

A NARRATIVE INQUIRY OF INDONESIAN JUNIOR HIGH SCHOOL STUDENTS'
PERCEPTION TOWARDS THE USE OF DUOLINGO TO IMPROVE VOCABULARY
MASTERY IN EFL CONTEXT.

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Abstract

The aims of the study are: 1) To investigate students' perception toward the use of Duolingo as a learning medium to learn vocabulary; 2) To describe students' experience using Duolingo as a learning medium to improve their vocabulary mastery. Qualitative study was used to analyze the data in this research. Two Junior High school students from Central Java, Indonesia, participated due to their daily smartphone usage and English exposure, averaging 4 to 5 hours per day. They also study English as a Foreign Language at an intermediate level. The main data of the study is based on diary or narrative of the participants' experience, supported by an interview and artifacts. The data was analyzed based on thematic coding of vocabulary and perception theoretical concept and indicators. The findings of the study reveal that participants have developed a positive perception while utilizing Duolingo as a tool to enhance their vocabulary mastery. This positive perception is indicative of the platform's efficacy in meeting the diverse needs of learners in terms of sensory engagement, individual experiences, and comprehension. Furthermore, for vocabulary, which has three aspect: form, meaning, and use, Duolingo has effectively addressed and facilitated mastery in each of these aspects. The participants' exposure to a diverse range of quizzes within Duolingo serves as a concrete demonstration of the platform's commitment to enhancing vocabulary skills across these dimensions. The data shows the positive impact of Duolingo on the participants' vocabulary proficiency, due to its effectiveness in providing a comprehensive and well-rounded approach to word knowledge.

Keywords: Duolingo; Perception; Vocabulary; EFL

INTRODUCTION

Mastering vocabulary is crucial in English language acquisition as it serves as the foundation for effective communication (Hatch and Brown, 1995). According to Harmer (2007), vocabulary proficiency is essential for various language skills such as listening, reading, writing, and speaking. Nation's (2001) concept of knowing a word includes aspects such as; form, meaning, and use. Students may find it difficult to learn English if they don't have enough vocabulary, which could discourage them. (Alqahtani, 2015). With the use of a variety of techniques, such as games, visuals, and information and communication technology (ICT), teachers can significantly reduce students' anxiety while also increasing their interest and motivation. Various studies, such as Gu (2002) and Nugroho, Nurkamto, & Sulistyowati (2012), highlight different vocabulary learning strategies, including formal education and the use of media like flashcards. However, challenges, such as pronunciation difficulties, may still arise (Nutriyanto, 2020).

Due to globalization, research on vocabulary acquisition has changed from formal settings like classrooms and colleges to more casual settings like daily life. Given the importance of vocabulary acquisition, teachers and learners can adapt to new strategies outside of traditional classroom settings. In this era, smartphones have become important to daily life, provide various purposes, including in education (Newhouse, Williams, & Pearson, 2006). Also, smartphones are now important educational tools as well as communication tools, especially when it comes to learning English (Barakati, 2013). Some studies have demonstrated the benefits of smartphone use for learning English, especially focused portability, collaboration, and motivation (Barakati, 2013). Students express positive attitudes toward mobile language learning, as explained in studies conducted in higher education settings (Fujimoto, 2012; Jaelani & Sutari, 2021). Previous studies also focus on the importance of understanding students' perceptions, which has three aspects; recognition, organization, and interpretation of information (Ward, Grinstein, & Keim, 2015). One such application supporting vocabulary learning is Duolingo, accessible on App Store and Google Play Store. With over 120 million users globally, Duolingo is known for its user-friendly interface and consistently high ratings (Ahmed, 2016). This study investigates Indonesian junior high school students' perceptions of using Duolingo to improve vocabulary mastery, regarding the informal learning context. The aim of this study is to obtain knowledge that will help teachers of English as a foreign language (EFL) positively encourage their students to develop their vocabulary through their effective implementation of Duolingo as a learning medium.

LITERATURE REVIEW

Understanding vocabulary begins with recognizing that it is the collection of words that evolve in the English language over time, serving as a means for people to describe and communicate ideas (Hatch & Brown, 1995). Vocabulary is an essential aspect of language learning, intertwining with speaking, reading, listening, and writing skills. Guskey and Anderman (2013), vocabulary mastery defined as comprehensive knowledge or skill, is achieved through observable performance on tasks related to a specific concept. In the

context of language learning, vocabulary mastery entails recognizing, understanding, and spelling words in a language (Nation, 2001). It is an essential element that gives students the confidence to express their thoughts effectively and improves their communication abilities as a whole.

There are two approaches to learning vocabulary that exist: incidental and intentional (Graves, 2006). Incidental learning, defined by Ender (2016), occurs when a specific lexical item is not the primary focus of teaching or learning activities. Ellis (in Hulstijn, 2001) defined incidental learning as unconscious acquisition during the pursuit of enjoying a work or understanding a specific message. However, for effective language learning, intentional learning is crucial, involving explicit instruction and various methodologies (Hulstijn, 2005; Webb, 2007). Harmer (1991) defined between active and passive vocabulary. Active vocabulary consists of words students have been explicitly taught and can use, while passive vocabulary refers to words recognized but not necessarily pronounceable. Other researchers, such as Nation (2001) and Schmitt (2000), categorize vocabulary into receptive and productive. In order to master the vocabulary, the person must master all the aspects of the vocabulary. The aspects of vocabulary proposed by Nation (2001) was choose due to its clarity. Schmitt (2004) and Nation (2001) introduce three key aspects of knowing a word: meaning, form, and use, linking these terms to English language skill competence.

Table 1.1 Nation's (2001) Knowing a Word Concept

Aspect	Component	Receptive knowledge	Productive knowledge
Form	Spoken	What does the sound like?	How is the word pronounced?
	Written	What does the word look like?	How is the word written and spelled?
	Word Parts	What parts are recognizable in this word?	What word parts are needed to express the meaning?
Meaning	Form and Meaning	What meaning does this word form signal?	What word form can be used to express this meaning?
	Concept and Referents	What is included in this concept?	What items can the concept refer to?
	Association	What other words does this make people think of?	What other words could people use instead of this one?
Use	Grammatical Function	In what patterns does the word occur?	In what patterns do most people use this word?
	Collocations	What words or types of words occur with this one?	What words or types of words must people use in this one?
	Constraints on use (register, frequency...)	Where, when, and how often would people expect to meet this word?	Where, when, and how often can people use this word?

Due to the globalization smartphones has become important to each person not only in daily life also in education. Tinio (2003) defined ICT as a diverse set of technological tools used for communication and managing information, encompassing computers, smartphones, television, radio, and the internet. ICT can be implemented for education, particularly in language learning like English, due to the globalization. Tinio (2003) mentioned due to ICT flexibility, especially smartphones, as a powerful tool for extending educational opportunities in both formal and informal settings, enabling access to learning materials anytime and anywhere. In the current era, smartphones, particularly those using the Android platform, have become important part of daily life. Newhouse, Williams, & Pearson (2006) defined that smartphones are widely used due to their affordability and accessibility. Beyond communication, smartphones are recognized as valuable tools for education, especially in learning English, as stated by Barakati (2013).

Duolingo made its debut on iOS in 2012 and expanded to Android on May 29, 2013, quickly becoming the top education app in the Google Play Store with a million downloads in the first three weeks. Currently, nearly 200 million users worldwide utilize the Duolingo app, focusing its effectiveness in English learning while providing a relaxed and enjoyable approach to education. This platform enables teachers to create virtual classrooms, monitor student progress, and assign assignments for classroom or homework activities (Stringer in Rosyidah et al, 2020). According to Lionetti (in Amalia 2019), Duolingo aims to provide free language instruction, enable users to understand and speak phrases or sentences in another language, and enhance listening and typing skills by prompting users to listen to and type sentences or phrases. The goals of the Duolingo application, as outlined by Lionetti (in Amalia 2019), are to provide users with free language instruction in various languages, enable them to understand and speak phrases or sentences in other languages, listen to and type sentences, match words with suitable images, enhance translation skills from their native language to English, and translate words and sentences from English into their chosen language.

Wagner et al. (in Amalia, 2019) defined four specific tasks in Duolingo, including a Vocabulary task where users select correct English words within a minute, a Listening and Transcription task assessing listening ability and requiring sentence typing within one minute, a Sentence Completion task with five blanks to be filled in three minutes, and a Speaking Task where users read aloud a given sentence within one minute. This study concentrates solely on Duolingo's Vocabulary tasks pertinent to the narrative inquiry research design.

Mulya et al. (in Amalia, 2019) defined Duolingo's advantages, including its gamified language learning platform accessible on browsers, iOS, Android, or Windows apps. It offers diverse activities like listening, transcription, speaking, and translating in a user-friendly interface. Teachers can easily monitor progress, plan lessons, and motivate students through competition, awarding experience points (XP) and Lingots. Duolingo's accessible on PCs and Android, maintaining a balanced approach to translation, listening, word matching, and speaking. The voice recognition program is reasonably effective, aiding students in understanding spoken content. Where there are advantages, there are inevitably disadvantages. Duolingo has drawbacks as it utilizes a computerized sound system for listening exercises, lacking exposure to authentic language sounds. The voices are dry, non-rhythmic, and clear, missing the crucial aspect of interacting with native

speakers. Duolingo does not facilitate communication with native speakers. Additionally, its dashboard lacks a description of grammar structures, hindering students in completing assignments as grammar is a vital component of language learning.

Perception is crucial in education to understand different learning conditions, depending on students' needs (Belcher, 2006). It's also important for students to address learning issues. In this study, eighth graders utilized Duolingo for informal learning. Perception is a shared belief shaped by appearances and the process of learning through the senses. It includes recognizing, organizing, and interpreting information. Pickens (2005) defined perception as a direct response to stimuli sensed through the senses, resulting in an internal response. According to Walker and Avant (2005) defined perception as having three components: a) sensory awareness or cognition of the experience, b) personal experience, and c) comprehension. The researcher using theory from Walker and Avant (2005) due to its clarity.

RESEARCH METHOD

The narrative inquiry method is used for the study because it focuses on how using Duolingo as a learning medium affects learners' experience and vocabulary mastery. Narrative inquiry is a type of qualitative research in which storytelling and research is combined (Barkhuizen et al., 2014). Theory proposed by Barkhuizen, Benson, and Chik (2014, p. 33) that in research projects, language learners actively engage by writing about their learning experiences, essentially becoming the researchers themselves. They compose the text, analyze it, and subsequently publish the results. In this case, the current study learned in-depth about the participants' Duolingo experience in terms of the students' experience and vocabulary mastery. As a result, because the primary focus of this study is the participants' experiences, the narrative data for this study are from participants' diaries, interviews, and artifacts that tell the stories of the participants.

Two participants, eight grade Junior High School students from Central Java, Indonesia, have been selected for this study. Their identities are protected through the use of pseudonyms to ensure confidentiality. Chosen based on their willingness to participate, these students are daily smartphone users, regularly engaging with English content for 4 to 5 hours. They also study English as a Foreign Language at an intermediate level, as indicated by their report card and recent school English test.

The data analysis in this research using theory from Creswell (2012) there are seven steps to conduct a narrative inquiry study. They are as follows: choose a phenomenon, choose one or more participants for the study, gather narratives from participants, recount the stories of the participants, engage with the participants in collaboration, compose narratives about participants' experiences, and confirm the accuracy of the report.

FINDINGS

This chapter addresses the outcomes of the study, encompassing the findings and the ensuing discourse. The research approach employed was narrative inquiry. According to Barkhuizen, Benson, and Chick (2014), narrative inquiry is a research method centered on gathering and analyzing stories told by individuals about their lives, serving as a means for data analysis.

The data in this chapter was taken from learner's diary, interview, and artifact in the form of the report of experience in using Duolingo to improve Vocabulary Mastery in EFL

Context. The results are organized according to the thematic coding of the theoretical concept of perception, vocabulary mastery, and Duolingo. (1) What is students' perception toward the use of Duolingo as learning medium to learn vocabulary; (2) What is students' experience during using Duolingo as learning media to improve their vocabulary mastery. The findings are presented in the following:

1) The students' perception toward the use of Duolingo as a learning medium to learn vocabulary.

Based on the revealed data analysis, it can be concluded that participants' perceptions after routinely using Duolingo for vocabulary learning resulted in a positive impact.

Sensory Awareness

Sensory awareness is one of three aspects of perception, in terms of sensory awareness, it should be noted that this was closely related to students who used Duolingo to learn vocabulary. This included the use of students' five senses such as sight, hearing, smell, taste, and flavour. But in this case, it focused more on the senses of sight and hearing. It was aimed to explore students' experiences with Duolingo. This was as illustrated by the data below.

"Udah sih kak, udah lama malahan soalnya ada temen sekelas yang pakai juga."

(Interview P1/ March 21st 2023)

"Saya tahu tentang Duolingo itu belum lama sih kak, itu aja dapet rekomendasi dari teman kakak saya."

(Interview P2/ March 15th 2023)

From the data above, it can be concluded that both participants have interacted with Duolingo indirectly which leads to further interaction with Duolingo. Where participants have seen how Duolingo is operated and heard explanations about how Duolingo works, both of which are part of Sensory Awareness. Which directly or indirectly participants have interacted with Duolingo from seeing someone using Duolingo and hearing explanations from Duolingo users.

Personal Experience

Personal experience is also one of the factors of perception. Where with the experience of a person can provide a perspective of what he experienced. In this case, the participants' experience in using Duolingo as a vocabulary learning media is also described by the participants through interviews and diaries. This can be seen from the participants' statement below.

"Kurang inget sih kak, mungkin sudah 2 bulan atau 3 bulan gitu. Tapi kalau buat lama mainnya paling 30 menit pas pulang sekolah sama malem sebelum tidur."

(Interview P1/ March 21st 2023)

"Mungkin kurang lebih 20 menit sih kak. Jadi tiap hari pasti nyempetin buat main Duolingo, itupun seringnya malam habis maghrib gitu."

(Interview P2/ March 15th 2023)

"Entah siang pas pulang sekolah atau malam sebelum belajar atau setelah belajar pasti buka Duolingo."

(Diary P1/ September 4th, 2022)

"Jadinya sekarang sering banget main Duolingo, tapi seringnya pas malam."

(Diary P2/ October 16th, 2022)

Data analysis shows that both participants in this study have a high level of consistency in their interaction with Duolingo to learn vocabulary. Within the analyzed time span of 20 to 30 minutes each day, both participants were actively engaged in the learning activities. It is important to note that the duration of time spent by both participants indicates a significant commitment to their learning process. Their daily learning activities reflect their diligence in dealing with the learning materials provided by Duolingo. In terms of time, the range of 20 to 30 minutes per learning session shows an effective approach. This means that participants are able to utilize their time well without feeling overburdened. With this level of consistency and measurable time duration, it can be concluded that both participants utilized Duolingo effectively as a reliable learning tool to enrich their vocabulary.

Comprehension

From the data obtained, it appears that both participants in this study have a deep understanding of their experience using Duolingo as a vocabulary learning tool. This understanding shows up through the claim that Duolingo contributes positively to their learning process, and this claim is supported by the data obtained from interviews and diaries that they recorded while using Duolingo.

"Karena bergambar sih kak, jadi karena ada animasinya yang bikin mudah buat paham. Sama fitur notifikasi, jadi diingetin kalo hari ini belum buka Duolingo gitu jadi keingat terus."

(Interview P1/ March 21st 2023)

"Bisa banget kak, kan emang aplikasinya buat belajar bahasa Inggris jadi ya menambah vocabulary saya, tapi sebenarnya gak cuma vocabulary aja sih ada grammarnya juga."

(Interview P2/ March 15th 2023)

In addition, data from Participant 1 and 2 presents similar picture through their diary. They noted small changes in vocabulary comprehension, improvements in pronunciation skills, and positive developments in their language skills.

"Walau belum meningkat pesat tapi lumayan lah, soalnya belajar di Duolingo ga seperti belajar, jadi santai aja gitu sama seperti main game."

(Diary P1/ August 21st, 2022)

"Jadi makin sering main Duolingo juga bener-bener ngasih efek yang positif. Yang dirasain sih begitu soalnya. Baca teks jadi lebih lancar, mengartikan kalimat juga jadi lebih gampang."

(Diary P2/ October 23th, 2022)

Based on the previously revealed data analysis, it can be concluded that participants' perceptions after routinely using Duolingo for vocabulary learning resulted in a positive impact. This regular application provides favorable results, which are reflected in the positive views and assessments expressed by participants regarding their experience with this application. These positive perceptions include improved vocabulary comprehension and skills, as well as the ease and effectiveness of using Duolingo as a learning tool.

2) The students' experience during using Duolingo as a learning medium to improve vocabulary mastery?

Based on the data shows that both participants have many experiences during using Duolingo to improve their vocabulary mastery.

Form

Participants have shown to be competent in differentiating spoken and written forms of words, according to evidence collected from interviews, diaries, and artifacts. Their proficiency in recognizing both the written and spoken forms of terms they have met on Duolingo is indicated of their proficiency in vocabulary mastery.

"Selama beberapa hari terakhir, ada banyak pengalaman baru dengan Duolingo. Awalnya, agak membingungkan, tapi lama-lama mulai terbiasa dengan Duolingo."

(Diary P1/August 14th, 2022)

"Minggu ini kuis-kuisnya kayak diulang dari awal lagi. Ada kuis bergambar, kuis tentang percakapan, kuis merangkai kalimat, juga kuis speaking."

(Diary P2/November 6th, 2022)

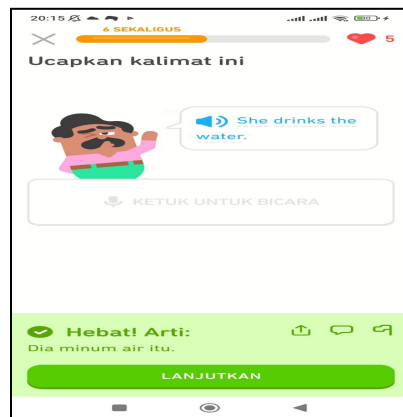


Figure 1.1. The example of Duolingo task of Participant 1

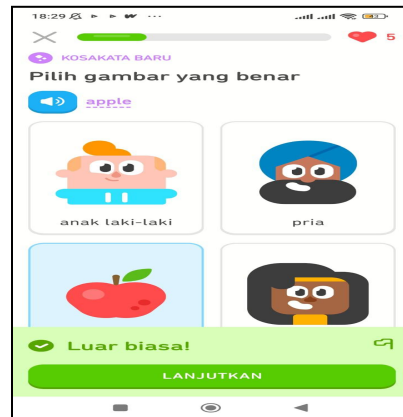


Figure 1.2. The example of Duolingo task of Participant 2

The information acquired during the interview session provides more support for this claim. Based on both data, we can conclude that participants who use Duolingo as a vocabulary learning tool not only go through an experiential learning process but also develop a sophisticated understanding of the concept of form within vocabulary.

"Udah sih kak, jadi lebih gampang sih. Soalnya kalau menuliskan kata yang udah pernah dipelajari jadi bisa."

(Interview P1/ March 21st 2023)

"Untuk ngomongnya sih masih belum terlalu fasih masih sering belibet kak. Tapi di Duolingo sendiri juga sering ada kuis speaking sih, jadi cukup membantu buat belajar speaking."

(Interview P2/ March 15th, 2023)

As a result, we can draw the conclusion that individuals who use Duolingo as a vocabulary learning tool not only go through an experiential learning process but also acquire a deep knowledge of the form notion in vocabulary based on the data above. This highlights the extent to which Duolingo provides a comprehensive language learning experience.

Meaning

Meaning refers to the ideas, connections, and general comprehension of a word. After analyzing the data, the researcher comes to the conclusion that both participants showed an understanding of the meanings of the terms they came across while using Duolingo.

"Hampir tiap hari belajar di Duolingo walau cuma sebentar. Tapi hasilnya ada, kaget sih bisa ga remidi karena sering belajar pakai Duolingo. Animasinya juga ga bikin cepat bosan sama membantu buat lebih gampang paham."

(Diary P1/August 28th, 2022)

"Minggu ini kuis di Duolingo kebanyakan isinya tentang past tense. Awalnya masih kurang paham sama past tense, soalnya ada beberapa kata yang beda sama bentuk verb 1-nya. Tapi pas udah beberapa kali ngerjain kuisnya jadi makin paham ternyata cuma beda bentuk tapi artinya sama."

(Diary P2/November 27th, 2022)

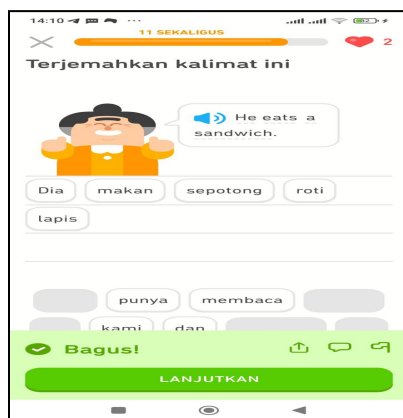


Figure 1.3. The example of Duolingo task of Participant 1

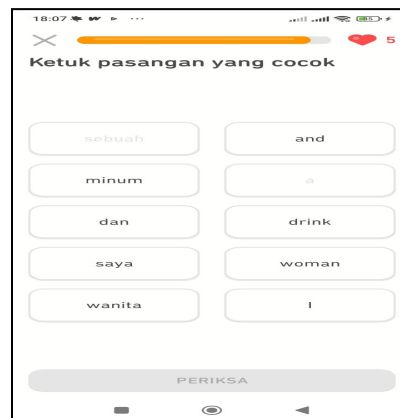


Figure 1.4. The example of Duolingo task of Participant 2

Participants were able to explained both the meaning and purpose of the words. This showed a practical and functional understanding of the vocabulary learned through Duolingo, as well as their capacity to use the terms in their everyday life beyond just learning their definitions. The data from the interview session also supports this claim.

"Ada beberapa sih kak, kayak pas mulai masuk ke past tense itu. Kata-katanya beda jadi sedikit kesusahan tapi pas udah tau bentuk-bentuk past tense dari beberapa kata jadi bisa. Cuma itu sih kak, ya karena belum terlalu paham sama past tense aja. Lainnya gak ada."

(Interview P1/ March 21st 2023)

"Kalau kesulitan mungkin pas bagian past tense, disitu banyak banget kata baru yang kurang saya pahami. Tapi akhirnya setelah udah tahu udah belajar jadi bisa."

(Interview P2/ March 15th, 2023)

In summary, it has been demonstrated that Duolingo positively affects users and efficiently supports their learning process. The individuals who used Duolingo as a vocabulary learning tool reported improved vocabulary comprehension as a result of their efforts.

Use

In vocabulary learning, the term "use" also refers to a variety of linguistic components, such as collocation, grammatical functions, and usage restrictions.

"Minggu ini sepertinya soal-soalnya meningkat levelnya. Mungkin karena beberapa kali salah dalam mengerjakan jadi sepertinya level soalnya meningkat."

(Diary P1/September 11th, 2022)

"Mungkin karena udah terbiasa sama kuis past tense jadi lebih gampang pas ngerjain kuis past tense."

(Diary P2/December 4th, 2022)

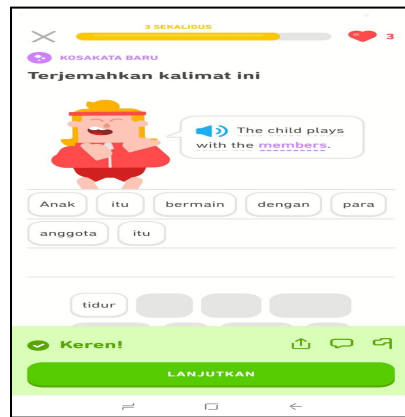


Figure 1.5. The example of Duolingo task of Participant 1

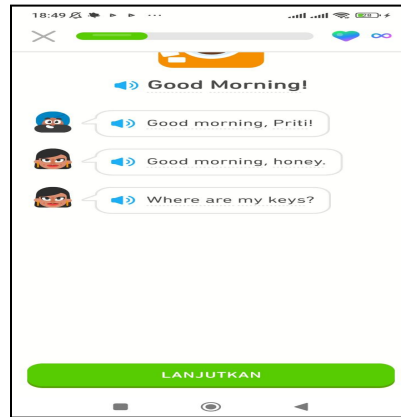


Figure 1.6. The example of Duolingo task of Participant 2

This shows that Duolingo does a good job of providing useful knowledge about the many contexts in which words are used, which helps the participants' language learning experience become more comprehensive.

"Pernah kak, tapi lebih sering di sekolah atau kalau ada tugas dari sekolah gitu. Kan sering kalau habis libur sekolah gitu disuruh buat cerita pengalaman gitu atau suruh perkenalan. Dulu langsung di google translate gak tahu benar enggaknyaa, kalau sekarang udah bisa jadi jarang pake google translate."

(Interview P1/ March 21st 2023)

"Kalau itu sih lebih seringnya waktu sekolah ya kak. Contoh pas jam mapel bahasa Inggris sih seringnya. Kalau ada kuis gitu kan seringnyaa ada kuis harian gitu. Soalnya sering nemuin juga kata yang sama seperti di Duolingo."

(Interview P2/ March 15th, 2023)

In conclusion, it can be said that both participants are aware and understand the idea of "use" in the context of learning language. The knowledge which they obtained from using Duolingo, indicates that they have a good understanding of how words are used in different linguistic settings, demonstrating the platform's effectiveness in teaching language skills.

Discussion

The interaction between the participants and Duolingo seems to have started before they actually actively engaged with the platform. This factor can be related to the concept of sensory awareness, where both participants had previously gained an understanding of Duolingo through visual observations and explanations heard from their friends. This is in line with the theory from Linzarini, et al (2021) explained that sensory awareness is the way humans observe, differentiate and focus on something through their senses, which is experienced by both participants. Similarly, Hulburt and Heavey (2009) stated that Sensory awareness involves intentional concentration on certain sensory aspects of the body or the external and internal environment, is a common but often missed occurrence in inner experience. Thus, before participants adopted Duolingo in their learning routine, there was a sensory awareness process that involved visual and auditory observation of information from external sources, namely their friends. This interaction can play an important role in motivating participants to take active steps and utilize Duolingo as a means of learning English, especially in vocabulary development. Which is the same as what Yazici & Kandir (2018) stated about the importance for someone to discover and experience an object or event through their senses in the process of acquiring knowledge.

Based on Sánchez (2015) perception, as we understand it, is finding things and situations that are captured, persist in memory, and have an impact on behavior that allows the formation of experience. Through the analysis of the data that has been presented, it can be seen that both participants have actively used Duolingo. This shows that both participants have been directly involved with the learning platform, which in turn shows that they have had quite in-depth experiences related to Duolingo. The same theory also explained by Jones (2018) states that student experience is the student's interaction with their learning environment and in this case the participants' interaction with Duolingo.

According to Duke & Carlisle (2011) Comprehension is an activity in which a person constructs meaning from texts, whether delivered orally or in writing. The previous findings also support this concept. It is detailed that after both participants actively engaged with Duolingo, they expressed their understanding of how the app works in supporting English language learning, especially in terms of vocabulary expansion. The importance of this comprehension lies in the participants' ability to detail how Duolingo plays an important role in building understanding and meaning of new English words. Kim & Pilcher (2016) comprehension is a person's ability to understand language, which includes conversations, stories, and spoken and written texts through the process of extracting and constructing meaning. Mckee (2012) stated that comprehension is a process of understanding the text; analyzing and interpreting the text correctly. In other words, active interaction with Duolingo has helped improve participants' comprehension of English, especially in the context of vocabulary learning.

Regarding the second question, according to Nation (2001), the idea of "form" in vocabulary learning which covers word component recognition, written representation, and pronunciation is essential for a thorough knowledge of the language. Interviews, diaries, and artifacts shows participant competency in differentiating oral and written forms, demonstrating an advance vocabulary mastery of Duolingo. This outcome was similar to Muddin's (2018) findings, which shows that using Duolingo to increase students' vocabulary knowledge improved their vocabulary mastery both before and after using the app, as indicated by the pre- and post-test results.

Nation (2001), meaning involves grasping the concepts, associations, and overall understanding of words. According to the data analysis, it can be concluded that both participants indicated a higher level of cognitive engagement and vocabulary understanding by knowing the meaning of words they encountered on Duolingo. This shows how well Duolingo provide a positive learning environment. The data from the diaries show how participants see Duolingo as a powerful tool for expanding their vocabulary in English. Faster vocabulary acquisition is made possible by the questions that stimulate thought, the clear and concise presentation, and the informative examples. The participants' exploration of the past tense shows their mastery of the vocabulary and their comprehension of the purposes behind words.

According to Nation (2001), learning vocabulary through Duolingo involves understanding a variety of language components, including grammatical functions, collocation, and usage restrictions. Along with expanding their vocabulary, participants develop a thorough understanding of how words operate in various grammatical settings, form collocations, and follow particular usage guidelines. This various method adds to the overall experience of learning a language. The participants show a dedication to accepting the learning process in despite of obstacles and mistakes. Having knowledge of past tense words shows an important improvement in their sentence-building skills, pointing to a new understanding of grammatical structures.

CONCLUSION & SUGGESTION

The results of the study show that while using Duolingo as a tool to improve their vocabulary proficiency, participants have developed a positive perception. This favorable opinion is a sign of the platform's effectiveness in satisfying the many requirements of students about sensory engagement, personalized experiences, and conceptual language understanding. Additionally, Duolingo has successfully addressed and promoted mastery in each of the three areas of vocabulary understanding—form, meaning, and use. Duolingo's commitment to improving vocabulary abilities in these areas is exemplified by the variety of quizzes that members are exposed to on the platform. The data analysis confirms Duolingo's efficacy in offering a thorough and well-rounded approach to word knowledge by highlighting the favorable effects it has on participants' vocabulary proficiency.

Furthermore, students find Duolingo to be engaging and pleasant due to its user-friendly interface, which enhances its usefulness as an additional learning tool. Due to Duolingo's versatility, students may customize their language learning experience to fit their unique learning style and speed, resulting in a more successful and individualized learning process. As a result, Duolingo is a dynamic platform that encourages ongoing growth in English language competence in addition to being a handy and accessible resource. According to this research, students looking to improve their language proficiency outside of the classroom may find that including Duolingo into their regular learning routines has many advantages.

Additionally, the results of the study are intended to act as a starting point for future researchers, encouraging them to carry out additional research on the effectiveness of Duolingo in improving vocabulary knowledge. Scholars can further enhance the existing body of knowledge by expanding on this research by exploring into many facets of Duolingo's influence on language acquisition and provide a thorough comprehension of its

possible advantages in a range of educational settings. Teachers as well as learners may gain from the eventual development of more sophisticated and successful language learning techniques as a result of this cooperative project.

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