

# DUOLINGO GAMIFICATION IN IMPROVING STUDENTS' VOCABULARY MASTERY

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**Abstract:** This research aims to determine how is the implementation of the Duolingo application in Improving Students' Vocabulary Mastery of Eighth Grade at SMPN 23 Simbang Maros. The research design is Classroom Action Research (CAR) because the problem originates from the teaching and learning process in the classroom. The instruments were observation sheet, and test. The researcher conducted research on how far students understood vocabulary and how much students were able to understand and have a lot of vocabulary. The learning media Duolingo application is used to determine students understanding. The results of this research indicate that the improvement of students' vocabulary mastery was attained it was denoted by the students' test scores. The result of the data showed that the action and the implementation of the Duolingo application improved, indicated that Duolingo is effective to teach vocabulary. Furthermore, the application can be played individually or in groups which will create an enjoyable learning atmosphere.

**Keywords:** Gamification, Duolingo application, Vocabulary

## 1. INTRODUCTION

Language has an important role in daily life. As an international language, English is nearly universally spoken. Today, English plays an essential role as a language of communication in numerous fields, including commerce, bilateral relations, science, and technology, among others. Many people over the world now utilize English to communicate and interact with one another. In order to acquire more knowledge, information, and technology, individuals must comprehend and grasp English.

Vocabulary is one of the English sub-skills that must be taught to students, as vocabulary plays a crucial part in all language skills. (Mccarthy, 1984a) states no matter how well students learn grammar, or how successfully the language sounds are mastered, without words communication cannot occur in a meaningful way. In other words, the first thing language learners must grasp when learning a language is vocabulary. The vocabulary of students affects their comprehension of the teacher's speech, class discussion, and other speeches during listening (Imran, 2023).

The words they use when speaking determine how effectively they convey a message. In reading, a student's vocabulary influences his or her ability to comprehend and interpret a text. In addition, students' vocabulary affects the clarity with which they transmit their thoughts to the reader when writing. Vocabulary plays a crucial part in equipping students with the ability to communicate in English.

Based on the phenomena above, the researcher attempts to determine the most effective way to improve students' vocabulary through the use of the Duolingo application during the teaching and learning process. The Duolingo application is a whole-class tool that encourages students to study and review their vocabulary. There are some reasons why the researcher used the Duolingo application to enhance their language knowledge.

First, the application Duolingo can be utilized as one of the engaging exercises for reviewing vocabulary during the class. It can grab students' interest and encourage their participation in the teaching and learning process. Second, the Duolingo application can foster a pleasant atmosphere. Students can engage in enjoyable learning. Thirdly, the Duolingo application can assist students in reviewing their vocabulary and recalling events from within the application. It may assist students to remember the associated language.

## **2. LITERATURE REVIEW**

### **2.1. The Concept of Gamification**

Salen & Zimmerman, (2004) state a game as a system in which players engage in an artificial conflict defined by rules that produce measurable outcomes, in addition, games provoke strong emotional responses, such as curiosity, frustration, and excitement. From this definition, it can be said that the elements in the game can stimulate players and indirectly provide simulation and input to the brain. Gamification is different from Game Based Learning, there is a fundamental difference between Gamification and Game Based Learning, which is often misunderstood. Gamification is modifying the teaching and learning process by adding game elements, while Game-Based Learning is a pure science/skill acquired when playing games (console, computer, etc.).

Game-based learning is taking material or knowledge directly from any game even though it does not have a specific topic. For example, children can learn vocabulary by playing adventure games that have nothing to do with the school curriculum. According to Werbach & Hunter (2012), the most common game mechanics in Gamification are Badges, Points, and Leaderboards (PBL), but many additional mechanics are present in the game and can be designed into systems and processes. For example, using a leaderboard mechanic in a game can generate competitive dynamics between players. On the other hand, the use of chat boxes and user profiling mechanisms can generate cooperative dynamics. Dynamics cannot be programmed into a gamified solution, but using the right mechanics can increase the chances of dynamics occurring.

### **2.2. Duolingo Application**

Duolingo is a free application created by Luis Von Ahn and Severin Hacker in November 2011. Its slogan is "Free language education for the world." According to its website, it has more than 30 million registered users. According to Munday (2015) It offers several languages for English speakers as well as others for non-English speakers. As one of the language learning

applications, Duolingo can help someone to develop their vocabulary knowledge in communication. Through the process of the Duolingo application, the students gain new words easily based on their own will.

According to Mulya (2016) Duolingo is a game-based language learning platform. Access can be via a browser-based application or an iOS, Android, or Windows Phone application. Duolingo was released to use a combination of activities; Students listen, transcribe, speak, and translate in a simple interface as they work through words and phrases. With Duolingo, teachers can easily track students' language learning progress. Students share their language learning progress directly with their teacher, who can track their progress through a dedicated dashboard. By being able to track the progress of their students, the teacher can plan lessons, set Duolingo skills as homework, and give extra points to get corresponding credits.

It also pushes students to keep going and beat their previous records, and students can also compete with their friends in the classroom. Students can also earn experience points (XP) to measure how much they complete the task in Duolingo, progress through different levels, and differentiate with their friends, then earn Lingots, which they can use to buy or switch items and bonus lessons the icon to make their Duolingo more interesting. Duolingo itself can be accessed on PC and also on Android by downloading it from the Play Store. The interface is explicit and very easy to use. There is also a nice balance between translating, listening, word matching, and speaking practice. The speech recognition program isn't bad, and students can still hear what the speaker said.

### **2.3. The Concept of Vocabulary Mastery**

Vocabulary is one of the language aspects which should be learned. Learning it is important because in order to be able to speak, write, and listen learners have to know vocabulary first. A person is said to know a word if they can recognize its meaning when they see it. It means that in learning vocabulary learners have to know the meaning of it and also understand and can use it in sentence context.

According to John Read (2006), vocabulary is knowledge of knowing the meanings of words, and therefore the purpose of a vocabulary test is to find out whether the learners can match each word with a synonym, a dictionary tape definition, or an equivalent word in their language. In learning vocabulary automatically they have to know the meaning of words themselves and can use it in sentences. In brief, vocabulary mastery can be defined as several vocabularies (words) in a language that contains information about its meaning, form, and usage in the context of communication. It is the basic knowledge that students should master first before mastering English. Vocabulary learning is a principal issue for English learning because it comprises the basic building blocks of English sentences.

Vocabulary mastery is not a spontaneous process that is easy to be done. The process of vocabulary mastery begins when someone is still an infant. The baby's first language comes from the mother tongue. They will master the vocabulary through simple words by listening to the words which are uttered by someone else. It is known that English vocabulary learning cannot run successfully without English ability (English skills) because both of them are very important in the English teaching and learning process. The students cannot do well in comprehension without a large vocabulary, for the passages and questions involve a range of words much wider than that of daily conversation.

### **3. METHODS**

This study's research design is Classroom Action Research (CAR). Classroom Action Research was chosen because the problem stems from the teaching and learning process in the classroom. The researcher conducted a research on how far students understood vocabulary and how much students were able to understand and have a lot of vocabulary. The learning media Duolingo application is used to determine students' understanding. Because the Duolingo application is simple to use as a learning tool and can help students improve their vocabulary. The collaborator and the researcher carried out the action research and worked together in collecting input about the problems and weaknesses of the English teaching and learning process related to the student's vocabulary skills. Next, we identified the research problems. After getting all the problems, we planned and carried out the actions. During the implementation of the actions, we observed the teaching and learning process. Then, we evaluated and reflected on the actions implemented in the study. Finally, according to the result of the reflection, we planned some other actions to improve the English teaching and learning process. The subject of this research was the eighth-grade student of SMPN 23 Simbang Maros, The researcher chooses grades VIII-D which consist of 28 students. The researcher chooses this class because the researcher presumed that those students in the class need improvement in their vocabulary ability

### **4. RESULTS**

The first activity consisted of one-day classroom observation. The purpose of the classroom observation was to gather any useful information about the English teaching and learning process in the classroom. The researcher discovered several problems in the classroom. The primary problem is the materials. The teacher frequently uses textbooks and LKS as sources of information. The second problem is the teaching procedure. The traditional method involves searching for complex words and locating their definitions in a dictionary, with students expected to memorize the words. The students represent the third problem. It is difficult for students to memorize the unfamiliar words they heard or read in the text, and class participation was low. To support the data, the test for the preliminary study was distributed. The test results indicated that the students had lacking vocabulary knowledge. The

result showed an improvement in the student's scores from the preliminary study to test cycle I and test cycle II. In the preliminary study, the students who got a score 75 and above were 4 students of 28 students (14.2%). In the test cycle I the students who got the score 75 and above were 17 students of 28 students (60.7%). in the test Cycle II, the students who got the score 75 and above were 26 students of 28 students (92.8%). The researchers decided to finish their research at Cycle II.

In the process of teaching and learning vocabulary encountered many problems. The students had difficulties memorizing the new English words. They were passive in the teaching and learning process and they were not trained in using the dictionary so they were accustomed to only asked their friends or teacher besides they were lazy to bring it. Because the students rarely found the meaning of certain words by themselves, they could not memorize the meaning of certain words. All the factors made the students found difficulties in mastering the vocabulary. After the actions were implemented, most students became more active in the teaching and learning process. The use of the Duolingo application was new for the students, so they were interested in using the application. It helped the students in building up their enthusiasm to learn new words. They were active during using the application and the most important thing was that it helped students in memorizing and understand new words easily in an interesting way. The test compared between the students' vocabulary skills before and after the implementation. Finally, the average score of the test in cycle II (88) is higher than the mean of test in preliminary (64,5). It showed that Duolingo application effectively improved the students' vocabulary mastery.

## **5. DISCUSSION**

The result from the data showed that the improvement of students' vocabulary mastery was attained it was denoted by the students' test scores. The average score of the first cycle was 77.1 which is effective enough. The average score of the test in the second cycle was 88. This indicated that the result and the average in the second cycle were more effective than the first cycle. The percentage of students who passed the grade which is 75 and above also increased. In the preliminary study, the students who got a score of 75 and above were 4 students of 28 students (14.2%). In the test cycle I the students who got the score 75 and above were 17 students of 28 students (60.7%). In test cycle II, the students who got the score 75 and above were 26 students of 28 students (92.8%). The increasing percentage from the preliminary study to the test of cycle I was 46.5% and the increasing percentage from the test of cycle I to the test of cycle II was 32.1%. It indicated that vocabulary mastery improved from the first meeting to the last meeting. The qualitative data were taken from the observation sheet, interview, and diary notes. Using the data, the researcher concluded that the students felt interested to study vocabulary by using the Duolingo application. Changes in response and behavior indicated that the teaching and learning process has improved. Students' attitudes, such

as their attentiveness to the teaching and learning process during class, improved as evidenced by the observation sheet. They also engaged in discussions with other students more frequently. Despite this, the researcher recognized the disparity at the first meeting. However, it decreased during the subsequent teaching-learning process. Students stated in the interview that having this class made them appreciate learning vocabulary. The diary entries revealed instances in the classroom that progressed over time.

## **6. CONCLUSION**

The Duolingo application could improve students' vocabulary mastery. The fact that, at the first and second meetings, the researcher found that the students did not pay attention to the teacher seriously, and some of them talked to each other making noisy. Therefore, this must be the teacher's duty to find out some sources to make them willing to master the vocabulary. After some days, the researcher saw the students' improvement in the class, when the researcher brought the pictures and arranged them, so the students can play by using that picture through the Duolingo application. The most important one is the fact that the students enjoyed the class. They gave full attention to the teacher. They talked to each other to finish the game to compete with other groups. Therefore, the Duolingo application is a good way to teach vocabulary because it serves pictures, and figure in playing that application, the students could figure the vocabulary out from the pictures. The students also could list the name of the things based on their observations when doing the application. Then, the pictures can be obtained from everywhere in the environment easily. Furthermore, the application can be played individually or in groups which will create an enjoyable learning atmosphere.

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