UTILIZING DUOLINGO IN LEARNING VOCABULARY

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ABSTRACT

Using technology is a solution to answer the difficulties of learning English in the current global pandemic era. One of the technologies that can help in learning English is Duolingo. Duolingo is an application that can help students to increase their vocabulary mastery. This study sought to find out the implementation of Duolingo in learning vocabulary, the effect of using Duolingo in enhancing students' vocabulary mastery, and students' perception toward the use of Duolingo. A qualitative research was employed on this research to reach the aims mentioned. The instruments were test, questionnaire, and observation. The observation was used to find out the answer of the first question. Meanwhile, the questionnaire was used to find out the answer to third question, and the test was used to find out the answer of the second question. To analyze the data collection, this study followed Miles and Huberman model. Based on the data, the study reveals that there was a significant effect of the students' vocabulary mastery after they were taught through Duolingo application since the test value was higher. This indicates that Duolingo facilitates the learners to enhance their vocabulary mastery.

Keywords: Vocabulary, Duolingo Application, EFL students, students' perception

INTRODUCTION

The definition of vocabulary has clearly stated by Hatch and Brown (2001, as cited in Putri, et al., 2019), vocabulary is a list or a set of words for a particular language or as a set of words that individual speakers of language might use. In learning a language, vocabulary has an important role, because it will be impossible to learn a language without learning its vocabulary. In the other word, learning a language means learning its vocabulary and vocabulary also is the first step for mastering language skills. Without learning vocabulary, those language skills will be impossible to be mastered by the learners. Furthermore, the learners also must have adequate vocabulary to have good English language skills. Lack of vocabulary, will make the students difficult to attend and understand the teacher's explanation and limited vocabulary must not be ignored by the learners. Aisyiah (2017) stated that the effective strategies need to be applied in learning or teaching vocabulary. The purpose of teaching vocabulary is to enable learners to be able to understand and elicit foreign words as well as to use words successfully for communicative purposes. In order to enhance students' vocabulary, the students can utilize several technologies. Because in this era, almost all learning systems require the role of technology, and cannot be denied that the presence of technology is able to help develop students' skills in the English language. Moreover, Wang & Young (2014) stated that teaching learners English vocabulary using information technology can reduce the effect of the teacher's skills and improve learners' motivation to learn English vocabulary, there are so many LMS which can be used for improving students' English skills, for example is Orai application, can help the students to develop English speaking skills, as for the Duolingo application also able to help the students to develop English language expertise primarily in vocabulary skills. Additionally, Duolingo application is very easy to find and use by everyone, especially EFL students. Jovaska (2014, as cited in Wijaya, Yufrizal, & Kadaryanto, 2016) also stated that Duolingo is the future of language

learning and global communication. Using the Duolingo application can improve student vocabulary achievement. It is hoped that the use of the Duolingo application can solve these problems and can help students and teachers in the learning process, especially vocabulary. This study is expected to find out how learning is carried out vocabulary via the Duolingo application.

Moreover, EFL students' college are the target in this study. Because, for EFL students English is a foreign language, which means English is their third language, they did not learn English as their first language or even second language. Besides, learning foreign language at the age of a college student is harder than learning a foreign language at the age of children. Learning foreign language in college students age is same difficult as learning math and science. Thus, this study will be focused to enhance EFL college students. In addition, Gozcu and Caganaga (2016) stated that an EFL classroom is in a country where English is not the dominant language. Students share the same language and culture. The teacher may be the only native English speaker they have exposure to. Outside of the classroom students have very few opportunities to use English.

Based on the arguments above, vocabulary as an important role in language learning must be mastered by the students, especially EFL college students. Because, mastered in vocabulary will help the students to be mastered four language skills. EFL students as the participant of this study have few opportunities to practice or learning English especially in enhancing vocabulary. Furthermore, learning vocabulary in this era the students can utilize several technologies such as Duolingo. Thus, this study will focus to know how utilize Duolingo app in learning vocabulary in EFL college students and the students' perception after use Duolingo

THEORETICAL FRAMEWORKS

Vocabulary

Learning a new language means learning its vocabulary. Vocabulary can be defined in various ways. There are many linguist experts have proposed the definition of vocabulary. Neuman and Dwyer (2009 as cited in Alqahtani, 2015) stated that vocabulary can be defined as the words someone must know to communicate effectively: words in speaking (expressive vocabulary) and words in listening (receptive vocabulary). It means, without learning vocabulary, the students will be impossible to communicate effectively. In line with, Tnanh Huyen and Thi Thu Nga in Rouhani and Purgharib (2013, as cited in Aisyah, 2017) stated that vocabulary is a relation between the elements of four language skills, including listening, speaking, reading and writing in foreign languages. The statement means, mastering vocabulary enables the students to be mastered in English language skills. Furthermore, the importance of learning vocabulary also has been conveyed by Zimmerman in Coady and Huckin (1998, as cited in Alqahtani, 2015) that vocabulary becomes fundamental to language and is very important for ordinary language learning.

In addition, the principle of vocabulary is the structured activity of people in society and the interaction between them involves the basic propositions that guide them, which are generally called principles. Principles are generalizations that must be learned, remembered, and applied because it is important for students to understand the subject and make progress in learning (Haylock and Thangata, 2007).

Nation (2001) stated that there are some principles for teachers in the teaching of vocabulary. 1) high frequency words should be taught to the students because they are important enough to deserve time in class, 2) academic words should be taught to the learners with academic purpose, 3) technical words are only learnt when the students are studying the content matter of the certain subjects, 4) low frequency words may be taught after the students have a good control of the high frequency, academic and technical words. The teacher should not spend much time to teach low frequency words because it is wasting time. Knowledge of vocabulary enables language use and language use leads to an increase in vocabulary knowledge (Nation, 2001 as cited in Alqahtani, 2015).

Vocabulary as the Basis for Communication

Jamalipour and Farahani (2012) state that vocabulary is generally recognized as the primary means of communication. The size and depth of vocabulary in communicating seem to be related to good interactions that fulfill the principles of communication, namely the maxims of quantity, quality, relevance, and means (Grice, 1975 as quoted in Dakhi & Fitria, 2019).

Vocabulary as the Reflection of Social Reality

Richards (2001) as cited in Dakhi & Fitria (2019) explains that there are four basic reasons for treating language, namely (1) language is a system for the expression of meaning; (2) the primary function of language is to allow interaction and communication; (3) the structure of language reflects its functional and communicative uses; and (4) the primary units of language are not merely its grammatical and structural features, but categories of functional and communicative meaning as exemplified in discourse. Can's (2008) as cited in Dakhi & Fitria (2019) stated that the reality can only be received through the symbols. The language is the symbols to representing human's thoughts and feelings. Vocabulary also constructs the human reality.

Vocabulary as an Emotion Booster

The language plays a role in the emotion since it supports an understanding used to create a meaning of sensations from a body as well as the world in a given context (Lindquist, MacCormack, and Shablack, 2015). Lindquist, Sapute, and Gendron (2015) also claimed that the emotion is built when sensations are categorized using emotion category knowledge and supported by the language.

Vocabulary as an Academic Ability Predictor

Academic discourses are composed by the string of structured words, science and technology are widely spread using academic discourses. the size and understanding of vocabulary knowledge are more likely to predict the academic ability. For example, Roche and Harrington's (2013) finding showed that vocabulary was associated with both academic writing and GPA (or Grade Point Average).

Types of Vocabulary

There are two types of Vocabulary which receptive and productive vocabulary, active and passive vocabulary.

1. **Receptive Vocabulary and Productive Vocabulary**

Receptive vocabulary is defined as the vocabulary types reader encounters during reading and listening. According to Lauferand Goldstein (2004) as cited in Dakhi & Fitria (2019) receptive vocabulary was associated with the listening and reading. Meanwhile, productive vocabulary refers to the set of words used to produce the messages which means speaking and writing are the basic skills in productive vocabulary. According to Jamalipour and Farahani (2012) the vocabulary knowledge positively predicted the reading comprehension.

2. **Active Vocabulary and Passive Vocabulary**

Active vocabulary is defined as the words by which listeners and writers usually use as they completely understood. Yet Laufer (1998) as cited in Dakhi & Fitria (2019) in his research divided them into two subgroups, namely controlled active and free active. In contrast with active 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) as cited in Dakhi & Fitria (2019) the passive vocabulary was acquired more than the active ones.

Duolingo

Hall and Khan (2003 as cited in Kumar & Daniel, 2016) explain technology adoption as a consistent process that encourage hesitant people to effectively embrace and use technology for a specific purpose. The integration of Information, Communication and Technology (ICT) into education relates to the use of computer-based communication that is incorporated into daily learning process in the classroom (Ghavifekr & Rosdy, 2015). Clark (2013, as cited in Wijaya, Yufrizal, Kadaryanto, 2016) states that technology is an instrument that has powerful functions to provide unique and varied inspiring ideas so that vocabulary teaching can be improved.

The Features of Duolingo

Stringer (2016 as cited in Rosyidah et al, 2020) claims that Duolingo has several game-like features, which will engage students learn a language:

a. Duolingo has a skill tree which consists of several lessons that the user can go through and unlock the next skill. Each lesson contains 10 to 15 exercises with different types of exercises.

b. Duolingo is the leader board, which is activated when the user adds friends to their list.

c. Duolingo has a shop, whose currency is called Lingot, which the user can use to buy additional skills, bonuses such as freezing or customizing the appearance of Duo, the owl mascot.

d. Duolingo also has a feature on a web called Duolingo for Schools where teachers can create virtual classrooms to view Duolingo curriculum content, monitor student progress, and assign assignments to classroom activities or homework (Stringer, 2016).

The Objectives of Duolingo Application

Lionetti (2013, as cited in Amalia 2019) states that there are some objectives of Duolingo application, as follows:

1. To teach other languages free of charge to users
2. To understand and be able to speak a phrase or sentence in another language
3. To listen to a sentence or phrase and then type it
4. Able to write the right word on the suitable image
5. To develop skills in translating words and sentences from the user's preferred language into English
6. Able to translate words and sentences from English into the language of the user's choice

Types of Duolingo Tasks

Wagner et al (2015, as cited in Amalia, 2019) said that there are four separate assignments at Duolingo such as:

1. Vocabulary tasks

In a vocabulary task, a number of words in a grid on the screen can be seen by the test taker. After that, the correct words in English words must be chosen by the test taker as well. There is a rule that test takers are only given one minute to complete the assignment.

2. Listening and transcription tasks

Listening and Transcription aims to assess the test taker's listening ability. The test taker has to type the sentences they hear which are presented aurally to them. Usually, this task is strictly a dictation model. The test must complete a task and be able to hear the audio subtitles up to three times. Test takers only have one minute to complete this task.

3. Task completion of sentences

Sentence completion is a task that is labeled to complete a sentence. Here, the test taker will present several short texts composed of several sentences. There are five blank spaces in the task and it must be selected by clicking on the blank to answer a question from the list of eight answers provided. This task is identical to the answer chosen or the task that is rational. In completing this task there is a rule that the test taker has only three minutes.

4. The speaking task

The last task is to speak. In this assignment, the test taker will provide on-screen instructions such as "Say this sentence". Then, the microphone icon should be is clicked by the test taker and the written sentence must be read out with a clocking icon. This task also has the rule of only having one minute to complete.

There are several tasks provided in the Duolingo Application, but in this study only focus on vocabulary tasks that are in accordance with the design of this experiment.

Duolingo Advantages and Disadvantages

As stated by Mulya et al (2016 as cited in Amalia, 2019), the Duolingo application also has advantages and disadvantages, as follows:

a. Duolingo's Advantage

Duolingo is a game-based platform for learning foreign languages. This can be accessed in the browser based application or the iOS, Android, or Windows

Phone application. Duolingo has been released to use a mix of activities; students listen to, transcribe, speak, and translate in a simple interface as they work on words and phrases. Duolingo allows teachers to easily track students' language learning progress. Students share their progress in language learning live with their teacher, who can track their progress via a dedicated dashboard. By being able to track student progress, teachers can plan lessons, do Duolingo homework skills, and reward additional credit points accordingly.

This also makes students move forward and beat their previous records, and students can also compete with their friends in class. Students can also earn experience points (XP) to measure how much they perform tasks in Duolingo, and pass different levels and be able to differentiate with their friends, then they earn lingots which can be used to purchase bonus items and lessons or change icons to make their Duolingo more attractive. Duolingo itself can be accessed on PC and also on Android by downloading it on the Play Store. The interface is explicit and very easy to use. There is also a fine balance between translation, listening, word matching and speaking practice. The voice recognition program is not that bad, and students can still hear what the speaker is saying.

b. Duolingo's Disadvantages

Duolingo uses a computerized sound system for all of its listening exercises, so students are not introduced to how language actually sounds. Their voices are dry, non-rhythmic and can be heard fluently, the most important thing in their language learning is actually speaking to native speakers of their more assertive language. Nothing can replace it and currently Duolingo has no way of allowing people to communicate with any native speaker.

Duolingo also does not offer any description of the grammar structure as part of its dashboard. Grammar is an important part of language learning and this makes it difficult for students to do their assignments.

Perception

Black & Sekular (2006, as cited in Muna, 2019) states that the most important thing in perception is that perception gives people a useful view of the world, where useful means being able to interact and be effective in our environment. Moreover, Slamento (1974, as cited in Muna, 2019) states that perception is a process related to entering memories, messages or information into the

human brain. Through perception, humans are always in contact with the environment. In addition, Morgan et.al (1979, as cited in Muna, 2019) argue that perception is the process of incorporating our direct experience in the world. From another point of view, perception is the way the world looks, tastes, sounds, feels, or smells. In other words, the definition of perception are the things experienced by a person.

METHOD

This research employed qualitative research. According to Creswell (2012) qualitative research is more than simply deciding on whether you will observe or interview people. In obtaining the data, the researchers used test, questionnaire and observation. According to Creswell (2012) questionnaire occurs when researchers ask one or more participants general, open-ended questions and record their answers. In conducting the questionnaire test, the researcher used close-ended questions. Furthermore, the questionnaire test was conducted to know the students' perceptions after using Duolingo, indeed, this questionnaire test also answered the third of research questions. Moreover, to find out the answer of the second research questions, the researchers used test instrument. Through this test, the researchers get to know the students' vocabulary mastery after using Duolingo. In conducted the test, the researchers gave several questions that related to the learners' vocabulary mastery. The test was conducted in online form to ease the process. After obtaining the result of the test, the researchers transcribed and typed the data into a computer file to analyze. Furthermore, the next instrument is observation, Creswell (2012) elaborated that observation is the process of gathering open-ended, first-hand information by observing people and places at a research site. Through this instrument, the researchers can know how to implement Duolingo in learning vocabulary. Furthermore, this instrument is also used to answer the first research question.

In addition, the researchers conducted this study in Cianjur, West Java Indonesia. The participants of this study were the students of Suryakancana University which consist of 5 male and 5 female college students. This study is to conducted to find out the answer of the following questions; 1) How is the implementation of Duolingo in learning vocabulary? 2) Is there any significant effect of students' vocabulary mastery after using Duolingo? 3) How is student's perception toward the use of Duolingo? Furthermore, collected data were analyzed following Miles and Huberman model.

FINDINGS AND DISCUSSION
Result of the Test

After using Duolingo in two weeks, the learners were asked to complete the test. The aim of this test is to know the learners' vocabulary mastery after using Duolingo. In this test, the learners were asked to complete some tests related to learners' proficiency in English vocabulary. The result of the test can be seen in table 1.

Table 1. Learners' Score

No	Learners' Initial	Test
1.	AC	84
2.	NN	68
3.	NS	72
4.	VN	80

5.	FM	84
6.	VY	84
7.	WF	72
8.	MR	84
9.	NN	67
10.	SS	84

Result of Questionnaire

Questionnaire was used to obtain the data about learners' perception in using Duolingo as extensive learning of vocabulary. There are ten questions in survey. The data can be seen in following figures and description.
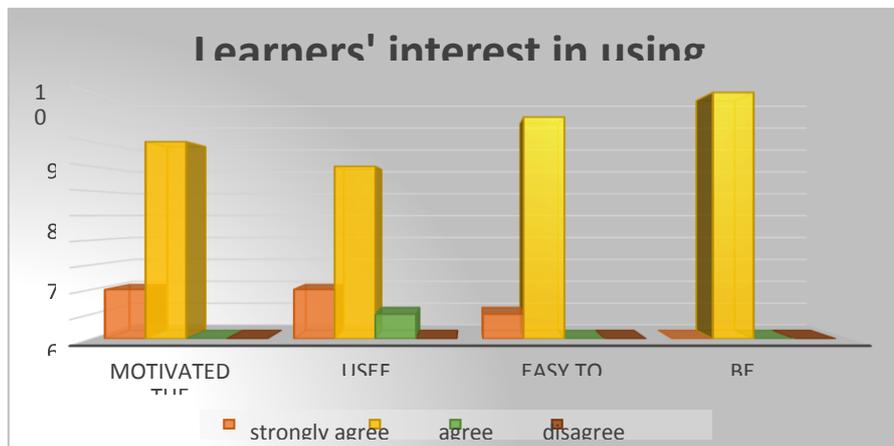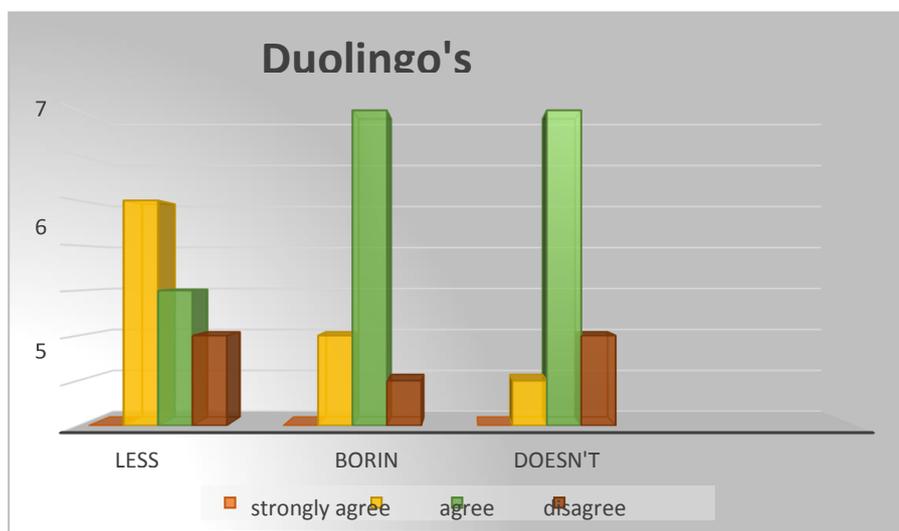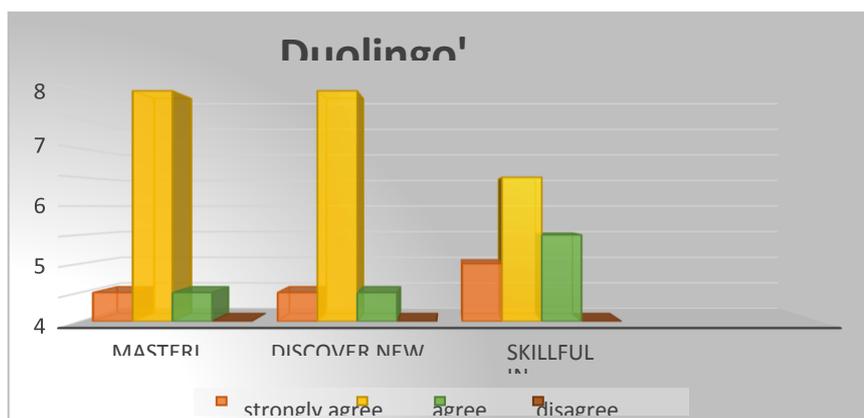

Figure 1. Learners' Interest in Using Duolingo

Based on the data above, it was revealed that 20% learners strongly agree and 80% learners agree if Duolingo motivates the learners in learning vocabulary. Most of the learners feel that Duolingo is useful, easy to use, and makes them an active learner in learning vocabulary.

Figure 2. Duolingo's Disadvantages

Based on the data above, it was revealed that most of 70% students disagree that Duolingo is boring and does not help in learning vocabulary. While 50% learners agree if Duolingo is less useful. It shows that Duolingo needs to be improved.

Figure 3. Duolingo's Advantages

Based on the data above, it was revealed that most of students agree, 80% learners agree that Duolingo provides advantages in learning vocabulary. The learners feel that Duolingo helps them to discover new ideas, more skillful in memorizing, and mastering vocabulary.

CONCLUSION

After using Duolingo for two weeks, it was noted that most of the learners feel motivated and Duolingo makes them an active learner in learning vocabulary. It can be seen from the data that 80% of learners agree that Duolingo provides advantages in learning vocabulary and 80% learners agree if Duolingo application motivates the learners in learning vocabulary. There was also an increase in learners' vocabulary after being taught through Duolingo application. It can be seen from the students' score. Therefore, it can be said that Duolingo helps them to discover new ideas, more skillful in memorizing also improve the vocabulary of learners.

REFERENCES

Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, *III*(3), 21–34. https://doi.org/10.20472/te.2015.3.3.002

Amalia, D. (2019). *The Effect of Duolingo Application on the Students' Achievement in Vocabulary* (University of Muhammadiyah Sumatera Utara Medan; Vol. 8). Retrieved from http://repository.umsu.ac.id/bitstream/123456789/3266/4/SP - 1502050268.pdf

Asyiah, D. N. (2017). the Vocabulary Teaching and Vocabulary Learning: Perception, Strategies, and Influences on Students' Vocabulary Mastery. *Jurnal Bahasa Lingua Scientia*, *9*(2), 293–318. https://doi.org/10.21274/ls.2017.9.2.293-318

Aulia, R., Husnur., Wahjuningsih, E., and Andayani, R. (2020). The Effect of Duolingo Application on Students' English Vocabulary Mastery. *English Language Teaching and Research Journal*.

Chen, C. M., Chen, L. C., & Yang, S. M. (2019). An English vocabulary learning app with self-regulated learning mechanism to improve learning performance and motivation. *Computer Assisted Language Learning*, *32*(3), 237–260. https://doi.org/10.1080/09588221.2018.1485708

Christianti, E. (2018). *The Use of Quizlet As a Learning Medium to Improve English Vocabulary Mastery for Eleventh Grade in SMAN 4 Yogyakarta*.

Creswell, J.W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research.*

Dakhi, S., & Fitria, T. N. (2019). The Principles and the Teaching of English Vocabulary: A Review. *JET (Journal of English Teaching),* *5*(1),15. https://doi.org/10.33541/jet.v5i1.956

Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, *1*(2), 175–191. https://doi.org/10.21890/ijres.23596

Jamalipour, S. & Farahani, A. A. A. (2012). The effect of vocabulary knowledge and background knowledge on Iranian EFL leaners' LS reading comprehension. Journal of Applied Linguistics and Language Research, 2 (2),107-121. Retrieved from http://www.jallr.com/index.php/JALLR/article/viewFile/36/pdf_34

Latief, Ja'far Abdu. (2019). *The Implementation of Duolingo Android Application and Autonomous Learning To Enhance the Students ' Writing Simple Sentences.*

Lindquist, K. A., MacCormack, J. K. &Shablack, H. (2015). The role of language in emotion: Predictions from psychological constructionism. *Hyphothesis and Theory, Volume 16.* http://dx.doi.org/10.3389/fpsyg.2015.00444

Lindquist, K. A., Sapute, A. B., &Gendron, M. (2015). Does language do more than communicative emotion. *Current Directions in Psycholoical Science, Volume 24* (2). https://doi.org/10.1177/0963721414553440

Nurdini, H., Marlina, L., & Journal, V. (2017). Vocabulary Journal As a Learning Tool for Students in Learning Vocabulary Through Reading. *Journal of English Language Teaching*, *6*(1), 39–59.

Of, S., & Bandar, S. (n.d.). *Students ' Vocabulary Mastery At the Eleventh Grade*.

Roche, T. & Harrington, M. (2013). Recognition vocabulary skill as a predictor of academic English performance and academic achievement in English. *Language Testing in Asia,* 3 (12), 133- 144.http://dx.doi.org/10.1186/2229-0443-3-12

Utami, N. A. (2015). *The Effectiveness of hot seat game for teaching vocabulary*. 7–27.

Wijaya, R., Yufrizal, H., & Kadaryanto, B. (2016). Improving Vocabulary Through Duolingo Application in Call at the Seventh Grade of SMP. *UNILA Journal of English Teaching*