

## STUDENTS' REFLECTION TOWARD LEARNING VOCABULARY USING DUOLINGO APPLICATION

Retno Wiyati<sup>1</sup>, Shakilatasya Amelia<sup>2</sup>

<sup>1,2</sup>STKIP Pasundan, Indonesia

Email: rwiya74@gmail.com<sup>1</sup>, shakilatasya31@gmail.com<sup>2</sup>

First Received: February 2022

Final Proof Received: March 2022

### ABSTRACT

Vocabulary plays an essential role for the students in acquiring a language because it is used to express thoughts, ideas, and information. However, due to its broad materials and time limit provided by the school, vocabulary cannot be studied optimally. As for it, the students should be more aware to learn the vocabulary independently, for example by utilizing the use of online language learning application, such as Duolingo. Therefore, this research is conducted to investigate the students' reflection regarding their vocabulary learning using Duolingo Application. The participants of this research are three junior high school students in Cimahi, because the students meet the Duolingo's curriculum target. The method of the research is a case study design. To acquire the data needed in this study the instruments used are interview and observation. From all the data obtained, researcher finally concludes that the students reflect positive attitudes toward the Duolingo application due to its advanced features. The students become more challenged to play the application and feel less worry because Duolingo provides them with many immediate feedbacks, well-structured materials and appreciation tags which can ease, motivate and reassure the students to achieve their learning goals. Nevertheless, the students face some drawbacks, such as the unnatural sentences, repeated questions, and lack of grammar guide. Even though, the students use the third party to manage the problem emerged.

**Keywords:** *Duolingo, students' reflection, vocabulary*

### INTRODUCTION

Cameron (2001) stated that vocabulary plays an important role for the language learners to acquire a language as it is one of the knowledge areas in language. However, (Sokmen, 1997) stated "it is impossible for students to learn all the vocabulary they need in the classroom (school) since there are so many words on which teachers cannot spend time within the class time limit: thus, vocabulary expanding process requires the higher level of autonomy as well as more responsibility from learners themselves". Due to the reason of that, the students or the language learners ought to be aware of the importance of learning vocabulary independently in order to accomplish their goal in learning a language. There are numerous ways for the students to acquire vocabulary outside the school in this technological era, such as maximizing the use of gadgets.

These days, with the advance evolution of technology particularly in Education aspect, there are many mobile applications emerge in purpose of assisting and helping the user to learn and develop their English learning. In language learning, this phenomenon relates to Mobile-Assisted Language Learning or MALL. (Caudill, 2008) defines mobile-assisted language learning (MALL) as a language learning technology

influenced by mobile (portative) IT-equipment. He also states that MALL is the sub-type of mobile and computer learning of languages.

A numerous number of researches have been conducted to examine the benefits of MALL in language learning. As for the example, MALL is related to the used of mobile technology in language learning where the students do not have to stay in the classroom or sit in front of their computer to learn the language (Miangah & Nezarat, 2012). In addition, in his study, (Barakati, 2013) stated that the use of MALL can evoke the user interest to independently learn languages anytime and anywhere, particularly in English.

In relation to vocabulary learning to MALL, there are plenty mobile online applications used in learning vocabulary. However, unfortunately most of the applications require the user to pay. While mostly, most of the students refuse to pay the application and rather to use the free mode which limits the use of the application's features. Fortunately, there is one of the applications that can meet the students' requirements, named Duolingo. By the reason of that, this research will examine the reflection of the students in using Duolingo, a non-paid vocabulary learning application.

## **LITERATURE REVIEW**

### **Students' Reflection**

Korthagen, Kesls, Koster, Lagerwerf and Wubbels (2011) state that the structure of reflection including of the development of the capacity to promote growth, such as the ability to continue professional development based on internally directed learning. Among of so many methods that have been developed, there is a structured reflection tool called the reflection "onion model" (e.g Hoekstra & Korthagen, 2011; Korthagen, 2004; Korthagen & Vasalos, 2004). There are six levels in this model that moves from the outer towards the person's inner world:

1. Environment  
The first layer is Environment that refers to everything that people encounter outside of themselves. In this case, it has to do with the Duolingo features and courses.
2. Behaviour  
The second level is Behaviour that refers to what the people do, such as how they cope with the challenges emerged in the environment, while in this case is how the student or the user behave toward Duolingo Application.
3. Competency  
The third level is Competency which means what the student or the user is competent at doing in responding their activities in Duolingo application.
4. Belief  
The fourth layer is Belief which refers to what the view of the users or students on the situation they are dealing with. It relates to the assumption, practical knowledge or theory regarding to the outer world or environment.
5. Identity  
This layer refers to the students or user assumption on how they perceive themselves and the professional roles they see.
6. Mission  
The last layer is mission, which refers to what inspired and gave them meaning to their work. Mission is related to what the person wants to do the least, or what he thinks is his personal mission in the world (Korthagen & Vasalos, 2004).

## **PPTs**

(Cornett, 1990) defined Personal Practice Theory (PPT) as the belief (theory) of teachers, based on their practice (practical) inside and outside the classroom and their previous life experience (personal). (Cornett, 1990, p. 189) adds that PPT can continually change depend on people personal experience and practice, and also can be affected by external factors such as economy, management, and media. However, within this study PPTs are built based on the underlying beliefs, experiences, values and conceptions of the Duolingo user or the students regarding to their learning vocabulary.

### **Vocabulary Learning**

(Schmitt, 2000) classifies the way in learning vocabulary into five specific groups;

1. Determination strategies (DET)  
DET is more likely to be a personal strategy used by the learner to understand the meaning of words without being helped by others. This strategy is generally used to find and acquire the meaning of new words, not to remember words that have been learned..
2. Social strategies (SOC)  
This strategy needs the involvement of social interaction and engagement with others to learn new words, such as asking the teacher or classmates.
3. Memory strategies (MEM)  
MEM is a strategy for the learners to recall the vocabulary they have been learned.
4. Cognitive strategies (COG)  
Cognitive strategy is as similar as memory strategy but the difference is this strategy more emphasizes the mechanical way of comprehending known words.
5. Metacognitive strategies (MET)  
MET is a strategy which allows the learners to consciously determine the proper way to organize, monitor and evaluate their vocabulary learning strategies.

### **Duolingo Application**

According to (Robertson, 2011), Duolingo was created by Luis von Ahn and Severin Hacker in 2011. It is a self-described free, science-based language education platform. Duolingo is launched for general public on June 19<sup>th</sup> 2012. On November 13<sup>th</sup> 2012, Duolingo released their iOS app through the App Store and its free download and compatible for iPhone, iPod, and iPad devices and finally released their Android App on May 29<sup>th</sup>, 2013. Its slogan is "Free language education for the world". Based on the website, it has more than 30 million registered users up until this day. These days, Duolingo becomes the most popular application in Google Play Store and got Google Play's Editor Choice and 'Best of the Best' of 2013 and 2014.

### **METHOD**

The aim of the research is to investigate the students' reflection toward Duolingo Application in learning vocabulary. To accomplish the purpose, the researcher employed the case study design which also belongs to qualitative research type. (Creswell, 2003) defines case study as "researcher explores in depth a program, an event, an activity, approaches, or one or more individuals". The goal is to reach a detailed description and understanding within an entity or "case".

The participants of the research are the three public junior high school students in Cimahi. The reason why the researcher chooses the public junior high school students as the participants in this research is because they are mostly in the beginner level that meets

with Duolingo Application's curriculum that is designed for beginner level learners with less target language learning experience. Prior to this research, the researcher invited the chosen students to willingly join as the participants in this research. After the students was willing to join the research, the researcher asked the participants to operate Duolingo Application within two weeks. By the end of the activities, the researcher does the observation and interview to obtain the data in order to answer the research questions.

The data collection techniques used in this research are observation, interview and its transcript. In this study, the researcher conducts the interview to investigate the students' reflection regarding to their vocabulary learning uses Duolingo Application. The interview is obtained using the students' first language (Bahasa Indonesia) to avoid the misunderstanding and also to make the situation become more relax and comfortable. The observation and interview were online and conducted using Zoom Application to avoid the risk of the COVID-19.

## FINDINGS AND DISCUSSION

### Findings

#### *Students' reflection regarding their vocabulary learning uses Duolingo Application*

The result findings of this study showed based on every individual reflection.

#### *student 1 (S1)*

S1 is a 9<sup>th</sup> grade student in Public Junior High School in Cimahi. S1 played Duolingo application for approximately 2 years. She knew the application from her brother and played the application ever since, and her PPTs were:

- 1) Learning vocabulary in Duolingo application is more detail rather than learning vocabulary in the classroom.
- 2) Duolingo's learning strategy is applicable in the classroom by implementing the gamification learning strategy.
- 3) Duolingo application can help her to learn vocabulary since it taught many vocabularies that she didn't find she learned it the classroom.
- 4) Duolingo application can also help her in reviewing the materials that has been taught in the classroom.
- 5) By learning using Duolingo application, S1 hopes that she can become more fluent in English.

Based on S1's interview, the reflection categories of Environment, Competencies and Belief are the most frequent. Even though, the Identity and Mission are also shown up.

*“Well, yes it (Duolingo's Reminder feature) is (useful), even though sometimes it's a little bit annoying because it turned to be a spam. But it is helpful especially when I forget to play Duolingo...” (S1)*

S1 reflected about the Duolingo's Reminder feature while she was using the application (the layer of Environment). S1 assumed that the feature is useful because it could help her to achieve her learning target. S1 also mentioned that she is faced many difficulties while playing Duolingo application (the layer of Environment). For example, she didn't know the words or vocabulary that suddenly showed up in the check point feature.

*“Honestly, there are lots of them (Difficulties), but what makes me struggle the most is that when I’m facing a slightly new different words in Check Point ...” (S1)*

However, S1 found out the way to cope with her difficulties (the layer of Behaviour), such as using the third party – Google Translate to translate some of the strange words in order to pass the check point questions.

*“... I will search it (the strange difficult new words) using Google Translate to help me understand it more” (S1)*

While conducting the observation, S1 mentioned that she consistently maintained to get more XPs to keep rank in the league (the layer of Competency). She always included in the top ten ranks because she wants to enter another league. Therefore S1 could play many courses in the same time in order to gain more XPs and maintain her rank in the league (the layer of Belief). S1 seemed eagerly mentioned her own target and motivation toward learning English in using Duolingo Application.

*“... I want to be fluent in English so I have to comprehend the vocabulary well. I want to learn from the very basic form of English so that’s why I will keep continuing using Duolingo Application” (S1)*

S1 created and developed her target and purpose in using Duolingo Application without anyone told her to. S1 also highlighted several things such as the flexibility of using Duolingo and strong arguments about why the application helps her learning so much (the layer of Belief). S1 wanted to be able to fluent in English (the layer of Identity) therefore her ideals are to comprehend the vocabulary well and keep continuing her lesson using Duolingo Application (the layer of Mission). To sum up, S1 sees Duolingo as one of her important keys in helping her learning English vocabulary.

### **student 2 (S2)**

S2 is a 9<sup>th</sup> grade student in Public Junior High School in Cimahi. S2 played Duolingo application for approximately 6 months. He knew the application from his friends, and his PPTs were:

- 1) Learning vocabulary in Duolingo application is amusing because it contains of pictures and icons. It is better than learning in the classroom because its module contains fewer pictures to help him in learning vocabulary.
- 2) The school’s curriculum can apply the Duolingo’s learning strategy such as create the structured theme in teaching vocabulary through passages.
- 3) Duolingo’s learning material is connected and structured, therefore learning vocabulary in Duolingo become easy.
- 4) Duolingo can help him in learning vocabulary since it can show the previous materials that have been learned and allow him to take a review.
- 5) Duolingo can help him to review and re-study the school materials since sometimes it shares similar materials.

S2’s reflection is composed strongly as Environment and Belief. However the reflection layer of Identity is also appeared. During the observation and interview, S2 found some difficulties while using Duolingo application.

*"I found it hard to catch what the speakers are saying in the speaking exercise."*  
(S2)

S2 found it a bit difficult while playing the course during the observation. He failed to answer the speaking exercise several times. Later the researcher found out that his main problem was that he couldn't get the message conveyed by the speaker (the layer of Environment). However, S2 didn't try to use the slow motion feature in that exercise and later the researcher found out that S2 didn't even know the use of that feature.

Moreover, according to the data obtained taken from the observation and interview, S2 generally used Duolingo application as his tool to review the school material, because S2 found out that the material shared in the classroom has similar materials in Duolingo (the layer of Belief).

*"... I sometimes use Duolingo to re-learn the material (that has been taught in the school) ..."* (S2)

*"After I learn in the class, I can review the materials (that have been taught in the school) in Duolingo since sometimes the materials are a bit similar. I can practice the material in Duolingo ..."* (S2)

When S2 is asked *"what do you think learning vocabulary should be like?"* S2 highlighted that he likes to learn when the material consists of many pictures (the layer of Identity), which also becomes one of the reasons why S2 loves Duolingo application (the layer of Belief). S2 also described what is the best vocabulary learning based on his own version.

*"The one (Vocabulary Learning Strategy) that consists lot of pictures in it. I love to see the pictures while I study, so it will not make me bored."* (S2)

During the observation, S2 spotted there are many icons and illustration in Duolingo application to support his study. It is in line with the term of annotation which is the added of extra virtual information to an object (Wither, DiVerdi, Höllerer, 2009). In Duolingo application annotation is proven can be an influential technique to build up and develop the vocabulary lesson for S2.

### **student 3 (S3)**

S3 is a 9<sup>th</sup> grade student in Private Junior High School in Cimahi. S3 played Duolingo application for approximately 2 months. He knew the application from his brother and played the application ever since, and his PPTs were:

- 1) In Duolingo, people can directly use the vocabulary in the sentence so they know how to use the vocabulary that has been taught. By that reason, it can help him in learning vocabulary.
- 2) Duolingo's learning strategy is applicable in the classroom by integrating the learning materials with the module uses in the classroom.
- 3) Duolingo can help him in learning vocabulary that has been taught in the class since sometimes the materials are little bit similar.
- 4) After playing Duolingo, he didn't feel a strong motivated in learning and developing vocabulary.



For S3, the reflection categories emerged is Environment, Belief, Competency, Identity and Mission. S3 is aware that Duolingo can help him in learning vocabulary (the layer of Belief).

*“Yes it **(Duolingo)** can **(help me to learn Vocabulary)**, because in Duolingo we go in details so I learn the materials better” (S3)*

However, S3 doesn't really feel attached with Duolingo application since after using it for a while he didn't feel that it can motivate him to learn and develop his vocabulary learning (the layer of Environment and Belief)

*“Well, not really **(feel the high motivation in learning and developing vocabulary in Duolingo)**, I think.. I just come **(play the Duolingo)** to learn without any other intension”*

S3 come to play the application to review his knowledge and understanding in English in one particular time. For example, S3 played Duolingo to help him reviewed his knowledge regarding to his grammar.

*“My grammar is so bad **(Identity)**. So I use Duolingo to strengthen my grammar comprehension **(Mission)**.”*

However, S3 also didn't really mind about his score or XPs after playing the course because he thought his comprehension about the materials are more important than the score itself (The layer of Identity and Competency). As what he said during the interview

*“I see it **(XPs)** every time I finish the course but I don't really care about that **(Identity)** because all I care is that I understand well the material **(Competency)**” (S3)*

Overall, S3 believed that learning English and many other languages should be done consistently to avoid reducing the ability to use and imply the target language (the layer of Belief). S3 realized that English is important to be studied. However S3 perceived Duolingo not as his main important tool to learn the language but as one of the aspects that can help him in learning English.

## Discussion

This study showed that most of the participants reflection based on the Korthagen Onion Model (2004) located on the outer level such as Environment, Behaviour, Competencies and Belief. However the Identity and Mission categories are also appeared.

The Environment category refers to everything that the participants encounter outside themselves. In the present example, it means the Duolingo application itself, such as the features and also the difficulties while playing the course and the school or classroom where they learn vocabulary.

### Participants' Vignette

*“ ... it **(Duolingo's Reminder feature)** is helpful especially when I forget to play Duolingo ... The feature helps me to achieve my learning target.” (S1 pointed that Reminder feature is useful for her to accomplish her learning target)*

*“In the classroom.. well.. I only get the **(Vocabulary learning)** materials from the teachers and the module sometimes makes me bored because there are less pictures...” (S2 mentioned his source in learning vocabulary in his regular classroom)*

The Behaviour category refers to what the participants do, how do they cope with the challenges in the environment. In this case means that how the participants do while facing their difficulties in playing Duolingo application.

#### Participants' Vignette

*“... I will search it **(the strange difficult new words)** using Google Translate to help me understand it more” (S1 explained her way in using Google Translate to cope with the difficulties she found while playing the Duolingo Exercise)*

The Competency layer involves what the participants are competent at doing in responding their activities in Duolingo application.

#### Participants Vignette

*“Yes it **(Duolingo)** can **(help me to understand the vocabulary learning)**. For instance, I can understand some materials that my teacher taught in the class, like ‘do you like it?’ and we should answer it in form of ‘yes I do’” (S1 elaborated the reason why Duolingo can help him in learning vocabulary)*

*“I use Duolingo to strengthen my grammar comprehension.” (S3 explained that he can use Duolingo as a tool to comprehend his grammar skill).*

The Belief layer refers to what the participants believe about the situation they are dealing while using Duolingo Application.

#### Participants Vignette

*“... In Duolingo I can learn better about how to use the vocabulary ...” (S3 mentioned that he believed that Duolingo can help in learning vocabulary due to several reasons, as Duolingo provided more detailed learning materials)*

The Identity refers to the participants' assumption about themselves, their self-concepts, how they see themselves in term of learning English.

#### Participant Vignette

*“... I want to be fluent in English” (S1)*

*“My grammar is so bad” (S3)*

The Mission layer refers to what inspire them in using the Duolingo Application. For example, S1 wanted to be fluent in English in hopes that it can help her in her future job as well as why she learned Japanese. Therefore keep continuing to learn English Vocabulary in using of Duolingo, maintained her rank in League and managed her target are way she made that lead her into her mission in using Duolingo application. As well as S3 that managed to use Duolingo application in helping him to strengthen his grammar skill.



## CONCLUSION

From all the data obtained and explained in the previous chapter, researcher finally concludes that the students show positive attitudes in using Duolingo Application during the study, as the students agree if Duolingo application provides them detail yet broad vocabulary learning materials and some features which also can increase their curiosity to keep learning it. Duolingo provides a gamifying method as mentioned by the students and it keeps them to feel more interested after they accomplished the assignment.

Duolingo application can help the students in managing their English vocabulary learning due to the application's systemic and practical learning method and material. For instance, Duolingo's learning material is well structured since it starts with the very basic learning material and then level up the materials along with the students' learning activity, yet still shares related vocabulary. Furthermore, due to its variation of exercises, the students are given an assignment where they can speak and pronounce the sentence out loud while studying it.

The learning materials provided by Duolingo consist of the same related vocabulary which are believed can ease the students in comprehending the vocabulary learning since it can recall the vocabulary that has already been studied, something they do not do at school due its time limit. It also can be seen that Duolingo group its learning materials based on related topics which can facilitate the students to connect the new vocabulary emerged to their prior knowledge. The students also agree that Duolingo application is user friendly since it offers sleek design that consists of many pictures and icons which are believed can enrich and ease the students' English vocabulary learning experiences. Due to its features, the students feel become more challenging to play the application and feel less worry because Duolingo provides the students many feedbacks and motivating sentences which can motivate and reassure the students that they can achieve their learning goals.

Nevertheless, there are several drawbacks of the use Duolingo application in the students' learning process such as the unnatural sentences such as "*I am less happy than yesterday*" and "*The lion is eating an apple*", repeated questions, and lack of grammar guide that the students faced. Some of the students are using the third party to manage the problem emerged. Furthermore, the students are willing to recommend the Duolingo Application to other people since they agree if Duolingo Application can help them in learning vocabulary and enrich their English learning process experience.

## REFERENCES

- Ary, E. (2010). *Introduction to Research in Education*. Wadsworth: Cengage Learning.
- Barakati, D. (2013). Dampak Penggunaan Smartphone dalam Pembelajaran Bahasa Inggris (Persepsi Mahasiswa). *Jurnal Elektronik Fakultas Sastra Universitas Sam Ratulangi vol 1*, 1-3.
- Cameron, L. (2001). *Teaching Languages to Young Learners*. Cambridge: Cambridge University Press.
- Caudill, J. G. (2008). The Growth of m-Learning and The Growth of Mobile Computing Parallel Development. *The International Review of Research in Open Distance Learning S(2)*, 1-3.
- Cornett, J. W. (1990). Teacher Thinking about Curriculum and Instruction: A Case Study of a Secondary Social Studies Teacher. *Theory & Research in Social Education*, 18, 248-273.

- Creswell, J. W. (2003). *Research Design: Qualitative. Quantitative and Mixed Method Approaches (4th ed)*. California: Sage Publications, Inc.
- Guaqueta, C. A., & Yicely, C. A. (2018). The Use of Learning Apps as a Didactic Tool for EFL Vocabulary Building . *ERIC Journal Vol 11 No.2*.
- Hatch, E., & Brown, C. (1995). Vocabulary, Semantics and Language Education. *Cambridge: Cambridge University Press*, 372-390.
- Hiebert, E. H., & Kamil, M. L. (2005). Teaching and Learning Vocabulary: Bringing Research to Practice.
- Hoesktra, A., & Korthagen, F. (2011). Teaching Learning in a Context of Educational Change: Informal Learning Versus Systematically Supported. *Journal of Teacher Education*, 62, 76-96.
- Kawulich, B. B. (2005). Participant Observation as a Data Collection Method . *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 6(2) Art. 43.
- Korthagen, F. A., & Vasalos, A. (2004). In Search of the Essence of a Good Teacher: Toward a More Holistic Approach in Teacher Education. *Teacher and Teacher Education* 20(1), 77-97.
- Maaranen, K., & Stenberg, K. (2017). Portraying Reflection: The Contents of Student Teacher's Reflection on Personal Practical Theories and Practicum Experience. *Reflective Practice*.
- Mofareh, A. (2015). The Importance of Vocabulary in Language Learning and How To Be Taught. *International Journal of Teaching and Education Vol. III (3)*, 21-34.
- Neuman, S. B., & Dwyer, J. (2009). Missing in Action: Vocabulary Instruction in Pre-K. *The Reading Teacher* 62(5), , 384-392.
- Robertson, A. (2011). *Duolingo Will Translate the Internet While Teaching Language*.
- Sandelowski, M. (2002). Reembodying Qualitative Inquiry. *Qualitative Health Research*, 104.
- Schmitt, N. (2000). Vocabulary in Language Teaching. *Cambridge: Cambridge University Press*.
- Sokmen, A. (1997). Current Trends in Teaching Second Language Vocabulary . *Cambridge: Cambridge University Press*
- Wether J, DiVerdi, S., & Hollerer, T. (2009). Annotation in Outdoor Augmented Reality. *Computers & Graphics*, 33 (6), 679-789.
- Zainal, Z. (2007). Case Study as a Research Method. *Jurnal Kemanusiaan bil.9*.