

THE USE OF MEMRISE APPLICATION ON STUDENTS' MOTIVATION IN LEARNING ENGLISH VOCABULARY

Penggunaan Aplikasi Memrise terhadap Motivasi Siswa dalam Pembelajaran Kosakata Bahasa Inggris

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Abstrak: Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan aplikasi Memrise terhadap motivasi belajar kosakata bahasa Inggris siswa kelas 8 di SMPN 24 Kota Serang, Provinsi Banten. Penelitian ini menggunakan pendekatan kuantitatif dengan desain eksperimen semu. Kelas eksperimen dan kontrol dalam penelitian ini ditentukan berdasarkan sampel purposif. Instrumen yang digunakan dalam penelitian ini yaitu angket dan observasi. Hasil penelitian menunjukkan bahwa nilai signifikansi post-test dari angket dan observasi perilaku untuk kelas eksperimen dan kontrol dengan sig (2-tailed) adalah 0,000 yang berarti $< 0,05$. Nilai hasil angket dan observasi perilaku adalah 4,42 dan termasuk ke dalam kriteria tinggi. Hasil ini menunjukkan bahwa hipotesis alternatif diterima, yang berarti bahwa aplikasi Memrise berpengaruh terhadap motivasi siswa untuk belajar kosakata bahasa Inggris di kelas 8 SMPN 24 Kota Serang.

Kata Kunci: aplikasi Memrise, kosakata Bahasa Inggris, motivasi

Abstract: This study aimed to determine the influence of the Memrise application on students' motivation to learn English vocabulary among 8th-grade students at SMPN 24 Kota Serang, Banten Province. This research used quantitative research with a quasi-experimental design. This study involved experimental and control classes that were selected by purposive sampling technique. The instruments in this study were a questionnaire and observation. The results showed the significance value of the post-test from the questionnaire and behavioral observation for the experimental and control classes with a sig (2-tailed) was 0.000, which means < 0.05 . The effect value of the questionnaire and behavioral observation results was 4.42, and it was included in high effect criteria. It shows that the alternative hypothesis was accepted, which concludes that the Memrise application has an influence on students' motivation to learn English vocabulary in the 8th grade at SMPN 24 Kota Serang.

Keywords: English vocabulary, Memrise application, motivation

INTRODUCTION

English is a crucial subject in everyday life since it serves as the language of international communication. As Maduwu (2016) stated, English is a universal language because most countries use it as the primary language. It is one of the international languages to be mastered by people.

In the Indonesian educational context, English becomes a mandatory course for both junior and senior high school. In learning English, however, many inhibiting factors occur in students. They need help understanding English lessons. The students' limited English vocabulary caused trouble understanding the lesson, and one of the causes was the need for more motivation to learn a language (Affandi & Syafi'i, 2018; and Muhamad, et al., 2021). This condition was the same as previously studied by Nuralisah & Kareviati (2020).

Similar circumstances also occur in the preliminary study. The students had several difficulties in learning processes, particularly in learning vocabulary. The constraints faced by the students embrace a shared comprehension of English, a lack of motivation to learn English and difficulties in understanding English texts. In addition, the teachers still used traditional methods and media, where he/she only provided English text and the students were asked to use the dictionaries. This method results in students' boredom and they spend a long time understanding the sentences given, as happened at SMPN 24 Kota Serang, which still used worksheets and dictionaries. It was still conventional and did not use a wide variety of learning models and media. They had yet to utilize the Android media application for the learning process. Based on preliminary interviews with English teachers for 8th grade at SMPN 24 Kota Serang, most students assumed that English was a complicated subject. As a result, they were not motivated to learn English.

The students may have had less motivation to learn English, so their learning outcomes were still low because students' learning motivation influences the process and student learning outcomes at school. Setiani (2011) stated that the achievement of the learning process was influenced by many things, one of which was motivation. Moreover, Sadirman (2012) argued that if students desire to learn, then the student's learning outcomes will be good. Then this means that motivation affects student success in obtaining optimal results. Otherwise, low student motivation will result in low learning outcomes.

In this era of advanced technology, it turns out that this problem can be overcome by using exciting and fun application media to learn English so that students become more enthusiastic and motivated to study hard (Hidayati & Diana, 2019; Halimah, 2021; Muhamad, et al., 2021; Putra, 2021; Sakila, 2020; Rahman, et al., 2020; and Usman & Baihaqi, 2020). Several previous studies have proved that using application media in learning can increase students' learning motivation. Halimah (2021) studied the *Kahoot* application and found that the *Kahoot* application could increase students' learning motivation. It was related to the research by Muhammad, et al., (2021), which proved that the *Our Word 1.0* application could increase students' learning motivation. Similar to the work conducted by Rahman, et al., (2020), they studied the *Quizziz* application; the research stated that the *Quizziz* application could increase students' learning motivation.

Several previous studies above used different learning applications.

The results of their works prove that using applications can increase both students' learning result and motivation. In this work, the researchers used an interactive application, i.e, the *Memrise* application, to see how this application affects the students' learning motivation considering that the previous studies from Affandi & Syafi'i (2018); Aminatun & Oktaviani (2019); Esmaeili & Shahrokhi (2020); Fadhilawati (2016); Nuralisah & Kareviati (2020); and Valencia, et al. (2020) have not yet discussed on how this application affects students' motivation in learning vocabulary. *Memrise* is a language learning app that use various interesting online learning methods. In the *Memrise* app, students can learn vocabulary and phrases and how to write and pronounce them. As stated by Affandi and Syafi'i (2018), by using the *Memrise* application to increase vocabulary, students will be interested in adding vocabulary with enthusiasm and fun because the available features are also attractive in audio, visual, and audiovisual modes. The features in this application are complete and there is vocabulary in the form of writing, video, audio, and questions. These features are also compatible for reading, listening, speaking, and writing practice. An attractive presentation will motivate and improve students' understanding abilities. Therefore, this work is aimed to determine the influence of the use of *Memrise* application on students' motivation to learn English vocabulary.

METHOD

Research design

To answer the research question, the researchers conducted quantitative research with a quasi-experimental design. Winarni (2011) stated that experimental research was a study of manipulating stimuli under experimental conditions and then observing the effect of the treatment. So, this research is a study to determine the influence of variable X on variable Y by comparing the results of experimental and control groups. Moreover, Sugiyono (2014) stated that quasi-experimental design has a control group, but it cannot entirely control external variables that affect the implementation of the experiment. Two classes were given a different treatment so that the difference in the results of the treatment could be seen.

Population and samples

The population was eighth grade students at SMPN 24 Serang. There were 168 students. The sampling technique was purposive sampling. In this research, the sample was divided into two classes. Class Eight B was selected as the experimental group, and Eight E as the control group.

Research instrument

The instruments in this study were a questionnaire and behavioral observation. The questionnaire was used to measure students' motivation in learning English vocabulary, and behavioral observation was used to support the questionnaire

results.

Data analysis

Data analysis was divided into three stages; (1) validity test and reliability test, (2) normality test and homogeneity test, and (3) hypothesis test using N-Gain Score test and independent sample test T-Test. In analyzing the data, the researchers used the SPSS 25 application program. Validity and reliability testing were aimed at determining the feasibility and accuracy of the research instrument used to measure the variables of the object under study.

The Pearson product-moment technique assisted in the technical validity testing of the questionnaire in this research. Then, the data was processed using the SPSS version 25 program to determine the correlation coefficient of each item's score with the instrument's total score. It can be determined that all items with a sig. <0.05 are valid, while items that achieve a sig. >0.05 are invalid. The results of calculating the correlation coefficient of the questionnaire with a total of 20 items obtained showed that all 20 items were valid. The validity test of behavioral observation used content validity testing. The validity testing of the content of this instrument was intended to test how well the instrument measures student motivation according to the objectives of this study. Texts were made by adjusting the instrument's contents with the research objectives, measurement of motivation, motivational characteristics, and observed activities, which were assessed by expert opinion from a counseling teacher at SMPN 24 Kota Serang by matching the instrument with the research objectives.

To test the reliability, the researcher used the Alpha Cronbach technique. In this process, the researchers take the students' try-out scores and calculate them using the SPSS version 25 application to make it easier. The test criteria in this reliability test were based on Ghazali (2011); the variable was said to be reliable if the Alpha Cronbach value was >0.70 . The result of the Cronbach Alpha value was 0.791, which meant >0.70 , so the reliability test of the questionnaire decision was reliable with acceptable internal consistency. Then, all items from the questionnaire were used to answer the research question. To test the reliability of the assessment in behavioral observation, the researcher used inter-rater reliability. Ghazali (2011) stated that in inter-rater reliability, the correlation coefficient between two sets of scores can be calculated if two different people gave the test. The test was examined by two raters, who in this study were an English teacher and a counseling teacher at SMPN 24 Kota Serang. The purpose of this procedure was to determine the correlation coefficient.

The researchers observed students' motivational attitudes when working on group assignments in the behavioral test observation at groups of the experiment and control class by giving scores according to the assessment guidelines. The researchers used inter-rater reliability to test the reliability of the instrument. The researchers tested reliability with the SPSS 25 program using Kappa. Based

on the calculation results from the SPSS 25 program, the Kappa scores from the behavioral observation test in the control class were 0.606, and the behavioral observation test in the experimental class was 0.538, for a total of 0.637, which means >0.20 . Therefore, the items of behavioral observation were reliable, with good strength and agreement between the two raters.

The normality test was used to examine whether the sharing of the related variables for each variable was normally distributed in the linear regression model. To test the normality of the questionnaire and behavioral observations, the researchers used the Kolmogorov-Smirnov formula with the help of the SPSS 25 program, with a significance level of 0.05, to ensure that the data is normally distributed. The normality test of the questionnaire showed that the significance of the pre-test for the experimental class was 0.074, and the post-test was 0.103. While the pre-test for the control class was 0.160 and the post-test was 0.115. The data were normally distributed because the significance of both classes was >0.05 . The normality test of behavioral observation shows that the significance of the test for the experimental group was 0.074 and the test for the control class was 0.200. It can be determined that the data were normally distributed since the significance of the two classes was >0.05 .

After the normality test, the researchers conducted a homogeneity test to determine how similar the samples in the two classes were. The homogeneity test of the questionnaire and behavioral observation was supported by SPSS 25 and the Levene statistical test. The results of behavioral observation scores show that the post-test significance value between the experimental and control classes was 0.181. This indicates that the results of the data from the behavioral observation test for the experimental and control classes are homogeneous since the significance value is greater than 0.05.

FINDINGS AND DISCUSSION

To determine the students' motivation to learn English, the researchers used questionnaires about the students' motivation to learn English and behavioral observation. The researchers collected the data in four meetings: the first meeting for the pre-test, the second for the first treatment, the third meeting for the second treatment, and the last meeting for the post-test. The pre-test was given to both classes at the first meeting of the study. The researcher did the treatment twice, using the *Memrise* application as a learning medium in the experimental class and Microsoft PowerPoint with video as a learning medium in the control class. Finally, the post-test was given to both classes at the last meeting of the study. The results of the questionnaire scores on students' motivation to learn English vocabulary in experimental and control classes can be seen in the table below.

Table 1
Descriptive statistics of questionnaire

	N	Minimum	Maximum	Mean	Std. Deviation
Pre Test Experiment	36	40.00	53.75	45.9375	4.42573
Post Test Experiment	36	70.00	90.00	80.3125	5.56115
Pre Test Control	33	36.25	53.75	45.9091	5.38800
Post Test Control	33	41.25	55.00	48.8636	4.24314
Valid N	33				

The data above shows that the student's motivation to learn English vocabulary in the pre-test of the questionnaire in the experimental class had the lowest score of 40.00, the highest score of 53.75, and the mean of 45.93. Then, the post-test results of the experimental class showed the lowest score of 70.00, the highest score of 90.00, and the mean of 80.31. The results of the pre-test and post-test data for the Experiment class show an increase in motivation to learn English vocabulary. The pre-test results in the control class had the lowest score of 36.25, the highest score of 53.75, and a mean of 45.90. Then the post-test results for the control class had the lowest score of 41.25, the highest score of 55.00, and a mean of 48.86. From the results of the pre-test and post-test data of the control class, it shows that there was an increase in motivation to learn English vocabulary.

To support the results of the questionnaire scores on motivation to learn English vocabulary, the researchers conducted behavioral observation tests in the experimental and control classes. This behavioral test was carried out by asking students to work on assignments in groups and assessing students' attitudes by assessors 1 and 2. The descriptive statistics from the behavioral observation test in the experimental and control classes were as follows.

Table 2
Descriptive statistics of behavioral observation

	N	Minimum	Maximum	Mean	Std. Deviation
Experimental Class	36	50.00	91.67	75.2308	13.13601
Control Class	33	33.33	66.67	48.4848	11.86984
Valid N (list-wise)	33				

Table 2 shows that the student's motivation to learn English vocabulary in the test of behavioral observation in the experimental class had the lowest score of 50.00, the highest score of 91.67, and the mean of 75.23. Then, the results of the control class showed the lowest score of 33.33, the highest score of 66.67, and the mean of 48.48. The difference in the results between the experimental and control classes showed that the experimental class taught using the *Memrise* application to increase students' motivation to learn English vocabulary was superior to the control class taught using conventional media.

To examine the influence of using the *Memrise* application on students' motivation in learning English vocabulary for grade 8 students at SMPN 34 Kota Serang, the researcher conducted a hypothesis test by combining the post-test results from the questionnaire and behavioral observation. The next step is com-

paring the results of the scores between the experimental classes treated by using the *Memrise* application and the control class treated by using Microsoft PowerPoint with learning videos. Researchers used the SPSS program and the independent sample test formula to test this hypothesis. Both hypothesis and criteria for hypothesis in this research are stated as follows:

Ho : *Memrise* application does not influence students' motivation to learn English vocabulary in the eighth grade at SMPN 24 Kota Serang.

Ha : *Memrise* application influences students' motivation to learn English vocabulary in the eighth grade students at SMPN 24 Kota Serang.

If the significance value or Sig. (2-tailed) >0.05, Ho is accepted and Ha is rejected. If the significance value or Sig. (2-tailed) <0.05, Ho is rejected and Ha is accepted.

At this stage, the researcher inputted the results of the final scores from the questionnaires and behavioral observations of the experimental and control classes into the SPSS program and then analyzed them using an independent sample T-test. The following is the result of the calculation of the analysis.

Table 3
Independent sample test

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
result	Equal variances assumed	.505	.480	17.128	67	.000	28.33970	1.65459	25.03713 31.64227
	Equal variances not assumed			17.170	66.931	.000	28.33970	1.65049	25.04524 31.63416

The result of the table above shows that the sig (2-tailed) was 0.000, which means <0.05. This indicates that Ho was rejected and Ha was accepted. This means using the *Memrise* application can increase the motivation to learn English vocabulary among the 8th grade students of SMPN 24 Serang.

To determine the effect of the *Memrise* application on students' motivation to learn English vocabulary, the researcher conducted an effect size analysis using Cohen's d formula. Then, to find Spooled, it used the Spooled formula. To find out the value interpretation criteria from the calculation results, the following were Cohen's d value interpretation criteria (Becker, 2000).

Table 4
Cohen's d value interpretation criteria

d value	Criteria
$0,8 \leq d \leq 2,0$	High
$0,5 \leq d < 0,8$	Medium
$0,2 \leq d < 0,05$	Low

The following is statistical data from the final score of the post-test questionnaire and behavioral observation in the experimental and control classes.

Table 5
Effect size from the Questionnaire

Statistic of post-test	Experimental class	Control class
$\bar{X}$ (Mean)	77,77	48,67
Sd (Standard of deviation)	6,51	6,66
n (Number of students)	36	33
S_{pooled} (Combined standard deviation)	6,58	

Based on the calculation results, the effect size of the post-test questionnaire of the experimental class and control class was 4.42, which can be interpreted as having an effect size with high criteria. The calculations of the questionnaire results show that sig. (2-tailed) was 0.000, which means <0.05 . To support the results of the questionnaire analysis, the researcher added a behavioral observation assessment whose sig. (2-tailed) was 0.000, which means <0.05 . The effect size of the post-test questionnaire of the experimental class and control class was 6.32, which can be interpreted as having an effect size with high criteria. The post-test behavioral observation between the experimental class and the control class was 2.13, which can be interpreted as having an effect size with high criteria. This shows that H_0 was rejected and H_a was accepted, which means that the use of the *Memrise* application can influence students' motivation to learn English vocabulary in the 8th grade at SMPN 24 Kota Serang.

The hypothesis result above shows that using *Memrise* as an application-based media can increase students' motivation to learn English. This present result conforms to several previous researches as already conducted by Halimah (2021) that proved *Kahoot* can increase students' motivation; Hidayati & Diana (2019) that proved *Duolingo* and *Hello English* can increase students' motivation; Muhammad et al. (2021) who used *Our World 1.0* application to improve students' motivation at an English course; Putra (2021) that proved *Google Meet* can improve students' motivation in learning English during the pandemic era; and Rahman et al. (2020) who used *Quizziz* application to increase university students' motivation. On the other hand, this present result also serves its novelty since *Memrise* can also increase students' motivation to learn English vocabulary.

Since the learning process uses the *Memrise* application, students also look enthusiastic, excited, curious, and enjoy the learning process. However, when learning using conventional media, such as projectors and videos, students look less active; some pay attention to the teacher, and some do not. It shows that using application learning media can create a meaningful learning atmosphere, and students feel enjoyment and enthusiasm during the learning process. As in the previous work, Halimah (2021) stated that the existence of learning media can create changes in students, a sense of joy, and enthusiasm in for teaching and learning activities. Teachers must be able to dare to apply an experiment by using several learning media to create learning motivation to boost students' achievement and activeness.

The results of this and the previous studies prove that the media used during

the learning process can influence changes in students' abilities, cognition, behavior, attitude, and motivation as well. In particular, Muhammad et al. (2021) and Setiawati (2017) concluded that learning media-based Android can influence changes in students' comprehension, behavior, attitudes, and motivation. The learning process using Android application media may increase the average level of student learning motivation. Therefore, this result can foster understanding among teachers and students regarding the development of meaningful learning media-based Android application like *Memrise*.

CONCLUSION

From the findings and discussion, it can be concluded that the *Memrise* application 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 questionnaire and observation that show Sig. (2-tailed) = 0.000, which means <0.05 . The effect size of the post-test questionnaire and observation of the experimental and control class of 4.42, and it can be interpreted as having an effect size with high criteria. The result shows that H_0 is rejected and H_a is accepted, which means that using the *Memrise* application can influence students' motivation to learn English vocabulary in the eighth grade at SMPN 24 Kota Serang with a high effect size. Reflecting the result, it recommends the next researchers to develop further works using the *Memrise* application to enhance students' listening, reading, writing, or speaking skills through mixed-methods or research and development in particular.

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