# THE USE DUOLINGO AS A TECHNOLOGY-BASED LEARNING MEDIA IN GRADE 5 ELEMENTARY SCHOOLS

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#### **Abstrak**

Studi ini mengkaji persepsi siswa tentang Duolingo sebagai alat untuk belajar bahasa Inggris. Dalam penelitian ini diambil sampel eksperimen siswa kelas 5 SD, dengan menggunakan kelompok pre-test dan post-test dalam penelitian. Peneliti menemukan bahwa siswa mengalami kesulitan dalam menguasai kosa kata bahasa Inggris. Beberapa faktor antara lain, kurangnya motivasi guru dalam pengembangan kosa kata kelas dan penguasaan kosa kata siswa, guru hanya mengambil kosa kata dari buku, Bahasa Inggris bukan mata pelajaran wajib sehingga hanya ada 2 ( dua) jam seminggu dan kecenderungan anak-anak yang lebih besar untuk bermain. Berdasarkan permasalahan di atas, ketertarikan peneliti dalam memilih aplikasi Duolingo adalah aplikasi tersebut menggunakan teknik permainan yang membuat penggunaannya menjadi mudah dan menyenangkan. Gamifikasi adalah pembelajaran berbasis permainan dan mekanisme estetika yang merangsang orang untuk berpikir, bermain, memotivasi, dan memecahkan masalah (Kapp, 2012). Studi ini menemukan bahwa aplikasi Duolingo dapat digunakan sebagai alat pengajaran untuk meningkatkan keterampilan siswa. di kelas 5 sekolah dasar di kelas untuk meningkatkan bahasa Inggris mereka. Artinya hipotesis diterima dan Duolingo dapat digunakan untuk memperluas kosa kata. Peneliti merekomendasikan guru bahasa Inggris untuk menggunakan aplikasi Duolingo untuk mengajar kosa kata bahasa Inggris, karena aplikasi ini dapat merangsang minat siswa dalam proses dan kegiatan pembelajaran.

Kata Kunci: Duolingo, pembelajaran bahasa berbantuan elektronik, pembelajaran kosa kata

#### Abstract

This study examines perceptions of Duolingo as a tool for learning English. In this study, an experimental sample was taken from 5th grade elementary school, using the pre-test and post-test groups in the study. The researcher found that the students had difficulties in mastering English vocabulary. Some of the factors include, the lack of teacher motivation in developing class vocabulary and mastering student vocabulary, the teacher only takes vocabulary from books, English is not a compulsory subject so there are only 2 (two) hours a week and the tendency for children to be older to play. Based on the problems above, the researchers interes t in choosing the Duolingo application is that the application uses game techniques that make its use easy and fun. Gamification is a game-based learning and aesthetic mechanism that stimulates people to think, play, motivate and solve problems (Kapp, 2012). This study found that the Duolingo app can be used as a teaching tool to improve students skills. in grade 5 elementary school in class to improve their English. This means that the hypothesis is accepted and Duolingo can be used to expand vocabulary. The researcher recommends that English teachers use the Duolingo application to teach English vocabulary, because this application can stimulate students interest in learning processes and activities.

Key Word: Duolingo, electronic assisted language learning, vocabulary learning

# **INTRODUCTION**

Nowadays, in this modern era, people, especially students, are accustomed to using cell phones. The use of mobile devices has become common across age groups due to their affordability and availability (Newhouse, Williams, & Pearson, 2006). Based on research

conducted by Barakati (2013), cell phones are not only used as communication tool, but also for learning and improve students skills in English language learning when used correctly, and Indonesians learn languages English because they are aware that language English is used to interact with other people around the world because English has indeed become an International language (Muh.Rajib Silmi: 2020).

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Indonesians learn English languages because they are aware that English languages are used to interact with other people around the world because English has indeed become an International language. In some ways, there are some difficulties for people in Indonesia (as a student) to study English, these difficulties distinguished by four skills there is in learning a language English namely speaking, listening, reading, and writing (Megawati, 2016). According to Megawati, in her research, has difficulties is affected by level mastery of a language by students. He added, active students, tend to find it difficult writing skills use English. Meanwhile, skills in speaking, students who affectively included as students passive, having difficulty in expertise or speaking skills.

However, there are some studies that handle the problem during the teaching and learning process. Wrongthe only research conducted by (Khajloo, 2013) found six teaching and learning problems in English. Of six problems this is then condensed into two the main problem. First, the duration of teaching less English. According to Khajloo, literature education taught in schools tends not to be updated and is boring. Need students in English currently do not so consider, even though the language it is not static but dynamic means it could be different from 20 years ago then. Master duration of only got two hours to teach English, which was deemed necessary to increase. Second, low interest and motivation in learning English.

Lots of students are not interested in learning a language (especially English) and mostly they just think to pass the course or meet the grade target. This could be caused by their interest in English, or lack of interest in learning English, even if learn something, they will quickly forget about it because get bored with the repetition. In this case, the English teacher can encourage their students to learn the language by motivating them. the urge cannot be simply spoken verbally, but can be several considerationable awards to increase motivation and interest students.

Furthermore, they have to acquire English that involves four language skills i.e. listening, speaking, reading, and writing. However, being able to master the skills, the

communication cannot occur in any meaningful way.

students need vocabulary. McCarthy (1990) states no matter how well the students learn grammar, or how successful the sounds of the language are mastered, without words

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vocabulary learning is an important aspect of learning a foreign language. will improve much if they learn more words and expressions. Even if students grammar is excellent, they are still having difficulties communicating English without a wide vocabulary. (Jumariati: 2010)

English plays an important role in the world because it is the most widely spoken Language. English is spoken for most international events and as a medium of information in science, culture, and technology. So we can say that English is the first language (international). Besides that, it should be realized that most of the scientific books are written in English. Therefore, in order to understand these books to gain knowledge, everyone must have adequate mastery of English and so should Indonesian students (Rizky Kurnia Wijaya, Hery Yufrizal, Budi Kadaryanto: 2015).

Some of the most desirable media utilization technology in learning is gamification (Dehghanzadeh, 2019), educational digital games (Agudo, Rico, and Sánchez, 2016), mobile technology (Üstün-Aksoy and Dimililer, 2017), music/voice (Linnavalli, et. al., 2018), educational robots (Vogt, et. al., 2017). Here's an app-based Duolingo mobile learning model interface.

There are so many ways of English learning media that are able to use besides textbooks such as using silent media, audio media, visual media, audiovisual media, motion media, and game-based learning media applications. Many studies have shown that the use of the media mentioned above can increase learning motivation and increase English vocabulary mastery. The students find it easier to understand the material and to reduce boredom when learning English using games (Lusi, 2012). The use of mobile applications in learning vocabulary idioms is more effective than traditional teaching methods (Basal, et. al., 2016).

Based on the opinion of Alfaki & Alharthy (2014), information and communication technology (ICT) such as smartphones and the Internet is recommended for study and the people who use it are called digital learners. This goes hand in hand with the opinion of Hartoyo (2008) who states that computers, smartphones, and the internet is a tool and a medium that facilitate people in language learning. However, the effectiveness of learning

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to the fullest depends on the user.

Many computer applications and smartphones developed for interest in learning English, the wrong one is Duolingo which is the intended smartphone application for Iphone and Android users. Duolingo was launched in 2012 for iPhone users and released their android application on May 29, 2013, and quickly became an apps Number one education on Google Play Store for the first three weeks of launch at that time. Duolingo offers models based English courseeveryday life in that way is easier. Moreover, even though it has only been around for four years, Duolingo has been used by more than 100 million users around the world and has got a value of 4.7 on a scale of 5 that has been given by more than eight million Android phone users (Google Play Shop, 2018).

Duolingo Presentation has a neat and compliant interface, context, as well as in each material is easy to understand, concise, and interesting. Basic level in English lessons, various themes are available For example animals, food, and pronouns. (Nyanyu Yayu Suryani, Abdul Aziz Rifaat, & Arini Fitri: 2022). The media are helpful in delivering information and can help to make simple the teaching process and to make it perfect, as well as allow teaching to practice the principle of object teaching and learning illustration. (Sarlita D. Matra:2020).

#### **METHODS**

One group pretest-posttest design was used in order to find whether the use of the Duolingo Application can Improve students vocabulary achievement. This research was conducted in six meetings for three weeks. The design can beillustrated as follows:

### P<sub>1</sub> X P<sub>2</sub>

In Which:

X : Treatment Impementations  $P_1$ : Pretest (Do before treatment)  $P_2$ : Posttest (Do after treatment)

The population of this research was the fifth students of Elementary School. The researcher used one class as the sample of this research, the class was that consisted of 30 students. The researcher used a lottery technique to choose the treatment class. So that all classes got the same chance to be sampled.

Before conducting the test, the try-out test was carried out. This test was administered

in order to determine the quality of the test as the instrument of the research. In the second meeting, the researcher conducted the pretest to know their basic ability in vocabulary. The test consisted of 30 items of multiple choice. The time for administering the pretest was 60 minutes. In the third meeting, the researcher conducted the first treatment by using the Duolingo application. In the fourth and fifth meetings, the researcher still conducted the treatment. In this meeting, the researcher used the Duolingo application and play the material as he game. The last meeting was used by the researcher to conduct a posttest. It required 60 minutes for the post-test. The test was still the same as pretest.

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In order to collect the data, the researcher used several steps, i.e. determining the population and sample, finding and selecting the materials, administrating the pretest and getting the result, conducting treatment by using the Duolingo application, administering the posttest, and the last was analyzing the data.

In analyzing the data, the researcher used a repeated measure t-test. t-test was probably the most widely used statistical test for the comparison of two means because it can be used with very small sample sizes (Hatch and Farhady, 1982: 108). The instrument of this research was valid and reliable. The validity of this research was construct validity and the reliability was inter-rater reliability.

After collecting the data, the researcher analyzed them in order to find out whether there was an improvement in the students vocabulary achievement or not after the treatment. The researcher used repeated measure t-test to find out the improvement of the treatment effect. The criteria are shown as follows:  $H_0$ : There is no significant difference in students vocabulary achievement before and after being taught through Application Duolingo. The criteria is Ho (null hypothesis) is accepted if alpha level is higher than 0.05 ( $\alpha > 0.05$ )  $H_1$ : There is a significant difference in students' vocabulary achievement after being taught through The Duolingo Application. The criteria  $H_1$  is accepted if alpha level is lower than 0.05 ( $\alpha < 0.05$ )

## RESULTS AND DISCUSSION

#### **RESULTS**

The researcher conducted six meetings. At the first meeting, the researcher gave the trial test to determine the quality of the test as a test instrument research. At the second meeting, the researcher conducted a pretest to find out their basic skills in vocabulary. In the third meeting, the researcher conducted the first meeting treatment using the Duolingo application. At the fourth and fifth meetings, researchers continue to perform the treatment. The last encounter was used by researchers to do a post-test.

The statistical computation using an independent t-test showed that there was an

improvement in students vocabulary achievement.

#### **DISCUSSION**

This research needs more than three-time treatments in order that the increase of the students to be more significant and the students can get much vocabulary. Try out was conducted in order to measure the quality of the test used as the instrument and to determine which items should be revised for the pretest and posttest. After administering the pretest, the treatments were conducted three times. When the teacher gave the treatment to the students, it seemed that they were interested in the materials. Duolingo application was presented with clear procedures

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At the first treatment, the students were told first what the Duolingo application is. The teacher introduced the rules for doing the application and demonstrated the application by giving an example. The teacher gave an example with the LCD screen and played the Duolingo application, and then the teacher asked the students to answer the questions. The teacher and the students explained or translated the unknown words together. After that, the students have to work with a laptop or a gadget device. The student that did not bring the gadget can work together with their chair mate. Then the teacher explained the rule of the Duolingo application.

Then the teacher makes sure that the students had understood the game and the procedures involved in the rules. The teacher commands the students to begin the application. The students try to find new words. They should also complete each level in less than 7 minutes, in order to the students focused at their level. The teacher announces the winner who has the highest points on Duolingo application, and after that the teacher gives an evaluation. When teaching in class, the researcher found that students enthusiastically participated in the teaching and learning process because they were not aware that they were learning.

In the second meeting, the teacher did the same thing as the first treatment for the second treatment. The teacher told the students that they were going to study the vocabulary through the Duolingo application. The teacher told the students to log in with their own account, and then continued their last level and tried to get higher points than before. In this meeting, the teacher asked the students to only used one gadget for two students, so they played the Duolingo application in a pair. The students felt more enjoyable and more interested in the game, they were more active than before. They discussed together to find new words, they were more competitive and motivated.

In the third meeting, the teacher did the same as usual from start to finish. The students have to log in with their own account and then continue their game level. The teacher gives students target levels and shows their scores on the LCD screen, so they compete to get the highest points with their friends. The teacher observes their progress and goes around the class to see student activity. Teachers also support students who have problems with the application.

From the results of this study, the researcher found that students who were taught

through the Duolingo application could achieve better results in learning English vocabulary. The results of the study show that the Duolingo application can make students more active and motivated in the learning process. This is supported by Clark (2013) who states that technology can increase the effectiveness of vocabulary teaching efforts. They also state that technology can be a useful, challenging, and creative tool and resource in and around the classroom.

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This is also supported by Rodger (2010: 1) who states that the use of games can develop activities that make students forget that they are in class, namely making students relax by involving them in stress. This means games offer a variety of engaging activities where students can explore many fun aspects of learning. Games help students stay focused on what has been discussed for hours. This statement is supported by Wright (2006: 1) who says that games help and encourage students to maintain their interests and work. In this case, students learn vocabulary through the activities they play in the game. This technique will make students learn vocabulary without realizing that they are learning.

So by applying Duolingo application, students will be more interested and challenged since they have to compete with each other. Besides, the students scores in the posttest were higher than the students scores in the pretest. This means that the Duolingo application gave a good contribution to the attainment of teaching-learning English vocabulary. Although the master learning in this research was not too successful, the students vocabulary achievement increased significantly after being taught through the Duolingo application and it helped the English teacher to raise the students interest and gain motivation in learning English vocabulary.

Finally, it can be concluded that there is a significant difference in the vocabulary achievement of fifth-grade elementary students after being taught through the Duolingo application.

#### **CONCLUSION**

It can be seen that the teaching-learning process using the Duolingo application really helps 5th grade elementary school students to develop and improve their English skills, and it can be seen from the trial results above it can be concluded that this method is very effective for beginners to learn English and for teachers to give more interesting lessons to their students. Teaching by using Duolingo Application in learning vocabulary can give better results for the students in the teaching and learning process, the researcher suggests to the teacher use Duolingo Application as the media in teaching vocabulary.

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