experiment | 35 | 58 | 83 | 69.03 | 6.613 |
| Post_Experiment | 35 | 65 | 90 | 77.57 | 6.731 |

| | | | | | |
|--------------------|----|----|----|-------|-------|
| Pre_Control | 36 | 53 | 78 | 66.25 | 6.331 |
| Post_Control | 36 | 63 | 85 | 75.64 | 4.530 |
| Valid N (listwise) | 35 | | | | |

Based on the observation of 36 students in the control class who were given the pretest, no hundred scores were obtained. The highest score achieved by 1 student was 78, while the lowest score was 53 obtained by 4 students. The vocabulary pretest results of the control class students can be seen in the following table :

Table 2. *Distribution of control class pretest scores*

| No | Score | Frequency | Ability Level |
|-------|--------|-----------|---------------|
| 1. | 0-59 | 6 | Less |
| 2. | 60-69 | 21 | Medium |
| 3. | 70-79 | 9 | High |
| 4. | 80-89 | - | High |
| 5. | 90-100 | - | High |
| Total | | 36 | |

Based on the acquisition of values for the above classification, it shows that the high category has a value of 70-100, the medium category is 60-69, the less category has a value of 50-59.

The classification results at the pretest stage showed that there were only 9 students who obtained the high score category. For this pretest, most students were in the medium category with a total of 21 students, then for the less category obtained a total of 6 students.

The researcher also gave a pretest to the experimental class. The researcher obtained pretest results from 35 experimental class students, the results showed that there were no students who scored a hundred. The maximum score that students can achieve is 83 obtained by 1 student, while the lowest score is 58 obtained by 2 students. The results of the experimental class students' vocabulary pretest are shown in the following table :

Table 3. *Distribution of experiment class pretest scores*

| No | Score | Frequency | Ability Level |
|-------|--------|-----------|---------------|
| 1. | 0-59 | 3 | Less |
| 2. | 60-69 | 17 | Medium |
| 3. | 70-79 | 14 | High |
| 4. | 80-89 | 1 | High |
| 5. | 90-100 | - | High |
| Total | | 35 | |

Based on the acquisition of values for the above classification, it shows that the high category has a value of 70-100, the medium category is 60-69, the less category has a value of 50-59. The classification results at the pretest stage of the experimental class showed that there were only 15 students who obtained a category with high scores. For this pretest, most students were in the medium category with a total of 17 students, then for the less category obtained a total of 3 students.

Researchers conducted an evaluation after treatment, by giving a post-test to the experimental class and control class at the eighth meeting. The post-test results were used as research material to

compare the learning outcomes of the control group and the experimental group. Based on the descriptive analysis results presented in table 1. the minimum value of the post-test of control class students is 64 and the maximum value is 87. While the minimum value of the experimental class post-test is 68 and the maximum value is 69. To find out whether there is an increase in the score on the post results, the following is presented the post-test data of experimental class and control class students:

Table 4. Distribution of control class post-test scores

| No | Score | Frequency | Ability Level |
|-------|--------|-----------|---------------|
| 1. | 0-59 | - | Less |
| 2. | 60-69 | 4 | Medium |
| 3. | 70-79 | 24 | High |
| 4. | 80-89 | 8 | High |
| 5. | 90-100 | - | High |
| Total | | 36 | |

Based on the acquisition of values for the above classification, it shows that the high category has a value of 70-100, the medium category is 60-69, the less category has a value of 50-59.

The classification results at the post-test stage showed that there were 32 students who scored in the high category. then for the medium category obtained a total of 4 students. For the post-test results in the control class, there were no students in the lower category.

Table 5. Distribution of experiment class post-test scores

| No | Score | Frequency | Ability Level |
|-------|--------|-----------|---------------|
| 1. | 0-59 | - | Less |
| 2. | 60-69 | 6 | Medium |
| 3. | 70-79 | 13 | High |
| 4. | 80-89 | 14 | High |
| 5. | 90-100 | 2 | High |
| Total | | 36 | |

Based on the acquisition of values for the above classification, it shows that the high category has a value of 70-100, the medium category is 60-69, the less category has a value of 50-59. The classification results at the post-test stage showed that there were 29 students who scored in the high category. then for the medium category obtained a total of 6 students. For the post-test results in the experimental class, there were no students in the lower category.

3.1.2 Normality Test

Table 6. Normality Test Results

| Tests of Normality | | | | | | | |
|-------------------------------|----------------------|---------------------------------|----|-------------------|--------------|----|------|
| | Factor | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| English comprehension ability | Pretest Experiment | .105 | 35 | .200 [*] | .954 | 35 | .152 |
| | Post-test Experiment | .130 | 35 | .141 | .949 | 35 | .102 |
| | Pretest Control | .144 | 36 | .057 | .969 | 36 | .399 |
| | Post-test Control | .143 | 36 | .061 | .953 | 36 | .132 |

The researcher used Kolmogorov-Smirnov and Shapiro Wilk to determine the significant results between the pre-test and post-test for both samples, namely the experimental class and control class. Based on the table above, it can be stated that the data is normally distributed because the probability value (p) of the experimental class and control class is greater than (>) the 5% significance degree ($\alpha = 0.05$).

3.1.3 Homogeneity Test

Table 7. Homogeneity Test Result

| Test of Homogeneity of Variance | | Levene Statistic | df1 | df2 | Sig. |
|---------------------------------|--------------------------------------|------------------|-----|---------|------|
| English Comprehension Ability | Based on Mean | 1.908 | 3 | 138 | .131 |
| | Based on Median | 1.747 | 3 | 138 | .160 |
| | Based on Median and with adjusted df | 1.747 | 3 | 128.766 | .161 |
| | Based on trimmed mean | 1.828 | 3 | 138 | .145 |

Based on the previous table, the variance of the experimental group and control group data has a homogeneous distribution, because the significance value based on the mean of 0.131 is greater than = 0.05.

3.1.4 Hypothesis Test

After the results of the pretest and posttest scores met the requirements of the normality and homogeneity tests, the researcher calculated the data using the t test on SPSS V 26. The researcher used the paired sample test to determine whether there was an effect of using the memrise application on students' vocabulary mastery before and after treatment. The significance level for the paired sample test in this study is 5% (0.05). The analysis results are shown below :

Table 8. paired samples test result

| 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 | pretest experiment - posttest experiment | -8.543 | 5.243 | .886 | -10.344 | -6.742 | -9.639 | 34 | .000 |
| Pair 2 | pretest control - posttest control | -9.389 | 5.510 | .918 | -11.253 | -7.525 | -10.224 | 35 | .000 |

The results of the paired sample T test are shown in the data above, where the sig. (2-tailed) of 0.000 ($0.000 < 0.05$), it can be concluded that there is a significant difference between the average pre-test and post-test scores of the experimental and control classes. The paired sample t-test results show that memrise application has an effect on students' vocabulary comprehension. It can be said that H_a in this study is accepted.

3.1.5 Discussion

Students' vocabulary mastery can be described based on the results obtained by the researcher, where before the researcher gave the treatment, the researcher measured students' initial vocabulary mastery by giving a pre-test to both samples. After the pretest results were obtained, the researchers gave different treatments to the two samples and finally the researchers gave a posttest to measure students' vocabulary mastery after being treated.

The researcher measured students' vocabulary mastery by giving students a pre-test of multiple choice questions about vocabulary material in the recount text. Based on the data from the pretest results that have been obtained by the researcher through descriptive analysis on spss 26, the average pretest score of students is in the low category, where the average pretest of the control class is 66.11 and the average pretest of the experimental class is 69.03. Based on the average pretest results, it can be concluded that the vocabulary mastery of the two sample classes is still relatively low.

The low vocabulary mastery can also be supported based on the results of the initial observation of the study before the pretest was given, the researcher found the problem that students had difficulty learning vocabulary because the learning process provided by the teacher made students feel bored, the teacher often gave students tasks in the form of doing problems rather than explaining the material. Then the results of interviews with teachers, the teacher stated that grade 10 students still have difficulty understanding English vocabulary, according to the teacher it is one of the impacts when they are still in junior high school, where at that time learning is still done online due to corona. As a result of online learning, students do not get maximum English learning. The teacher also stated that students' daily English scores were in the low category.

After the researcher knew the initial ability of students' vocabulary, the researcher made improvements in teaching. In the experimental class, researchers provided learning media using the memrise application, while in the control class students only learned vocabulary using a dictionary. Then after the students were given treatment for 6 meetings, the students' vocabulary mastery ability was measured again by giving a post-test. From the post-test results, the experimental group outperformed the control group with an average score of $77.57 > 75.51$. This confirms that the use of Memrise application as a learning media to learn English vocabulary has a considerable positive impact on the post-test results. The results of this study support the theory described in the previous chapter, Fadhilawati (2018) explains the advantages of the Memrise application, where this application makes it easy for students to learn and review words in the form of games which of course they will not feel pressured by what they learn.

The experimental results revealed that students' vocabulary has increased after using the Memrise app to learn new words. In addition, test scores improved and students became more independent learners. The majority of students felt more enthusiastic and less tired when using the Memrise app to learn vocabulary. This is the perception of the majority of students regarding the effectiveness of the Memrise app. This supports the findings of Putri Aulia (2022), who found that students have a favorable perception of the Memrise application as a Vocabulary Learning Media and that it can aid in enhancing vocabulary mastery for English lessons. The Memrise application offers numerous benefits to students. In addition to being user-friendly, the Memrise application also includes intriguing features.

In the first stages of learning to use the Memrise application, students encountered obstacles. They were limited because the media to be used was mobile phones, and there were a number of students whose mobile phone specifications used an older version, thereby preventing students from downloading the application on their mobile phones due to internal storage limitations. However, the researcher attempted to discover a solution so that pupils could fully utilize the Memrise application. The researcher lent some students mobile phones so that they could continue to follow the learning activities. The materials were extracted from several dictionaries based on the course outline. The researcher also found a problem during the treatment, where there were some students who did not have an internet package so they could not use the Memrise application on an offline network.

In the second discussion, the researcher found that the mean of the experimental group was higher than the mean of the control group ($77.57 > 75.64$). It can be said that students educated using memrise application and students educated using conventional methods are significantly different. In this case the researcher gave the same material to both groups. The only difference was the teaching technique used. In the control group, students only opened the dictionary to determine the definition of new words. They felt bored because there was no improvement in the learning process. After completing

the learning process in the control group, students easily forgot the new words they learnt because they did not store the words in their long-term memory.

Based on the research findings above, the researcher deduced that students who were taught using the memrise application and students who were taught using traditional techniques were very different from each other. In this case it can be concluded that learning media can also help students in mastering vocabulary, it is based on Puspitarini & Hanif (2019) which states that learning media is a tool both in the form of hardware and software that can be used by teachers to channel learning materials to students during the learning process.

In accordance with learning objectives, media can facilitate a more effective and efficient learning process. The results of the study using SPSS 26 obtained a t-test result of 0.000 which was said to be significant because the value was less than 0.05 which means H_a was accepted. It is proven that learning media has an effect on students' vocabulary skills. Learning media in the experimental group using the Memrise application is more liked by students and helps students to acquire vocabulary compared to the control class which does not get the same treatment. In this case using the Memrise application plays an important role in improving student scores.

Based on the data analysis, it is said that the t-ratio is higher than the t-table, indicating a significant difference between the experimental and control groups. Therefore, the researcher concludes that the use of Memrise application has a positive influence on vocabulary learning of class X students of SMA Negeri 1 Bulakamba in the 2021/2022 academic year.

4 CONCLUSIONS

The researcher concludes this chapter based on the findings and discussion in the research. This study aims to describe the effect of Memrise application on students' mastery of English vocabulary. The post-test results showed that the mean of the experimental group was greater than the mean of the control group ($77.57 > 75.64$). In this case, it can be interpreted that the vocabulary mastery of students who are taught using Memrise application has increased. Evidence of teaching vocabulary using memrise application helps students in vocabulary acquisition, this is based on the t-test results which show that there is a significant difference between learning with Memrise application and traditional learning in terms of English vocabulary development in tenth grade of SMA N 1 Bulakamba, meaning that H_a is accepted and H_0 is rejected. This is due to the fact that students learn while playing vocabulary-based activities when using Memrise app, as well as the fact that they are more active and less likely to feel bored while learning.

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