CHAPTER II

LITERATURE REVIEW

This chapter presents theories that underline the study. It consists of perception, application of mobile learning, Duolingo application, and vocabulary mastery.

A. Perception

The purpose of this study is to find out the students' perception towards the use of Duolingo application in vocabulary mastery at the eighth-grade students of MTsN 8 Kediri, before knowing the students' perceptions. It is important to know what perception is and how perceptions are formed. There are some theories related to the definition of perception from some experts.

1. The definition of Perception

Perception is the realization of the human brain process and it appears as a view about phenomenon stated by Koentjaningrat (2010:42). There are many factors such as feeling, experience, needs, motivation, educational background. The process is followed by a process in which a person's brain arrives at the meaningful interpretation of stimuli.

In general terminology, perception is defined in Longman Dictionary of Contemporary English as 1) the way you think about something and your idea, 2) the way that you notice things with your sense of hearing, 3) the naturally notice things quickly and able to understand. So, the definition of perception students' is can be understood as people's ability to see, to feel, to hear, and to present or to know what people felt about their social life physically and mentally.

Perception can affect someone who can change our behavior, socialize with people around, and look at things from a different angle or way from others. According to Obregon R. & Waisbord S. (2012) perception is divided into three; knowledge, attitude, and behavior.

a. Knowledge

Knowledge is the "awareness" and "understanding" of particular aspects of "reality", the approach is that knowledge requires three necessary and sufficient conditions. Johnsen (2014) that knowledge is regarded as a right understanding of things and not merely an opinion, a person's knowledge can greatly influence a person's attitude in making decisions about a matter. Knowledge itself is a resource that makes us know about the world.

b. Attitude

According to Aiken (2000) referred to attitude is a learner predisposition or tendency on the part of an individual to respond positively or negatively to some object, situation, concept, or another person. In the definition, it is emphasized the learned aspect of the attitude. However, attitude is not the same with values, the values that people hold can explain their attitude in many situations.

c. Behavior

Perceived behavioral control is based on control beliefs individuals hold regarding the behavior. It refers to the perceptions individuals have about their ability to perform the behavior, as well as how much control they perceive to have over the behavior. Ultimately, the theory of planned behavior explores the relationship between cognition and behavior (Croucher, 2016). In other words,

behavior is the response or reaction of an individual to stimuli originating from outside and from within.

After describing the term perception, it can be concluded that perception is a process of human thinking about certain phenomena after they get the sensation from the environment through the sense of organ.

2. Factor of Perception

Perception is a process that includes both a selection and organizing mechanism. Perception varies from person to person. Different people perceive different things about the same situation differently. Even though more than that we assign different meanings to what we perceive and the meanings might change one's perceptive or simply make things mean something else. There are the factors that influence and contribute to determining the perception. According to Walgito (2001:103) states that everyone has a different tendency in seeing the same thing. The difference can be affected by many factors, there are two factors, and those are as follows:

1.   Internal factors

These factors reside in in-person concern. Internal factor is a factor from within an individual which influences the individual in behaving psychology acknowledge and the division of human internal. This factor depends on personal psychological such as feeling, thoughts, willingness, needs, motivation, attention, etc. Every human being has different characteristics and temperaments which are also shaped by an individual's family and an individuals' environment.

2. External factors

The external factor is a factor from outside of an individual. This is a factor that comes from outside individuals such as stimulus, environment culture, belief. Our life relates to the environment, both physical and social environment.

B. Application of Mobile Learning

Increased development in technology has made it imperative for an educational organization to constantly upgrade its strategies and policies in learning and teaching as a way to remain effective and competitive. Goggin (2006) assumed that the increased use of these mobile devices like handphones, iPad, smartphones, table, and PDAs is an international phenomenon. Students get this technology anywhere, at any time for their daily study. Learners should look upon this phenomenon as an opportunity through indeed it is a challenge a well. On another hand, the concept of "anytime" and "anyplace" of mobile learning should be utilized in increasing the pedagogical activities in delivering lessons.

Mobile application is a new and quick developing Segment of the global Information and Communication Technology. Using mobile applications is easy, user-friendly, inexpensive, downloadable, and run-able on most mobile phones including inexpensive and entry-level phones. The mobile applications provide many functions like calling, messaging, browsing, chatting, social network communication, audio, video, game, etc.

In 2000, mobile application enhanced developers are talking about internet-based mobile applications. With that mobile application, people can connect them to the internet for their daily importance.

The concept of mobile learning based on Kukulska- Hulme and Shield (2007) is further elaborated and defined as the type of learning that could be within the classroom (formal), or outside the classroom (informal), and the learners has the choice to choose when and what to learn.

C. Duolingo Application

1. The Definition of Duolingo Application

Duolingo Application is a free app that was created in November 2011 by Louis Von Ahn and Severin Hacker. Duolingo application builds a world with free education and no language barriers. In the mobile version, *Duolingo* does not have as many as in the verb version. It has more than 30 million registered users. Duolingo offers several languages for English speakers as well as others for non - English speaking students, and users can suggest new language courses they want Duolingo to develop.

Based on Duolingo guidebook (2015) stated that Duolingo application has a lot of languages which language learners can choose the language what they want to learn, such as English, Arabic, Spanish, Dutch, French, and another language. Besides it, Duolingo also has an educator forum that the users can exchange lesson ideas and experiences with each other such as teachers or students to them easier in learning English. And the other hand, the Duolingo application, is easy to use and more interesting so it will be comfortable to be one of the media that we apply in English learning.

In learning English, students should know about vocabularies, because by knowing the words they will try how to use them to express their ideas and

communicate. As one of the language learning applications, Fatah (2019) stated that Duolingo is one of the language learning applications that can be applied in teaching vocabulary. With this application, students can develop their vocabulary knowledge about words in English, students need to have adequate vocabulary mastery. One of the reasons vocabulary is basic knowledge and very important for students in mastering four skills of language (reading, writing, speaking, and listening).

Guaquet and Castro (2018) assumed that Duolingo Application was provided vocabulary practice and gave opportunities for students to evaluate their knowledge and identify the need to continue improving. It means that duolingo application is presented as an educational tool that can be integrated in the classroom in order to provide a new learning experience for students, and it based on content quality, feedback, and motivation. Thus, Duolingo application can help the students to get knowledge interestingly and make the learning environment more enjoyable. It can be the best way for students to develop their skills in English and to master the vocabulary of language learning English.

Jascova (2014) mentions that Duolingo is seen as a future in learning language and in global communication. This application is an application designed to help students learn language fun and easily. Duolingo application as a language learning application can offer a wider range of features that requires an internet connection during using this application. There is the feature of Duolingo application, such as Achievement, Crown levels, Lingots., Daily goal, Clubs user networking.

2.The Procedure of Learning Vocabulary by Duolingo Application

Duolingo is a very straightforward app and very simple to use. Using the Duolingo application, learners must download in Google Play/I Tunes and install it on their Android/IOS devices. There is the procedure to use Duolingo application follows:

1. Download application Duolingo application in Google play store.

2. After you installed it, learners can choose the English language from a list of 16 languages. In the English language can choose out of 15 complete courses.

3. Next, the learners have selected which language they wish to learn, the app asks them to "pick a daily goal". The daily goals range from casual, Through *Regular,* and *serious* to *Insane, denoting respectively 5, 10, 15,* and *20* minutes of practice day.

4. Then registration, without any more questions or even registration for the course, the learner can go right into their first lesson by tapping start.

5. Then the learners can choose one of the types of exercises of Duolingo application.

6. The first exercise is Duolingo give is a selecting picture exercise for vocabulary where the learners are chosen to select the right meaning of pictures.

7. The next exercise is translating the sentence. Translation exercise in which the learners the language they know to the language they want to learn or the other way around. There are two kinds the way how to translate the sentence. First, the learner just chooses the right translation of the words

provided and they must arrange those into the right sentence. Second, learners must type the right translation based on the sentence.

8. Then, listening exercise, in which listen to a short phrase in the second language and have to type it correctly. Listening exercise where the learners must listen to a sentence being spoken and type in they heard it.

9. Speaking exercise, in which learners have to say what they read. A speaking exercise is offered as well, during which learners have to read out loud a sentence in the language they are learning.

10. The last, it has also the exercise fill in the blank. In an exercise in the form of multiple choices, the learners should choose the right answer among two or three choices.

4. Advantages and Disadvantages of Using *Duolingo Application*

a. Advantages of using Duolingo Application

The Duolingo application environment offers the advantages that learning new vocabulary items with images, sounds, and translation is less stimulating and more constructive. Consequently, it is suggested that teachers implement Duolingo to improve vocabulary mastery. There are several advantages of the Duolingo Application as medium learning in an online class. The advantages include:

1. Duolingo can create homework, Duolingo also can support learning online to make students practice to improve their vocabulary with Duolingo at their home. Based research which was done by Munday (2015,p.93-94) shows that if the students 84.8% agreed if the homework with Duolingo better than the order type of homework.

2. Duolingo is a language learning application that can be used to increase levels of active learning in the teaching-learning process. It can be because of Duolingo. Incorporates some gamification aspect in learning with, it can motivate in learning English. The material which learning for the application usually difficult to forget, it can be more enjoyable in learning.

3. Duolingo applications can be accessed anywhere and everywhere, so teachers are not difficult to use them in indoor learning or outdoor learning. Besides it, it is appropriate if it is used in a virtual classroom to support learning language at the home. It is a media learning language as well which allows the learners to learn wherever they have an internet connection and whenever they feel like it.

b. Disadvantages of Duolingo

Every media for learning have positive and negative side according to situation and condition of learning. There are some disadvantages of using Duolingo as media in learning vocabulary.

a. Duolingo is an online application for language learning, so it is hard to implement in the classroom if there is no internet connection.

b. In terms of grammar, Duolingo does not offer my explanations on grammatical use. In language learning, grammar is an essential part of language learning there are not direct grammar lessons. There should be a way to incorporate it along with vocabulary.

c. Then, in the listening exercise, the way the sentences are spoken is not a representative way of native people speaking that language. The machine never really provides the learners with a great listening activity.

Duolingo application method for teaching a new language as mentioned is the direct translation of another language. In virtual classrooms, they use *Duolingo* as an extra tool, it might have negative consequences for them to be familiar with the translation of students have learned in the classroom.

D. Vocabulary Mastery

1. Definition of Vocabulary

In learning the English language, there are language elements that English must master namely grammar, pronunciation, spelling, and vocabulary. The latest element is regarded as the most crucial one. Vocabulary is one of the language aspects which should be learned. Vocabulary is very important was also noted by Richards and Renandya (2002) states that vocabulary plays a crucial part in one foreign language learning and language proficiency that we can speak, write, read and listen nicely we have the adequate vocabulary.

Due to the definition above, I conclude that the more vocabulary the learners' have, the easier for students to develop their four skills (listening, reading, writing, and speaking) and learn the English language as a foreign language generally. Learning vocabulary is not easy because some aspects of language are not easy to learn, it is impossible to learn a language without mastering vocabulary.

Based on the definition above, vocabulary can be concluded that vocabulary is all the words that exist in a language that is basic elements, in this case, English.

2. Vocabulary Mastery

Vocabulary mastery refers to the number of words someone knows. The term mastery is not restricted to simply recognize the meaning of certain words. Martha (2010) defined that vocabulary is the competence to know words and meaning. The students are not only hoped to know the words but also their meaning. The teacher has to select what is suitable to be taught to the students, so the students will learn more easily. Vocabulary is mastery is one component to master English as a foreign language in elementary, intermediate, and advanced levels. In learning four language skills (listening, speaking, reading, and writing). Vocabulary is one basic component to be mastered. It is reasonable, remembering that the four language skills need knowledge of words because they will get nothing without vocabulary.

Vocabulary mastery can be defined as several vocabularies in a language that contains information about its meaning, for, and usage in the context of communication. It is the basic knowledge that the students should master first before mastering English. According to Norma, Vocabulary mastery is the students having the ability in understanding and using the vocabulary and know the meaning. There are 4 stages of the learner progress in mastery vocabulary: a) progress extends from the beginning to master of the fundamental of structure and sounds system, b) the vocabulary items should still consist of those that must be learned for production, c) vocabulary mastery of recognition, d) the choice of special areas of experience is necessary.

In vocabulary, mastery cannot be denied in learning English, not only a learner's speaking skill but also their writing and reading as well, because vocabulary is one of the most important element to improve the learner's English mastery of vocabulary that can also be developed naturally by their experience during life according to their need and education.

Mastering vocabulary is not restricted to simply recognize the meaning of certain words. It is one of the learners' needs to understand the language. In the English teaching-learning process, mastering vocabulary well can help the students to understand the lesson.

3. Aspect of Vocabulary

When we learn the English language is not only about the words or new vocabulary, but also about how to use the vocabulary incorrect usage. In vocabulary consists of several aspects, there are meaning, spelling, pronunciation, word classes, and word use argued by Brown (2010:29). The students should master all of the aspects of vocabulary so that they can communicate well in English. They are explained as follow:

a. Meaning

One of the most important aspects of vocabulary teaching is meaning because a word may have more than one meaning when it is used in a different context. To discover the meaning, the teacher can use guesswork, use dictionaries, and learning applications.

Meaning is determined by the context where it is formed and also determined by its relation to other words. We could look at the example of the word

book sometimes means the kind of thing writes from, but it can also mean several other things. The second example, *vegetables* which have general meaning whereas carrot is more specific.

Contextual guesswork is made of the context in which the word appears to drive an idea of its meaning, guess from the word itself. Knowledge of word formation, e.g prefixes and suffixes can help students to discover meaning.

b. Spelling

According to Nation (1990: 51), as cited in Kareem(2006: 6), there may be different acceptable written forms for the same words within the same variety of English or most commonly, because they belong to different varieties as happens with many British or American English. Besides it, spelling is a thing shape from the spell. Spelling has spelled the letter in a word one by one. In the American legacy word reference spelling' is to clarify as 1) how words are spelled: orthography; 2) a bunch of letters speaking to a word.

c. Pronunciation

According to Richard and Schmidt, (2002) stated that pronunciation is the way a certain sound or sounds are delivered and pronunciation stresses more the way sounds. Pronunciation is about the way in making sounds of the dialect and placing the stress, pitch, and intonation to the listener understand the speaker's feeling and meaning perceived by the hearer Harmer (2007).

From the experts' definition above, it can be concluded that pronunciation is the way of creating sounds in speaking activity by noticing the image that speaks to the different sound.

d. Word classes

Word classes are parts of a discourse that can be defined as categories of words. It is an important feature in semantic feature analysis. The building blocks that form every sentence ever articulated. They are categorized by the role they play in sentences. The categories of words such as nouns, verb, adverb, preposition, and word use.

4. Evaluation of Vocabulary Mastery

There are two kinds of evaluation namely recognition and production (Hughest 1989:147). In testing vocabulary mastery, it is needed to determine the type of test which will be used. Those are described as follows:

a. Recognition

The one type of testing vocabulary in which the test takers are provided with several alternatives to which one is suitable with the word that is being asked. This is one testing for which multiple choice can be recommended without too much doubtfulness. In kinds of evaluation, items may involve the number of different operation as follow.

b. Production

The testing of vocabulary productivity is so difficult that it is practically never attempted in proficiency tests. The main difficulty is the need to limit the candidate to the (usually one) lexical item that we have in mind.

1) Definition the teacher writes the definition or meaning of a particular word and the students must answer with the word itself.

2) Pictures the teacher can display pictures of the various object and ask the students to write down the names of them. This method is restricted to concrete nouns that are simple to name.

3) Gap filling this can take the form of one or more sentences with a single word missing.

E. Previous Study

There are some previous studies about research. The first previous study from Brick and Wilson (2019) with his research entitled "Enhacing learners' professional competence via Duolingo Classroom". The result showed that a virtual classroom was set up wuithin Duolingo school for each participating of students and they were encouraged to use the app on a regular basis. The tutor tools allowed the monitoring of how many days learners ere active, how many lesson they completed, how many courses they completed and how many points they were awarded while using duolingo

Another study by Yuanda (2020) on His study entitled "Students' Perception on the Use of Duolingo as a Language Learning Application for Learning English". The data collected by questionnaire to students of University in Banda Aceh who are currently using or have already used the duolingo as a language learning application. The result that duolingo application has many positive affects to students in learning English process such as; the students are more motivated in learning process, and make students more practice and apply their language skill in daily life. Therefore, the use of duolingo application needs to

be applied in language learning to help the students improve their language learning activities.

The next previous study is taken from Rosyida,Wahyuningsih,and Andayani (2020) in their their thesis entitled "The Effect of Duolingo Application on Students' English Vocabulary Mastery." The result showed that the use of duolingo application is effective in teaching vocabulary as mean score of the experimental group is higher than the control group. Duolingo application was good tool because it was engaging with its many different task types which motivated the students to reach their target point and to compete with their friend. It means that the students who were taught vocabulary by using duolingo got better than those whp did not.

The present study is intended to identify the students' perceptions toward the use duolingo application in vocabulary mastery at the eight-grade students of MTsN 8 Kediri. Students' perceptions is defined as their views and opinions about duolingo application which can effect of knowledge, attitude and behavior in vocabulary mastery. Students' perception is constructed as a result of individual toward the use of duolingo application. The perception of students could be positive or negative depending on students' experience on the use duolingo as a language learning application and their perception after using this application.