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THE EFFECTIVENESS OF USING THE LET ME SPEAK APPLICATION TO TEACH ENGLISH VOCABULARY

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A B S T R A C T

This study aims to determine the effectiveness of using the Let Me Speak application for teaching students at MTs Negeri 2 Pontianak. This type of research is a Pre-Experimental Design using the Group Pretest-Posttest Design. The sampling was cluster random sampling, and the sample in this study was 7th-grade English students consisting of 37 participants. The data collection technique used in this research is observation. The observation is made during a 3 times treatment activity. The focus of teaching vocabulary in this study was the adjective commonly used in the descriptive text, such as wild, brave, dangerous, and so on. The average value of the pre-test is 57,30. While the average value of the post-test was 83.51, Based on the data obtained in the hypothesis calculation, it was found that the use of Let Me Speak was effective in teaching vocabulary to students, with a significance level of 5% with dk = 35 shows that T-obtained > T-table (14,24 > 2.030). For the effect size, it showed that the score of using Let Me Speak was very big and had a strong significant effect on teaching vocabulary informed of adjectives in seventh-grade English students at MTs Negeri 2 Pontianak for the 2022/2023 Academic Year.

A R T I C L E   I N F O

1. INTRODUCTION

English is the most widely spoken language in the world. English plays an important role in the teaching and learning process in the world of education. English plays an important role in the teaching and learning process in the world of education. In Indonesia, English is taught as a foreign language (Lie, 2009) and is officially taught as a compulsory subject in all SMP and SMA and also offered as a general course at the tertiary level (Kasihani, 2010). Teaching English in junior high schools requires knowledge of different materials, methods and strategies. As a reason, there are some differences in the teaching of English in junior high schools.

Today's millennial students, almost entirely rely on tools for learning, particularly by leveraging technology in the form of smartphones to facilitate learning by providing access to knowledge. According to Klimova and Polakova (2020), are now happier and believe that accessing their learning materials from mobile devices makes it easier and feels very important and that learning via smartphones can complete course material faster than what they want to learn and improve. By using technology, students can research anytime and anywhere. Smartphone users consist of various groups including junior high school students. Smartphones can be used as another alternative medium for learning a variety of English skills. It is very useful for the general public and students who want to learn English quickly. While the use of mobile learning has a positive impact, it does not rule out the shortcomings of traditional education regarding the use of technology, especially in the process of developing language learning, especially to teach English better (Tu, 2021).

Based on pre observation, students basically learn the words of lexical content because the learner knows the main words that govern the English language. One of the factors that would help students master English as a foreign language is the acquisition of vocabulary. This means that students can understand and use words and their meanings. The better the student learns the vocabulary, the better the student would be in their language. With limited vocabulary and limited environmental knowledge to develop lexical knowledge, it would be difficult for students to master English vocabulary. In addition, sometimes students make mistakes in pronouncing the various vocabulary learned. According to Solano et al. (2019), Vocabulary is a list of words in the target language. Active and passive vocabulary are the two main types of vocabulary. Active vocabulary consists of words that we understand and use in everyday speaking and writing. Passive vocabulary consists of words that we can recognize but are rarely used in normal conversation. On the other hand, vocabulary is defined as a list of words and their meanings edited from a particular alphabet (Alizadeth, 2016).

According to Mindog (2016), Smartphones in particular can offer many opportunities for language learners, and their rapid adoption makes it easier to realize those opportunities. Nowadays, children, especially students, tend to be more open to online learning to improve their English. According to Elaish et al (2019), Mobile applications that can be used to combine technology and educational components to improve the achievement and motivation of students learning English vocabulary can be related to the use of educational applications.

Let Me Speak is an application that specializes in learning to speak English for the development of today's millennial children, who can learn anywhere on the mobile app by using a mobile phone. Children may be interested in learning to improve their English, particularly in learning and deepening vocabulary, with the help of a mobile app like this. Let Me Speak provides access in the form of an application, where this application provides an overview, a selection of vocabulary objects that you want to learn, and then

there are levels that can make the user feel better about playing and learning in it. In language programs and quiz/test applications, they are the most commonly used in learning to develop language skills.

According to Elaish et al (2019) learning programs can use quizzes/tests to measure the level of motivation and performance in developing vocabulary learning in student practice. Using the Quizlet app on your smartphone is a great way to motivate students into vocabulary learning. Mobile applications, according to Rezaei, Mai, and Pesaranghader (2014), are appropriate media for making students enjoy learning the words. When students use vocabulary, it appears that they are motivated to learn it.

Previous research on the use of Duolingo conducted by Ajisoko, (2020), which also has similarities with this research, is related to mobile applications that can work in the implementation of learning that can be carried out by students for development of their mastery of vocabulary in English. And then, Ginting and Fithriani (2021) Their research also related to the use of application media, namely the Hello English application as a vocabulary teaching material by including pictures and the intended vocabulary. Rezae, Mai, and Pesaranghader (2013) in their research had found that students tend to have a positive tendency towards the use of multimedia in learning vocabulary through mobile applications as well as improving vocabulary learning and English learning achievement. The difference between my research and previous research is from the application and its features and this application is still rarely used. The mobile application that researchers can download via Android and iOS is the Let Me Speak application which helps researchers learn English, especially vocabulary. The gaps discovered can help researchers advance in their new research. This research was also conduct research in a shorter period of time, which will be only two weeks. This research also wants to see how it works in using the Let Me Speak application as a tool to teach vocabulary skills to students, especially seventh graders. This is a Pre-Experimental Research on the seventh-grade students of MTs Negeri 2 Pontianak in Academic year 2022/2023. To investigate this, therefore, the following questions will be considered.

Research questions are

(i) Is the use of the Let Me Speak Application effective to teach vocabulary on the seventh-grade students of MTs Negeri 2 Pontianak in Academic year 2022/2023?

(ii) How effective is the use of the Let Me Speak application to teach vocabulary on the seventh-grade students of MTs Negeri 2 Pontianak in the Academic year 2022/2023?

For this study, the following hypotheses were formulated:

(i) The Null hypothesis H0 is the use of the Let Me Speak application is not effective in teaching vocabulary on the seventh-grade students of MTs Negeri 2 Pontianak in Academic year 2022/2023.

(ii) The Alternative Hypothesis Ha is the use of the Let Me Speak application is effective in teaching vocabulary on the seventh-grade students of MTs Negeri 2 Pontianak in Academic year 2022/2023.

2. METHODS

Design

The purpose of this research is to find out how students can learn English with "Let Me Speak" application. Researchers used pre-experimental designs because this

research was primarily interested in testing student learning activities. The most basic type of research design is pre-experimental. In pre-trials, after several agents or treatments are thought to cause changes, either one group or multiple groups are observed in pre-trials. This is a pre-experimental research in which the researcher does not use a control group or uses the same group as the experimental group (Creswell, 2014). Quantitative methods are used in pre-experimental research designs. Pre-test, measurement techniques, and post-test data collection techniques are examples of data collection techniques. Furthermore, the tool collection method of pretest-posttest and questionnaires can aid in tool collection as well as adequate data for this research. This quantitative method enables the researcher to assign a monetary value to the changes in the research results for analysis.

$$\textit{Pre-Experimental: } 0_1 \underline{\qquad} X \underline{\qquad} 0_2$$

Where:

0_1 = Pre-test

X = Treatment

0_2 = Post-test

The diagram above shows an illustration of a pre-experimental research design. X represents the treatment given in the design of this Let Me Speak App. 0 represents the measurement that is recorded along with the previous research record to the number attached to 0. The pre-test marked 01 has been carried out first before applying the treatment. The post-test 02 process after the treatment is given a horizontal line representing the structural sequence of the process that must be followed in this research. In the pre-test, researchers were score students on a vocabulary test without treatment. On the other hand, in the post-test, student results were record after treatment. The treatment of using the Let Me Speak application that the researcher designed is really needed to help change and influence students' vocabulary mastery.

Subject or Participant (take one term)
This research has conducted at MTs Negeri 2 Pontianak School for seventh-grade students. The total number of students is 480 students in seventh grade at MTs Negeri 2 Pontianak. The researcher has decided to collect samples of using cluster random sampling technique. The cluster random sampling method is a cluster chosen at random and all individuals in the cluster are taken as samples (Acharya, Prakash, Saxena, & Nigam, 2013). This means that researchers randomly take participants or classes to be used in this experimental research. From the cluster random sampling technique, the researcher decided to choose only 1 class because the total population of students in 1 class made it possible to study it. From, various classes, there is 1 special class, namely seventh grade English, which was taken by the researcher with a total of 37 students participating.

Data Collecting Technique (how the data is obtained)
The researcher chose to use the Measurement Technique because this technique uses an important tool for measuring research like this to make it more accurate and useful, especially in pre-experimental research. Measurement is also closely related to tests that can be used as a technique for the retrieval of analytical data from research.

According to Papadimitriou et al (2013), The conclusions of the research direction must be strongly influence by the data collection techniques obtained from the experiments performed in the previous iterations. This makes it "measurement-based" and requires you to specify relevant criteria and metrics, as well as the appropriate measurement tool. Researchers use pre-test and post-test as tools to measure the data generate from this research.

1. Pre-Test

   Pre-testing is the first step in collecting student data. The purpose of this section is to determine a student's vocabulary before giving treatment. In this step, the researcher would ask the students to infer from different vocabularies by identifying the topic given in the first test.

2. Treatment

   Treatment is the second step where researchers provide explanations and notifications as well as actions taken from using the Let Me Speak application. Treatment would be carried out 3 times during the research activities. Then from the treatment, the researcher recommends that students use the Let Me Speak application for their learning to find out how effectively they learn through the application. But before that, the researcher would direct students to download the Let Me Speak application first. In the treatment, the exercises that must be done to students are to remember vocabulary and test pronunciation/spelling on each predetermined vocabulary. Assessment of treatment would consist of pronunciation, grammar, vocabulary, and fluency.

3. Post-Test

   Post-test is the final step designated by the researcher. In this post-test, there are activities that require students to retest what they have learned and apply using the "Let Me Speak" application. The researcher wants to know the changes that occur from what has been used previously and become a tool to measure the results of this research.

Data Analysis Technique
The technique of data analysis used by the researcher are depending on data collection which explains as follows:

1. The researcher was analyzing the score that would be taken from the pretest and posttest. Based on the curriculum, the standard of minimum mastery English subject is 75. Therefore, the researcher used ordinal scale as the measurement tool to determine students' skill of students' score areas.

Table 1.

90 – 100	Very Good
90 – 89	Good
70 – 79	Fair
60 – 69	Low
50 – 59	Very Low

2. The researcher finds out the mean of pre-test (x) and mean of post-test (y), the formula is:

$$x = \frac{\sum x}{n}$$

$$y = \frac{\sum y}{n}$$

Where:

x = *Pre-test*

y = *Post-test*

$\sum x$ = *Total score pre-test*

$\sum y$ = *Total score post-test*

n = *Total participant*

3. The researcher finds out the average standard variants and the average standard deviation, the formula is:

Variants:

X:

$$s_x^2 = \frac{\sum (x_i - \bar{x})^2}{n - 1}$$

Y:

$$s_y^2 = \frac{\sum (y_i - \bar{y})^2}{n - 1}$$

Where:

s_x^2 = *Standard variant Pre-test*

s_y^2 = *Standard variant Post-test*

x_i = *Value on-I Pre-test*

y_i = *Value on-I Post-test*

n = *Number of students*

Deviations:

X:

$$s_x = \sqrt{\frac{\overline{\sum(x_i - \bar{x})^2}}{n-1}}$$

Y:

$$s_y = \sqrt{\frac{\overline{\sum(y_i - \bar{y})^2}}{n-1}}$$

Where:

s_x = Standard Deviation Pre-test

s_y = Standard Deviation Post-test

x_i = Value on-I Pre-test

y_i = Value on-I Post-test

$\bar{x}$ = Sample means of Pre-test

$\bar{y}$ = Sample means of Pos-test

n = Number of students

4. The researcher finds out the Correlation Calculation, the formula is:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2}}$$

Where:

r = Correlation

$\sum x$ = Sum of Pre-test score

$\sum y$ = Sum of Post-test score

$\sum x^2$ = Sum of Pre-test quadrate score

$\sum y^2$ = Sum of Post-test quadrate score

n = Number of students

5. Determine the final result of effectiveness, calculated by using T obtained, the formula is:

$$t_{obtained} = \frac{\bar{X} - \bar{Y}}{\sqrt{(\frac{s_x^2}{n_1} + \frac{s_y^2}{n_2}) - 2r\left[\frac{S_X}{\sqrt{n_1}}\right]\left[\frac{S_y}{\sqrt{n_2}}\right]}}$$

Where:

T = Test Score

s_X^2 = Standard variant Pre-test

s_y^2 = *Standard variant Post-test*

S_x = *Standard Deviation Pre-test*

S_y = *Standard Deviation Post-test*

$2r$ = *Correlation score*

n = *Number of students*

6. Finally, when the researcher wants to find the t-table distribution with a significant 5%, the formula to be used is as follows:

$$df = N - k$$

Where:

df = degree of freedom

N = number of students

k = number of variables

7. Formula to determine the effect size

$$SDspooted = \frac{\sqrt{(N_1 - 1)S^1 + (N_2 - 1)S^2}}{N_1 + N_2 - 2}$$

Where:

$N1$ = degree of freedom

$N2$ = number of students

S^1 = standar deviation pre-test

S^2 = standar deviation post-test

$$Effect\ Size = \frac{Y - X}{SD_{spooted}}$$

Where:

Y = Average post-test

X = Average pre-test

Table 1.

The Classification of Effect Size

μ ≤ 0,15	Very Small

0,15 < µ ≤ 0,40	Small
0,40 < µ ≤ 0,75	Moderate
0,75 < µ ≤ 1,10	Big
µ > 1,10	Very Big

Dincer (2015)

## 3. RESULTS AND DISCUSSION

Result The computation of t-value

In order to answer the first research question, the researcher analyzed the difference of pre-test and post-test in students' vocabulary test to determine the significance after the students were given treatment by using of the Let Me Speak. The researcher calculates *t-ratio* ($t obtained$ from the result of counting) by using the above formula. The $t obtained$ score is=-1,86. Then, the researcher determines *t-critical*, where α 5%/2 = 0.025, because the researcher used two tailed tests. After that, the researcher checked the t- distribution table of significance (t-table) df = n-k, the researcher found that df = 37 – 2 = 35. Since the result of df was 35, then the t-table value is 2,03. Then the researcher compared between *t-ratio* and *t-critical* (*t-table* value in t-table), the result of statistical analysis shows that *t-value* is higher than *t-table* (-1,86> 2,030).

Hypothesis Testing

From the data analysis above, the $t obtained$ is -1,86. It is higher than the t-table (-1,86> 2,030), at a degree of freedom 35 (dr = 35) and at 95% of confidence (α = 0,025 by using two tailed test). To make it easier, the researcher includes a two-tailed figure as follows:

Table 3.
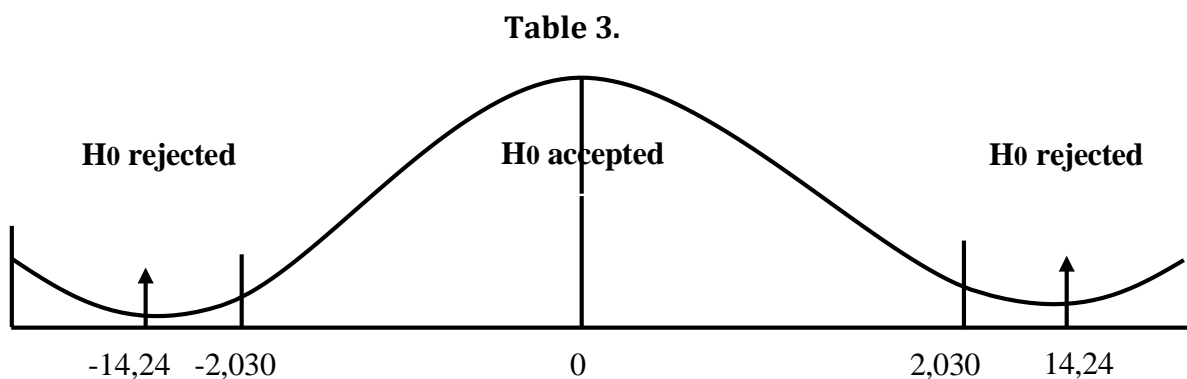
The picture above shows that teaching vocabulary using the Let Me Speak application to seventh grade students of MTs Negeri 2 for the 2022/2023 Academic Year has significantly increased students' vocabulary mastery. Thus, it is proven that the alternative hypothesis (teaching vocabulary using Let Me Speak to seventh grade students of MTs Negeri 2 has a significant effect on students' vocabulary mastery) is accepted and the null hypothesis (teaching vocabulary using Let Me Speak to seventh grade students of MTs Negeri 2 does not affect students' vocabulary mastery significantly) was rejected. A significant difference can be interpreted that the students' vocabulary mastery is significant after being taught using the Let Me Speak application.

Analyzing of the effect size

Since the hypothesis testing showed that the alternative hypothesis (teaching vocabulary by using the Let Me Speak application to seventh-grade students of MTs Negeri 2 affect the vocabulary mastery significantly) is accepted and the null hypothesis (teaching vocabulary by using the Let Me Speak application to seventh grade students of MTs Negeri 2 does not affect the vocabulary mastery significantly) is rejected. So that, the researcher needs to know the significant effect of the treatment being implemented, the researcher analyzed the effect size of the Let Me Speak application to seventh-grade students of MTs Negeri 2. The calculation of the effect size can be described as follows:

From the data analysis of standard deviation of pre-test is 58,61.

$$SDspooted = \sqrt{\frac{(N_1 - 1)S_x^2 + (N_2 - 1)S_y^2}{N_1 + N_2 - 2}}$$

$$= \sqrt{\frac{(37 - 1)121,22 + (37 - 1)56,13}{37 + 37 - 2}}$$

$$= \sqrt{\frac{4.363,92 + 2020,68}{72}}$$

$$= \sqrt{\frac{6.384,60}{72}}$$

$$= \sqrt{88,68}$$

$$= \mathbf{9,42}$$

$$Effect\ Size = \frac{Y - X}{SD_{spooted}}$$

$$= \frac{83,51 - 54,86}{9,42}$$

$$= 3,04$$

From the result above, the score of the effect size is categorized as strong effect, where the effect size is 3,40, which means that the use of Let Me Speak in teaching vocabulary has a strong and significant effect on increasing students' vocabulary mastery.

4. CONCLUSION

From the data that was analyzed in the previous section, it was found that the students' vocabulary mastery increased significantly after the class was treated four times with the application of the Let Me Speak application, as indicated by the post-test average score, which was higher than the average score of the pre-test. The increase in average indicates that, in general, the treatment has had a good impact on students' vocabulary mastery, so that the post-test results show better output than the pre-test

results. From the results of the tabulation of the results of the calculation of the t-test, it shows that the value obtained exceeds the value given, which means that using Let Me Speak is effective, and in line with that, the results of the calculation of the effect size are categorized as having a strong level of effectiveness, which leads researchers to conclude that using Let Me Speak has a strong significance in teaching vocabulary on nouns, adjectives, and verbs.

The findings of this study are in line with the findings of existing studies which reveal that there are significant differences in student scores before and after the treatment is applied as indicated by the results of statistical calculations which show that the t observation value is higher than the t-table which consequently results in rejection of the null hypothesis. Other research findings to support this result revealed that the group taught with the Let Me Speak application significantly outperformed the scores on the post-test indicating that the strategy provided a significant increase in students' vocabulary.

Previous research on the use of Duolingo conducted by Ajisoko, (2020), which also has similarities with this research, is related to mobile applications that can work in the implementation of learning that can be carried out by students for development of their mastery of vocabulary in English. And then, Ginting and Fithriani (2021) Their research also related to the use of application media, namely the Hello English application as a vocabulary teaching material by including pictures and the intended vocabulary. Rezae, Mai, and Pesaranghader (2013) in their research had found that students tend to have a positive tendency towards the use of multimedia in learning vocabulary through mobile applications as well as improving vocabulary learning and English learning achievement. The difference between my research and previous research is from the application and its features and this application is still rarely used. The mobile application that researchers can download via Android and iOS is the Let Me Speak application which helps researchers learn English, especially vocabulary. Another reason is the application used in this study which is a novelty where reference sources are limited so this research is very important as a comparison with other similar applications as one of the interactive learning media for learning English, especially for learning vocabulary.

Besides being shown by statistical calculations, the effectiveness of using the Let Me Speak application on student vocabulary is also shown by the learning process of students when given treatment where they become more active in participating in activities carried out by researchers. Being active here means they don't just sit, read and pay attention to the researcher's explanation, but they can also carry out several activities actively with their teammates. This is in line with the theory put forward by Hinebaugh (2009) which states that strategy is considered a good teaching tool for developing communication skills and creative thinking because it is suitable for reinforcing ideas in other subjects for students who are visual learners as well as working students. In teams, each team member takes turns being an artist drawing the given vocabulary making the words easier to remember. During the treatment, the researcher found that students could follow the procedures in using the Let Me Speak application easily.

Regarding the strength of the significant influence of the Let Me Speak application on student vocabulary, there are several causes that influence it. The success of the treatment more or less affects the results of the study. Since the first treatment was given, the researcher has tried to carry out the learning process based on the lesson plans that had been made before. So that it can be ensured that this research has been carried out according to proper procedures. During the first treatment, to avoid student confusion, the researcher first explained the word adjective.

The next step is mostly the responsibility of the students. In the second and third treatments, students are getting used to using and playing the Let Me Speak application. They are more prepared and also prepare before class starts. The repeated activities in each treatment are actually meant for students to focus on increasing their vocabulary so that their scores increase in the post-test rather than in the pre-test. In addition, the effect size calculation is categorized as strong effective, which leads the researcher to reject the null hypothesis and conclude that the use of the Let Me Speak application has a strong significant effect on teaching vocabulary, especially for learning nouns, adjectives, and verbs, in seventh-grade students of MTs Negeri 2 Pontianak in the academic year 2022-2023.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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