Utilizing Mobile App: (Hello English) Has Significant Impact on Students' Vocabulary Mastery

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ABSTRACT

The purpose of this research is to find out the relationship and significance impact of utilizing Mobile Assistance Language Learning (MALL) through Hello English Application as learning media on student’s vocabulary mastery. The quantitative method was used by researcher because the data will be processed in numerical form and statistical analysis. In this research is conducted without a control group, so the data analysis used pre experimental research design one group pretest- posttest. The sample of the research was consisted of 25 students at seventh grade of MTS Salafiyyah Pajarak in academic Year 2022/2023. The data was collected by using test which consisted of pre-test and post-test. The Wilcoxon signed-rank test resulted z-score of -4.298 with a p-value (Asymp.Sig. (2-tailed). The significance value is 0.000 less than 0.05, so the hypothesis decision is to accept Ha and reject Ho. It means that there is a significant difference between the pre-test and the post-test. It can be concluded that using Hello English application as an English learning media has a significant impact on students' skill vocabulary acquisition. It is proved by a significant difference between the mean pretest and posttest score. The result of this research indicates that there is a significant impact in the use of Hello English App as a learning media for students' vocabulary mastery skill.

1. Introduction

In the era of digitalization, English has become a very important foreign language to learn. Almost all information in the daily life using English (Andini et al., 2022). Vocabulary becomes the most basic and main aspect when learning a foreign language. Vocabulary, according to Hiebert and Kamil (2005), is broadly defined as word knowledge. It means that vocabulary refers to our knowledge and comprehension of word meaning. Vocabulary is seen as a helpful factor in learning English (Prihandoko et al., 2022). Without words, there is nothing to convey.

In formal education, English is taught from elementary till high school which is used written test or oral test (Rahman & Weda, 2019). English learning focuses on improving students' ability to use English in six areas: listening, speaking, reading, viewing, writing, and presenting in the form of text (Zainuddin & Zumrudiana, 2022). Based on the skills, vocabulary mastery is needed in language learning. Because languages are built on words, teaching vocabulary is an essential part of learning language. The students' vocabulary mastery is important because word is the foundation of language learning. Vocabulary is the first step in assisting someone to learn English. According to Caselli et al., (2012), in a research the meaning of a word is frequently defined by its relationship to other words. It means that everyone must learn what words mean and how to use them correctly. As a result, vocabulary should be learned and applied in appropriate contexts. With mastery of vocabulary, it makes it easier for someone to read, write, hear and speak in English.

In learning English, vocabulary is a challenge for students. Vocabulary mastery is difficult because it is something new and unfamiliar for them (Prihandoko et al., 2022). It needs a technique or learning media that will foster their vocabulary skill. In the course of instruction and learning activities, vocabulary teaching strategies are concern for teachers whether the method given is appropriate or not. Ginting & Fithriani, (2013) in a research, misspelling is one of the most noticeable issues. In the research, it discovered that the students lacked English vocabulary. When the researcher asked the students to understand some sentences, they couldn't. In addition, it has difficulty in understanding and remembering vocabulary. Some pupils achieve below-target learning outcomes (Rahman et al., 2019). Learners say that the difficulty in English learning is that there is difference between pronunciation and writing (Sukmawaty et al., 2019).
This results in students not being interested in learning English and finding it difficult. In addition, Teachers employ traditional methods in the learning process, such as having students rewrite vocabulary on the board and memorize it at home. This monotonous learning process results in students getting bored in learning English.

Complex English vocabulary is particularly challenging to master. Students who are learning vocabulary have trouble because of this complexity (Ismail, 2019). This might be brought on by word choice and word forms with various meanings. Students can choose one of several methods to help them increase and develop their English vocabulary. The English teacher also needs to be well-versed in classroom teaching techniques if they want to help students develop their vocabulary. Teachers must help students learn vocabulary in a quicker, more efficient, and more effective way.

Research by Anderson and Larsen-Freeman reveals two ways in which technology improves language learning. Offer educational resources like podcasts, online dictionaries, webinars, discussion boards, and more. and improve learning by giving more people access to the target language, letting students work at their own pace, and giving them the freedom to decide when and where they want to learn.

In fostering vocabulary mastery, a suitable teaching strategy should be used by the teacher. In this study, the researchers proposed a strategy to solve students' problems, particularly with vocabulary mastery. In this technology era, there are numerous teaching strategies available. Almost all technologies are integrated in ELT. However, the researcher is interested in using (MALL) Mall Assisted Language Learning because it is famous used in learning environment (Nuraeni et al., 2020).

Mobile-Assisted Language Learning (MALL), a way of learning English as a foreign language, is seen as a promising technology for teaching languages. MALL refers to the use of technology, particularly mobile technology, in the field of language learning. Because mobile learning takes place on smartphones, learning can include a variety of learning. Specifically, application-based games that can expand students' vocabulary and stimulate their interest in learning new words. Thornbury (2006) also notes that rewarding play helps students remember words better. Students in the digital era are maturing along with technological advances. They live with digital devices and online has become part of their lifestyle. Therefore, they can easily obtain the desired information quickly.

As a result, the researchers plan to conduct additional research to determine whether using Hello English application as learning media has a significant impact on the vocabulary mastery skills of 7th grade students at the Islamic secondary school level. The different between this research and previous research is through the research method, the sample and the aspect used by the researcher. Researcher is currently using Pre Experimental research as a design method. Using vocabulary mastery as an aspect to be examined and using the seventh grade as a sample of research. As an alternative and novel teaching strategy, the researcher used it as a learning media that only concentrates on teaching English through games. It is hoped that doing this will aid students in developing their vocabulary skills.

a. Vocabulary mastery's significance in language learning

Thornbury (2006) stated that to master vocabulary, students must understand its meanings, spoken and written forms, grammatical, word derivation, word combinations, word registration, spoken and written language, connotations or word associations, and word frequency.

Aside from grammar, pronunciation, and spelling, vocabulary is considered an important aspect of language learning. Students can master four language skills: listen, speak, write, read through vocabulary (Hasnia et al., 2022). Because of this, the mastery of four language skills depends on the vocabulary one knows. The ability of student to communicate effectively and clearly with one another depends on their command of terminology.

One factor in learning English as a foreign language (EFL) is vocabulary mastery. It implies that the students the word and its meaning (Sudarmaji et al., 2022; Sahib & Sahraeny, 2022). The greater the students' vocabulary, the better their language performance. Students will struggle to master English skills if they have a limited vocabulary.
b. The Definition of Hello English Application

The Hello English app is an interactive, customized, contextual English learning tool designed especially for students learning English as a second language. It was released on Google Play in October 2014. Most of the downloads are from Asia and is the 3rd ranked educational app in the world (January 2017). The purpose of Hello English is to educate native English speakers. In many countries such as India, Sri Lanka, Bangladesh, Nepal, Qatar and others, this program consistently ranks first among free programs in the education category.

Advanced speech recognition technology built into the Hello English app allows users to speak and engage in meaningful conversations while learning a large vocabulary. It offers a comprehensive learning experience that combines interactive learning with entertaining games and speaking practice. It also provides learners with a unique and engaging learning environment that uses news, sports and entertainment to help them improve English vocabulary mastery. Most of the program's features also work offline, which makes learning easier and saves data costs for user (Patni & Patni, 2017).

2. Methodology

In this case, quantitative method is used by researcher because the data will be processed in numerical form and statistical analysis. In this research is conducted without a control group, so the data analysis used pre experimental research design. It is supported by (Sugiyono, 2016) stated that pre-experimental design is a project involving only one group or class that receives a pretest and posttest.

In collecting the data, vocabulary test as an instrument was conducted of the class. The following is a procedure of collecting the data.

\[
\begin{array}{ccc}
\text{O1} & \text{X} & \text{O2} \\
\hline
\text{O1} : & \text{Pretest (before using Hello English App as learning media)} \\
\text{X} : & \text{Treatment (Using Hello English App as learning media)} \\
\text{O2} : & \text{Posttest (After using Hello English App as learning media)} \\
\end{array}
\]

Notes:

- O1 : Pretest (before using Hello English App as learning media)
- X : Treatment (Using Hello English App as learning media)
- O2 : Posttest (After using Hello English App as learning media)

Pre-test was given to access student's vocabulary ability before using Hello English Application as learning media in the. The researcher was given approximately 30 minutes to complete the first survey in this case. After doing a pretest, the researcher provided a treatment by using Hello English Application as learning media in the class. The last, the researcher gave the students a posttest with the same type question and duration after providing a treatment by utilizing Hello English Application as learning media on students' vocabulary mastery skill. Both pre-test and post-test consisted 15 question multiple choice with four choices, but the content of the tests was disparate. However, the composition and properties remained unchanged.

3. Result and Discussion

The researcher used Microsoft Excel 2010 and SPSS 16 as assistant in calculating the data analysis. Data analysis techniques are used to determine data that has been taken using statistical inferential which aims to test the hypothesis using the Wilcoxon Signed Rank Test with normality prerequisite test. Normality test is important because it helps to identify which statistical tools are most useful for data collection.

Figure 1. Hello English Application Logo
According to Kaur & Kumar (2015), the Wilcoxon sign rank test can be used to determine significance when using non parametric statistics. The Wilcoxon signed rank test is a nonparametric test used to determine the significance of a difference between two sets of data using an ordinal or interval scale rather than a normal distribution. The paired t-test or t-paired test can be substituted with the Wilcoxon signed-rank test when the normality assumption is not met. This test is also known as the Wilcoxon Matched Pairs Test.

Dependent variables are ordinal or interval/ ratio data scales, but are not normally distributed. Therefore, before hypothesis testing, the data must be tested using the Kolmogorov-Smirnov formula to test the normality of the data on the data using SPSS v.16. If p > 0.05 is obtained, the data is said to be normally distributed. First, perform a normality test for differences between the two groups. Differential: Pretest result minus posttest result. When the normality assumption is met, it is best to use the appropriate parametric test, i.e. paired t-test. And if it fails, as an alternative the Wilcoxon Signed Rank Test can be used.

To determine whether or not the Hello English Application as a learning media has an impact on students' vocabulary mastery, the researcher interprets the results of the Wilcoxon signed rank test: The alternative hypothesis would be accepted if Asymp Sig. (2-tailed) < 0.05. There is the average difference between pretest and posttest. It implies utilizing the Hello English application as a learning media has an impact on students' vocabulary mastery.

The null hypothesis would be rejected if Asymp Sig. (2-tailed) > 0.05. There is no average difference between pretest and posttest. It implies utilizing the Hello English application as a learning media has no impact on students' vocabulary mastery.

To address the research questions of this study, preliminary analyses, t-tests, and hypothesis tests are presented and described in turn in this session. The data from the pre-test and post-test are not normal, according to the results of the preliminary analysis. As a result, the Wilcoxon sign rank test was used by the researcher. To calculate the difference between the class’s pretest and posttest results, the mean score of each data set was computed. Using data analysis steps, the following data frequency distribution was generated.

<table>
<thead>
<tr>
<th>Table 1. Statistic description</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>25</td>
<td>26.4</td>
<td>72.6</td>
<td>52.536</td>
<td>16.5527</td>
</tr>
<tr>
<td>Posttest</td>
<td>25</td>
<td>52.8</td>
<td>100.0</td>
<td>78.184</td>
<td>13.6289</td>
</tr>
</tbody>
</table>

The description result of pretest before using Hello English Application. The data analysis revealed that the maximum score is 72.6 and the minimum score is 26.4, with the mean score is 52.536, and the standard deviation is 16,5527. However, the result of posttest after giving using Hello English Application as learning media, the maximum score is 100 and the minimum is 52.8, with the mean score is 78,184 and the standart deviation is 13,6289.

<table>
<thead>
<tr>
<th>Table 2. Positive-negative ranks</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ranks</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest - Pretest</td>
<td>Negative Ranks</td>
<td>0a</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Positive Ranks</td>
<td>24b</td>
<td>12.50</td>
</tr>
<tr>
<td></td>
<td>Ties</td>
<td>1c</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>
Table 3. Test Statistics

<table>
<thead>
<tr>
<th>Test Statisticsb</th>
<th>Posttest - Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-4.298a</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Based on negative ranks.
b. Wilcoxon Signed Ranks Test

Source. SPSS v16

In this study, researchers used Hello English Application as a learning media in the class. Teachers use the subject matter contained in the application and peeled in the form of games to improve students' abilities, particularly vocabulary mastery. The pretest and posttest results support this research. The pretest results were derived from the average score of 25 students, which was 52,536. The average posttest score was 78,184. So that the two test results show an improvement as a result of the posttest after treatment. (Table 1)

With this score, the use of Hello English Application as English learning media has improved more than the pre-treatment condition. The Wilcoxon signed rank test was used to test hypothesis in this study.

Based on the wilcoxon signed rank test calculation results, the Z value obtained is -4.298 with p value (Asymp.Sig. 2-tailed). The significance value is 0.000, which is lower than 0.05 or the study's critical limit. It is indicated that the hypothesis decision is to accept Ha and reject Ho or that there is a significant difference between pretest and posttest, implying that "there is a significant difference or influence on the use of the hello English application as an English learning media in improving students' vocabulary skills." (table 3)

The mean rank value and the sum of the ranks from the positive ranks, negative ranks, and ties groups are the values obtained from the Wilcoxon signed rank test formula.

Negative Ranks denotes a sample with a second group value (posttest) lower than the first group value (pretest). Negative ranks or the difference (negative) between the values for Pre Test and Post Test are 0 in all N, Mean Rank, and Sum Rank values. This value of 0 indicates that the value does not decrease (reduce) from pretest to posttest.

Positive ranks are samples with a second group value (posttest) greater than the value of the first group (pretest). Positive Ranks or the difference (positive) between pretest and posttest scores. This data shows 24 positive data (N), which means that 24 students improved their grades or learning outcomes from pretest to posttest. The Mean Rank, or average increase, is 12.50, while the number of positive rankings, or Sum of Ranks, is 300.00.

Ties occur when the value of the second group (posttest) equals the value of the first group (pretest). The Ties score in this data is 1, indicating that there is one student who has the same score on the pretest and posttest. Changes in the results of the data that have been presented prove that the use of the hello English application as a learning medium has a significant influence on improving students' vocabulary skills.

4. Conclusion

Researchers can reach the following conclusions based on the findings of their research and discussions:

Using Hello English app as a media for English learning to increase students' vocabulary mastery has shown great results. The Wilcoxon signed-rank test yielded z-score of -4.298 with a p-value (Asymp.Sig. 2-tailed). The
significance value is 0.000, which is below the critical limit of the study, i.e. less than 0.05, so the hypothesis decision is to accept Ha and reject Ho. This means that there is a significant difference between the pre-test and the post-test. It can be concluded that "Using the Hello English application as an English learning media has a significant impact on students' skill vocabulary acquisition."

References


Zainuddin, M., & Zumrudiana, A. (2022). Implementasi Pembelajaran Bahasa Inggris Menggunakan Mall Dalam