

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter discusses the theoretical basis and previous research used Duolingo in teaching and learning vocabulary mastery. The theoretical foundations described include: Definition of vocabulary, Vocabulary Mastery, The Kinds of Vocabulary, Problems in Learning Vocabulary, Definition of Duolingo, Advantages of Duolingo, Disadvantages of Duolingo, Using Duolingo Application to Learn and Teach English, Definition of Quizizz, Steps for Using Quizizz, Advantages of Quizizz, Disadvantages of Quizizz, as well as explaining four studies related to this research and Research Hypothesis.

#### **A. Vocabulary**

##### **1. Definition of vocabulary**

The acquisition of vocabulary is an integral part of learning a language. Learning vocabulary is just as crucial as learning other language components and skills. Vocabulary, as described by the Oxford Advanced Learner's Dictionary (2000, p. 1506), is comprised of all the words that a person is aware of, employs, or knows in a given language, as well as all the terms that are used when discussing a specific topic. Vocabulary, one of the building elements of language, is beneficial to anyone seeking to communicate effectively. Students can readily access information based on their own language by learning how to identify words in English.

The term "vocabulary" refers to knowledge about the pronunciation and meaning of words that have been saved in one's memory. Lawrence Erlbaum Associates (2005, p.1) defines that words typically have complicated and overlapping meanings. As a result, teachers must focus on helping children understand language. Before kids learn English vocabulary, teachers should teach them a variety of terms until they can use all the words on their own without assistance. If students master the vocabulary, their ability to understand all information from a foreign language and their vocabulary will help them communicate with everyone. Students will also be able to speak and hear English more clearly while speaking with native speakers. Based on the definitions explained above, we can conclude that the development of one's vocabulary is an essential aspect of language learning. In learning a second foreign language. If students do not know much vocabulary, they won't be able to share what they are thinking. Therefore, it is very important to master vocabulary.

## 2. Vocabulary Mastery

Understanding what is learned in the language is primarily dependent on one's vocabulary. It is necessary to express one's thoughts and have the ability to comprehend what others are saying. Their influence can be direct knowledge of the subject or indirect ability to solve issues when meaning is lost. Successful vocabulary development occurs when students experience the advantages of creating words through experience. Vocabulary mastery,

according to Anderson and Bachman (2000, p. 16), entails students being able to match terms they are given to synonyms, dictionary definitions, or words in their native tongue. Here, he emphasized that vocabulary mastering had to do with a student's understanding of the English language. How much the students are aware of the English word's definition and how much they can connect it to their native tongue.

Furthermore, according to Douglas Fisher (2016, p. 3), vocabulary is one sign of a learner's previous understanding. Additionally, it helps with the comprehension of spoken and written language. But students are assessed on more than just their vocabulary; they are also evaluated on their understanding of the concepts associated with the words. This means that students can expect difficulties in developing the four English language abilities and will be unable to articulate their opinions without having good vocabulary. If students know more vocabulary, it can help them know communication concepts and increase their confidence in expressing their ideas. So, vocabulary knowledge is an important factor in children's learning process.

### 3. The Kinds of Vocabulary

According to Elfrieda H. Hiebert and Michael L. Kamil (2005, p. 3) vocabulary is divided into three, which are:

- a. Oral vocabulary, or the list of terms we can say and understand when speaking orally or listening to others.

- b. Print vocabulary is the list of words that we know the meaning of when we write or read aloud. We can conclude that oral and print vocabulary are divided according to the way the students received the words.
- c. Productive vocabulary is the collection of terms they can apply in both writing and speaking. These are terms that are widely used, well-known, and easy.

According to Nation (2001 p.38), there are two categories of vocabulary: productive vocabulary and receptive vocabulary.

- a. Receptive vocabulary involves the understanding of word structure through reading or listening and determining their meaning. This is a rather passive vocabulary gathering practice.
- b. Productive vocabulary involves the desire to convey meaning through writing or speaking, as well as the ability to find and create word forms that correspond to what is said or written. This exercise not only calls for active performance but also boosts students' self-expression of ideas, opinions, and thoughts.

These experts' explanations bring one to the conclusion that vocabulary can be divided into two categories: productive vocabulary based on activity (writing and speaking) and passive receptive vocabulary (written and printed). Academic, technical, high frequency, and low frequency terms are all included in both forms of vocabulary.

#### 4. Problems in Learning Vocabulary

EFL students, especially Indonesian students, often have difficulty memorizing and understanding vocabulary. There are many factors that stimulate it, the fact that students get bored in class is one of the causes. Students are bored with learning vocabulary and learn passively by listening to the teacher explain. In addition, the amount of vocabulary that students possess is still low. This limits how they interact in English.

There are many compelling factors why developing one's vocabulary may be an important component of a language education that requires careful planning. Two elements are categorized by Muhibbin Syah (2005, p. 132) as contributing to students' difficulties acquiring vocabulary. Both social and personal factors. According to his claim, the individual element is the component that originates with the students and is made up of aptitude, growth, motivation, and attitude. On the other hand, social elements are those that are present in the learners' immediate surroundings, including their family, teachers, surroundings, and facilities.

Azar (2012), in his research, said that a lot of students are afraid to take possession when using what they have studied. When they hear or read a word, students can assume they "know it already," however, they might not be able to explain the word correctly in various contexts or with pronunciation. from there precisely. Emphasis is placed on students' effective vocabulary. When it comes to later stages of vocabulary mastery, students should use their vocabulary effectively, such as writing or speaking. Then comes the tool that

teachers choose. Students generally don't find much interest in the media that teachers apply. Some teachers only prepare basic media for students, they will get uninterested in it. If they are uninterested, they will not focus on the learning process. Teachers should use interesting media to attract students' attention. Get students' enthusiasm with interesting media.

## **B. Duolingo**

### 1. Definition of Duolingo

Technologies such as computers and smartphones can also play a role in education as a medium. Media is whatever that transfers data to help source and user interact during the learning process. Media is divided into three: text, audio and images. They are used as learning tools to make learning easier, not boring and more active. According to Shelly (2010), Digital media is the newest type of media available today, and it refers to the technology utilized as media. Any computer-based presentation or application program that incorporates multimedia elements is considered digital media. The statement made by Shelly emphasizes the need for teachers to utilize technology in the classroom responsibly and, above all, to ensure that students are utilizing it in accordance with their instructions.

In teaching vocabulary, to increase vocabulary and its knowledge to students, we as teachers can benefit from the use of media. There are many tools that teachers can use, one of which is the Duolingo app ([www.Duolingo.com](http://www.Duolingo.com)). Duolingo was launched in June 2012. It is an interesting

platform to learn foreign languages. It includes two main elements, Grammar and vocabulary exercises. It was created by Dr. Luis von Ahn and Dr. Severin Hacker. Duolingo is a free language learning app and website. How They say on their website: “Duolingo is building a world with free and unattainable education Promoting fishing language. Users can learn languages for free and at the same time translate the Web” (Jaskova 2014, p.16). Nushi and Eqbali (2017) state that while language learning is difficult, Duolingo helps users feel more confident about their ability to achieve their learning goals and reduces their anxiety related to it.

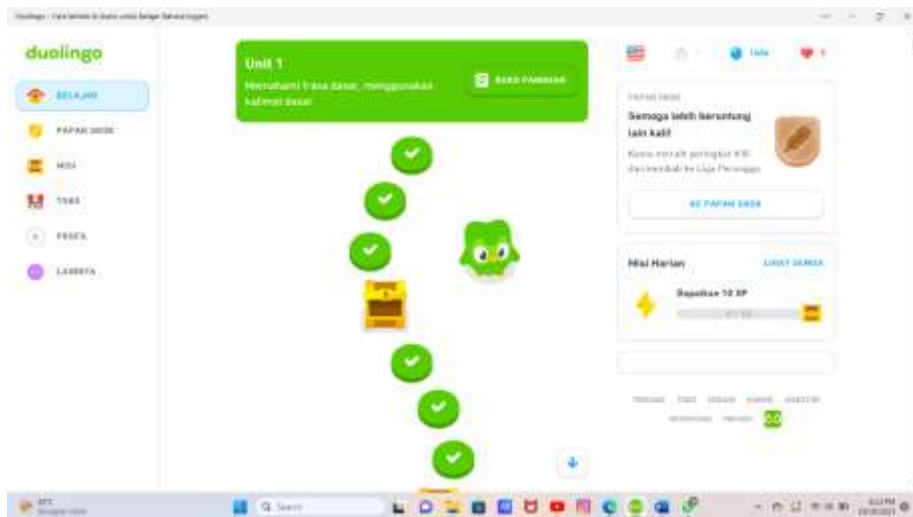
This is based on Munday (2015, p.96), who says that Duolingo can serve well as an enhancement to formal language courses offered through schools or universities, both in the classroom and online. Duolingo comes in two versions, one for teachers and one for teachers and one for students. For students, it displays several exercises and questions grammar and vocabulary are grouped according to different contexts. About Teacher edition (Duolingo classroom), includes student management and manage the English program, build working groups, supervise class activities, and provide tests, assessments, and online comments.

Figure 2. 1 Duolingo Application



1. Items on Duolingo

Figure 2. 2 Items of Duolingo



As shown in figure 2.2. The figure shows 5 sections within Duolingo. The first section (1) consists of the user profile, in which there are account settings, help, and exit. In addition, there is performance which is for buying goods in the store The second section (2) shows the topics that are tested. There are several levels within each topic. Section (3) is the score board. When



the user levels up a skill, the user gets a score, and the type of exercise gets gradually harder. Section (4) is the user's daily tasks to do. Section (5) shows the language that the user is learning in this Duolingo app.

## 2. Advantages of Duolingo

There are several advantages of using Duolingo as a means of learning in Class:

1. Duolingo is a language learning medium that can be used to enhance learners' positivity in the teaching process because Duolingo integrates a certain aspect of gamification into its study together, based on Munday.2015, p.88). Materials to study for games are often difficult to forget, which may be because learners enjoy learning.
2. Duolingo can create exercises, so in addition to studying in class, Duolingo can also help students practice to improve. Their vocabulary with Duolingo at home. Based on research done by Munday (2015, p. 93–94), it shows that 84.8% of A1 students agree that Duolingo homework is superior to other forms of homework.
3. Since Duolingo is available everywhere, teachers Putting it into practice for both indoor and outdoor learning is not hard. It is also a language that may be learned through media. When they would like to, students can study anywhere there is an internet connection.

### 3. Disadvantages of Duolingo

Using Duolingo as a vocabulary-learning tool has the following disadvantages:

1. Since Duolingo is an online language program, it might be challenging to use in a classroom without an internet connection.
2. A projector is required if a teacher wants to utilize Duolingo in the classroom. Students will become more engaged and involved in the teaching and learning process as a result.
3. If the instructor uses a projector, loudspeaker, and notepad in a typical classroom, they will need to arrange extra time and resources for them.
4. In terms of grammar, Duolingo does not provide any explanation of the use of grammar. There are no formal grammar lessons, although grammar is an essential component of language learning for language learners. specific instruction in grammar. It should be possible to integrate it with vocabulary in some way.
5. The pronunciation of sentences in listening exercises is not typical of native speakers' speech patterns. If devices execute the listening exercises automatically, they can never truly offer students high-quality activities. Good listening activities if they are automated.

### 4. Using Duolingo Application to Learn and Teach English

Students can increase their vocabulary with the support of Duolingo. Regarding vocabulary in English, students must be able to build a good vocabulary. After turning in materials to the teacher, students can play Duolingo in private in the classroom. There are certain useful and methodical techniques that students can use when learning a new language. Teachers can select and adapt materials according to the government's classroom curriculum.

There are several steps to teaching vocabulary using the Duolingo app:

- a. Give students English-language textbooks without employing the Duolingo program. Students are able to identify the words in the document.
- b. Once students understand the word, give them some exercises. Students can be requested to describe the text's terms and details.
- c. The student needs to prepare to use the Duolingo program to acquire new vocabulary after receiving the materials.

Some actions can be made in classroom learning exercises simply to help readers in understanding the purposes of each section of the Duolingo application, as follows:

- a. First, to access the application on mobile phones or laptops, students are able to download the application from Google Play or the App Store and install it on the Android or iOS operating system or you can try on this website (<https://id.duolingo.com/register>). Without an account, users can

still create accounts and access activities. However, users must register in order to save their progress.

Figure 2. 3 registration page



After successfully downloading the Duolingo application, the registration page will appear as shown in Figure (2.3) then press the start button to continue registration.

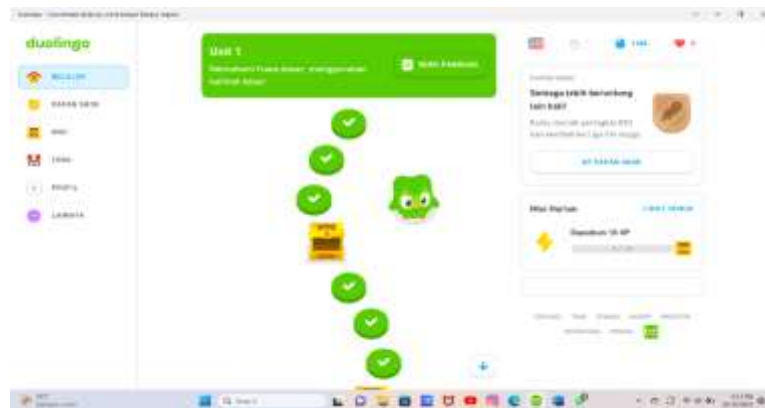
- b. Students can choose the English language to learn and get started right away after making an account.

Figure 2. 4 languages available



- c. Next, to advance to more complex modules, students have to clear a placement test. Learning experiences are divided into thematic units that start with 'Foundation' and can range from thematic vocabulary sections such as 'Food' or 'Family' to advanced grammar topics more like 'Past Perfect' and 'Family' for example at the unit 1.

Figure 2. 5languages available



- d. Lastly, learners can view their development throughout courses or units. About 10–20 questions are included in each lesson, with the goal of enhancing vocabulary through listening comprehension, translation, pronunciation, and vocabulary understanding. When each lesson is successfully completed, the lesson will move on to the next, after which it will be unlocked and a crown will be received.

In class, teachers can start the lesson by providing material in English from the book and explaining how to access the Duolingo app. After that, teachers can ask students to define the word. So, students will first gain an

extensive comprehension and new vocabulary. Students can then start using the Duolingo app and choose a given topic or freely choose the topic they want.

### **C. Quizizz**

#### **1. Definition of Quizizz**

Teachers can use Quizizz, an online quiz platform, to carry out formative assessments on students of various levels. Quizizz is a learning tool or medium that has engaging elements that are thought to motivate students to learn. With the help of the app Quizizz, users can make interactive quizzes for multiplayer play on any platform, including a computer, smartphone, or tablet.

With the help of the game-based educational app Quizizz, students can engage in multiplayer activities in the classroom and have fun with their assignments. Quizizz is a real-time response system game that can be played in class. Each student can have their question sequence changed, and Quizizz can also assign homework to help students get more practice.

Memes, avatars, artificial environments, and music are just a few of the game aspects on Quizizz that make learning more interesting. Junior (2020). Students will be more enthusiastic and content to work in this situation. The program automatically shows images to students after they respond to the quiz, informing them whether or not their answers are accurate. Additionally, because they can view their standing on the scoreboard in real time, this will encourage kids to learn by compelling them to compete with their friends.

Using the explanation provided, it can be stated that Quizizz is an interesting platform and a great tool that aids students in assessing their learning and development in conducting assessments. Therefore, students can do assessments like playing a game because it has a game feature that is expected to generate student interest.

## 2. Steps for Using Quizizz

Here are the steps in making a quiz:

Log in to [www.quizizz.com](http://www.quizizz.com) then click "Sign Up"

Figure 2. 6 Quizizz start view



Figure 2. 7 Sign in/Log in Display



Figure 2. 8List View Select account



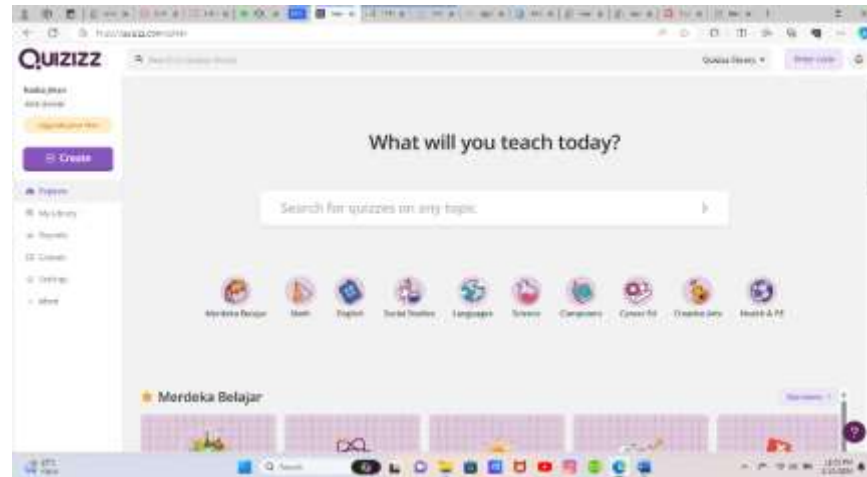
Teachers can start quizzes with Quizizz on desktops, laptops, tablets, or cellphones that are online, and students can use Quizizz to answer the questions.

Figure 2. 9 Display enter code to join the quiz





Figure 2. 10 Quizizz home page



### 3. Advantages of Using Quizizz

- a. When a student properly answers a question, many points have been given for that question, along with a ranking for that response.
- b. The right response will show up if students provide an inaccurate response to the question.
- c. After completing the quiz, a review question display will appear, allowing you to see the chosen response once more.
- d. Because the quiz is designed to be taken as homework, each student receives an individual set of questions to complete. This is because the questions are randomized for each student, making them distinct from one another.

4. Disadvantages of Using Quizizz
  - a. Learners can open a new tab
  - b. It is quite difficult to control learners when opening a new tab
  - c. Using the Internet Network (Online)

#### **D. Previous Study**

The researcher has found some previous studies that relate to this research and has analyzed them. The first is a thesis written by Kusuma Dewi and Widyastuti in 2018 under the title "The Effect of Duolingo Toward Students' Vocabulary Mastery". (true-experimental design, research in the Eighth Grade Students in the Omega Science Institute). The aim of this research is to investigate how students' vocabulary knowledge is affected by using Duolingo. In order to facilitate more contemporary and engaging learning activities, such as mobile or web-based applications, it should also permit teachers to use electronic media like Duolingo. To collect data, the researcher applied several techniques, including pre- and post-tests. In conclusion, Students in the experimental class who apply the Duolingo application function better than those in the conventional class, which only focuses on the lecture method or textbook. Based on the research results, the value of the control group (students following the conventional method) obtained is 30 students, with the lowest value being 35 and the highest value being 85. Then obtain a mean (average) value of 56.33. Even having the same number of respondents, the experimental groups' research results (students using the

Duolingo Android application) showed that 30 students had the lowest score of 37 and the highest score of 83, with an average value of 73.33.

The second study was conducted by Silmi (2019), with the title “Student Perception of Duolingo as A Media for Learning English”. The aim of this study is to investigate students' perceptions of Duolingo as a media for learning English. The method used in this research is a mixed method, with the instruments used being questionnaires and interviews. The sample for this study was selected from students of the English Education Study Program of Universitas Brawijaya class of 2016. Quota sampling was the method used to choose the research's sample. The results of this study show that students still use Duolingo to learn English and want to use it, especially for their chosen learning skills. This is an indication that students perceive Duolingo as a medium for learning English. Based on the findings of the questionnaire, it can be claimed that students' perceptions of Duolingo as a medium for learning English are positive and strong.

The third research by Ajisoko (2020) under the title “The Use of Duolingo Apps to Improve English Vocabulary Learning ”. The aim of the writer is to increase students' vocabulary with Duolingo in the second semester at Borneo University of Tarakan and stimulate their interest in studying English thoroughly, particularly vocabulary through the use of Duolingo. This research uses quantitative methods, and the research design is pre-experimental. The results of the questionnaire showed that students had given positive answers. Learners were more motivated to learn. The post-test mean score (57.45>79.15) is higher than the

pre-test mean score, indicating an improvement in the learners' vocabulary mastery. The improvement's significance is 0.687. The post-test mean score (57.45>79.15) is higher than the pre-test mean score, indicating an improvement in the learners' vocabulary mastery. The improvement's significance is 0.687.

The fourth study was conducted by Pilar Munday under the title "The case for using Duolingo as part of the language classroom experience". The researcher's goal was to determine whether using Duolingo facilitates learning Spanish. The research method used by the researcher is qualitative research, using interviews and questionnaires to collect data. As a result, 43.8% of the class was really satisfied with Duolingo. But even though very few students preferred Duolingo, if we combine "yes" answers with "same" answers, the rate is 87.6%. What this study shows is that even though there are aspects they may not like about the application they still think it can be considered as valuable as regular homework.

The fifth Study by Habibie (2020), this study discusses student motivation for learning English through Duolingo as one of the educational language tools. Questionnaires were filled out by 40 fourth-year student participants at IAIN Sultan Amai Gorontalo who are currently learning English. The study found, using a combination of quantitative and qualitative methodologies, that students' motivation to write was positively affected by the Duolingo application. Thus, according to this study, anyone can start learning a second language with Duolingo, as the app motivates users to keep going.

Based on a review of previous studies, it is clear that Duolingo can benefit students, particularly those who are just starting to enhance their English. The seven previous related studies, this research has similarities in terms of the efficiency of the Duolingo application in vocabulary learning and also the study's subjects will be upper secondary English language learners. However, there are some differences between the current research and the previous studies. The difference lies in the research method. The previous studies, on average, used mixed methods, while this study will use quantitative methods. The last difference is in the place and time of research. Therefore, this research refers to all previous studies as a guide to conduct this research, regardless of the differences and discrepancies in conducting this research.