

CHAPTER I

INTRODUCTION

1.1 Background

English is the most popular language in this world with many non-native speakers, people learn English for many reasons like school, job, and traveling. There are four skills that must be mastered to master English, namely listening, speaking, writing, and reading, but these four skills are completely useless without mastery of vocabulary. Vocabulary cannot be separated from other faces of learning English. Vocabulary is a basic component that must be mastered by students in order to develop. Therefore, to have good English skills, learners should have enough vocabulary. Vocabulary takes a very important role in mastering English, to learn English that students must master, namely mastery of vocabulary so that it can be applied to the four main skills of English. Learning vocabulary is an important part of learning foreign languages as the meaning of new words is very often emphasized, both in books and in classrooms (Alqahtani, 2015). Vocabulary is very important in a language because vocabulary is one component of language in English. Supported by Wallace (1989, p.9), "Vocabulary is a vital aspect of language". As a component of language, learning vocabulary is necessary because the more words students know, the better the chance to understand them. The purpose of mastering vocabulary is so that students can master the language of understanding properly.

The era of globalization makes humans dependent on technology. Undeniable that technology plays an important role in various aspects of life. Technology comes from The Greek word Technology according to the Webster's Dictionary means systematic teaching or handling something systematically, according to Gary J Anglin, technology is the application of behavioral and natural sciences and other knowledge and a systematic way to solve human problems. Meanwhile, according to Jacques Ellul, the definition of technology is a whole method that rationally leads and has the characteristics of efficiency in every human activity.

From the expert opinion, it can be said that technology has an important role in helping human activities in designing and producing something.

Talking about the smartphone, the first smartphone was invented on 17 October 1973 by Martin Cooper at that time the smartphone he found was 25 cm in size and weighed 1.1 kg but over time the smartphone today has had a shape and size that can be said to be ideal for a communication tool. Apart from using a smartphone as a communication tool, a smartphone can also be a tool to get information through an operating system that can be accessed in it.

Besides of operation system, there is an application in a smartphone, application is a computer program designed to run on mobile devices such as mobile phones/tablets, a smartphone is a mobile phone that has high-level capabilities, sometimes with functions that resemble a computer. In this century, the function of smartphone applications is very important in extracting all kinds of information for all of us, especially adults, teenagers, and even children, because smartphone applications can be a positive source of information and can also be used to explore the virtual world or the Internet.

Interactive media learning, Interactive learning media is a delivery system teaching that presents recorded video material with media control to the audience (students) who not only hear and see video and sound, but also provide an active response, and that response determines the speed and sequence of presentation by Seels & Glasgow (Arsyad, 2010).

The use of digital products and services (multimedia) is expected to be able to assist students in increasing motivation, exploration, and understanding of student's material taught by the teacher.

According to (Liann Camille Davalos Perez 2020) Duolingo is one of the most popular applications for learning languages, especially English. which has been downloaded by more than 300 million users in the world. The aim of this app is to make education free; it is convenient as students can download it freely on their mobile phones and computers. It provides a series of activities starting from word vocabulary to word usage in sentences. This virtual application enhances the learning environment as it is fully technology-based. Students will be technologically skilled while learning educational content. These changes can be described as progress in Information and Communication Technology (ICT). Duolingo is designed to feel like a game in the learning process and is

scientifically proven to be effective in language learning. Duolingo is an app designed to help students learn languages in an easy and fun way. Each Duolingo lesson consists of a series of questions, which require the learner to type a translation, respond to voice commands, identify which image corresponds to a particular word or sentence, and select an answer from a multiple-choice list. Duolingo is chosen as one of the various media that is expected to improve vocabulary skills.

With the aim of educating users, using smartphone applications, various smartphone application managers design an English learning application for students to improve the English language skills of their users, as an English learning center, through the Duolingo application to increase vocabulary in English. , with many features of the Duolingo application, users can learn various languages in the world, but in this research, the researcher focused on learning English for beginners to improve their vocabulary in English through the Duolingo application,

From the background described above and has made observations at the school that was being researched with students who are very weak in mastering vocabulary, the researcher is interested in examining

“The effectiveness of *Duolingo* application in teaching English at the seventh grade of SMP Kristen Rantai Damai” After doing an interview with the English teacher and finding out the seventh grade students in SMP Kristen Rantai Damai have a lack of vocabulary, the researcher wants to make students interested in learning vocabulary using Duolingo application media because researcher wants to try new things in teaching English through media to improve students' vocabulary mastery.

1.2 Problem statement

In connection with the description above, the researcher was formulated the formulation of the problem as follows: "Is the application of Duolingo effective in learning English Especially in Vocabulary and Grammar?"

1.3 Objectives of Research

Based on the formulation of the problem above, the researcher formulates the research objective as "to find out whether the application of Duolingo is effective in learning English Especially Vocabulary and Grammar".

1.4 Significance of Research

The researcher hopes that this research will be useful for:

1. SMP Kristen Rantai Damai students who through this research can gain knowledge by applying technology media for vocabulary development.
2. This research is expected to be a reference for further researchers who will research the use of English learning applications.

1.5 Scope of Research

In this research, the researcher focused on the odd-semester SMP Kristen Rantai Damai students with English lessons. In other words, the researcher focused on knowing the student vocabulary and Grammar in their school and their daily life activities.

1.6 Operational Definition

1. Vocabulary is a vital aspect of language. As a component of language, learning vocabulary is necessary because the more words students know, the better the chance to understand them. The purpose of mastering vocabulary is so that students can master the language of understanding properly.
2. Technology has an important role in helping human activities in designing and producing something. in its development, technology has become one of the needs of modern humans, there are various kinds of technology that humans have created.
3. Interactive media Learning is a digital product or service (multimedia) provided by the teacher to students by presenting learning content such as text, moving images or animation, video, and audio to video games.
4. Duolingo is an app designed to help students learn languages in an easy and fun way. What makes Duolingo different from other English learning applications, there are various languages offered by Duolingo, and learning is practical and fun. and Duolingo is a gamification learning app. that

application of typical gameplay elements (e.g., point scoring, competition with others, rules of the game) to other areas of activity. So that the user of Duolingo can compete with each other to get a higher score and also get benefits from using Duolingo.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter presents some pertinent ideas, previous studies, conceptual framework and Hypothesis.

2.1 Some Pertinent Ideas

1. Definition of Vocabulary

Vocabulary is a foundation for learning a language. These are the base elements of language that must be mastered by students in order to learn elements of other languages such as speaking, listening, writing, and reading. Therefore, to learn a language, students must be able to master vocabulary well, without vocabulary mastery they will have difficulty in learning a new language. So, without mastering vocabulary for someone, it seems very difficult to learn a language because the most basic and first thing to learn a language is the vocabulary of the language itself.

According to Scrivener (1998) “Vocabulary is a much more powerful carrier of meaning compared to grammar because we can get our message over with vocabulary and without grammar, but we cannot communicate unless we use the necessary words in our patterns and structures.” So, we can communicate with other if we know the meaning although we do not sure to communicate with sentences structurally. David Wilkins has claimed that “without grammar, very little can be conveyed, without vocabulary nothing can be conveyed”. This is according to his statement that learning vocabulary is very important. Meanwhile, Jean & Geva (2009) have stated that vocabulary or knowledge of the meaning of words is perhaps the most obvious language skill that influences reading development. This is quite clear if we try to understand a sentence in which most of the words, we do not get the meaning, perhaps the page from an advanced physics text. In reading, vocabulary knowledge has an important role, it is starting in the early grades when it influences the development of word reading skills. Vocabulary is the collection of words that an individual knows (Linse,2005:121). And Hatch and Brown (1995:1) define that vocabulary as a list of words for a particular language or a list or set of words that individual speakers of a language might use. Vocabulary is basic knowledge because vocabulary is needed when

foreign language learners want to develop speaking, reading, writing skills and make them understand what they read or hear in a foreign language. In conclusion, vocabulary has a very important role in the development of existing skills in English because without mastering the fourth vocabulary, English skills cannot be aligned properly.

2. Kinds of vocabulary

Vocabulary can be divided into four types according to some experts They are receptive vocabulary and productive vocabulary or passive and active vocabulary

1. Receptive Vocabulary

Receptive vocabulary is phrases that learners recognize when they are used in context, however which they can't produce. It is vocabulary that freshmen recognize when they see or meet in the analyzing textual content however do not use it in speaking and writing (Stuart Webb, 2009).

2. Productive vocabulary

Productive vocabulary is the words that the learners apprehend and can pronounce correctly and use constructively in speaking and writing. It entails what is wanted for receptive vocabulary plus the potential to talk or write at the suitable time. Therefore, productive vocabulary can be addressed as a lively process, because the freshmen can produce the phrases to express their thoughts to others (Stuart Webb, 2005).

3. Active vocabulary

Active vocabulary is defined as the words by which listeners and writers usually use as they completely understood. Yet Laufer (1998) in his research divided them into two subgroups, namely controlled active and free active. In contrast with active vocabulary.

4. Passive vocabulary

passive vocabulary is defined as the word that not completely understood, so that they are infrequently used when writing and speaking. According to Laufer and Parabakht (2008).

3. The Importance of Vocabulary

Vocabulary knowledge is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful communication. Underscoring the importance of vocabulary, Schmitt (2000) emphasizes that “lexical knowledge is central to communicative competence and to the acquisition of a second language” (p. 55 Nation (2001)) further describes the relationship between vocabulary knowledge and language use as complementary: knowledge of vocabulary enables language use and, conversely, language use leads to an increase in vocabulary knowledge.

The importance of vocabulary is demonstrated daily in and out the school. In the classroom, the students possess the most sufficient vocabulary.

Students often instinctively recognize the significance of vocabulary to their language learning. As Schmitt (2010) noted, “Learners carry round dictionaries and not grammar books” (p. 4). Teaching vocabulary helps college students recognize and speak with others in English. Voltaire purportedly said, “Language is very difficult to put into words.” I accept as true with English language college students usually would concur, yet learning vocabulary also helps students master English for their purposes

4. Vocabulary Learning Strategy

Vocabulary teaching is not solely a focal point on educating students to memorize words but also considers bringing students to be able to analyze and use it in everyday life in specifically for academic purposes. In short, teaching vocabulary is very needed. It helps students to research the language, so they can carry and get meaning from phrases, cues, and signs, symbols easily. Generally, there are many techniques regarding the education of' vocabulary.

Here are some techniques for teaching vocabulary as stated by Brewster, et al (1992) in Alqahtani (2015)

1. Using Objects, this technique includes the use of visual aids and demonstration. This technique can help learners in remembering vocabulary better because our memory for objects and pictures is very reliable, and visual techniques can act as clues for remembering words (Takac, 2008)

2. Drawing, objects can either be drawn on the blackboard or drawn on flash cards. They can help the learners easily understand and realize the main points that they have learned in the classroom.
3. Using Illustrations and Pictures, pictures connect students' prior knowledge to a new story, and in the process, help them learn new words. The list of pictures includes posters, flashcards, wall charts, magazine pictures, board drawings, stick figures, and photographs. Pictures for vocabulary teaching come from many sources. Nowadays many readers, vocabulary books, and coursebooks contain a vast number of attractive pictures that present the meaning of basic words. The teacher can use learning materials provided by the school.
4. In contrast, some words are easily explained to learners by contrasting it with their opposite, for instance, the word 'good' contrasted with the word 'bad'. It is almost impossible to contrast the words whose opposite is the gradable one. Furthermore, the verb "contrast" means to show a difference, like photos that reveal how much weight someone lost by contrasting the 'before' and 'after' shots.
5. Enumeration, an enumeration is a collection of items that is a complete, ordered listing of all of the items in that collection. We can say 'clothes' and explain this by enumerating or listing various items.
6. Translation, even though translation does now not create a want or motivation for the freshmen to suppose the phrase which means (Cameron, 2001), in some situation's translation, may want to be wonderful for teachers, such as when dealing with incidental vocabulary (Thornbury, 2002), checking students' comprehension, and pointing out similarities or differences between first and 2d language, when these are likely to purpose mistakes (Takač, 2008). There are always some phrases that want to be translated and this approach can save a lot of time.

2.2 Grammar

Grammar is the structure of sentence construction. By using the correct structure, a sentence will be perfect. This structure is used in all languages, not

just English. Maybe for Indonesian, you are more familiar with the term SPOK (Subject, Predicate, Object, Description).

Grammar is also part of a language that every native speaker learns from infancy. Because the use of grammar has become a habit for native speakers, native speakers using grammar when they were young could not understand what grammar was, and over time they would naturally be able to distinguish meanings because they often heard people talking around them. Then even as they grow older, they understand how to use and arrange words according to their context and arrange them into perfect sentences.

part of the grammar:

1. part of speech

In the structure of the English language there are types of words that will form a perfect sentence. Well, here it is called Part of Speech. Actually, there are eight categories of parts of speech, namely nouns, adjectives, verbs, pronouns, adverbs, prepositions, and interjections, but there are only three that are commonly used to teach the basics of English, namely:

- a. Noun, usually used to describe the name of a place, name of a person or thing.
- b. Adjectives (Adjective), used to clarify nouns such as adding information about the name of a person or thing. Examples describe color, texture or feeling.
- c. Verb (Verb), used to express an action such as running, taking things, or talking.

2. Verb

There are several forms of verbs in English. For example, the verb eat can change into eating, eat, eaten, eats. From one verb can be four different forms. There are three basic forms of verbs that you need to know, namely:

- a. Base Form, is a basic verb or first verb. Example: sing, eat, swim, have, do. Usually, the root verb follows the word "to".

- b. Past Simple, here is the second verb. Example: ate, sang, had, watched. Example sentence: "He ate an entire chicken yesterday".
- c. Past Participle, the last one is the third verb. Usually, this verb is used for more complicated tenses such as the present perfect. Example: "I have never been to Singapore". The word been in the sentence is the third verb from be.

3. To Be

You will often hear this form of the verb. Usually, this verb to describe the situation. Namely, am, is and are. Example: "we are family", "I am sad", "she is here." However, the word to be cannot be combined with a basic verb like read which will then become "we are read" because the correct usage should be "we are reading".

2.3 Learning Media

Media, according to Wikipedia Media is a means of communication channels. The word media comes from Latin which is the plural form of the word medium. media means an intermediary, between the source of the message (a source) and the recipient of the message (a receiver). Some things that are included in the media are films, television, diagrams, print media (printed material), computers, and so on. Media is a tool that can help with needs and activities, and its nature can make it easier for anyone who uses it.

Media is needed when the material is considered to be abstract and ambiguous so the use of media is helpful in visual embodiment to explain abstract concepts to concrete. Media has a function as a link information from the source to the receiver. The importance of media in facilitating learning, the presentation is adjusted to the defined learning objectives. The presence of media in the learning process is very helpful for students in understanding things learned (Setyosari, 2005)

Learning Media, according to the Big Indonesian Dictionary (KBBI), the meaning of educational media is the tools and materials used in the teaching or learning process.

The learning process can occur because of the interaction in the delivery of information using information delivery tools or materials. These information

delivery tools are said to be learning media. Learning media by applying technology is able to provide an overview in developing more interesting learning techniques. The development of technology can also be used as a solution to innovate in the development of learning media so that the learning process is more attractive to students. The use of learning media can help teachers in delivering learning materials. The success of learning is largely determined by two main components, namely teaching methods and learning media. The function of the media in the teaching and learning process is to increase the stimulation of students in learning activities. For this reason, it is necessary to conduct training in the manufacture of interactive learning media for teachers. The perceived advantages of interactive learning media compared to traditional teaching methods. Media can be used successfully in formal conditions where students work in my opinion or instructors work with students.

2.4 Interactive Learning Media

Learning media is a collection various types of components that are in student environment so that they more stimulated to follow the lesson well (Ali, 1992). teachers can apply it and according to the students' thinking ability. After understanding the meaning of media of course, you just have to know anything examples of media that can be used for learning activities. The use of interactive learning media in the teaching and learning process basically provides many benefits for both teachers and students. the selection of good learning media can be very influential to improve the quality of the teaching and learning process in the classroom.

2.5 Types of Media

In determining the appropriate media in increasing English abilities, we need to understand the purpose of the media that can make our improving abilities are effective and successful. according to, Rudy Brets in *A Taxonomy of Communication Media* (1971), mentions the classification of media as follows:

1. Audio-visual motion: sound films, films on television, television, and animation.
2. Silent audio visual: slide.

3. Semi-motion audio: writing moves with sound.
4. Visuals in motion: silent film.
5. Silent visuals: mute slides, printed pages, photos.
6. Semi-motion visuals
7. Audio: radio, telephone, audio tape.
8. Print media: books, modules.

According to Rudi Bretz, the division of media is based on the senses involved, which consist of three main elements as the basis of the media, including sound, visual, and motion. No sound is an element that involves the sense of hearing. Visual elements are elements that involve the sense of sight. The visual form is divided into images, line graphics with recording media and print media.

The use of media can help us to improve our English skills in an interesting way and make the learning environment more accessible and more enjoyable. Also easily motivates us because it increases our attention. To make the learning process more effective.

2.6 The Advantage of Using Learning Media

Learning Media is everything that can be used to convey messages or information in the teaching and learning process so that it can stimulate students' attention and interest in learning. The use of the right media can affect the success or failure of learning, and there are many platforms that offer interesting learning applications to support the teaching and learning process. According to John Naisbitt, Megatrends there are some advantages of using media:

1. Meets the needs of students to be wise consumers of media, managers of information, and responsible producers of their ideas using the powerful multimedia tools of a global media culture.
2. Engages students. bringing the world of media into the classroom connects learning with "real life" and validates their media culture as a rich environment for learning.
3. Gives students and teachers alike a common approach to critical thinking that, when internalized, becomes second nature for life.

4. Provides an opportunity for integrating all subject areas and creating a common vocabulary that applies across all disciplines.
5. Helps meet state standards while, at the same time using fresh contemporary media content which students love.
6. Increases the ability and proficiency of students to communicate (express) and disseminate their thoughts and ideas in a wide (and growing) range of print and electronic media forms - and even international venues.
7. Media literacy's "inquiry process" transforms teaching and frees the teacher to learn along with students -- becoming a "guide on the side" rather than a "sage on the stage."
8. By focusing on process skills rather than content knowledge, students gain the ability to analyze *any* message in *any* media and thus are empowered for living all their lives in a media-saturated culture.
9. By using a replicable model for implementation, such as CML's MediaLit Kit™ with its *Five Key Questions*, media literacy avoids becoming a "fad" and, instead, becomes sustainable over time because students are able to build a platform with a consistent framework that goes with them from school to school, grade to grade, teacher to teacher and class to class. With repetition and reinforcement over time, students can internalize a checklist of skills for effectively negotiating the global media culture in which they will live all of their lives.
10. Not only benefits individual students but benefits society by providing tools and methods that encourage respectful discourse that leads to mutual understanding and builds the citizenship skills needed to participate in and contribute to the public debate.

2.7 Duolingo

1. Definition of Duolingo

Duolingo is a language learning application that uses games as a technique. It has a great how-to procedure so the app is easy to use even if it's a new user. The target users of this application are children, teenagers, parents, and others who want to learn a new language. Because Duolingo is easy and more interesting to use, learning media has the potential to succeed if applied in the

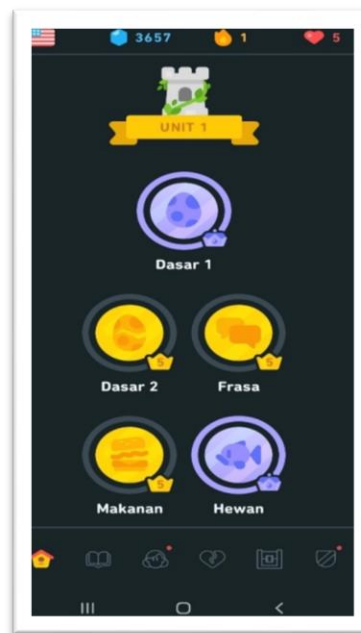
classroom. Duolingo aims for users to understand the language well and can be useful in their lives. Not only that, Duolingo can be used by students as a medium of learning in learning foreign languages, especially vocabulary. As for teachers, this application can be used as a teaching medium so that students can master vocabulary in a fun way.

Duolingo is an English learning application that can be accessed on any media, Duolingo itself was developed by Luis and his partner, Severin Hacker, who founded Duolingo in 2009 and published it in 2012. At the beginning of its release, Duolingo only offered English, Spanish, and French. However, along with its development, Duolingo has now provided 66 different language courses and is available in 23 languages. Besides being available in the web version, the Duolingo application is also available on several operating systems, such as Android, iOS, and Windows Phone.

There are 4 English skills that users can develop through the Duolingo application including reading, writing, listening, and speaking. And also, there are various language tests that are brought by this application from matchmaking, filling in the missing words, completing sentences, translating, and speaking. and also, with various interesting features in this application, it can help students in developing language learning in an easy and fun way

2. Description of Duolingo

For Duolingo operation, android/iOS users can download Duolingo from google play store/apple store, When the Duolingo app is first opened by new users they will be given various options to choose languages such as Francis, Spanish, Italian, Dutch, Portuguese and others another, but that regardless of the user which language they will learn, after determining the language to be studied the application will set a daily target for learning.

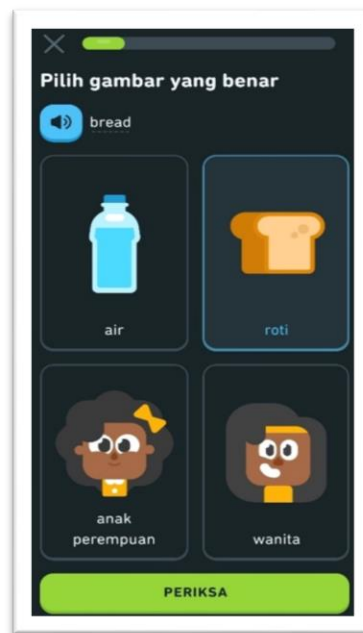


Picture 1. Duolingo

Then the application asks the new user if they already have the basics of the language they have chosen or really don't know about the language they have chosen. Duolingo also implements a replacement system so that Duolingo users who choose the same language will be contested to rank in the Duolingo application. This is a motivation for Duolingo users to compete with each other to learn a foreign language. Then the application will provide basic tests of various subjects and exercises. That is:

a. Matching Exercises

in which the application provides several pictures and students try to match the picture with its meaning in English or the language learned by the user.



Picture 2. Duolingo, matching

b. Speaking/Pronunciation Exercises

Well-provided and user-understandable directions, in some of the stage where the user or the students have to say a sentence out loud in the language, they are already choosing learning.



Picture 3. Duolingo, Translation exercise

c. Listening Exercises

In the listening session, students will be given a test in the form of audio to listen to and try to write down what they have heard according to what is given by the audio in Duolingo itself.



Picture 4. Duolingo, listening exercise

d. Fill the Blank Exercise

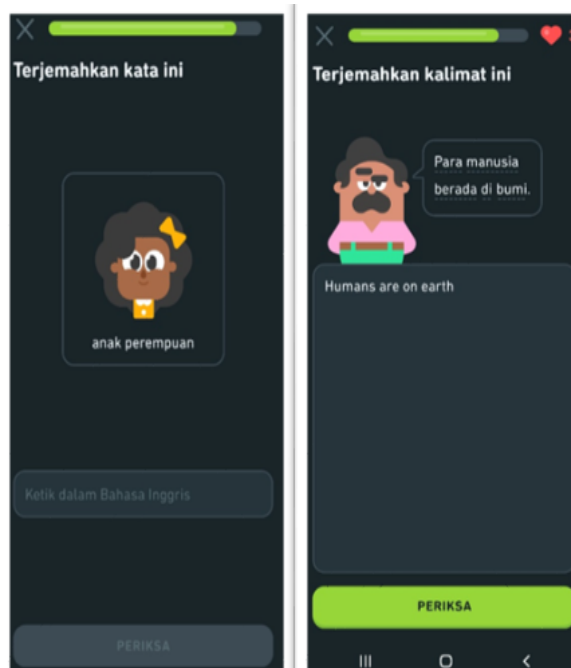
In this exercise students will be given a sentence that is not and try to complete the sentence with the word options that have been provided



Picture 5. Duolingo, Speaking/Pronunciation exercise

e. Translation Exercises

In the Duolingo application for translation exercises the user or student is given a sentence or an image in English or the native language of the speaker and tries to translate the sentence or image shown by the application into the student's native language or mother tongue and vice versa translates the original language sentence user to English.



Picture 6. Duolingo, fill the blank exercise

When the user has completed one daily exercise, Duolingo gives xp to increase the user's level so that they can continue the lesson to a higher level in addition to giving xp to go to a high level Duolingo also provides motivation at the end of the daily task to continue learning English with interesting way to learn a language and fun animations.

Duolingo is also an artificially intelligent application, for example, when a student mistypes a word such as "aple", which should be "apple", in that case the application knows that and provides examples of the right word so that students can learn from their mistakes, there is also something interesting about this Duolingo application. a Dumbbell illustrated feature that can be used by students to strengthen their language skills weaknesses that have been recorded by the Duolingo smart application.

3. The Advantages of Duolingo

There are several advantages of Duolingo as an Enhancement medium English language skills. The advantages include:

- a. Duolingo can be accessed anywhere and anywhere and anytime, A distinct advantage for the Duolingo application is that students can access it at will wherever and whenever they want.
- b. Duolingo is a language for recognizing media that can be used for improve the stages of the active beginner learning process. Because Duolingo combine some elements of gamification in recognizing, it can inspire and interact students in learning Duolingo, the game nature in the form of a language test from Duolingo itself is very effective for practicing English language skills.
- c. Duolingo has its own feature, namely notifications that will remind students to achieve daily targets that have been set by the students themselves.

4. The Disadvantage of Duolingo

Every learning application platform must have some shortcomings, no exception is no application that is truly perfect, according to the circumstances and conditions of learning. There are several drawbacks that Duolingo itself has as a medium for improving English skills based on researcher experience of using Duolingo:

- a. A. Duolingo cannot be accessed When students or users cannot connect to the internet "offline" this application can only be accessed when the user has an internet network connection.
- b. In terms of grammar, Duolingo does not provide a more specific explanation of grammatical usage. Whereas grammar is the essence of a language that must be learned by students so that they can use the language properly and correctly of course. so, a teacher's job is to explain the correct grammar when there are some mistakes from the Duolingo application.
- c. the Duolingo app has a fatal flaw because recently they started adding an ad after the student learning is over and the only way to get rid of the ads from Duolingo itself is that the student has to pay.

2.8 Duolingo Teaching Method

The Duolingo application is focused on improving the user vocabulary so that Duolingo teaching method is translation method, In Duolingo, this method succeeded primarily for beginners, but as levelling. Thus, it was proven that Duolingo is one of the leading programs that help the users learn the language effectively. This research gives evidence of the limitations of language learning applications though they have improved recently. These programs are a valuable step to improve the teaching methods and to give the learners an incentive to learn since they are accessible.

2.9 Previous Studies

Several researchers have conducted research related to the Duolingo application to improve students' vocabulary mastery skills. Below this research:

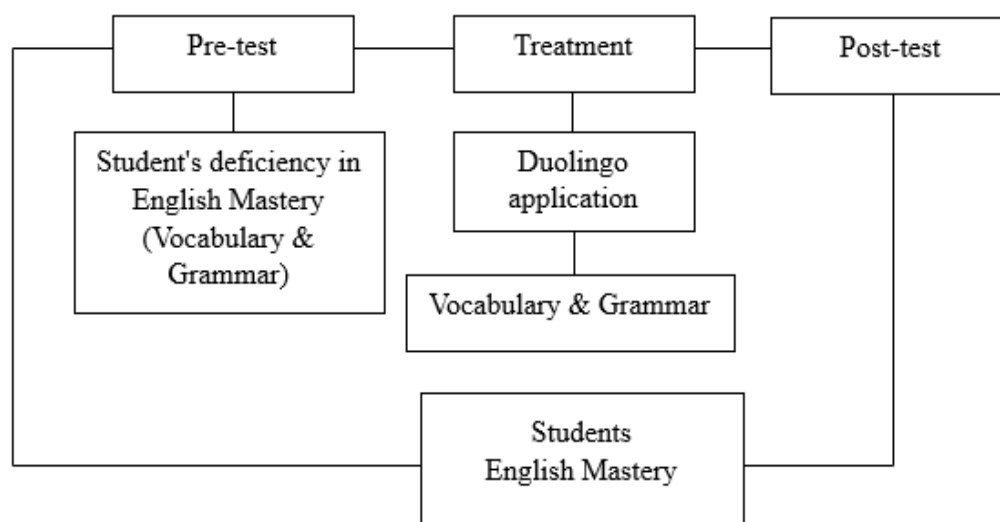
1. Addal Muddin, Student of Faculty of Education and Teacher Training Department of English Language Education Reg No. 231324418 his research was conducted to find out the effect of using Duolingo in teaching English to improve students' ability in mastering vocabulary and to know the students' perception toward the implementation of Duolingo in teaching English subject at MTsN 2 Aceh Besar. The research design of this research is pre-experimental research. This research only needs one class as sample with five meetings. The data collection techniques were tests and questionnaire.
2. Amelya Risky (2022): The Use of Duolingo Application Toward Students' Vocabulary Mastery at The Seventh Grade of State Islamic Junior High School 4 Rokan Hulu The purpose of this study was to obtain empirical data and analyze the use of the Duolingo application to improve the Vocabulary of Seventh Grade Students of MTSN 4 Rokan Hulu. This research was conducted on seventh grade students at MTSN 4 Rokan Hulu. The research method used in this study was a quasy experimental design. There were two groups; namely experimental group and control group.
3. Suwandi. Registration Number: 34162138. The Effect of Duolingo Application on Students' Vocabulary Mastery at MTs Darul Ilmi Batang Kuis, English Education Program, Faculty of Tarbiyah and Teacher Training, State Islamic University of North Sumatera, 2020-14-08. The objective of this

research to indenify the difficulties faced by the seventh-grade student at MTs Darul Ilmi Batang Kuis, to identify factors of causing the students difficulties in memorizing the vocabulary at the eleventh-grade students at MTs Darul Ilmi Batang Kuis in academic year 2020/2021. This research is quantitative research. The subject of the research was the eleventh grade of MTs Darul Ilmi Batang Kuis in academic year 2020/2021. From several previous studies, it can be concluded that the Duolingo application can significantly improve students' English skills.

With the previous study as a reference the researcher using a different method to using Duolingo in teaching English.

2.10 Conceptual Framework

The theory which supports this research can be shown in logical and clear relationship in the following framework as follow:



Based on the conceptual framework above, the use of Duolingo Application applied as a model to improve student's achievement in English mastery Vocabulary and Grammar. After using Duolingo as a media in teaching English. In other word This research focuses on improving English mastery students.

2.11 Hypothesis

According to Arikunto (2014: 110) hypothesis is a temporary answer to the research problem until it is proved by the data that will be collected". Based on the theoretical framework and conceptual framework above, the hypothesis can be formatted:

- a. H_1 : There is a significant effect on students' English mastery by using the Duolingo application in seventh grade of SMP Kristen Rantai Damai.
- b. H_0 : There is no significant difference on students' English mastery by using the Duolingo application in seventh grade of SMP Kristen Rantai Damai.