

**COLLEGE STUDENTS' PERCEPTION OF DUOLINGO IN
VOCABULARY ACQUISITION**

(Undergraduate Thesis)

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ABSTRACT

COLLEGE STUDENTS' PERCEPTION OF DUOLINGO IN VOCABULARY ACQUISITION

By:
Adam Cahyo Satrio

This study examines how college students perceive Duolingo for vocabulary acquisition, with a focus on its effectiveness, usability, and motivation. Data were acquired qualitatively using semi-structured interviews with five University of Lampung students. They were analyzed using coding. The results show that Duolingo improves vocabulary learning through repetition, and interactive tasks, making it more engaging and accessible. However, issues such as a lack of contextualised learning and a limited academic vocabulary were identified. The study emphasises Duolingo's potential as a supplemental tool for vocabulary development and offers enhancements to personalised learning capabilities.

Keywords: *Duolingo, college students perception, vocabulary acquisition.*

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In

**The Language and Arts Education Department of
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**FACULTY OF TEACHER TRAINING AND EDUCATION
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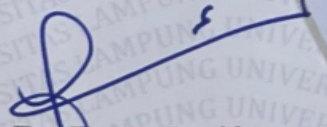
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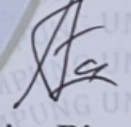
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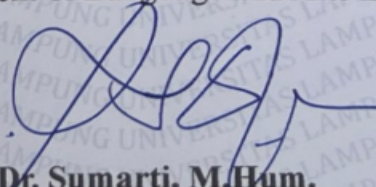
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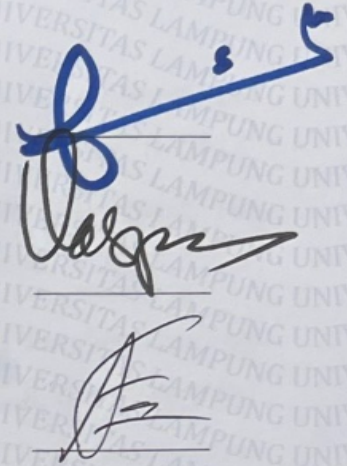
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Menyatakan bahwa skripsi ini adalah karya dari pelaksanaan penelitian saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis orang lain, kecuali bagian-bagian tertentu yang saya gunakan sebagai acuan. Apabila ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggung jawab saya.

Bandar Lampung, 26 June 2025

Yang Membuat Pernyataan



Adam Cahyo Satrio

CURRICULUM VITAE

Adam Cahyo Satrio was born in Labuhan Dalam, Tanjung Senang on July 31th, 2003. He is the second child in the family of the late Mr. Ratino, and Mrs. Kusrini. He has one brother, he is Aldi Reno Prayogo.

He started his first education at Kinder garden amarta-tani. Then, he continued his elementary school education at SDN 1 Labuhan Dalam graduated in 2015. In 2018, he graduated from his junior high school at SMPN 20 Bandar Lampung. He continued his education at SMA 15 Bandar Lampung and graduated in 2021.

He continued his study in the English Education Study Program of Teacher Training and Education Faculty at Lampung University in 2021 through the SBMPTN program. During his study, he's also active in organizations; in 2023, He was trusted to be a head division of Human Resources Development SEEDS FKIP Unila.

Beyond campus activities, he also dedicated herself to social contributions. He volunteered at *Busa Pustaka*, a community-based literacy. In January 2024, he took part in the Community Service Program (*KKN*) in Gedung Harta Village, Penengahan, Lampung Selatan, and completed her Teaching Practice Program (*PLP*) at SDN 1 Gedung Harta. He completed his studies by researching College Students' Perceptions of Duolingo in Vocabulary Acquisition.

MOTTO

“Dum Spiro Spero”

“While I breathe, I hope”

“I am the one thing in life I can control. I am inimitable, I am an original.”

(Aaron Burr)

DEDICATION



Alhamdulillahirabbil 'alamin

In the divine name of *Allah Subhanahu Wa Ta'ala*,

I dedicate this thesis as a symbol of my love and affection to:

My late father, Mr. Ratino, and my mother, Mrs. Kusrini, as well as my beloved brother, who have given me support, love, and prayers throughout every phase of my life. Thank you for all the sacrifices, hard work, and guidance you have given me.

Myself, who's been through all this phase. Thanks for all the hard work, efforts, time, and energy. I am proud.

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All of my friends, I love you all.

Also,
To my beloved alma mater, Universitas Lampung.

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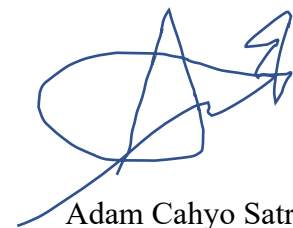
This thesis was finished by the researcher with the support and prayers of the people around her. In particular, he would like to express her sincere gratitude and respect to:

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Bandar Lampung, 26 June 2025

The Author

A handwritten signature in blue ink, consisting of a large, stylized 'A' followed by a series of loops and a final upward stroke.

Adam Cahyo Satrio

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I. INTRODUCTION

This chapter will be divided into six sections that will make up the chapter's discussion, which covers a number of topics like the background, formulation, objective, uses, scope, and definitions of terms used to explain this research.

1.1 Background

A collection of words known to an individual or the set found in their language constitutes their vocabulary. Vocabulary is the important element in learning English; it is the first step for the students if they want to achieve their goal in learning English skill (Syarifudin et al., 2014). Vocabulary learning can occur incidentally through meaningful contexts, such as reading and listening, or intentionally through explicit lexical learning (Teng, 2023). Vocabulary is essential for effective communication and plays a vital role in the development of language skills such as speaking, reading, writing, and listening. It is the content of language and provides the vital organs and flesh to language structures, which make up the skeleton of language.

Researchers such as (Nation, 2001), (Gu, 2003) and (Marion, 2008) and others have realised that the acquisition of vocabulary is crucial for using a second language successfully and is necessary for creating coherent written and spoken materials. Vocabulary acquisition is a significant challenge for college students, as they are expected to read and comprehend complex texts in their chosen fields. Research suggests that college students often lack the necessary vocabulary to fully understand academic texts, which can lead to difficulties in comprehension and retention of information.

Furthermore, vocabulary acquisition is a continuous process that requires consistent practice and exposure to new words. To address the process of gaining vocabulary acquisition various media can be used, such as digital games, flashcards, and classroom activities in this research will focusing digital games which provide fun experience and also effective ways that can motivate learners and help them memorize words. Educational games have been recognized for their potential to make learning more engaging and effective. (Prensky, 2001) argues that games can create a motivating and interactive learning environment, which fosters better retention and application of new vocabulary.

Numerous studies have investigated the effectiveness of educational games in promoting vocabulary acquisition. For instance, (Yip and Kwan, 2006) found that digital games significantly improved students' vocabulary retention and motivation. Similarly, (Miller and Hegelheimer, 2006) demonstrated that games provide an engaging platform for vocabulary practice, leading to better learning outcomes compared to traditional methods. Among the many apps and digital games available, Duolingo is one of the most studied and utilized programs for vocabulary acquisition.

Luis von Ahn and Severin Hackers developed Duolingo, a smartphone app for iPhone and Android users. Duolingo was first available for iPhone in 2012, followed by an Android app in 2013. Duolingo is currently used by over 100 million people worldwide and has received a 4.7 out of 5 rating from more than eleven million users. Learning a second language with Duolingo is highly recommended. Every teaching approach should develop a set of methodological components that guarantee effective student learning. Progress tracking, feedback, and vocabulary are a few of these things. According to (Garcia, 2013), Duolingo is a free online language-learning tool that facilitates language learning and lets users use apps and the Web for their studies. There are many innovative ways to learn a language with Duolingo. Students may benefit from this by understanding what they are learning, becoming engaged in it, and enjoying their studies. Language learners can select from a variety of languages with Duolingo. In addition, Duolingo provides you with

information about how much time you've spent, what patterns you've seen, and how many points you've earned. Furthermore, according to White (2017), Duolingo is a web-based learning software that enables anyone to attend affordable language training since they communicate. Yet, there is a need for more comprehensive research to understand college students' perceptions and experiences with Duolingo in the context of vocabulary acquisition.

Research on the perception of Duolingo on college students' vocabulary acquisition is few, despite the well-established potential advantages of educational games for acquiring new vocabulary. By investigating students' opinions, experiences, and thoughts on Duolingo usefulness as a vocabulary-learning tool, this study aims to close this chasm. Understanding these perceptions can provide valuable insights into the role of game-based learning in higher education and inform the development of effective vocabulary learning strategies. As a consequence, this paper aims to present How do college students view Duolingo as a tool for vocabulary acquisition.

This background research highlights the importance of vocabulary acquisition in language learning and the potential role of educational games in enhancing this process. Duolingo, presents a unique opportunity to investigate the Perspective of game-based learning on vocabulary acquisition among college students. this study will focus on college students who use the Duolingo application to learn English. Whether this application is known to be fun has an influence on their vocabulary acquisition or not. In addition, the researcher would like to describe the features of Duolingo that can help students' to acquiring new vocabulary.

1.2 Research Question

Based on what has been written in the background of the study, the researcher formulates the problems as follows How do college students perceive Duolingo as a tool for vocabulary acquisition?

1.3 Research Objectives

In relation to the research question above, the objective of the research is to find out the college students' perception on vocabulary acquisition through Duolingo.

1.4 Research Significance

This research is significant for several reasons. First, it contributes to the growing body of literature on game-based learning, specifically within the context of vocabulary acquisition. By focusing on Duolingo, this study explores new avenues for integrating digital games into educational practices. The findings can provide valuable insights for college student and curriculum developers on how to effectively incorporate Duolingo and similar games into language learning programs, potentially enhancing student engagement and retention of vocabulary.

Second, this research addresses a gap in existing studies by examining the perceptions and experiences of college students, a demographic that is often underrepresented in research on educational games. Understanding how college students perceive of Duolingo can inform the development of targeted instructional strategies that cater to their unique learning needs and preferences.

Moreover, this study can offer practical implications for educational technology developers. By identifying the specific features of Duolingo that contribute to or hinder vocabulary learning, developers can design more effective educational games that align with students' learning goals and preferences.

Lastly, the research findings can benefit language learners themselves by providing evidence-based recommendations on how to utilize Duolingo to enhance their vocabulary acquisition. As students increasingly turn to digital resources for learning, this study can help them make informed decisions about the tools and strategies that best support their language development.

In summary, this research is significant because it advances our understanding of the role of Duolingo in vocabulary acquisition, informs educational practices and technology development, and ultimately supports the language learning journey of college students.

1.5 Scope of The Research

The scope of this study is to investigate the college students' perception of Duolingo to acquire new vocabulary, excluding other factors that may influence vocabulary acquisition. The study is limited to college students that are played Duolingo. The study conducted over a period of one months, and uses a qualitative methods data approach. The study is limited by the sample size of 5 college students, which may not be representative of the entire population of college students, as well as time constraints of the participants and financial constraints of the researcher. Additionally, the study is limited by technology used to collect and analyse the data, which may impact the accuracy and reliability of the results.

1.6 Definition of Terms

To specify the topic of the research, the researcher provides some definitions of terms related to the research. These are the definitions of some terms related to the research:

1. Duolingo : The largest online language learning platform in the world, Duolingo offers online courses via Android and select electronic devices. "Duolingo" was used in this study as a vocabulary-learning tool.
2. Vocabulary : refers to all the words in a language or a special set of words that an individual knows and uses. It is a fundamental aspect of language acquisition and literary development.
3. Vocabulary Acquisition: is a process by which humans learn to recognize and understand language as well as to create and utilize words and sentences for communication is known as vocabulary acquisition.

This chapter already discussed the introduction of the research, including the explanation of the background, formulation, objective, uses, scope, and definitions of terms used to explain this research

II. LITERATURE REVIEW

A literature review is important to comprehending and interpreting the findings of this investigation will be examined and reviewed in this chapter. Following a thorough and in-depth search, this chapter also includes a description of the Perception, Duolingo, Vocabulary.

2.1 Perception

2.1.1 Definition of Perception

Perception is the process by which individuals organize, interpret, and give meaning to sensory information from their environment. Perception is defined in philosophy, psychology, and cognitive science as the process of becoming aware of or comprehending sensory data. The Latin words perceptio and percipio are the source of the English word perception, which signifies "apprehension with the mind or senses, receiving, gathering, and action of taking possession."

It involves a series of cognitive processes that allow people to understand and respond to the stimuli they encounter. (Goldstein, 2015) defines perception as the brain's ability to interpret sensory input and create a coherent representation of the world. This process is not merely a passive reception of stimuli but an active construction shaped by an individual's experiences, knowledge, and expectations.

According to (Gregory, 2017) emphasizes that perception is an inferential process where the brain uses previous experiences and contextual information to interpret sensory data. This means that perception is subjective and can vary significantly between individuals based on their

unique backgrounds and current mental states. For instance, two students playing Duolingo might perceive the game's difficulty and educational value differently depending on their prior experiences with similar games and their current motivation levels.

All the aforementioned definitions provided by various experts align closely. An individual's perception significantly influences their actions towards something in life, as perception allows people to interpret the same thing differently, leading to varied viewpoints among individuals. Consequently, the researcher concludes that perception involves a series of processes through which a person becomes aware of and interprets information about a particular object, which can occur through experience, exposure, or other forms of interaction.

2.1.2 Components of Perception

One of the processes that occurs in the human mind is perception, which is made up of various parts. According to (Lewis, 2001), there are fundamental elements of perception including an experiencing person or perceiver, something is being perceived (either an object, person, situation or relationship), the context of the situation in which objects, events, or people are perceived and there is the process nature of perception starting with the experiencing of multiple stimuli by the senses and ending with the formation of percept's. Furthermore, as demonstrated in (Saks & Johns, 2011), there are three significant aspects of perception.

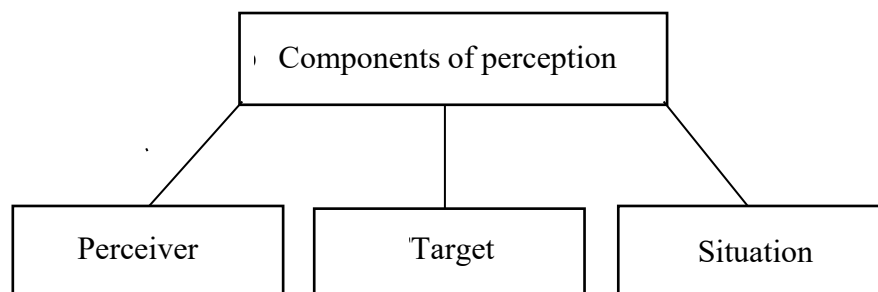


Figure 1: Components of perception

1) The perceiver

A person whose awareness is focused on the stimuli and consequently starts to perceive it is referred to as a perceiver or an experiencing person.

2) The target

The target is what or person is being perceived; it is the object of perception.

3) The situation

The situation is the environmental factors, timing, and degree of stimulation that affect the process of perception.

In addition, (Schiffman and Kanuk, 2004) introduced the CAC model, which comprises three fundamental components that influence perception. The three components are arranged alphabetically as follows: affective, cognitive, and conative. The affective component is closely tied to the emotional features. The cognitive component addresses the portion of intelligence or intellectuality that is related to someone's knowledge. The conative component refers to behavior, such as habit and intention.

1) Affective component

The affective component has three components. The first, social motive, is also known as the secondary motive since it opposes the fundamental incentive, the biological motive. Curiosity and competency are examples of such qualities. The second factor is attitude. It refers to how someone feels about an object, situation, or value. Typically, experience influences attitude. Finally, the affective component addresses the sensation of emotion. This is closely tied to a person's attitude about something.

2) Cognitive component

Belief is a cognitive component. For this, believing does not refer to how someone trusts unexplained things. However, it is subjective to determine whether something is excellent or poor. The belief is based on actual occurrences and experiences (Holder, 1978) as cited in (Siregar, 2019). The cognitive portion includes components such as information, views, expectations, ways of thinking, past experience, and everything gained from the individual offender's perspective.

3) Conative component

This type of component comprises of an individual's behaviours and intentions. A habit is defined as a repeated human action that occurs without prior planning. On the other hand, intention is defined as a person's actions or efforts to achieve a goal.

As a result, based on the previously given theories, it is suggested that perception is made up of three major components. There are three components: affective, cognitive, and conative. However, this study will only look at one of the components, that is, the cognitive component.

2.1.3 Types of Perception

According to (Irwanto in Shandi's thesis, 2020), perception separate into two, those are positive and negative perceptions.

- 1) Positive perception is a perception that describes all knowledge and responses that continue with the effort to use it. This will be continued by activating or accepting and supporting the perceived object.
- 2) Negative perception is a perception that describes all knowledge and responses that are not in harmony with the object in perception. It will proceed with passivity or reject and oppose the perceived object.

Therefore, it may be concluded that people's perceptions—both positive and negative—always influence their actions. The way people characterize everything they know about an object they are perceiving determines whether they have a positive or negative perspective.

2.1.4 Process of Perception

In addition, (Qiong, 2017) stated that The perception process consists of three stages: selection, organization, and interpretation.



Figure 2: Process of perception

1) Selection

The initial step in the perception process is selection, wherein we translate environmental stimuli into meaningful experiences. The sheer volume of information that constantly bombards us in daily life makes it possible for us to be suddenly exposed to stimuli such as the words we are hearing, an accident witness, or the sound of a clock, to mention a few. Everything is present in our universe, thus there are countless stimuli that are coming at our sensory organs at the same time and needing to be processed. We are unable to comprehend all of the information at our disposal, though, as doing so would lead to confusion and information overload. As a result, we use a selective mechanism to only perceive a portion of the information from our surroundings.

This selection stage of perception has drawn research attention. In compliance, (Watts, 1996) stated that “to notice is to select, to regard some bits of perception, or some features of the world, as more noteworthy, more significant than others. Of these, we attend, and the

rest we ignore—for which reason...attention is the same time ignorance despite the fact that it gives us a vividly clear picture of what we choose to notice. Physically, we see, hear, smell, taste, and touch innumerable features that we never notice.”

2) Organization

The second stage in process of perception is organization. In the wake of selecting information from the external environment, it is essential to organize it by identifying meaningful patterns. This stage of organization involves categorizing objects or individuals, a process also referred to as categorization by some scholars. During this phase of perception, the social and physical events or objects we encounter are instantly attributed characteristics such as shape, color, texture, and size. For example, when defining a human being, some individuals may emphasize skin color, while others may focus on race or nationality. Similarly, when we envision our university library with closed eyes, we perceive a systematically organized environment with a distinct internal and external structure.

The organization of that stimulus in your brain, or developing a favourable or unfavourable cerebral response to the stimulus. According to (Otara,2011) Organization is a process in which we strive to organize things in such a way that they make sense to us. An excellent illustration would be if you were having a conversation with someone. It appears like they are not giving you all the information you would expect. Next, you attempt to fill in those specifics. Your response to that message might not be what the person expected based on the information you provide.

3) Interpretation

Interpretation, or giving meaning to the stimuli that have been chosen, is the third step of perception. After the chosen stimuli have been grouped into stable, ordered patterns, we attempt to interpret these patterns in order to make sense of them. However, different individuals may interpret the same signal in various ways. When a police officer shows up at the scene of a crime, for example, different people may take it differently. While the victim may find it comforting and relieving, the perpetrator will undoubtedly be terrified.

Such variation in interpretation occur because “Culture provides us with a perceptual lens that greatly influences how we interpret and evaluate what we receive from the outside world” (Samovar et al., 2000).

Almost everyone can agree on the objective meaning of a physical object or event, but each individual's interpretation of that meaning is different based on their cultural background and past experiences. Perception variety arises from people giving the same stimuli different meanings based on their experiences and backgrounds.

In the process of meaning-attribution, individuals from closely related cultures are likely to assign comparable meanings to the same stimuli, leading to comparable perceptions, because they share a similar bank of prior experiences and knowledge. Communication thus flows more easily because of these shared perspectives, which make it simpler for communicators to interpret each other's verbal and nonverbal cues. In contrast, communicators will assign entirely different interpretations to the same stimuli if they utilize experiences or information from their own culture to explain unknown behaviours in another culture. This will cause perceptions to diverge and communication issues to occur. According to (Varner and Beamer, 2006) “When we don’t share common experiences, there is greater chance we will assign an incorrect meaning to the signal”.

2.1.5 Indicators of Perception

The Technology Acceptance Model (TAM) is a framework that explains how people come to accept and use information technology. This model was first introduced by Davis in 1986 and was developed based on the Theory of Reasoned Action (TRA), which was proposed by Ajzen and Fishbein in 1980. In this study, the Technology Acceptance Model (TAM) is used as a variable to analyze consumer behavior in adopting and accepting technology. TAM consists of several key dimensions, one of which is:

1) Perceived Ease of Use (PEOU)

According to (Davis, 1989), perceived ease of use refers to "the extent to which a person believes that using a particular system will be free from physical and mental effort." In other words, it reflects a user's subjective perception of how easy a system is to operate. This concept aligns with the general understanding of "ease" as freedom from difficulty or excessive effort. Essentially, users are more likely to accept and use a technology if they find it easier to navigate compared to other alternatives. Perceived ease of use highlights how much effort a user thinks they need to put in to operate a system, or the degree to which they believe a technology will simplify their tasks (Davis, 1989).

2) Perceived Usefulness (PU)

Perceived usefulness refers to a person's subjective perception of how a computer system can enhance their job performance when completing specific tasks. This perception plays a key role in influencing technology acceptance, as it indirectly affects a user's willingness to adopt new technology (Davis, 1989). In simpler terms, it measures the extent to which someone believes that using a particular technology will improve their efficiency and effectiveness at work. Davis (1989) further explains that systems perceived as highly useful are more likely to be adopted because users see a clear positive relationship between using the technology and achieving better work performance.

3) Attitude Toward Using (ATU)

In the Technology Acceptance Model (TAM), attitude toward using refers to an individual's overall evaluation of whether they are willing to accept or reject a particular system. This attitude is shaped by their experiences and perceptions of the technology, including how easy it is to use and how beneficial it is to their work. When someone interacts with a new technology, they form an impression based on factors such as usability, efficiency, and the impact it has on their tasks. If they perceive the system as useful and easy to navigate, they are more likely to develop a positive attitude toward it, leading to greater acceptance. Conversely, if they find it complicated, ineffective, or unnecessary, they may develop a negative attitude, making them less inclined to adopt it.

4) Behavioral Intention to Use (BIU)

Behavioral intention to use refers to an individual's tendency or willingness to adopt and utilize a particular technology. This intention plays a significant role in predicting actual technology usage, as it reflects a person's level of commitment and interest in integrating the system into their daily activities.

According to the Technology Acceptance Model (TAM), a person's behavioral intention is influenced by their perceptions of the technology's usefulness and ease of use. If they believe that a system will enhance their efficiency and is not difficult to operate, they are more likely to develop a strong intention to use it. This intention can be observed through various behaviors, such as a willingness to explore additional features, invest in supporting peripherals, or continue using the technology despite challenges. Additionally, individuals with a strong intention to use a system may also encourage others to adopt it by sharing positive experiences and motivating their peers to embrace the technology.

5) Actual System Use (ASU)

Actual System Use refers to the real-world application and extent to which a technology is actively used by individuals. It is measured through various factors, such as the frequency of use, duration of engagement, and the depth of interaction with the system. Unlike behavioral intention, which reflects a user's willingness to adopt a technology, actual usage represents the tangible implementation and regular utilization of the system in daily tasks. A person is more likely to consistently use a technology if they find it easy to operate and believe that it enhances their productivity. When users perceive that a system effectively supports their work processes, they tend to integrate it more seamlessly into their routines. On the other hand, if they encounter difficulties or do not see clear benefits, the likelihood of frequent and long-term usage decreases.

2.2 Duolingo

2.2.1 Definition of Duolingo

"Free language education for the world" is the tagline of the language-learning game Duolingo. Its main goal is to increase vocabulary. Duolingo is a technology-based application that allows students to play and learn English. Luis Von Ahn and Severin Hacker founded Duolingo, a freemium language-learning program for cell phones and PCs, in 2012. It provides 68 distinct language courses in 28 languages. According to the Duolingo website, the Duolingo application allows students to easily learn four English skills: reading, writing, listening, and speaking. The four skills are included in Duolingo's learning exercises as questions, little text to hear, and transcribed.. In 2012, Duolingo launched as an iPhone app, and an Android app followed in 2013. Currently, over 100 million people use this app worldwide, and over eleven million users have given it a rating of 4.7 out of 5.

According to (De Castro et al., 2016), Duolingo is a popular language learning program that has garnered positive feedback. It has received numerous praises and is available for Android, iOS, Windows Phone, and the web. This tool is user-friendly and ideal for studying English, Spanish, Italian, German, and Turkish languages. Users can practice for at least five minutes per day and choose their preferred method.

Duolingo teaches new words, phrases, and sentences with listening exercises, flashcards, and multiple-choice quizzes. This game-based learning tool is popular across all ages, including children, teenagers, adults, and language learners. Duolingo offers over 30 languages and may be accessed globally by downloading the app. Before utilizing the application, users will be prompted to choose which language they want to study. The application will automatically redirect to the user's previously selected language.

The Duolingo app has a visually appealing and straightforward interface. It promotes enjoyable language learning experiences. The tasks in this app begin with basic or daily terminology. Duolingo is ideal for people looking to learn a language, improve their knowledge, or assess their current level of proficiency. Duolingo offers unique and engaging elements for acquiring new vocabulary. These features are similarly simple for students to understand and will be covered in further detail later.

2.2.2 The Features of Duolingo

The Duolingo app has offers user-friendly features for learning vocabulary in a fun and engaging way. Users are first shown visuals of several words or phrases related to the theme of each module, which are then followed by a variety of tasks. The tasks involve translating Indonesian to English, word matching, listening, pronouncing, and selecting missing words from a list of options. Users have one chance to remedy their mistakes by repeating the exercise. Additionally, users can access the definition of a difficult word by pressing it directly.

Duolingo integrates English skills into its learning process by elaborating on questions, affirmative and negative statements, brief texts, and audio snippets. These will help students with their vocabulary acquisition. Therefore Duolingo app asses student vocabulary ability by these feature such as;

- 1) Vocabulary, users must select the correct answer from the offered image or text.



Figure 3: Duolingo exercises vocabulary

- 2) Sentence Completion with text, the users read the text and then choose the an answer by reading to the text carefully

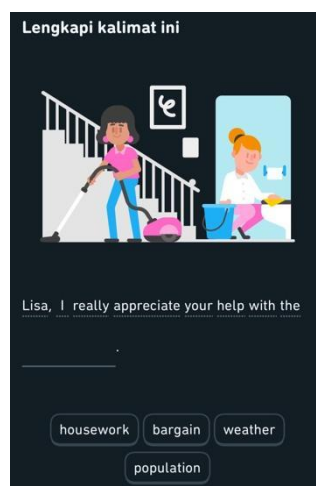


Figure 4: Duolingo exercises Sentence Completion

- 3) Speaking, users are asked to utterance the sentence with appropriate pronunciation.



Figure 5: Duolingo exercises Speaking

- 4) Listening, The user must listen carefully and accurately transcribe the audio spoken on the picture.

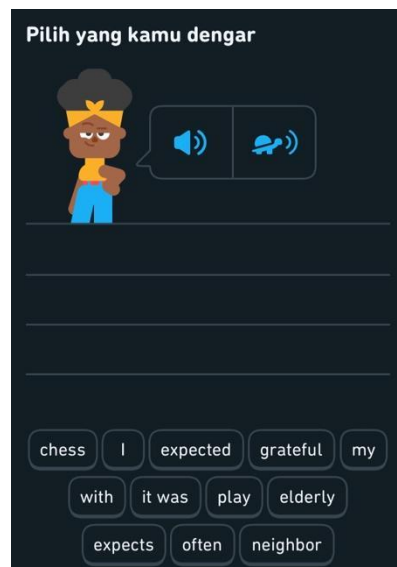


Figure 6: Duolingo exercises Listening

- 5) Translation, The user must accurately translate the spoken word or available writing.



Figure 7: Duolingo exercises Translation

2.2.3 Duolingo in Learning Vocabulary

The primary instruction in the Duolingo app is quite clear. The exercises are solid and similar to standard drills. The program's exercises build on each other, introducing words and concepts at appropriate stages. Duolingo provides five types of learning exercises for vocabulary, including:

- 1) The first type of Duolingo's exercises for vocabulary tasks require learners to identify the correct meaning of a word in the text.
- 2) The second type of Duolingo's exercises for vocabulary is exercises for filling in the blanks or sentence completion. In the exercise, there are 3 options. The learners must select the correct answer from two or three options.

- 3) The third type of Duolingo's exercises for vocabulary is a speaking practice where students read out loud a sentence in the language they're learning, such as English. This helps them recall the words better.
- 4) A listening exercise requires learners to type in their understanding of a spoken statement. Learners can slow down the tempo of the spoken statement if they don't comprehend it completely. They can also listen to it multiple times.
- 5) Finally, the next exercise is to translate the sentence. The learners' native language is translated into the target language, and vice versa. There are two ways to translate sentences. To begin, learners select the appropriate translation of the offered words and arrange them in the correct sentence. The second step requires learners to type the appropriate translation depending on the sentences.

In conclusion, Duolingo takes a simple logical approach to language learning, emphasizing vocabulary acquisition and competency. The app's exercises, like normal drills, gradually introduce words and concepts. Duolingo provides five sorts of vocabulary exercises: recognizing word meanings in context, sentence completion, speaking practice, listening exercises, and translation assignments. These exercises not only increase vocabulary but also improve pronunciation, auditory comprehension, and bilingual skills. The app's design is structured, dynamic, and user-friendly, making it a useful tool for improving language competency and communication skills. Its widespread availability allows global access to high-quality language education, fostering international communication and understanding.

2.3 Vocabulary

2.3.1 Definition of Vocabulary

Researchers consider vocabulary to be the most important component of a language, allowing people to communicate and comprehend it. There are professional definitions of terminology available. According (Hatch and Brown, 1995) vocabulary is a list or set of words for a particular language or a list or set of words that individual speakers of language might use. In addition, (Hiebert & Kamil, 2005) defines vocabulary as knowledge of words and meaning in both oral and written language and effective and receptive forms. Furthermore, (Richards and Renandya, 2002), declared that vocabulary is one of the most important aspects of language proficiency since it influences how well students talk, listen, read, and write. Thus, vocabulary is a collection of terms that are applicable to all areas of language proficiency. Vocabulary may assist students in mastering the four abilities of speaking, reading, writing, and listening in addition to the vocabulary they acquire. Vocabulary is one area of language that affects how well students learn English in English classes. All English language skills, including speaking, reading, writing, and listening, are influenced by vocabulary. Thus, students will struggle to learn English if they don't have a large enough vocabulary. If students comprehend vocabulary very well, they will eventually be able to master the language.

It is conceivable to conclude that vocabulary is an important basis for learning a language, as well as a requirement for properly communicating and comprehending in a language. Because vocabulary is the cornerstone of a language, it lays the groundwork for learners to communicate. To communicate successfully, students must have a large vocabulary. Even if the learners understand the syntax of a specific language, they will be unable to speak and express themselves in that language due to a lack of vocabulary knowledge.

2.3.2 The Importance of Vocabulary

Vocabulary is one part of language that influences students' English learning in English subjects. Vocabulary influences all aspects of English, including speaking, reading, writing, and listening. To learn vocabulary, students must study its meanings, spoken and written forms, grammatical behavior, word origin, word frequency, word connotation or associations, word collocations, and spoken and written word register (Thornbury, 2002). Furthermore (Taslim et al., 2019) state that a learner's total ability and other language-related experiences shape the amount of vocabulary they know, therefore a stronger correlation would be anticipated. Having a large vocabulary can aid in written and spoken English, as well as in translating words while speaking with others. They cannot talk, write, or understand English if they do not understand word meanings. It may be said that the students' vocabulary and English skills are improving.

In addition (McCarten, 2007) indicated that the total number of words required to memorize ranged from 12.000 to 20.000, depending on their educational level. Learning vocabulary was an extensive process that involved knowing, remembering, and understanding words. When we learnt or taught vocabulary, we repeated the words on a daily basis. A large vocabulary enables one to create words, both spoken and written. Enough vocabulary is essential because the most important aspect of a language is its vocabulary, which is analogous to the bricks used to build houses, offices, and other structures. As a result, we may believe that without a wide vocabulary, we will be unable to acquire other components of the language, such as grammar (Sudarmaji & Yusuf, 2021).

In conclusion, vocabulary is an important aspect of language learning that has a big impact on speaking, reading, writing, listening, and all other facets of English ability. Understanding several concepts, including meanings, forms, and usage patterns, is necessary for vocabulary mastery. Improved language skill is correlated with a wider vocabulary, which promotes clearer communication and comprehension. Learning vocabulary is a lengthy process

that requires memorization and frequent exposure. It is necessary to understand grammar and other language components. As a result, developing a solid vocabulary base is essential for students to increase their overall English proficiency.

2.3.3 Types of Vocabulary

Some researchers categorize the terminology based on their points of contention. According to (Suardi and Sakti, 2019) categorized words into four groups, which are listed below:

1) Oral vocabulary

This consists of the active use of words in speech: words that are close to conversation. The more a person says a word, the easier it is for it to come out of his mouth.

2) Vocabulary writing

For words that actually get into one's finger vocabulary: perhaps even no speaking vocabulary: stock words that are responded to in other writing with meaning and understanding.

3) Listening vocabulary

A collection of words to which a person responds with meaning and understanding when hearing others speak.

4) Vocabulary reading

A collection of words that a person recognizes when he sees them in a painting or written work

Further, (Jo Ann Aebersold and Mary Lee, 1997) vocabulary classify into active and passive.

- 1) Active vocabulary refers to put item which the learner can use appropriately in speaking or writing, and it is also called as productive vocabulary, although in fact it is more difficult to put into practice, it means that to use the productive vocabulary, the students must know how to pronounce it well, they must be familiar with collocation and understand the connotation meaning of the word. This type is often used in speaking and writing skill.
- 2) Passive vocabulary refers to language items that can be recognizes and understood in the context of reading of listening and also called as receptive vocabulary.

Meanwhile (Djlinushah and Azimar Enong, 1980) divided vocabulary into two, namely general vocabulary and special vocabulary.

- 1) General vocabulary is of the words that are used in general. There is no limit of field and user.
- 2) Special vocabulary is that the words that are used in the certain field and job, profession of special science and technology.

(Hatch and Brown, 1995) classified vocabulary into two types there are, receptive vocabulary refers to words that students know and understand when employed in context. The learners are familiar with this language since it appears in reading comprehension skills, but they do not use it in speaking or writing. The only thoughts and ideas that the students meet in this vocabulary are from others. Passive vocabulary is also known as receptive vocabulary. The second type is Productive vocabulary refers to words that students may use in speech and writing while also comprehending and accurately pronouncing them. It includes the knowledge necessary for receptive vocabulary as well as the ability to speak or write at the appropriate time. As a result, productive vocabulary is also known as active vocabulary since it enables kids to use language to communicate with others.

According to the justification provided, experts in every work classify vocabulary differently due to the unique ways individuals express their views. Some focus on vocabulary items that learners can use effectively in speaking and writing, as well as those that can be identified and understood in reading and listening contexts. Others categorize vocabulary as general or specific and as receptive or productive. Although their vocabulary categories differ, the point remains the same: they are based on many sides and aspects.

2.4 Theoretical Framework

This research focuses on student perception as the key theoretical framework for vocabulary acquisition through duolingo. (Robbins, 2005) defined perception as the process by which individuals organize and interpret their sensory perceptions. Based on this comprehension, the purpose of this study is to ascertain student perceptions of Duolingo use in vocabulary acquisition.

In addition, learning vocabulary using one of a language game, for this study specifically it is Duolingo that has a big influence on students vocabulary learning as stated by (Siregar, 2019) that implementing Duolingo proved to be effective in improving. Based on the result of the research, the researcher also found that there was an improvement on students' ability in learning vocabulary after Duolingo Game used. It was proved at the mean of the students' score in every cycle.

2.5 Previous Studies

Numerous researchers have conducted investigations utilizing diverse methodologies to enhance learners' comprehension of English, specifically vocabulary acquisition via Duolingo, as well as their perspective. The research yielded the following conclusions:

The researcher's research shares similarities with (Jaskova, 2014) The study aims to assess the knowledge of Duolingo among the Czech population and its impact on students' final exams. The questionnaires were distributed to 300 participants, with 118 returning them. The sample size is 88. The results indicate a considerable

difference between the first and final results when using Duolingo. Duolingo boosted the score from 162.5 to 253.9. The gained score presented the amount of 91.4. It means there was significant effect of Duolingo through the students' final test.

The research by (Zamzami, 2019) This study aimed to evaluate the effectiveness of Duolingo in improving vocabulary knowledge among students. This study employed a quasi-experimental approach and used a quantitative method. The research sample consists of 58 eighth-grade students from MTs Negeri 3 Jakarta during the 2018/2019 academic year. The experimental class had an average of 8.8, while the control class had an average of 8.2. Each class contained 29 pupils. The experimental class utilized the Duolingo app, while the control class relied on a teacher presentation and quizzes for instruction. The experimental class showed considerable improvement in vocabulary knowledge compared to the control class that did not use Duolingo. The impact size estimate indicates that Duolingo has a moderate effect on students' vocabulary knowledge. The researcher concluded that Duolingo improves vocabulary acquisition among eighth-grade students at MTsN 3 Jakarta throughout the 2018/2019 academic year.

There are certain similarities and variations between this study and the earlier research mentioned above. Both used Duolingo as a media of learning English especially vocabulary for some study. The distinction between this study and others is that none of the earlier studies inquired about college students' opinions regarding the usage of Duolingo as a vocabulary-acquisition tool. This study had a qualitative method, while the previous one took a quantitative approach. The participants in this study were college students, whereas those in the prior study were school students.

III. METHOD

This chapter addresses a research methodology that includes place and time of the research, research methodology and design, participants of the research, research instruments, research data collection, and technique of data analysis.

3.1 Place and Time of the Research

This research took place at the University of Lampung. It is located at Jalan Prof. Dr. Jl. Prof. Dr. Ir. Sumantri Brojonegoro No.1, Kota Bandar Lampung, Lampung 35141. When estimating how long the research will take, it is essential to create a research time schedule that is appropriate for the activities conducted in this study. This study was completed between July and September of 2024, as planned.

3.2 Research Methodology and Design

The aim of this study was to look into college students' perceptions of Duolingo's utility for vocabulary acquisition. The study decided to employ a qualitative research approach with a case study design in order to achieve its goals. A qualitative method is based on text and visual data, uses different data processing procedures, and employs a range of designs (Creswell & Creswell, 2017). Also, (Creswell, 2009) described a case study as a research that investigates a program, an event, an activity, a process, or one or more individuals in order to have a thorough understanding of the action that we wish to investigate.

Therefore, this study's has qualitative approach of exploring college students' perceptions of using Duolingo to acquiring vocabulary. This study's data was acquired using semi-structured interviews. The interview results from the participants will be displayed descriptively in order to answer the study questions.

3.3 Participants of the Research

The subjects of this study were 5 participant in university of Lampung Faculty of teacher training and education who had been playing Duolingo for 2 month or more. The researcher use inisial for participant as, Participant 1, Participant 2, Participant 3, Participant 4 and Participant 5. The researcher used purposive sampling techniques to gather data for this study. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). As a result, the researcher selected all of the research subjects. Research subjects with specific college students who have been playing Duolingo for two months or more.

3.4 Research Context

Context of this study the participant were 5 college student whose are studying in University of Lampung, Mostly comes from senior year and 1 comes from freshman. Three of the participant casually earning money from teaching English door to door, it probably influencing their perception on Duolingo to acquire new vocabulary, and the other two was just a normal student that earning money in a different way. Two of the participant was not only learning English language in Duolingo but other langauges too. Lampung University or Unila is the first and oldest public university in Lampung Province, Indonesia.

3.5 Research Instruments

Interviews are conducted to learn more about students' perceptions. The researcher selected the interview to acquire more precise and in-depth data. The researcher employed a one-on-one interview technique to gather data from each research subject. According to (Stainback and Stainback, 1988) interviews enable researchers to gain a more profound understanding of participants' interpretations of events or phenomena, surpassing the insights that observation alone can provide. Additionally, the researcher used a semi-structured interview to gather student responses. Semi-structured interviews involve preparing an interview guide but not completely adhering to it, such as question wording and order (Braun & Clarke,

2013). (Patton, 2002) identifies six categories of interrelated questions that can be utilized in interviews: (1) questions pertaining to experiences, (2) questions concerning opinions, (3) questions related to feelings, (4) questions about knowledge, (5) questions involving the senses, and (6) questions regarding background or demographics. During the interview, students responded six open-ended questions about their habits, motivations, benefits, and obstacles of using Duolingo to acquire vocabulary.

The questions aim at gathering insights about the experience of using Duolingo for vocabulary acquisition, focusing on personal habits, effectiveness, emotional responses, techniques, multisensory engagement, and the influence of academic background. Following theory by (Patton, 2002).

a) Routine or Habits with Duolingo:

The question asks about the specific daily practices or patterns a person follows when using Duolingo to learn new vocabulary. It could involve how often they use the app, at what time of day, for how long, and what specific features or exercises they focus on.

b) Effectiveness for College Students:

The question explores how beneficial Duolingo is in improving vocabulary for college students specifically. It looks at whether the app's features, like gamification, repetition, and instant feedback, contribute positively or negatively to a student's learning experience.

c) Emotional Response and Motivation:

The question delves into the feelings a person experiences while using Duolingo, such as frustration, satisfaction, or excitement, and how these emotions influence their desire to continue learning and completing exercises.

d) Techniques Used and Impact on Vocabulary Acquisition:

The question asks about the specific strategies or methods a person employs while using Duolingo, such as repeating certain exercises, using flashcards, or focusing on weaker areas, and how these have helped in learning and retaining new vocabulary.

e) Multisensory Engagement and Learning:

The question focuses on how Duolingo's use of different senses (visual, auditory, tactile) enhances the learning process. It considers whether the combination of seeing words, hearing them, and interacting with the app (e.g., typing or swiping) makes vocabulary acquisition more effective.

f) Academic Background and Perception of Duolingo:

The question seeks to understand how a person's educational experiences and qualifications influence their view of Duolingo as a tool for learning vocabulary. Someone with a background in language studies might perceive the app differently than someone from a different academic field.

3.6 Research Data Collection

Conducting semi-structured interviews, the researcher records the conversations using an audiotape and subsequently transcribes them (Creswell, 2014). Prior to the interviews, the researcher develops an Interview Guide based on the study's focus. The questions posed are open-ended in nature, designed to avoid leading the participant toward specific responses, thereby eliciting authentic opinions and perspectives from the participants (Creswell, 2014).

In order to conduct the study, the researcher collect data used the interview guide steps:

The first phase in the research technique was to prepare for the interview.

First, the interview was developed to consist of six categories questions specifically

designed to elicit detailed responses from students regarding their use of Duolingo for vocabulary acquisition. Then, the interview questions were verified by the researcher advisors and were ready to be used.

The second phase is identifying participants who meet the research criteria and contacting the participant to ascertain their willingness to participate in the study.

The third phase is conducting an introduction, explaining the research objectives, and reconfirming the participants' willingness to take part in the study.

The last phase developing an interview schedule based on mutual agreement between the researcher and the participants.

The interview participants are 5 college students based on the criterion that meet, which were students who had been playing Duolingo for more than two month. In addition, The interviews were conducted in comfortable settings, which could be in-person or via online video calls, depending on the students' preference. Each interview began with a reiteration of the study's purpose and reassurances about the confidentiality of their responses. The interview lasted 1 weeks or more and approximately 60-120 minutes. The researcher then transcribed the interview study for analyzing purposes.

The semi-structured nature of the interviews allowed for flexibility, enabling the interviewer to permitting the conversation to flow naturally, with additional probing questions used to dig in deeper into interesting responses. All interviews were recorded, with participants' permission, to ensure accuracy in data transcription.

3.7 Technique of Data Analysis

The initial step in the data analysis phase involved meticulously transcribing the interview recordings verbatim to ensure precise capture of students' responses. During this process, any identifying information was removed to protect participant anonymity. The transcriptions provided a reliable basis for subsequent analysis,

ensuring that the data remained authentic and unaltered.

Following transcription, the researcher immersed themselves in the data by reading through all the transcripts multiple times. This familiarization phase was crucial for understanding the depth and nuances within the participants' responses. In accordance with (Miles and Huberman, 1994) define analysis as three simultaneous activities: data reduction, data display, and conclusion drawing/verification. The three lines will be further explained below.

a) Data Reduction

(Miles and Huberman, 1994) define data reduction as the process of selecting, focussing, reducing, abstracting, and converting data from written field notes or transcripts. Data collecting leads to additional reduction, including summaries, coding, themes, clustering, partitioning, and composing memos. Data reduction is a component of the analysis. Data reduction allows researchers to organize and eliminate extraneous information, resulting in valid conclusions. In this phase the researcher needs to read the transcript multiple times and then selecting all of the utterances participant to match the keywords align with the categories.

b) Data Display

A display organizes and compresses information to facilitate decision-making and action. (Miles and Huberman, 1994). Qualitative analysis relies heavily on effective data display, including matrices, images, networks, and charts. The goal is to organize information in a clear and accessible style. An analyst can assess the situation and decide whether to draw right conclusions or follow the presentation's suggestions for further study. In data display the researcher use a chart in terms to organizes and compresses the information so the data would be easy to read and analyze.

c) Conclusion Drawing/Verification

(Miles & Huberman, 1994) suggest that the conclusion is merely half of the Gemini design. Analysts verify their conclusions as they advance. During data collection, researchers came to a brief conclusion. Of course, drawing conclusions cannot be done hastily; instead, the evidence must be checked. Verification of final findings is crucial for accountability, as they are not just generated during data collection. The last phase, the researcher needs to do a couple reading on the analyze data to create a concrete conclusion based on what the participant had said before.

Additionally, the data must be reviewed for reliability, authenticity, and accuracy. The researcher validated the data using a triangulation approach. Triangulation involves checking data from several sources, including participants, types, and collection techniques. Also there is a triangulation process for participant with displaying the transcript to the participant. In this research study, the researcher examined the interview transcribed data, to obtain a reliable finding result

IV. RESULTS AND DISCUSSIONS

4.1 Research Results

This research aimed to explore college students' perceptions of using Duolingo for vocabulary acquisition, using the Technology Acceptance Model (TAM) as a guiding framework. The data were obtained through interviews with five students from the Faculty of Teacher Training and Education at the University of Lampung. The interviews, conducted from October 8th to September 8th, 2024, resulted in a total of 315 and reduce to 234 utterances. These utterances were analyzed and categorized into five main indicators of TAM: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BIU), and Actual System Use (ASU). Each category was represented by a number of utterances, as shown in the table below:

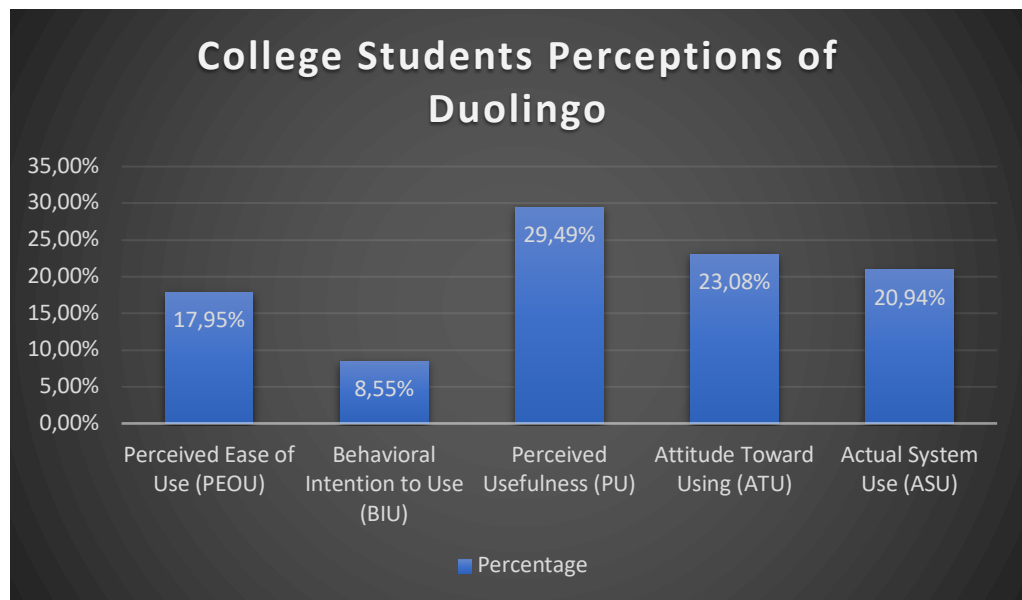


Figure 8: Chart Percentage College Students Perception

From the figure 8. Each utterance was also analyzed for the emergence of specific keywords, which helped identify why each statement belonged to a particular category:

- 1) PEOU (Perceived Ease of Use): Keywords like simple, easy to navigate, clear layout, and short sessions dominated this category. These words reflected how participants perceived Duolingo as accessible and easy to use.
- 2) PU (Perceived Usefulness): Words like effective, vocabulary growth, practical, and challenging appeared frequently. They indicate the app's impact on students' vocabulary acquisition.
- 3) ATU (Attitude Toward Using): Utterances in this category often included terms like fun, motivating, addictive, and enjoyable. These show the emotional connection and excitement students felt while using Duolingo.
- 4) BIU (Behavioral Intention to Use): Responses included keywords such as routine, habit, evening activity, and flexibility. These reflected students' intention to continuously engage with the app.
- 5) ASU (Actual System Use): Frequent words in this category included daily use, streak, and XP points. These represented how often and in what context students actually used Duolingo.

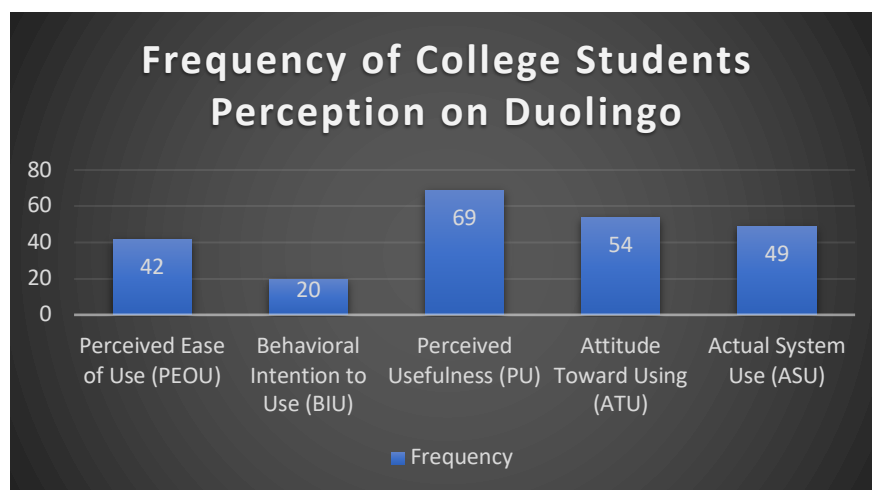


Figure 9: Chart Frequency College Students Perception

Here is the chart of the interview; the chart highlights indicator from (Davis, 1989) There are Perceived Ease of Use (PEOU), Behavioral Intention to Use (BIU), Perceived Usefulness (PU), Attitude Toward Using (ATU) and Actual System Use (ASU). Based on the interview transcripts collected from five college students at the

University of Lampung, a total of 315 and reduce to 234 utterances were identified and analyzed. These utterances represent individual expressions, opinions, experiences, and reflections shared by the participants regarding their use of Duolingo for vocabulary learning. Each utterance was treated as a unit of qualitative data and then systematically categorized using the Technology Acceptance Model (TAM) framework developed by Davis (1989), which consists of five key constructs: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BIU), and Actual System Use (ASU). The distribution of utterances across the five categories revealed important insights into the overall perception of Duolingo among the participants. Specifically, 42 utterances (17.9%) were categorized under PEOU, indicating students' emphasis on the simplicity, clarity, and user-friendliness of the application interface. The highest number of utterances, 69 (29.4%), fell under the PU category, reflecting participants' recognition of Duolingo's effectiveness in enhancing vocabulary knowledge, its relevance to their learning goals, and the variety of learning tasks it offers.

Meanwhile, 54 utterances (23.7%) were associated with ATU, demonstrating the emotional responses and attitudes of the students, such as enjoyment, satisfaction, and motivation to use the app. The BIU category accounted for 20 utterances (8.5%), capturing students' intention to continue using Duolingo as a daily learning habit, often linked to features like the streak function and flexible time use. Lastly, 49 utterances (20.9%) were coded under ASU, indicating the actual use patterns of the app, in terms of real-life application. These quantitative proportions provide a strong foundation for the subsequent discussion and highlight the varied yet interconnected perceptions that students hold about Duolingo as a vocabulary acquisition tool. Each percentage not only reflects the thematic weight of a particular TAM component but also illustrates the multifaceted experience of language learners engaging with mobile-based educational platforms.

The participants' reason for duolingo in vocabulary acquisition are related to 5 categories.

No	Perception	Percentage
Reason for perceived ease of use (PEOU), perceived usefulness (PU), attitude toward using (ATU), behavioral intention to use (BIU), and actual system use (ASU) (+)		
1	Easy to use	100%
2	Usefullness	100%
3	Interesting design and visual	80%
4	Flexible	100%
5	Real life use	60%
Reason for perceived ease of use (PEOU), perceived usefulness (PU), attitude toward using (ATU), behavioral intention to use (BIU), and actual system use (ASU) (-)		
1	Boring	20%
2	Voices are unfamilliar	20%
3	Hard difficulty on higher level	80%
4	Hard vocabulary	40%
5	Unrealistic sentences	20%

Figure 10 Table reason participants' for duolingo on vocabulary acquisition

4.2 Discussion

4.2.1 Student Perceptions Based on Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Fred D. Davis in 1986, is one of the most widely adopted frameworks for understanding user acceptance of information technology. Grounded in the Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1980), TAM was designed to explain the determinants of technology adoption and usage behavior. It posits that users' perceptions significantly influence their attitudes, behavioral intentions, and ultimately, their actual system use.

According to Davis (1989), two primary constructs determine an individual's intention to use a specific technology: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived Usefulness refers to the extent to which a person believes that using a system will enhance their performance, while Perceived Ease of Use refers to the degree to which a person believes that using a system would be free of effort. Both factors are theorized to influence the Attitude Toward Using (ATU) the system, which in turn affects Behavioral Intention to Use (BIU), and subsequently leads to Actual System Use (ASU).

Venkatesh and Davis (2000) further validated and extended the TAM model in various contexts, confirming that the model is reliable in predicting user behavior toward technological systems in educational, organizational, and consumer settings. In the context of language learning, TAM has been applied to investigate how learners accept digital applications like Duolingo as tools for vocabulary acquisition. In this study, TAM is employed to explore how college students perceive Duolingo as a vocabulary-learning tool, by analyzing five key indicators:

1. Perceived Ease of Use (PEOU)
2. Perceived Usefulness (PU)
3. Attitude Toward Using (ATU)
4. Behavioral Intention to Use (BIU)
5. Actual System Use (ASU)

1. Perceived Ease of Use

Perceived Ease of Use is an important factor in determining how college students view Duolingo as a tool for vocabulary acquisition. This concept relates to how easy it is for students to interact with the app and navigate its features. In this study, participants emphasized the simplicity of Duolingo's interface and its ability to provide a clear, engaging learning experience. The app's straightforward layout and the ease with which students can access lessons made it a valuable tool for language learning. When students perceive an app as easy to use, they are more likely to incorporate it into their daily

routines, which leads to better vocabulary retention and increased motivation to continue learning.

The practical application of vocabulary in context was another strength of the app. Unlike traditional methods, such as flashcards or dictionaries, Duolingo presented vocabulary in sentences, helping students understand how words are used in real-life situations. This approach made it easier for participants to retain vocabulary and use it correctly in conversations. Moreover, Duolingo's repetitive review system helped reinforce learning by revisiting words and phrases regularly, ensuring that students did not forget previously learned material. The app's built-in repetition is a valuable feature, especially for vocabulary retention, which is crucial in language learning.

One participant, P1, shared her experience with Duolingo's simplicity in navigation, which made it easier for her to integrate the app into her routine:

"Tapi dulu sering main ya? Oke, oke. Nah, kesan pertama lo tuh pas pakai aplikasi itu gimana?"

"Waktu itu kan pertama kali mainnya agak telat. Enggak pakai Duolingo itu ketika gue udah paham basic English, jadinya agak ngebosenin pelajarannya, karena harus mulai dari awal lagi. Tapi kayaknya untuk orang yang baru mulai belajar, itu cukup membantu sih."

("“But you used to use it a lot back then, right? Alright, alright. So, what was your first impression when you used the app?”")

("At that time, I started a bit late. I didn't use Duolingo when I already understood basic English, so the lessons became a bit boring because I had to start over. But I think it's quite helpful for people who are just starting to learn.")

This reflects how Duolingo's straightforward features are especially beneficial for beginners. P1 also highlighted how Duolingo helped her maintain her streaks, which motivated her to use the app consistently:

Um, kalau buat jam main gitu ada enggak sih, lo kayak nepatin waktu atau gimana gitu buat main dulu?

"Waktu malam biasanya, sebelum tidur. Kan gue harus mempertahankan streak gitu loh setiap hari."

("“Umm, did you have like a set time to play or something? Like, did you make time for it or what back then?”")

("Usually at night, before bed. I have to maintain the streak every day.")

Similarly, P1. emphasized the motivational aspect of Duolingo, particularly the element of fun that made the learning process more enjoyable. They said:

"Gimana pendapat lo tentang belajar bahasa Inggris pakai aplikasi?"

"Bagus, sih, pakai aplikasi karena ada elemen serunya, ya, yang bikin kita sebagai pelajar jadi termotivasi dan lebih semangat belajar."

("What do you think about learning English using an app?")

("It's great to use the app because there's this fun element that motivates us as learners and makes us more enthusiastic about studying.")

P1 explained how Duolingo's approach to learning felt like playing a game rather than studying, which kept the process enjoyable:

"Kesan pertama lo waktu pakai Duolingo gimana?"

"Kesan pertama sih seru, pastinya, karena kita seakan-akan main game padahal lagi belajar. Jadi asik aja belajarnya."

("What was your first impression when you used Duolingo?")

("The first impression was fun, for sure, because it felt like we were playing a game while actually learning. So the learning process was just enjoyable.")

P1. also shared how they typically used Duolingo in the evenings after their academic activities, showing how it fit into their daily schedule:

“Oke, oke. Biasanya jam berapa lo main Duolingo, dan kenapa di jam itu?”

"Biasanya sore ke malam, mungkin, ya, karena setelah aktivitas seperti sekolah atau kuliah baru ada waktu senggang di sore atau malam."

(“Alright, alright. What time do you usually use Duolingo, and why at that time?”)

("Usually in the late afternoon to evening, because after activities like school or college, I have some free time in the afternoon or evening.")

The app’s ability to present vocabulary in context was something P2 appreciated, especially in comparison to traditional methods. They mentioned:

“Gimana lo bandingin latihan kosakata di Duolingo sama cara-cara tradisional yang tadi lo bilang?”

"Di Duolingo, kita dikasih contoh kalimatnya, jadi lebih paham cara penggunaan kosakata itu."

(“How would you compare practicing vocabulary on Duolingo with the traditional methods you mentioned earlier?”)

("In Duolingo, we’re given sentence examples, so we understand better how to use that vocabulary.")

Furthermore, P1. praised Duolingo's repetition system for helping with retention, stating:

"Gimana reaksi lo sama sistem Duolingo yang ngulang-ngulang kosakata buat bantu ingatan?"

"Bagus banget, sih, karena untuk belajar kosakata baru, enggak mungkin kita cuma lihat sekali terus langsung ingat. Perlu pengulangan, dan Duolingo menggunakan teknik itu dengan baik."

("What's your reaction to Duolingo's system of repeating vocabulary to help with memory?")

("It's really good because, to learn new vocabulary, it's impossible to just see it once and remember it right away. We need repetition, and Duolingo applies that technique well.")

In addition to these features, both participants recognized Duolingo's effectiveness in helping them stay motivated through its streak feature. As P1. noted, the streak feature kept them motivated to use the app daily:

"Seberapa baik sih Duolingo memotivasi lo buat terus belajar? Apalagi saat ada tantangan tadi."

"Pernah sampai 100 hari, dan itu termotivasi banget."

("How well does Duolingo motivate you to keep learning? Especially when there are challenges like you mentioned earlier.")

("I've reached 100 days, and that was really motivating.")

P1. also reflected on the potential future developments for Duolingo, such as the integration of VR to enhance the learning experience:

“Oke, berdasarkan pengalaman pendidikan lo tadi yang 17 tahun, ada enggak ekspektasi lo terhadap alat seperti Duolingo di masa depan?”

“Semoga ada teknologi seperti itu 10 atau 20 tahun ke depan. Amin.”

(“Okay, based on your 17 years of educational experience, do you have any expectations for tools like Duolingo in the future?”)

(“I hope there will be technology like that in the next 10 or 20 years. Amen.”)

Participants in the study noted several key features that contributed to the app's ease of use. Duolingo's simple instructions and gamified elements played a significant role in motivating users to continue practicing. The streak feature, which encourages daily use, was particularly effective in maintaining user engagement. For example, several participants mentioned how the app's game-like approach kept them entertained while learning, making the process feel less like a chore and more like a fun challenge. The ability to see progress, such as streaks or earned points, was highly motivating and helped reinforce their learning habits.

Duolingo's design also encourages frequent interaction. Its interface is clean and user-friendly, allowing students to easily navigate through lessons without feeling overwhelmed. This simplicity makes it particularly appealing for students who are balancing academic workloads and other commitments. Many participants mentioned that Duolingo's short and manageable lessons allowed them to fit language practice into their busy schedules. The flexibility to practice at any time of day, whether during a break or before bed, contributed to its integration into participants' routines.

Overall, the findings suggest that Duolingo's user-friendly design, practical application of vocabulary, and engaging gamified elements make it an effective

tool for language learners. The app's simplicity and motivational features, such as streaks, have proven to be valuable for students seeking a convenient, enjoyable, and effective way to acquire new vocabulary. Both P1 And P2 experiences show that Duolingo not only helps users learn new words but also keeps them motivated through regular practice and progress tracking.

2. Perceived Usefulness (PU)

Perceived Usefulness (PU) is a key factor in determining how beneficial college students find Duolingo for enhancing their vocabulary learning. Students assess whether the app helps them learn and retain vocabulary in a way that aligns with their language learning objectives. If students perceive Duolingo as an effective tool, they are more likely to continue using it and integrate it into their study routines. One element that plays a significant role in this perception is Duolingo's gamified structure, which provides an engaging and motivating way to reinforce new words. The app's interactive features, such as levels, challenges, and rewards, serve as motivating factors for continued use.

In interviews with participants, their responses highlight how Duolingo's system makes learning new vocabulary enjoyable and effective. One participant, P3, who is an English Education major, shared their positive experience with Duolingo, stating that the app is particularly helpful in learning new vocabulary. They noted,

"Menurut kamu gimana sih belajar bahasa Inggris pakai aplikasi gitu?"

"Belajar bahasa Inggris pakai aplikasi seluler gitu cukup ngebantu buat kita tahu tentang kosa kata baru."

("What do you think about learning English using apps like that?")

("Learning English using a mobile app like that really helps us learn new vocabulary.")

They also emphasized how the app provides various challenges such as speaking, listening, and writing tasks that make the learning process fun and dynamic. According to P3, the app's design, which includes levels and challenges, made the experience enjoyable.

“Apa kesan pertama kamu waktu main Duolingo?”

“Kesan pertama ya, seru sih karena kayak banyak level-levelnya juga dan juga banyak tantangan-tantangan baru”

(“What was your first impression when you used Duolingo?”)

(“The first impression was fun because there are a lot of levels and many new challenges.”)

The gamified elements of Duolingo also contribute to a sense of accomplishment and progress. For instance, P3 explained how the app’s repetition system helps reinforce learning:

“Gimana reaksi kamu terhadap sistem Duolingo yang ngulang-ngulang kosa kata buat bantu ingatan kamu?”

“Mereka tetap kayak ngingetin lagi, kayak munculin lagi pertanyaannya, dan tetap kita disuruh jawab.”

(“How did you react to Duolingo’s system of repeating vocabulary to help with your memory?”)

(“They keep reminding us by presenting the questions again and we’re still asked to answer.”)

This feedback mechanism not only aids in vocabulary retention but also builds confidence, as participants feel reassured that they will eventually get the correct answer, even after mistakes. Furthermore, P3's routine of revisiting Duolingo in the evening is strategic, as they take advantage of their free time and reinforce their learning.

"Biasanya jam berapa sih kamu main Duolingo dan kenapa kamu pilih jam itu?"

"Karena emang enaknya itu dikerjain pas waktu luang, jadi pas malam itu sih yang cocok bagi aku buat main Duolingo."

("What time do you usually use Duolingo, and why do you choose that time?")

("Because the nice thing is that I can work on it during my free time, so the evening is the best time for me to use Duolingo.")

Similarly, P4, another participant from the interview, highlighted how Duolingo fits into their routine, especially as an English student. P4 expressed that while their formal education focuses on academic English, Duolingo allows them to explore language learning more casually and flexibly:

"Dari bidang studi itu, memengaruhi cara belajar kosakata lo enggak?"

"Kalau bahasa Inggris dijadikan jurusan secara formal, kan berarti kita banyak belajar tentang bahasa akademik. Tapi kalau belajar secara informal, pasti yang didapat lebih santai, misalnya dari musik atau film."

("Does your field of study affect the way you learn vocabulary?")

("If English is taken as a formal major, we study more about academic language. But when learning informally, what we get is more relaxed, such as music or movies.")

P4 also noted how Duolingo's effectiveness lies in its gamified structure, which makes the learning process less stressful and more enjoyable. This flexibility in Learning formats are particularly appealing for students like P4, who appreciate a balance between formal and informal learning experiences.

Both P3 and P4 shared the view that Duolingo provides a useful and accessible way to reinforce vocabulary, with the added benefit of being able to learn in a

more relaxed, non-judgmental environment. Duolingo's system of rewards and achievements also boosts motivation, as P4 stated:

"Berapa banyak kosakata baru yang lo targetin buat dipelajari dari jam 8 sampai jam 9 itu? Ada target tertentu enggak?"

"Duolingo kan ada achievement, misalnya kita belajar beberapa ratus kata, terus dapat diamond"

(*"How many new vocabulary words do you aim to learn from 8 to 9 o'clock? Do you have a specific target?"*)

(*"Duolingo has achievements; for example, when we learn a few hundred words, we get a diamond."*)

This sense of progress through gamification encourages students to keep using the app to reach new milestones, further solidifying their vocabulary knowledge.

Overall, both participants perceive Duolingo as a highly useful tool for improving vocabulary. The combination of an engaging, gamified experience with the app's practical features, such as repetition, rewards, and flexibility, aligns well with students' learning needs and motivations. These elements contribute to a positive perception of Duolingo, ensuring that students continue using it as an effective vocabulary-building tool in their daily routines.

3. Attitude Toward Using (ATU)

Attitude Toward Using (ATU) refers to the overall feelings, perceptions, and reactions that college students have toward using Duolingo for vocabulary acquisition. This encompasses their enjoyment, motivation, satisfaction, and general experience with the app. The positive attitudes toward Duolingo were reflected in various aspects, such as the app's gamified nature, engaging features, accessibility, and its ability to enhance the learning process. When students find Duolingo enjoyable and motivating, it influences their willingness to continue using the app, and consequently, their commitment to vocabulary acquisition. These factors contribute significantly to their

experience and may result in improved language skills over time. As students are more motivated and find learning through Duolingo enjoyable; their attitude toward it remains positive, helping them view language learning as a fun, rewarding activity rather than a tedious task.

In the interviews conducted, both participants expressed favorable views about Duolingo and its impact on their vocabulary learning journey. P2 shared,

“Kesan pertama lo waktu pakai Duolingo gimana?”

"Kesan pertama sih seru, pastinya, karena kita seakan-akan main game padahal lagi belajar. Jadi asik aja belajarnya."

(“What was your first impression when you used Duolingo?”)

(“The first impression was fun, of course, because it feels like we're playing a game while actually learning. So, learning becomes enjoyable.”)

This initial excitement is rooted in the gamified elements of Duolingo, which blend the experience of learning with entertainment. For many students, such a gamified approach makes language learning more engaging and less monotonous compared to traditional methods. The introduction of game-like features, such as XP points and streaks, offers students a sense of accomplishment and progress, which keeps them motivated to return to the app and continue their studies. P2 also emphasized the role of the streak feature in motivating him to study, stating,

“Seberapa baik sih Duolingo memotivasi lo buat terus belajar? Apalagi saat ada tantangan tadi.”

"Satu aspek yang paling mendorong gue itu fitur streak. Kalau belajar selama 10 menit sehari dan melakukannya beberapa hari berturut-turut, streak kita bertambah."

(“How well does Duolingo motivate you to keep learning? Especially when there are challenges like the ones you mentioned earlier.”)

("One aspect that motivates me the most is the streak feature. If I study for 10 minutes a day and do it for several consecutive days, my streak increases".

This system creates a positive reinforcement loop, where students are encouraged to maintain their streaks and continue their learning on a daily basis, making language acquisition feel like an ongoing achievement.

P1 also had a positive outlook on Duolingo, highlighting its convenience and accessibility in learning a new language. P1 stated,

"Pendapat lo soal belajar Bahasa Inggris tapi pakai aplikasi itu gimana?"

"Ya, teknologi kan sekarang mudah diakses, gitu kan? Jadi pengetahuan juga gampang didapetin."

("What's your opinion about learning English using an app?")

("Yes, technology is easily accessible now, so knowledge can also be easily obtained.")

This acknowledgment points to the fact that Duolingo offers a highly accessible platform for students to engage with language learning at any time and from any place, as long as they have an internet connection. The convenience of having language lessons available in a mobile app format means that students can learn at their own pace and integrate it seamlessly into their daily routine, which fosters a sense of independence in their learning process. Additionally, P1 appreciated Duolingo's practical application in real-life scenarios, sharing,

"Bisa diceritain enggak sih, momen pas lo sadar kalau Duolingo itu udah banyak ningkatin kosakata Bahasa Inggris lo?"

"Waktu nemuin kata yang gue pelajari di Duolingo itu muncul di kehidupan sehari-hari... kosakata itu tiba-tiba muncul."

("Can you tell me about the moment when you realized that Duolingo had really improved your English vocabulary?")

("When I find a word I learned in Duolingo appearing in daily life... that vocabulary suddenly shows up.")

This direct link between learning and real-world usage strengthens the value of Duolingo as an effective language tool, as students are able to see immediate benefits and apply what they learn in practical settings, further reinforcing their positive attitude toward the app.

P5, another participant, shared a similar enthusiasm for Duolingo's unique features. P5 highlighted his excitement with Duolingo's diversity of languages, stating,

"Kesan pertama lo waktu pakai Duolingo gimana?"

"Kesan pertama, sih, amaze ya, karena di Duolingo itu kita enggak hanya belajar bahasa Inggris aja, bisa belajar banyak bahasa. Kebetulan, kemarin itu saya coba bahasa Prancis, dan saya benar-benar tertarik buat belajar lebih banyak."

("What was your first impression when you used Duolingo?")

("My first impression was amazing because in Duolingo, we don't only learn English; we can learn many languages. By the way, I tried French recently, and I was really interested in learning more.")

This statement showcases the app's ability to teach English and offer opportunities for learning other languages, which broadens students' linguistic horizons. By offering a wide range of languages, Duolingo taps into students' curiosity and desire to explore new linguistic landscapes. This flexibility can engage learners and help them develop an interest in languages beyond their initial focus.

He also reflected on how Duolingo fits seamlessly into his daily routine, emphasizing how the app integrates into his free time:

"Biasanya jam berapa sih lo main Duolingo, dan kenapa milih jam itu?"

"Biasanya, ya, waktu senggang. Misal siang atau malam, pas lagi enggak ngapa-ngapain baru buka karena ya, buat nge-game juga sih jadinya."

("What time do you usually use Duolingo, and why do you choose that time?")

("Usually, during my free time, like in the afternoon or evening, when I'm not doing anything, I open it because it feels like playing a game.")

This casual approach reflects how Duolingo allows students to learn without adding pressure or disrupting their schedules. The app's flexibility, in terms of timing and engagement, means students can incorporate learning into their leisure activities, making the process feel more like a fun break rather than a forced chore. This ease of access and low-stakes nature of learning encourages users to return to the app and continue strengthening their vocabulary in a stress-free environment. Additionally, P5 noted that Duolingo provided a refreshing break from traditional methods, saying,

"Gimana lo nyelipin Duolingo ke rutinitas belajar bahasa lo? Kayak pas lo belajar di kelas itu lo pakai Duolingo atau enggak?"

"Kalau saya sih, saat bosan belajar dari buku atau dari dosen di kuliah, saya langsung buka Duolingo. Jadinya enggak ngebosenin, lebih seru gitu."

("How do you fit Duolingo into your language learning routine? Like, do you use it while you're studying in class or not?")

("For me, when I get bored with studying from books or from professors in college, I just open Duolingo. So, it doesn't get boring; it's more fun.")

This aspect of Duolingo as a revitalizing and enjoyable learning tool was echoed by P5., who found that the app provided an alternative that kept him motivated and engaged with language learning.

Moreover, P5. described how Duolingo's feedback system, which offers immediate corrections, significantly aided in his vocabulary acquisition:

"Nah, lo bilang tadi ada feedback, misalkan lo salah langsung dikasih tahu yang benar. Itu memengaruhi proses belajar lo enggak?"

"Sangat membantu karena prosesnya cepat. Jadi kita langsung bisa tahu cara pakai kosakata yang benar."

("So, you mentioned earlier that there's feedback — like when you make a mistake, it immediately shows you the correct answer. Does that affect your learning process?")

("It's very helpful because the process is quick. So we can immediately know how to use the vocabulary correctly.")

The feedback system accelerates learning by providing instant guidance on mistakes, allowing students to quickly adjust and understand the correct usage of vocabulary. This timely correction promotes efficient learning and enhances students' retention of new words, which contributes to their positive attitudes toward the app. also mentioned that Duolingo's visual aids, such as images that connect to vocabulary, helped him remember new words more easily:

"Di Duolingo kan ada petunjuk visual, kayak gambar orang atau ikon. Itu bantu lo enggak buat ingat kosakata baru?"

"Bantu banget, karena apa yang ditampilkan di Duolingo, seperti gambar-gambar itu, berkaitan sama kosakata. Jadi kita gampang ingatnya."

("On Duolingo, there are visual cues like pictures of people or icons — do those help you remember new vocabulary?")

("It helps a lot because what's shown in Duolingo, like images, is related to vocabulary. So, we can easily remember it.")

These visual cues enhance the memorization process by associating words with images, making the learning experience more engaging and memorable.

Additionally, P5 reflected on how Duolingo's speaking exercises contributed to his learning, stating,

"Gimana speaking itu bisa bantu pembelajaran lo?"

"Karena bahasa sendiri, kan, komunikasi itu terjadi jika ada lisan dan tulisan. However, on a daily basis, it becomes increasingly difficult to communicate effectively. Jadi dengan speaking, menurut saya, Duolingo itu lebih enak."

("How does speaking help your learning process?")

("Because language itself is communication, it happens with both speech and. But in daily life, it's mostly speech, right? So, with speaking, I think Duolingo is better.")

This highlights the importance of speaking practice in real-world language use. The ability to practice speaking through Duolingo helps students gain confidence in their conversational abilities, which further contributes to their positive experience with the app. Speaking exercises allow learners to practice pronunciation, sentence construction, and fluency in a controlled yet practical setting, helping them feel more prepared for everyday conversations.

In summary, the participants expressed strong, positive attitudes toward using Duolingo as a tool for vocabulary acquisition. Their experiences were shaped by the app's gamified features, feedback system, accessibility, and practical application in real-life contexts. These aspects of Duolingo make it an engaging, effective, and enjoyable tool for language learners, resulting in increased motivation and confidence. As the participants recognized Duolingo as a fun and effective language-learning platform, their positive attitudes toward the app were further solidified, making it a valuable resource in their learning journey. The combination of gamification, convenience, and practical

features helps make Duolingo an appealing choice for students, fostering a strong commitment to continued language learning.

4. Behavioral Intention to Use (BIU)

The use of (BIU) Duolingo among college students is influenced by various factors, including their perceptions of the app's usefulness, ease of use, and personal attitudes towards learning English. Based on interviews conducted in October and November 2024, it is evident that students and P1 have positive perceptions of Duolingo's interactive features and game-like elements. P3, a student of English Education, expressed that Duolingo helps in learning new vocabulary effectively, stating,

"Menurut kamu gimana sih belajar bahasa Inggris pakai aplikasi gitu?"

"Pakai aplikasi, kan sekarang tuh banyak sih aplikasi-aplikasi untuk belajar tentang bahasa ya. Contohnya mungkin kayak Duolingo, mungkin ya. Untuk aku Sendiri sih, belajar bahasa Inggris pakai aplikasi seluler gitu cukup ngebantu buat kita tahu tentang yang baru mungkin ya."

("What do you think about learning English through an app like that?")

("Use an app, because now there are many apps for learning languages. One such app could be Duolingo. For me personally, learning English using a mobile app is quite helpful for us to learn new vocabulary.")

She highlighted the app's engaging nature, noting that it provides levels and challenges such as speaking, listening, and writing, which contribute to her continued use. The enjoyment she experiences, particularly from filling in missing words, increases her motivation to keep using the app for vocabulary acquisition.

P3 also mentioned that she typically uses Duolingo in the evenings, from 8 PM to 11 PM, as this is when she has spare time after school activities. She stated,

“Biasanya jam berapa sih kamu main Duolingo dan kenapa kamu pilih jam itu?”

"Karena emang enaknya itu dikerjain pas waktu luang, jadi pas malam itu sih yang cocok bagi aku buat main Duolingo."

(“What time do you usually use Duolingo, and why do you choose that time?”)

("Because it's really nice to do it during spare time, so the evening is the right time for me to use Duolingo.")

This indicates how the app fits into her routine, with Duolingo becoming part of her daily study habit. She does not set a strict target for the number of new words learned, but she strives to learn as many as possible in a session, often aiming for 10 to 15 new words per day. This flexible approach aligns with her personal learning preferences, where Duolingo serves as a supplementary tool to enhance her vocabulary outside of formal education.

Similarly, P1 another student of English education, highlighted the importance of the app in maintaining her vocabulary learning. She reflected on her first impression of Duolingo, admitting that it initially felt repetitive due to her existing knowledge of English but recognizing its value for beginners:

“Tapi dulu sering main ya? Oke, oke. Nah, kesan pertama lo tuh pas pakai aplikasi itu gimana?”

"Waktu itu kan pertama kali mainnya agak telat ya. Enggak pakai Duolingo itu ketika gue udah paham basic English, jadinya agak ngebosenin pelajarannya, karena harus mulai dari awal lagi."

("But you used to use it a lot, right? Alright, alright. So, what was your first impression when you tried the app?")

("At that time, I first played it a bit late. I didn't use Duolingo when I already understood basic English, so it felt a bit boring because I had to start from the beginning again.")

Despite this, she acknowledged Duolingo's effectiveness for learners starting from the basics. P2 also mentioned that she used Duolingo primarily at night to maintain her streak, reinforcing the motivational impact of Duolingo's gamified elements. This commitment to the app's streak feature shows that the behavioral intention to continue using Duolingo can be strongly tied to the rewards and progress markers that it offers.

Both P3's and P1's experiences emphasize that Duolingo's interactive design, which includes challenges and rewards, fosters a higher level of engagement. The system of repetition and reinforcement, such as the app's reminder to reattempt incorrect answers, was also appreciated by P3, who found it beneficial for retention. She expressed her approval by saying,

"Gimana reaksi kamu terhadap sistem Duolingo yang ngulang-ngulang kosa kata buat bantu ingatan kamu?"

"Bagus sih. Menurut aku tuh bagus banget karena bukan berarti yang salah tadi langsung dihilangin gitu loh. Mereka tetap kayak ngingetin lagi, kayak munculin lagi pertanyaannya, dan tetap kita disuruh jawab."

("But you used to use it a lot, right? Alright, alright. So, what was your first impression when you tried the app?")

("I think it's really good because it doesn't erase the wrong answer. They still remind us, like bringing the question back up, and we are still asked to answer.")

This shows how Duolingo's design aligns with students' intentions to continue learning, as it provides both practical benefits and emotional satisfaction from completing tasks and progressing through levels.

In conclusion, the behavioral intention to continue using Duolingo among college students is significantly influenced by their perceptions of the app's effectiveness in supporting vocabulary acquisition and its flexible integration into their daily routines, and the motivational effects of its interactive features

and gamified rewards. Both P3's and P1's experiences demonstrate how Duolingo not only helps students expand their vocabulary but also reinforces consistent use through its engaging and adaptive features.

5. Actual System Use (ASU)

Actual system use refers to the actual frequency and consistency with which college students use Duolingo to acquire vocabulary. This measurement includes how often they engage with the app, complete vocabulary exercises, and utilize the app's features. The level of actual system use provides insights into how effectively Duolingo is being incorporated into students' learning practices and whether their intentions to use the app result in sustained engagement. Regular use of Duolingo can indicate that students are actively using the app as a tool to enhance their vocabulary. Participant C mentions,

"Biasanya jam berapa lo pakai Duolingo dan kenapa pilih jam itu?"

"Gue biasanya random sih, tapi paling sering pagi dari jam 8 sampai 9. Soalnya, otak masih fresh, dan di pagi hari kadang bingung mau ngapain dulu, kan?"

("What time do you usually use Duolingo, and why do you choose that time?")

("I usually do it randomly, but most often in the morning from 8 to 9. Because my brain is still fresh, and in the morning, I sometimes don't know what to do first, right?")

This shows that C often uses Duolingo in the morning, taking advantage of a time when she feels mentally alert and free from other academic obligations. Her usage of Duolingo is more about spontaneous engagement rather than setting strict goals, focusing on achievement milestones like diamonds rather than specific vocabulary targets. This aligns with the idea that Duolingo's gamified elements encourage usage through rewards, making the learning process feel less formal and more enjoyable.

Similarly, M.A highlights that her interaction with Duolingo tends to occur in the evening, after her daily activities have ended:

“Oke, oke. Biasanya jam berapa lo main Duolingo, dan kenapa di jam itu?”

"Biasanya sore ke malam, mungkin, ya, karena setelah aktivitas seperti sekolah atau kuliah baru ada waktu senggang di sore atau malam, jadi baru bisa main Duolingo."

(“Alright, alright. What time do you usually use Duolingo, and why at that time?”)

("Usually in the late afternoon to evening, because after activities like school or college, there's spare time in the afternoon or evening, so I can finally play Duolingo.")

Her response suggests that Duolingo fits well into her evening routine, providing a refreshing break from traditional methods of studying, such as reading books or doing paper-based exercises. This casual engagement emphasizes how Duolingo serves as a complementary tool to more formal study methods, helping to sustain motivation.

Both participants acknowledge that Duolingo's design, with its repetition of vocabulary and integration of game-like rewards, keeps them motivated to continue using the app regularly. P2 expresses this when she says,

“Seberapa baik sih Duolingo memotivasi lo buat terus belajar? Apalagi saat ada tantangan tadi.”

"Satu aspek yang paling mendorong gue itu fitur streak. Kalau belajar selama 10 menit sehari dan melakukannya beberapa hari berturut-turut, streak kita bertambah."

(“How well does Duolingo motivate you to keep learning? Especially when there are challenges like the one you mentioned earlier.”)

("One aspect that motivates me the most is the streak feature. If you study for 10 minutes a day and do it for several days in a row, your streak increases.")

The streak feature in Duolingo is a key motivator for her, helping her stay committed to her learning goals by providing a tangible measure of progress. This aspect of Duolingo encourages daily engagement and fosters a sense of achievement that drives consistent vocabulary acquisition.

In terms of vocabulary learning, both participants found Duolingo's speaking exercises to be particularly effective. P4 explains,

"Ada enggak latihan di Duolingo yang menurut lo paling efektif buat belajar kosakata baru?"

"Ada, lebih ke fitur listening, karena ada speaker dan kita bisa ngulangin beberapa kali. Itu ngebantu buat kosakata baru dan cara pengucapannya."

("Is there any exercise on Duolingo that you think is the most effective for learning new vocabulary?")

("There is more to the listening feature because there's a speaker, and we can repeat it several times. That helps with new vocabulary and pronunciation.")

indicates that Duolingo's listening feature, where users can repeatedly hear words and their correct pronunciations, is particularly useful for reinforcing new vocabulary and improving pronunciation. P2 concurs, adding,

"Ada enggak latihan di Duolingo yang lo rasa paling efektif buat belajar kosakata baru?"

"Latihannya mungkin di bagian speaking, ya, karena di situ kita benar-benar membaca dan langsung praktek dalam satu kalimat sambil mengikuti pronunciation-nya."

("Is there any exercise on Duolingo that you feel is the most effective for learning new vocabulary?")

("Maybe the exercises in the speaking section, because there we really read and practice in one sentence while following the pronunciation.")

Both participants appreciate the active nature of speaking exercises, which integrate vocabulary learning into practical communication skills. Despite these positive experiences, both participants note some challenges in using Duolingo. P2 mentions,

"Ada enggak tantangan yang lo hadapi saat pakai Duolingo buat ningkatin kosakata lo? "

"Kadang ada kalimat yang enggak umum di kehidupan sehari-hari, seperti 'bayi sedang lari.'"

("Have you faced any challenges while using Duolingo to improve your vocabulary?")

("Sometimes there are sentences that are not common in everyday life, like 'the baby is running.'")

Such instances can make the learning experience feel disconnected from real-life usage, suggesting that Duolingo's language examples might not always align with everyday conversation. Nevertheless, both P4 and P2 acknowledge that Duolingo's overall system of repetition and interactive learning helps solidify vocabulary in their memory, making it a useful tool for language acquisition.

In conclusion, the actual system use of Duolingo by both participants demonstrates that the app serves as an accessible, engaging, and effective tool for enhancing vocabulary. Through its gamified features, personalized use patterns, and integration of practical language skills, Duolingo fits well into students' learning routines, motivating them to regularly engage with the app and Acquire new vocabulary. As both students highlighted, features such as streaks and pronunciation practice contribute significantly to their consistent use, suggesting that Duolingo's design encourages sustained, enjoyable learning.

The following sections describe each indicator in detail, integrating theoretical constructs with supporting statements from participant interviews. These qualitative insights reveal how TAM's dimensions manifest in the real experiences of Duolingo users and offer a nuanced understanding of student behavior in the digital learning environment

1. Participant P1.

Participant P1 shared many good things about her experience with Duolingo. To be detail with participant 1 had this statistics, She liked that the app was basic to use, which made her feel comfortable using it every day.

Menurut lo, warna dan desain di Duolingo bikin pengalaman belajar lebih seru enggak? Kenapa?

"Iya, karena desainnya itu bagus aja sih. Warna yang sekarang lebih bagus dibandingkan dulu, jadi bikin nyaman dilihat."

("Do you think the colors and design in Duolingo make the learning experience more fun? Why?")

("Yes, because the design is good. The colors now are better than before, so it's comfortable to look at.")

The design was clear, and she could quickly find the lessons she wanted to take. She also liked how short the lessons were, because they fit well into her busy schedule and didn't make her feel tired. P1 especially enjoyed how the app introduced new words through example sentences, which helped her understand how to use them in daily life. These features made her feel more confident when speaking English. She said that Duolingo became part of her daily routine, especially because the streak feature pushed her to study before going to bed each night.

Even though she had many positive things to say, P1. also mentioned a few problems or negative things.

Tapi dulu sering main ya? Oke, oke. Nah, kesan pertama lo tuh pas pakai aplikasi itu gimana?

“Waktu itu kan pertama kali mainnya agak telat ya. Enggak pakai Duolingo itu ketika gue udah paham basic English, jadinya agak ngebosenin pelajarannya, karena harus mulai dari awal lagi. Tapi kayaknya untuk orang yang baru mulai belajar, itu cukup membantu sih.”

(“You used to use it a lot back then, right? Alright, alright. So, what was your first impression when you used the app?”)

(“At that time, the first time I played it was a bit late. I didn't use Duolingo when I already understood basic English, so it was a bit boring, because I had to start from the beginning again. But I think for people who are just starting to learn, it's quite helpful.”)

She already knew some basic English before using Duolingo, so she thought the early lessons were too easy and a bit boring. She didn't like starting from the very beginning because she felt like she was repeating things she had already learned before. This made her feel less excited to continue using the app occasionally. Another problem she noticed was that some example sentences in the app sounded strange or unnatural. She said it was challenging to imagine using those sentences in real conversations. Because of this, she felt that Duolingo didn't always help her speak naturally like a native speaker would.

Based on the analysis of the interview with Participant P1, it can be concluded that her perception of using Duolingo for English vocabulary learning is generally positive. She stated that the app's attractive design and user-friendly interface made her feel comfortable and motivated to use it daily. Features such as improved color schemes, short lesson durations, and the use of example sentences to introduce new vocabulary were considered helpful in understanding the contextual use of words in everyday life. These aspects contributed to her increased confidence in speaking English.

This aligns with the Perceived Ease of Use and Perceived Usefulness components of the Technology Acceptance Model (TAM), which suggest that users are more likely to adopt and consistently use educational technology when it is easy to navigate and provides clear benefits. However, P1 also pointed out several drawbacks. She mentioned feeling bored at times due to having to repeat beginner-level material that she had already mastered. Additionally, she found that some of the example sentences provided by the app sounded unnatural, making it difficult to imagine using them in real-life conversations. This highlights a limitation in the app's ability to deliver learning experiences that feel authentic and adaptive to users with prior knowledge. Therefore, while Duolingo successfully engaged P1 and became part of her learning routine, certain aspects such as content personalization and sentence contextuality could be improved to enhance the learning experience for users at different proficiency levels.

2. Participant P2

Participant P2 also had a mostly positive experience with Duolingo. P2 really liked how the app turned learning into something fun. The points, levels, and streaks made it feel like playing a game instead of doing school homework. This fun approach helped P2 stay motivated to practice regularly. A.M appreciated the short lessons, which were easy to do during school breaks or after class. Since the app didn't take too much time, it didn't add stress to an already full schedule. P2 also said it was enjoyable to see their progress through the XP points and streak counts, which made them feel proud of their learning journey.

“Seberapa baik sih Duolingo memotivasi lo buat terus belajar? Apalagi saat ada tantangan tadi.”

“Satu aspek yang paling mendorong gue itu fitur streak. Kalau belajar selama 10 menit sehari dan melakukannya beberapa hari berturut-turut, streak kita bertambah. Ada api yang menunjukkan streak kita, dan kita coba dapatkan streak sebanyak-banyaknya. Pernah sampai 100 hari, dan itu termotivasi banget.”

(“How well does Duolingo motivate you to keep learning? Especially when there are challenges like the one you mentioned earlier.”)

(“One aspect that drives me the most is the streak feature. If we study for 10 minutes a day and do it a few days in a row, our streak increases. There's a flame that shows our streak, and we try to get as many streaks as possible. I've been up to 100 days, and that's really motivating.”)

Still, there were some parts of the app that P2 didn't like. One issue was that some of the example sentences in the lessons seemed strange or awkward. They didn't sound like what people would say in normal conversations. These limitations made it harder for P2 to use the new words in real-life situations.

Ada enggak tantangan yang lo hadapi saat pakai Duolingo buat ningkatin kosakata lo?

“Tantangannya mungkin dari internal, ya, kadang malas. Tapi dari Duolingo-nya sendiri, kadang ada kalimat yang enggak umum di kehidupan sehari-hari, seperti “bayi sedang lari.” Kalimatnya enggak realistis, jadi kadang bingung sendiri.”

(“Have you faced any challenges while using Duolingo to improve your vocabulary?”)

(“The challenge may be internal, yes, sometimes we are lazy. But from Duolingo itself, sometimes there are sentences that are not common in everyday life, like “the baby is running.” The sentences are unrealistic, so sometimes I get confused.”)

P2 also felt that the app repeated the same tasks too often, which made learning feel boring occasionally. They said that doing the same type of exercise again and again could make it less interesting. P2 hoped that Duolingo could add more types of lessons or different ways to practice keeping learners more engaged.

Based on the analysis of the interview with Participant P2, it can be concluded that P2 had a mostly positive perception of using Duolingo for vocabulary learning. One of the main reasons for this positive experience was the gamified structure of the app, which transformed the learning process into an enjoyable activity. Features such as points, levels, and especially the streak system made learning feel more like a game than a typical school task. This approach significantly contributed to P2's motivation to practice regularly, even during short breaks in their daily routine. The short and manageable lesson format was also appreciated, as it fit well into their busy schedule without causing additional stress.

This is in line with the Attitude Toward Using and Behavioral Intention to Use indicators in the Technology Acceptance Model (TAM), which emphasize how user motivation and enjoyment can foster a consistent intention to engage with educational technology. However, P2 also pointed out several limitations. Similar to P1, they found some of the example sentences in Duolingo to be unrealistic or awkward, which made it harder to imagine using the language in real-life conversations. Phrases like “the baby is running” were perceived as unnatural, potentially hindering the development of practical communication skills. Additionally, the repetitive nature of the exercises was mentioned as a source of boredom. P2 expressed a desire for more diverse types of tasks and lesson formats to maintain engagement over time.

In summary, while Duolingo successfully motivated P2 through its engaging and gamified learning design, improvements in content realism and variety are necessary to ensure that the learning experience remains relevant, stimulating, and supportive of real-world language use.

3. Participant P3

Participant P3 found Duolingo very helpful for learning English vocabulary. P3 said the app used many different types of tasks, including speaking, listening, and writing. These activities made each lesson feel different, which

helped P3 stay interested. P3 enjoyed doing lessons in the she used Duolingo in the evening, when they had some free time after school. They said that learning with Duolingo didn't feel like a chore, and it helped them build a regular habit without too much pressure. They believed that their vocabulary got better They continued to use the app daily over time. The combination of different tasks made studying feel balanced and enjoyable.

“Apa tantangan yang kamu hadapi saat pake Duolingo buat nyikatin kosa kata kamu?”

“Banyak sih tantangannya karena kan ya tadi tuh kayak tiap level yang kita mainin tuh pasti kan selalu tantangan-tantangan baru gitu kan. Dan itu tuh yang bikin kita tuh semakin apa ya makin semangat gitu loh kayak kalau kita gak ngejelasin tuh kita tuh kayak gerget gitu loh. Ini apa sih jawabannya selalu kayak gitu dan itu sih yang bikin apa ya bikin tantangan tuh sendiri yang jadi seru gitu.”

(“What challenges have you faced while using Duolingo to improve your vocabulary?”)

(“There are many challenges because yes, it's like every level we play is always new challenges. And that's what makes us even more excited, like if we don't explain it, we're always like gerget. This is what the answer is always like that and that's what makes the challenge itself so exciting.”)

However, P3 also pointed out a few problems with the app. Occasionally, one notable challenge encountered by P3 in Duolingo for English language acquisition is the initial reaction to the application's automated voice output. Several users have reported feeling surprised or even disoriented when first exposed to the app's text-to-speech (TTS) system. The voice is often described as "strange" or "unnatural," indicating a perceptual mismatch between user expectations typically a more natural, human-like pronunciation and the synthesized speech delivered by the platform. This negative perception is rooted in the mechanical or robotic tone of the voice, which may lack the natural prosody, stress patterns, and intonational

variations found in native speech. As a result, beginners might find it difficult to connect what they hear in the application with real-world spoken English, potentially affecting their listening comprehension and pronunciation development in the early stages of use. Furthermore, the need to "get used to" the voice often cited by users implies a period of cognitive adjustment. During this phase, learners may spend more effort adapting to the artificial delivery rather than focusing solely on absorbing new vocabulary or internalizing pronunciation. This initial discomfort can be considered a learning barrier that, while often temporary, may hinder motivation or disrupt the immersion experience that is crucial in language learning.

“Gimana suara dan pengucapan di Duolingo membantu kamu mengingat kosa kata?”

“Awalnya kaget karena suaranya tuh kayak aneh gitu kan tapi akhirnya lama-kelamaan karena sering kita ulang juga akhirnya tuh kayak biasa aja dan malah suka karena intonasinya juga jelas dan kadang suaranya tuh bisa jadi cewek atau cowok gitu.”

(“How do the voice and pronunciation in Duolingo help you remember vocabulary?”)

(“At first, I was surprised because his voice was so strange, but eventually over time because we often repeat it, I became accustomed to it and even like it because his intonation is also clear and sometimes his voice can be a girl or a boy.”)

Based on the analysis of the interview with Participant P3, it can be concluded that P3 had a positive perception of Duolingo, particularly in its effectiveness for enhancing English vocabulary acquisition. P3 appreciated the variety of tasks provided by the app, including speaking, listening, and writing exercises, which helped prevent boredom and maintained their engagement. This variety made each lesson feel dynamic and enjoyable. P3 also emphasized that learning through Duolingo felt natural and stress-free, which helped establish a consistent learning routine during their free time in

the evening. The presence of new challenges at each level contributed to their motivation, turning the learning process into an exciting and rewarding experience.

This aligns with the Perceived Usefulness and Attitude Toward Using dimensions of the Technology Acceptance Model (TAM), which highlight the importance of interactive features and emotional engagement in sustaining user interest and driving continuous usage of educational technologies. However, P3 also identified some initial challenges, particularly related to the app's text-to-speech (TTS) feature. The synthetic voice used in the app was initially perceived as strange or unnatural, which caused some discomfort and adjustment at the beginning. This robotic tone, lacking natural intonation and prosody, may present a perceptual barrier, especially for beginner learners who rely heavily on auditory input to build listening and pronunciation skills. Although P3 eventually became accustomed to the TTS voice and even came to appreciate its clarity and variation in gender, the early discomfort indicates a temporary learning obstacle that could disrupt immersion and motivation.

In summary, Duolingo was perceived by P3 as a valuable and enjoyable tool for vocabulary development due to its task diversity and gamified challenge structure. Nonetheless, technical elements like the TTS voice require further refinement to enhance the naturalness of the learning experience and reduce early-stage learner resistance.

4. Participant P4

Participant P4 liked Duolingo because it gave them a chance to learn English in a casual and fun way. Unlike school, where the focus is mostly on grammar rules, Duolingo gave them a more relaxed way to learn. They could use the app whenever they had spare time, and they didn't feel stressed while learning. P4 liked how the app fit well with their lifestyle, especially because they also enjoyed learning English through songs and movies. They felt that the app helped keep their interest in learning strong because it didn't feel like

a formal lesson. C said that Duolingo made it easier for them to turn learning into a daily habit.

“Kesan pertama lo waktu pakai Duolingo gimana?”

“Ada yang bilang sistemnya enggak formal, lebih kayak main game daripada les privat. Jadi enggak ada pressure akademik, ya sudah gue coba aja iseng.”

(“What was your first impression when you used Duolingo?”)

(“Some say the system is informal, more like playing games than private lessons. There's no academic pressure, so I just tried it for fun.”)

“Gimana perasaan lo saat Duolingo ngenalin kosakata baru dalam konteks yang belum pernah lo lihat?”

“Menarik sih, walaupun belajar, rasanya kayak enggak belajar karena aplikasinya seru. Warna, animasi, dan suara notifikasi-nya juga satisfying.”

(“How did you feel when Duolingo introduced new vocabulary in a context you hadn't seen before?”)

(“It's interesting, even though I'm studying, it feels like I'm not studying because the app is fun. The colors, animations, and notification sounds are also satisfying.”)

But even though most of their experience was good, P4 had some things they didn't like.

“Gimana perasaan lo saat berhasil menyelesaikan sesi latihan yang menurut lo sulit?”

“Kemarin gue nemuin satu bagian Duolingo yang susah banget, sampai ngabisin nyawa tiga kali. Gue sampai harus berhenti karena kesempatan habis. Tapi yang bikin senang, mereka ngasih opsi buat ulang lagi kalau kita masih pengen coba.”

(“How did you feel when you managed to finish a practice session that you found difficult?”)

(“Yesterday I found a part of Duolingo that was really difficult, I had to finish it three times. I had to quit because I ran out of chances. But what made me happy was that they gave me the option to go back again if I still wanted to try.”)

P4 statement contains a mild negative indication of frustration with the difficulty of the exercises and the “lives” system that limits attempts. However, as P4 immediately balances this with praise for Duolingo's retry system, this complaint is more accurately described as a critical note but does not undermine his overall positive perception of the app.

Based on the analysis of the interview with Participant P4, it can be concluded that P4 had a predominantly positive perception of using Duolingo for learning English vocabulary. One of the key aspects that appealed to P4 was the informal and gamified learning experience offered by the app. Unlike the structured and grammar-heavy environment of formal education, Duolingo provided a relaxed and engaging platform where learning felt more like playing a game. This lack of academic pressure encouraged P4 to use the app voluntarily during spare moments, making language acquisition feel light, enjoyable, and aligned with their personal lifestyle and interests, such as learning English through songs and movies.

This perception aligns with the Attitude Toward Using and Behavioral Intention to Use dimensions of the Technology Acceptance Model (TAM), highlighting how a positive emotional response and the flexibility of use play a crucial role in motivating continued engagement with educational technology. P4 also appreciated the app’s visual and auditory elements such as colors, animations, and notification sounds which added to the overall enjoyable experience. These features helped reinforce the perception that learning could be both productive and entertaining, contributing to the development of a sustainable daily learning habit.

However, P4 also mentioned a mild point of frustration related to Duolingo's "lives" system. When faced with a particularly difficult exercise, they experienced a temporary setback after exhausting all available attempts. Despite this, P4 quickly emphasized the app's redeeming quality its option to retry the exercises which allowed them to remain motivated and continue learning at their own pace. Rather than significantly undermining their experience, this issue served as a constructive criticism that was mitigated by the app's supportive and user-friendly design.

In conclusion, Duolingo was perceived by P4 as a flexible, fun, and non-intimidating learning tool that effectively integrated into their daily routine. While minor system-related challenges were noted, they did not outweigh the overall benefits and satisfaction P4 experienced during the use of the app.

5. Participant P5

P5. found Duolingo to be a refreshing alternative to traditional classroom learning. As a student of English Education, P5 appreciated how the app offered a different, more playful experience compared to textbook-based lessons or lectures. He described his first impression of Duolingo as "amazing," not only because it taught English but also because it introduced him to other languages like French, which sparked his curiosity further. P5 usually used the app during free time whether in the afternoon or at night saying it felt more like playing a game than studying, which made the learning process feel effortless.

He especially liked how the app's error correction feature helped him immediately see and learn from mistakes, reinforcing vocabulary in real time. Duolingo's visuals and audio also made it easier for him to memorize words, and he found the speaking exercises particularly effective for real-life communication. P5. noted that Duolingo made it easier to integrate learning into his daily routine, especially when he felt bored with formal materials. He believed the repetition of vocabulary in the app was useful for retention

and even said that encountering new vocabulary in unexpected contexts motivated him to keep learning.

“Baik, baik. Gimana lo bandingin latihan kosakata di Duolingo sama cara tradisional?”

“Sebagai generasi Gen Z, saya lebih suka belajar dengan Duolingo karena enggak ngebosenin. Enggak menyepelkan cara tradisional juga, sih, tapi menurut saya pribadi belajar melalui Duolingo bikin pelajar bahasa lebih mudah menangkap maksudnya.”

(“Alright, alright. How do you compare practicing vocabulary on Duolingo with traditional methods?”)

(“As a Gen Z generation, I prefer learning with Duolingo because it's not boring. I'm not underestimating the traditional way either, but I personally think learning through Duolingo makes it easier for language learners to catch the point.”)

“Gimana itu memengaruhi pandangan lo tentang Duolingo? Belajar di formal kan pasti beda dengan Duolingo. Gimana pandangan lo soal Duolingo?”

“Menurut saya, belajar di Duolingo ngasih kesempatan buat anak-anak zaman sekarang buat belajar bahasa yang asik dan seru. Fiturnya udah seperti game, kan?”

(“How did that affect your view of Duolingo? Learning in a formal setting is definitely different from using Duolingo. So, what's your take on Duolingo?”)

(“In my opinion, learning on Duolingo provides an opportunity for kids today to learn languages in a fun and exciting way. The features are like games, right?”)

While P5.'s overall experience was highly positive, he acknowledged that higher levels in Duolingo could feel more challenging. However, instead of

discouraging him, the difficulty sparked a sense of motivation to study harder.

“Baik, baik. Apa tantangan yang lo hadapin saat pakai Duolingo buat ningkatin kosakata? Ada kesulitan enggak belajar di Duolingo?”

“Kalau levelnya sudah tinggi, mungkin agak sulit. Tapi ya, enggak apa-apa, selama kita juga tetap belajar.”

(“Alright, alright. What challenges did you face while using Duolingo to improve your vocabulary? Did you find anything difficult about learning with Duolingo?”)

(“If the level is already high, it might be a bit difficult. But that's okay, as long as we keep learning.”)

P5.'s statement reflects how even when faced with increased difficulty, his perception of Duolingo remained upbeat. Challenges were not seen as setbacks but rather as opportunities to grow, showing that for P5., the gamified structure and informal tone of the app helped sustain his long-term interest in vocabulary learning.

Based on the analysis of the interview with Participant P5, it can be concluded that P5 perceived Duolingo as a refreshing and effective alternative to traditional classroom-based English learning. As an English Education student, P5 appreciated the contrast between the app's playful, gamified learning experience and the formal structure of textbooks and lectures. His first impression of Duolingo was “amazing,” especially because it not only helped him learn English but also sparked interest in other languages like French. P5 used the app during his free time, finding the experience enjoyable and effortless, akin to playing a game rather than engaging in formal study.

This perception corresponds closely with the Perceived Usefulness and Attitude Toward Using dimensions of the Technology Acceptance Model

(TAM), as P5 found that the immediate feedback, gamified tasks, and real-time vocabulary reinforcement effectively supported his language learning. He emphasized how Duolingo's visual aids, audio features, and speaking tasks enhanced his ability to retain and apply new vocabulary, especially in real-life communicative contexts. Furthermore, Duolingo's flexible and engaging format aligned with P5's learning preferences as part of Generation Z, who often seek interactive and stimulating educational environments.

P5 also found the repetition of vocabulary within Duolingo particularly useful for retention and memory reinforcement. The exposure to new vocabulary in varied and unexpected contexts helped maintain his motivation and curiosity. He believed that Duolingo made language learning more accessible and appealing to younger learners, thanks to its game-like design and informal tone. While he acknowledged that the higher levels in the app posed more difficulty, this challenge was not viewed negatively. Instead, P5 saw it as a motivation to keep learning and improving, indicating that the app successfully maintained his long-term interest and commitment. The balance between challenge and reward in Duolingo's design appeared to strengthen his perseverance and engagement.

In conclusion, Participant P5 regarded Duolingo as a highly effective and enjoyable tool for language learning. Its gamified structure, interactive features, and informal delivery helped transform his perception of vocabulary acquisition from a formal obligation into an exciting and meaningful daily habit. Even when facing difficulties, his enthusiasm remained strong, showing the app's capacity to sustain motivation and encourage continuous learning.

4.2.2 Thematic Discussion Based on TAM Constructs

1. The similarity

Participants in this study, including P1 and P2, consistently emphasized the intuitive interface and user-friendly features of Duolingo. They appreciated

its clean layout, easy navigation, and short, gamified lessons that fit smoothly into their daily schedules. This supports Davis's (1989) assertion that systems perceived as easy to use reduce cognitive effort, making users more likely to adopt them. Furthermore, this observation is in line with Venkatesh and Davis's (2000) extended model of TAM, which underlines that user-friendly systems foster higher levels of engagement and satisfaction. The simplicity of Duolingo allowed students to engage in short, consistent learning sessions even when they were under time constraints, thus facilitating its integration into daily routines. The case of P1 demonstrated how an accessible app encourages frequent usage and even forms part of a student's habitual study behavior this is belongs to Perceived Ease of Use (PEOU).

With regard to Perceived Usefulness (PU), all participants reported that Duolingo helped them expand their vocabulary effectively. P3 and P4, for instance, noted that the combination of translation, repetition, and contextual usage contributed to better understanding and retention of words. The structured progression of difficulty and the immediate feedback system helped users identify and correct mistakes, reinforcing accurate vocabulary use. This finding mirrors Davis's (1989) concept that perceived usefulness determines whether users believe a system enhances their performance in this case, students' confidence and proficiency in vocabulary. These insights also align with Zamzami's (2019) study, which found that students who used Duolingo showed significant improvement in vocabulary acquisition compared to those who relied on traditional methods. Additionally, the gamified learning environment was viewed as a major motivator, confirming that engaging features improve cognitive and affective learning outcomes.

Attitude Toward Using (ATU) was another significant factor evident in the data. Students such as P2 and P5 described Duolingo as enjoyable, motivating, and less stressful than formal language classes. Their experiences suggest that emotional engagement plays a major role in sustaining the use of educational technology. According to Ajzen (1991), positive emotional

responses such as enjoyment or satisfaction directly influence behavioral intentions and learning outcomes. Duolingo's design successfully combines learning and entertainment, creating a sense of achievement through game elements like XP points, streaks, and progress levels. P5 in particular showed sustained interest in the app due to these motivational features, which helped him overcome boredom often associated with textbook-based learning. This finding is consistent with Chiu and Wang (2008), who argued that enjoyment is a critical factor in sustaining educational app usage. Duolingo's ability to transform vocabulary learning into a fun activity demonstrates the app's strength in cultivating positive attitudes.

In terms of Behavioral Intention to Use (BIU), the participants demonstrated a strong commitment to continuing their use of Duolingo. They often incorporated it into their daily routines whether in the evening before bed, during breaks, or while commuting. P3 and P4 indicated that Duolingo had become a habit, supported by its streak and reward systems, which further reinforced their motivation to engage with the app consistently. These findings validate the TAM framework, which suggests that when users develop favorable attitudes and see clear benefits from a technology, they form intentions to continue using it. Moreover, this behavioral intention often leads to long-term integration of the technology into one's learning environment, which was evident across multiple participants in this study.

The final construct, Actual System Use (ASU), reveals that students engaged with Duolingo consistently and purposefully. Participants such as P1 and P3 reported daily or near-daily use, with specific time allocations for learning sessions. Most students mentioned that they preferred using the app during times when they were mentally relaxed or had no academic obligations, such as in the morning or late evening. Duolingo's flexible and on-demand access allowed for consistent engagement without the constraints of scheduled classroom learning. This aligns with Venkatesh et al. (2003), who emphasized that perceived utility and ease of access often translate into actual, sustained

system usage. Importantly, students also demonstrated long-term use patterns, suggesting that Duolingo's learning structure and incentives had successfully converted intention into habitual behavior. Additionally, the study discovered similarities between P3 and P5. Initially, P3 and P5 perceive a feature and a high-level exercise negatively, but over time, they grow accustomed to it.

2. The differences

Participants expressed diverse experiences with Duolingo in terms of the constructs of Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BIU), and Actual System Use (ASU) by their own learning style and skill level. For PEOU, variation in how participants utilized and valued Duolingo ease-of-use function was noted. P1 divided lessons into study notes for school, favoring the app's exposition in detail and the mechanism of repetition over textbooks. P2 utilized Duolingo to ward off boredom with traditional methods, enjoying correction facilities but not as an incorporation into scholarly practice. P3 enjoyed talk practice for its simplicity of practice, citing contextual sentence examples as better than using flashcards, yet admitting that P3 valued repetition perhaps being dull to other people. P4, attracted by practice exercises in pronunciation and grammar, liked the game-like lack of compulsion to be formal, practicing Duolingo on P4 own. P5, translating and liking the flashcard-similar type practice as useful, grew disillusioned by repetition at advanced level, unlike other users for whom the former aided.

In regards to a PU perspective, users differed in Duolingo vocabulary-building ability targets and applications. P1 did 10–15 words a lesson, which he utilized for class speech, and supported by color-code comments. P2 without word target, liked informal words for conversation, such as idiomatic expressions, but not with the process of mechanisms. P3 did 5–10 words, in particular using them in international online social communication, and found speech and listening activities highly effective. P4 dealt with achievements

like diamonds rather than word numbers, prioritizing verb training and improved pronunciation capabilities than dictionaries. P5 was set for about 10 words, yet felt vocabulary learning as advanced was slow and tiresome, though she liked translation training for everyday use, just like P3.

Participant affective responses towards Duolingo gamification in ATU were diverse. P1 was driven by overcoming difficult exercises through reliance on repetition and rewards such as streaks and XP. P2 was driven by challenge and game-like system and leaderboard competition and demonstrated a lack of negative emotions. P3 was driven by winning a 100-day streak and applause from the community, although they commented on unrealistic sentences. P4 utilized mixed frustration and motivation ("greget") when completing difficult exercises, and enjoying sounds and animations. P5 liked competition and leaderboard engagement when working, yet grew weary of repetition and thus disengaged, unlike others who remained enthusiastic.

As for BIU, all participants showed different types of commitment towards Duolingo. P1 committed to evening sessions on account of daytime engagements, motivated by new words and challenges despite some unachievable sentences. P2 utilized Duolingo in diverse ways within accessible time, motivated by new words without any restriction. P3's evening or afternoon use was reinforced by a 100-day streak, yet he experienced inner inhibitions such as laziness and echoed P5's complaint about unrealistic sentences. P4's sporadic use in the morning was motivated by achievement and interactive design, yet none by laziness. P5 independently discontinued Duolingo use through repetitive advanced material, although she was motivated by streaks when a user found it too slow for progression to advanced material.

For ASU, participant usage of Duolingo fluctuated by time and setting. P1 utilized it every evening (8 PM to 11 PM) and incorporated notes into course work and learning to get adjusted to the synthesized speaker, proposing more

descriptive designs. P2 utilized it during midday or evening breaks, testing other languages such as French and enjoying pronunciation and graphics without assessing designs. P3, a consistent user from 2017 or 2018, utilized it after scholars, practicing vocabulary on social media and marking unrealistic sentences as a weak area. The morning usage (8–9 AM) by P4 utilized her new mindset, prioritizing grammar practice and appearance without pairing with other strategies. P5, who quit using due to repeating, utilized to practice in the evening for streaks, in informal English and seeking more formal yet interactive applications.

3. Concluding remark

The concluding of this result, it is important to note that not all perceptions were fully positive. Several participants including P2 and P3 noted that some example sentences in Duolingo were unrealistic or irrelevant to daily life, such as those featuring bizarre or grammatically awkward phrases. Others expressed discomfort with the synthetic voice output used in listening exercises, which they described as robotic or unnatural. These issues sometimes disrupted their learning experience, creating a barrier to immersion and comprehension. Despite these drawbacks, students still perceived the app as a valuable tool, particularly due to its flexibility, gamification, and practical repetition features. These critical views point toward areas where Duolingo could enhance its language corpus and speech technology for improved realism and authenticity.

This study also aligns with previous research by Jaskova (2014), who reported that Duolingo contributed to improved exam scores among students in the Czech Republic. Although Jaskova's study used quantitative methods, the outcomes mirror those in this research, which employed a qualitative lens. The depth of student reflection in this study adds richness to existing findings by illustrating not only whether students benefit from Duolingo, but also how and why it works from the users' perspective. This study, therefore,

contributes to filling the gap in current literature regarding students' subjective experience with educational technology tools.

Similar to this on Zamzami's (2019) study looked into how well Duolingo helped eighth-grade students in Jakarta improve their language. The study found that Duolingo helped people learn new words, with the experimental group doing better than the control group. The results of this study also show that Duolingo helps people learn new words, but they are different because they were only The The study focused on college students and employed a qualitative method. The people who participated in this study said that Duolingo's adaptability and fun features were critical because they made learning vocabulary fun and easy for them. Zamzami's study, on the other hand, used tests in a quasi-experimental method to see how much the people strengthened their vocabulary.

This study also provides us more information about how students see Duolingo as a way to learn new words, which wasn't the main point of the previous studies. The studies by Jaskova and Zamzami both looked at how well Duolingo helped students learn languages, but they didn't go into as much detail about how students felt and why they used it as this study does. This study adds to what's already been written by showing that the fact that Duolingo is like a game, that it's flexible, and that it's simple to use are all important factors that encourage students to use the app regularly, which leads to better language learning.

In conclusion, this study shows that Duolingo is useful for learning new words, just like other studies have. But it also provides us new information about how college students use the app and how they feel about it. This study shows how important user experience is in language learning tools by looking at students' motivations, interests, and attitudes. It also shows how Duolingo's simplicity, flexibility, and game-like features can help students keep using it and strengthen their vocabulary

V. CONCLUSION AND SUGGESTION

Building upon the discussions presented in the previous chapter, this chapter aims to address the research questions comprehensively while also elaborating on key aspects related to the research objectives. Additionally, it provides thoughtful recommendations and practical suggestions that may contribute to further improvements and future research in the field.

5.1 Conclusion

The present study delved into the attitudes of college students in using Duolingo as a vocabulary-building tool. The results suggest that ease of use, interactive features, and interactive learning environment significantly contributed to the favorable attitudes toward the application among the students. The user-oriented design of the application, gamification elements like streaks and reward points in the form of XP, and cross-device availability rendered the experience both enjoyable and encouraging. These, in turn, facilitated the development of regular habits and a desire to use the application on a routine basis. In addition, Duolingo's systematic repetition system emerged as a successful vocabulary reinforcing system, leading to improved retention and recall in the long term. The Technology Acceptance Model (TAM) testing revealed robust representation in each one of the five constituents—Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude Toward Using (ATU), Behavioral Intention to Use (BIU), and Actual System Use (ASU)—and indicates that not only did the students value the application's design and merits but also brought it into active practice in the course of day-to-day learning. Despite certain limitations as mentioned earlier, namely less academic vocabulary and the absence of learning in a contextual manner, the overall findings validate that Duolingo is viewed as being effective, accessible, and enjoyable in enhancing vocabulary building in college-level students.

5.2 Suggestion

5.2.1 For Duolingo

Based on the findings, several improvements could be made to further enhance Duolingo's effectiveness. First, Duolingo could expand its gamified features, offering more rewards and challenges. Such an approach would help keep students motivated and engaged, especially those who may find the current features less exciting over time. Adding more interactive challenges or a leveling system could help maintain interest and encourage daily use. Another suggestion is to offer more personalized learning paths. By adjusting lessons to students' proficiency levels, Duolingo could provide a more tailored learning experience, making it easier for students to stay challenged and motivated. Customizing the app's lessons would allow students to progress at their pace and ensure that they are learning vocabulary that is relevant to their skill level. Duolingo could also improve vocabulary retention by incorporating more contextual learning. This would involve teaching vocabulary in real-life situations or through conversations, helping students understand how to use words in practical settings. This type of learning could make the vocabulary more memorable and useful in everyday life.

5.2.2 For Future Research

Future research could also do the research in an appropriate location to do the interview with the participant. Look into how Duolingo works for different age groups and language levels. While this study focused on college students, it would be fascinating to see how well the app works for high school students or adult learners. Exploring how Duolingo performs with various demographics could provide valuable insights into its effectiveness across different groups.

In addition, the potential for integrating Duolingo into formal education settings deserves further exploration. Educational institutions, including schools, colleges, and universities, could consider incorporating Duolingo as a supplementary instructional tool within their language curricula. Such integration may offer a blended learning model in which in-class teaching is complemented by

independent, app-based practice. This approach could foster a more personalized and flexible language learning experience, enabling students to reinforce classroom materials at their own pace and convenience. When implemented thoughtfully, Duolingo could contribute to increased learner autonomy, sustained motivation, and improved language proficiency over time. Educators may also benefit from using Duolingo's built-in progress tracking features to monitor student development and tailor instruction accordingly. Ultimately, expanding the role of digital learning platforms like Duolingo within formal education has the potential to enhance learner outcomes, promote lifelong learning habits, and bridge the gap between traditional and technology-mediated language instruction.

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