The Effect of *Learn English Vocabulary* Application on Senior High School Students' Vocabulary Mastery

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Abstract
This study was conducted to investigate the effect of *Learn English Vocabulary* application on Senior High School students' vocabulary mastery. Based on the preliminary study, it was known that the tenth grade students had difficulty in learning English language because of the unfamiliar words in the material. This study applied quantitave method and using quasi-experimental design. The two classes were chosen as participants for this research, one class as the experimental group and the other class as the control group. The experimental group was taught vocabulary by using the *Learn English Vocabulary* application, meanwhile the control class was taught conventionally by pictures and worksheets. The finding of this study showed that the experimental group got higher mean score (93.06) than the control group (77.65). Therefore, it could be concluded that *Learn English Vocabulary* application had a significant effect on senior high school students' vocabulary mastery.
Keywords: *English vocabulary; mobile assisted vocabulary learning; mobile application*

Introduction

Vocabulary is one of the three English language components which has a very critical role for acquiring all English skills. It becomes the main component of language proficiency and provides the foundation for how students speak, listen, read, and write. There is a fatal issue if students lack vocabulary. Hiebert and Kamil (2005) state that when in the text consists of a lot of unknown words, comprehension will not be achieved for reading skill. Furthermore, the students will have difficulty in constructing their ideas to produce the language in speaking and writing.

There are many studies on the effect of MALL on vocabulary learning, which were conducted in various contexts. A study done by Davie and Hielber (2015) claimed that the use of mobile-assisted language learning has a good potential. Students can memorize the new vocabulary longer and more completely by utilizing smartphones. This finding is supported by Bensalem (2018) who proved that the use of Whatsapp on vocabulary learning could increase students' scores in the experimental group (43.14) compared to the control group (21.21) and it had helped the students a lot on instructional process. Moreover, a study done by Klimova and Berger (2018) proved that mobile phone applications used in teaching had contribution towards

the students' improvement in learning because it was suitable and relevant for students' needs. Studying via mobile phone leads the students to learn independently because bringing their smartphones everywhere, students can learn anywhere or anytime. Additionally, Basoglu and Akdemir (2010) stated that using mobile phone applications could increase students' vocabulary acquisition and gave a positive attitude towards mobile learning. Based on those previous studies, it is proven that the use of mobile applications can help improve the students' vocabulary mastery. Thus, the researcher used an application from a smartphone as a teaching medium in teaching vocabulary.

The researcher considered the use of the "Learn English Vocabulary" application from Timon Group on mobile phones as the appropriate teaching media to facilitate the students to enrich vocabulary because of some reasons. First, teaching English using the "Learn English Vocabulary" application could break the boredom of a language classroom because it provided well designed materials which contain words, pictures, sound of words, the definitions, and the example of the use of each word in the sentences. Second, the "Learn English Vocabulary" application could increase students' passion and motivation in obtaining new vocabulary because this application provides some interesting quiz and games. This is supported by Mukundan and Kalajahi (2014) who show that using games in learning activities enhances students' interest and level of confidence. Third, "Learn English Vocabulary" application for language teaching mostly portrayed realistic situations in life. The students could learn how the language was used in real life which was very different from the traditional English teaching materials. Those statements are reinforced by Rajayi and Poorahmadi (2017) who conducted research using the "Kik" application in improving student's vocabulary scores.

Although there are so many studies about the use of mobile applications to teach vocabulary, there are still a few studies that used applications to learn vocabulary with new experience like allowing the user to pronounce the words properly. Most of the applications used only provided images, words, and their phonetic. Yet, in this "Learn English Vocabulary application", it provides a recording feature which can make the user try to pronounce the words. Hence, the researcher had done the research with an application from mobile which the aim of application was not only for knowing and remembering vocabulary, but also how to pronounce and use the words correctly.

The previous studies related to the use of mobile applications were conducted by some researchers. Rajayi and Poorahmadi (2017) conducted an experimental study in Joyandegan Language Institute about teaching vocabulary using "Kik" Application and the results proved that there was a big difference in vocabulary learning. Students who belonged to the experimental group, had a better score (42.16 mean score) than those control groups who learnt vocabulary in the common way (37.47 mean score). As a result, using the "Kik" application revealed that it was very effective in improving Iranian EFL learners' vocabulary learning.

Another research done by Agca and Ozdemir (2013) in Gazi University demonstrated that students were more interested in learning vocabulary via mobile phone. It was because the application from mobile phones provided images and students can learn the words in the proper context. Learning vocabulary through mobile applications also made them become curious in learning activities and it made the situation of the classroom become attractive and engage students' motivation.

Cakir (2015) conducted a study entitled "Opinion and Attitudes of English Teachers for the Use of Mobile Phones in Foreign Language Learning" and the result showed a positive effect from both teachers and the students. It is said that the use of mobile phones in the classroom could promote the foreign language learning. Students could get so many benefits when using smartphones such as they could increase their vocabulary and pronounce it correctly, improve their listening skill, and they could learn outside the classroom and receive feedback from the teacher via online learning.

A study conducted by Ibrahim and Kadiri (2018) in the Department of English and Literary Studies, University of Nigeria, showed that the use of mobile phones could give the students an opportunity to build their own knowledge. The fact shows that, nowadays, students are living in the digital era, so that it can make it easier to learn the English language by using smartphones because it proves that mobile learning can make the situation in the classroom become learner-centered.

All those studies use the same research design, experimental design. However, they all chose the participants at the university level, which was very different in knowledge and nature compared to senior high school students. Moreover, the use of the Learn English Vocabulary application was never used by them to conduct research. That is why the researcher is interested in conducting this

research for senior high school students to know the effect of Learn English Vocabulary application towards students' vocabulary mastery.

Methodology

Before conducted the main study, the researcher conducted a preliminary study by collecting some documents needed and interviewing the English teacher at one of the senior high schools in Jember. Based on the interview result, it was known that the school used curriculum 2013 in teaching English. The teacher used the textbook from the government and worksheet as a medium of teaching and never used the mobile phone applications. During the pandemic, the teaching learning process was carried out online and offline with 50 minutes for every meeting. The students studied by offline started from 07.00 until 09.00, after that the students went home to study by online started from 09.30 until 14.00.

For the main study, a quasi experimental research with post-test only design was used because this study was conducted in a school where the research participants were already in groups (classes). The population of this research was the 10th grade of senior high school which consisted of ten classes with total of 348 students.

The researcher collected the research data for the main study by administering the Vocabulary Test (homogeneity test, try out test, and post test). The homogeneity test was administered to all classes of the tenth grade and the result showed that the population was homogeneous, so that the researcher could choose 2 classes as respondents by lottery (X Science 4 as the experimental group and X Social 1 as the control group). The participants of the experimental group were 36 students from X MIPA 4 and the participants of the control group were 34 students from X IPS 1. The experimental group was taught by using 'Learn English Vocabulary' application in mobile phone to learn vocabulary, while the control group was taught by using a scientific approach based on curriculum 2013.

The try out test was administered to the class that neither belonged to the experimental group or the control group, which was X Science 5. This test was used to determine the post test used in this research. Meanwhile, the post-test was given to the experimental group and the control group after the treatment given. The result of the post test was used to know the effect of the treatment given to the experimental group compared to the control group.

Results and Discussion

Based on the results of data analysis, it was known that the use of the Learn English Vocabulary application gave an effect on the tenth grade students' vocabulary mastery at one of the senior high schools in Jember in the 2021/2022 academic year. The score from the post test showed that students who belonged to the experimental group got a higher and better mean score than the students in the control group (93.06>77.65). That score was gained by the experimental group after they received a treatment which was learning vocabulary through the Learn English Vocabulary application.

The researcher recognised that the students in the experimental group were more active and had a higher interest to learn new vocabularies through mobile phones. That was because the applications did not only provide thousands of words to learn, but also completed with pictures and sounds. This is in line with Agca and Ozdemir (2013) who stated that learning vocabulary via mobile phone could make students more interested since it provides images. It made students become curious to learn new words and that is why the situation in the classroom was more attractive and motivated

In the first and the second meeting of the experimental group, students were very interested and seemed very enthusiastic because it was the first time for them to use mobile applications to learn. They could see the pictures of every new words, listened to the pronunciation, and memorized the vocabulary easily by doing some quiz provided in the application. Moreover, since the application was downloaded on each students' smartphones, students could learn new vocabulary by themselves. They could track their own progress in learning because the score was seen right after they did the quiz. This result is consistent with Ibrahim and Kadiri (2018) who mentioned that the use of mobile application gave the students opportunity to construct their own knowledge. Mobile application could enhance an active involvement of students to learn new vocabulary by themselves. It gave them a chance to receive and implement the new material independently because the mobile application formed the situation in the classroom to more focus on the students.

Additionally, researchers provided worksheets which related to the material and some topics from applications for students to do. The result from the worksheet given to the experimental group demonstrated that the use of Learn English Vocabulary application had an effect on students'

vocabulary mastery since they had higher scores compared to the control group. They understood the assignment well since all their scores were above 80. The result of this current research was also consistent with the findings from Rajayi and Poorahmadi (2017) who concluded that the use of mobile applications to learn vocabulary could give a big enhancement of scores because it could help the students find the implementation of the words and practice it after learning.

Conclusion

By analyzing the data using SPSS computation, the result of the t-test showed that there was a significant effect of using Learn English Vocabulary Application on Senior High School students' vocabulary mastery in the 2021/2022 academic year. The significant value in the independent sample t-test was 0.000 which was lower than 0.05. It can be concluded that this application had an impact toward students' vocabulary mastery. It is proven by the better vocabulary scores achieved by the experimental group compared with those of the control group which were taught by using conventional methods.

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