THE USE OF DUOLINGO APPS TO IMPROVE STUDENTS' VOCABULARY MASTERY OF SMP NEGERI 4 PALU

Putri Fatimah Achmad[1], Mukrim[2], Afrillia Anggreni[3]

[1,2,3] English Education Study Program, Faculty of Researchers Training and Education
Tadulako University, Palu

putrifatimahachmad@gmail.com

ABSTRACT

The purpose of this research is to find out whether the use of Duolingo apps as media in learning activity can improve students' vocabulary of mastery or not. This research used pre-experimental design. The sample was 31 seventh grade students from SMP Negeri 4 Palu. Duolingo application was used as an instrument in this research. All the data gained in this research were analyzed by using Arikunto's formula. The result shows that the use of Duolingo Application can improve students' vocabulary mastery. Based on the calculation, the post-test mean score was 73,23 while the pre-test was 63,39. The result of statistical analysis showed that the value of t-counted (212,31) was higher than the value of t-table (1.697) with 0.05 level of significance of 30 (31-1) degree of freedom (df). The result indicated that the use of Duolingo application can improve students' vocabulary mastery of the seventh grade students SMP Negeri 4 Palu.

Keywords: Duolingo; Vocabulary Mastery; Application

INTRODUCTION

Vocabulary is the main element in mastering four basic skills namely listening, speaking, reading, and writing. It is essential to be mastered because someone sometimes wants to express their ideas and wishes in written or oral form. In learning English as foreign language, vocabulary is very important as a part of language. Therefore, EFL researcherss must really focus on teaching vocabulary to students, especially for beginner students because it affects the student to improve their English skill.

According to basic competencies of the 2013 curriculum, especially on point 3.9 which state that applying text structure and linguistic elements should carry out social functions, and stating and asking the comparison of the number and nature of people, animals, objects, according to the context of their use. The basic competencies clearly explain that linguistic elements referred to the importance of improving basic vocabulary and starting from stating and asking for the comparison, the number, the nature of people, and things according to the context used.

Based on the basic competencies, it is very important for the students to learn English language. However, in Indonesia, most of the problems in the process of learning English is vocabulary mastery. Many students said the factor that make them difficult to learn English is lack of vocabulary because they do not know the meaning of words. The low ability of students in mastering vocabulary is a problem that must be considered because the ability of mastering vocabulary is very necessary for students.

Based on the preliminary research, the researchers found that most of students of SMP Negeri 4 Palu especially the seventh-grade students are passive because they have to know a lot of vocabulary. As a result, they are still confused to understand the meaning of words. Another problem in teaching process, when students do not understand the meaning of particular words, the researchers only instructed the students to open their dictionary. However, most students do not have their own dictionary and use the dictionary interchangeably. As the impact, it made the students feel bored in class, unfocused, and do not follow the lesson as well as possible when learning vocabulary.

However, many teaching media for vocabulary grow the students' interest such as by watching TV, reading dictionary, listening to radio, listening to music, playing flashcards, using games, or using Duolingo applications and others. It can be used to make students get more interested in learning vocabulary. In this research, the researchers chose to use Duolingo application as a learning media to help students to improve their vocabulary.

As one of learning media in this era, Duolingo application can help many people, including the students who want to learn English language or languages from other countries. Jaskova (2014:15) states that "Duolingo is an application that can be seen as a future learning language and for global communication". Students can study well and can explore all abilities in English. However, this application is not necessarily suitable for some students with their respective backgrounds, but it can engage students in new and very interesting ways that can motivate them in learning English vocabulary.

Based on the explanation above, the researchers attempted to use the Duolingo application as a media to increase the students' vocabulary, especially for class VII students of SMP Negeri 4 Palu. Slowly but surely, the students were expected to be able to improve their English vocabulary by using this application.

METHOD

This research used Pre-experimental design because the research design applied the treatment to research subjects without control group (untreated comparison). There is only one group to be investigated. It was examined twice. The pretest was given before the treatment and the postest was given after the treatment. The design of this research is proposed by Sugiyono (2018), who draws the design of the research as follows:

$$O_1 \quad X \quad O_2$$

Where;

O_1 : Pre-test of the experimental group

O_2 : Post-test of the experimental group

X : Treatment of the experimental group

The design of this research was pre-experimental research by conducting pre-test, treatment, and post-test. A test was used to administer a pre-test before treatment as prior information of students' ability. Meanwhile, post-test was used to know the students' progress after the treatment. The population of this research was the grade seven students of SMP Negeri 4 Palu. Based on the design of this research, the researcherss chose a sample by applying the Purposive random sampling technique. The sample was VII Seroja. The research instrument of data collection was a test, pre-test, and post-test. Then, the researcherss gave a score and calculated the result based on the test.

Table 1 - Distribution of the test

No.	Kind of Test	Number of Items	Score of Each items	Total Score
1.	Jumble Sentence	10	1	10
2.	Matching word with picture	10	1	10
Total		20	2	20

RESULT AND DISCUSSION

The results of this research were analyzed statistically. In offering the data, the researcherss analyzed the data taken from pre-test and post-test that was given to the students. The researchers used the data to measure the effectiveness of the treatment used in this research, which is the use Duolingo apps to improve students' vocabulary mastery of SMP Negeri 4 Palu.

In order to find out the students' vocabulary mastery, the researchers conducted the pre-test on October 25th, 2023. After conducting the pre-test, the results of the pre-test were 21 students had scores under the KKM (68) and 10 students passed the KKM. After conducting the treatment and

computing the data, the researchers gave post-test to the students. The test was given on Wednesday, November 29th, 2023.The posttest aimed to find out the students' improvement in vocabulary mastery after getting the treatment. The results of the pre-test and post-test are shown in Table 2.

Table 2 - The Results of Pre-test and Post-test

Class	N	Lowest score	Highest score	Total score	Mean score	Deviation	Square Deviation
Pre-test	31	50	85	1965	63,39	305	3.225
Post-test	31	60	95	2270	73,23		

The table above shows that the lowest pre-test score is 50 and the highest score is 85. Based on the result of pre-test, there were only 32.6 % of 31 students who gained score above 75 which is a standard score based on curriculum used by the school. After calculating the individual score, the researcherss found that students' mean score of pre-test was 63.39.

After giving the treatment, the researchers gave a post-test. The result indicated that students' scores on post-test were increased. The table above indicates that the highest score obtained by students in post-test is 95 and the lowest score is 60. Almost all of the students that are 61,29 % of them got a higher score than the maximum standard of the school that is 69, while the students who got a score lower than 68 is 38,71%. After getting the individual score, the researchers calculated the mean score of post-test and got the result of 73.23. It means that there is significant progress of the mean score of pre-test (63.9) to post-test (73.23).

After getting the mean score of pre-test and post-test, the researcherss then calculated the mean deviation and the sum of square deviation of the students' pre-test and post-test. The highest deviation score was 100, while the lowest score was 25. Then, the highest square deviation was 3225 and the lowest square deviation was 305. Moreover, the total deviation was 3225 and the total square deviation was 224. After getting the total deviation and square deviation, it can be found that the mean score of deviation was 104,03. Then, by getting the mean score of deviation, it was found that the sum of square deviation was 224.

After calculating the sum of squared deviation, the researcherss analyzed the data by using the t-counted formula to find out a significant difference. The testing hypothesis was used to prove the research is confirmed or rejected. The researcherss reveal the criterion of the testing hypothesis was if t-counted is higher than t-table, the hypothesis is confirmed, but if t-counted was lower than t-table the hypothesis is rejected. In order to attain t-table value and to find out the significance difference between the value of t-counted and t-table, the researcherss apply formula to count the degree of freedom of the t-table by applying the df (N-1 =31-1=30) and 0.05 level of significance.

Furthermore, the value of the t-table was 1.697, while the t-counted was 212,31. As a result, it shows that the t-counted value was higher than the t-table value. It means that the research

hypothesis was accepted. This research implies that the use of Duolingo application effectively improve the vocabulary mastery of the seventh grade students of SMP Negeri 4 Palu.

DISCUSSION

In this research, the researchers discusses about the effectiveness of using Duolingo application in improving students' vocabulary mastery of SMP Negeri 4 Palu. In the class, most of the students are being passive because they do not know a lot of vocabularies. After the researchers gave explanation and introduce the Duolingo application, the researchers usually asked the students to answer the questions. The result, most of them gave no attention and felt boring during the teaching and learning process.

In order to help students improve their vocabulary, the researchers applied Duolingo application as media in learning activity as the treatment. The researchers conducted this study at one class only, and applied the pre-experimental design with one group pre-test and post-test, the treatment is done with six times (meetings) include pre-test and post-test. For the first meeting, the researchers asked the students to do pre-test (vocabulary test) to know the students' knowledge before applying the treatment. Based on the pre-test, it could be seen from the result of pre-test which was 63,39. It means that, there were students who passed the KKM score but most of the students did not passed the KKM score and failed in the test.

In pre-test, all of the students can answer the test matching word with picture meaning that they already know about the meaning of word, but in the jumble sentence test, most of them have bad score and most of them no passed in jumble sentence test. After the pre-test, the researchers introduced Duolingo Application as general. Then, they start learning about noun in first meeting until third meeting and learning about adjective in fourth meeting and last meeting. They learn about how to know the meaning of words and how to use the words into the right sentence. During the treatment, the students started to look more active, because they were interested when the researchers used the Duolingo application, but the class was noisy due to the fact that the students were learning together about matching word with picture test and jumble sentence. However, at the fourth meeting, before the researchers used the Duolingo application, the researchers first explained the next topic is about descriptive adjective but most of students are not familiar with adjectives and it can be seen from the pretest results that, 31 students, was 18,29% students cannot use adjectives in the correct sentences, but 81,71% of 31 students are able to use noun in the correct sentences, and for this reason, researcherss focus more on teaching the use of adjectives to students.

After collecting the pre-test and giving the treatment, the researchers gives the post-test to the students. The result of post-test showed that the students' vocabulary improved after getting the treatment. It was proved by looking the result of post-test was 73,23. The students' score in pre-test was 63,39, while the score increased in post-test became 73,23. And the post-test result was showed 34,93% of 31 students can use adjective in correct sentences and 65,07 % of 31 students are able to use noun in correct sentences. By comparing the result of pre-test and post-test, the researchers concluded that the use of Duolingo application can improve students' vocabulary mastery at SMP

Negeri 4 Palu. The result affirm Duolingo Application is effective to improve students' vocabulary mastery.

From the result above, it can be stated that the result of this research is in line with the result written in previous study. Based on the result of Sholikhah (2022) it showed that students' vocabulary mastery can be improved by using Duolingo application. Next, the result of Siregar (2019) Duolingo application is effective to improve students' vocabulary and the students' have given good responses during the class.

CONCLUSION

After collecting the data, It can be concluded that the use of Duolingo application can improve the students' vocabulary mastery of the seventh grade students at SMP Negeri 4 Palu. It is suggested that the teachers at schools can explore about this application and use it in English class to help the students improve their vocabulary. The teacher can use this application to help the students learn about the meaning of words and the right construction of English sentences. Future researchers are also encouraged to do more research focusing on this application or any other technology-supported media which can be used in teaching.

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