

University Students' Perception of Duolingo to Improve Vocabulary Mastery in Learning English

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ABSTRACT

Mastering vocabulary in learning English as a foreign language often poses challenges for students, as they must memorize and apply words in new contexts, unlike their native language, which is acquired naturally. In recent years, web-based games and educational applications have gained popularity by creating enjoyable learning environments that reduce student anxiety and facilitate vocabulary acquisition, one example being Duolingo. This study aims to explore students' perceptions of using Duolingo to enhance their English vocabulary. The research adopts a mixed-method approach with purposive sampling. Findings reveal that students have a positive perception of the effectiveness of Duolingo in enriching their English vocabulary. The majority of participants agreed that the interactive game-based learning approach makes the learning process more enjoyable and engaging. Many students appreciated the flexibility of the application, allowing them to learn anytime and anywhere, which is an added value in helping them retain vocabulary effectively.

Keywords: Perception, University Students, Duolingo, Vocabulary.

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INTRODUCTION

Vocabulary mastery is forms a core component in the learning process of the English language and plays a critical role in communication both in oral and written (Richards, 2001). Jack C. Richards states that vocabulary is very foundation upon which clear communication and understanding are anchored. As Jack C. Richards explains, vocabulary provides the platform on which communication is based. Persons with a wider vocabulary can understand and express information more coherently and precisely. Knowing new words, allows students to learn meaning in conversational contexts, thus enhancing overall comprehension. Also, a good reading vocabulary promotes speed and depth of comprehension of the text, thereby allowing readers to engage with the material at a deeper level. On the contrary, limited vocabulary impairs one's capacity to express clearly what he or she wants to say and could lead to misunderstandings or ineffective communication.

Furthermore, Scott Thornbury emphasizes that vocabulary is the crucial element in effective communication, in other words learners usually need about 2,000 words to engage in basic conversations (Thornbury, 2006). This observation highlights that vocabulary is more than the mere assembling of words; it is an essential device to be used in the development of a complete language capability. Mastery of vocabulary not only gives the learner full expression but also enhances interaction with others in social environments. Thus, it is for this reason that vocabulary acquisition has become one of the most important aspects of educational learning, as it specifically relates to a student's ability to communicate effectively and interrelate meaningfully with both spoken and written text. A solid foundation in

vocabulary thus becomes prime importance for learners in their quest to amass the relevant skills necessary to tackle language and communication effectively.

Mastering vocabulary in learning English as a foreign language is one of the most difficult areas for students, as they must memorize and utilize words in new contexts, unlike their native language, which is acquired naturally (Laufer, 1990). As a result, more work needs to be done when the words are infrequently used in life. Therefore, technology and interactive ways are some of the best means for enriching vocabulary, which allows students to go up a step in terms of material: to grammar and idioms. In recent years, web-based games and educational applications have gained popularity by offering appealing learning environments that reduce student anxiety and support vocabulary acquisition (Amin, 2021). Several studies reported evidence that games facilitate not only developing communicative competence but also creative language use. Gamification has been rise since 2010, and it has the potential to raise motivation and collaboration. One successful application in learning the language is Duolingo, which has been launched on May 29th, 2013. It has been downloaded over 500 million times with a rating of 4.8 out of 5.0. This application offers four English skills, reading, writing, listening, and speaking through interactive activities. Students feel generally quite positive about Duolingo, especially about vocabulary acquisition and improvement. Such different facilities as interactivity in the application and an achievement system make learning more fun and motivate students to improve their language skills even outside the classroom.

However, student perceptions of Duolingo in terms of motivation, convenience, and efficiency all differ in respect of individual needs and learning styles (Laufer, 1990). Some students find Duglingo motivating because of flexibility in scheduling study time, others may feel that since this application is informal or too unstructured, there is a lack of depth in the material. Regarding convenience, Duglingo is portrayed as easy to use and handy, mainly because of the ability of users to access the site using their mobile phones (Ajisoko, 2020). However, there is some problem when students feel that the interaction conducted through the app itself is not enough to learn other sets of language skills, such as speaking and writing, at a more sophisticated level. Pragmatically, regarding effectiveness, students generally feel Duolingo serves effectively in enriching basic and intermediate vocabularies but does not serve so effectively to support advanced vocabulary development or more complex idiomatic phrases.

Various previous studies have demonstrated that Duolingo significantly impacts the vocabulary learning process (Ajisoko, 2020). Found in his quantitative study that learners gave positive feedback regarding the use of this application-feeling more motivated, competent, and finding the material easier to understand. Moreover, the application facilitates students in remembering and applying what they learned in their lives.. Krashen (2014) opines that Duolingo allows students to learn progressively, while Munday (2016) points out that this application makes learning very enjoyable and hence motivates the students to continue learning anywhere, anytime. Kessler et al. (2023) emphasize the ease of access while learning a language is what Duolingo mainly allowed. Advanced features are immediate feedback and an easy curriculum. With all these advantages, Duolingo increasingly becomes one of the sought-after options for students in improving their vocabulary mastery and skills pertaining to the English language. This application will not only help students understand the language more but also make learning more interactive and fun.

Research on students' perceptions of technology use, such as Duolingo, is highly relevant in today's modern-day digital era. Understanding how students perceive the effectiveness of this application and hence aid educators and developers in refining technology-based teaching methods. This will also help analyse whether Duolingo is of any real help in effective vocabulary mastering or if there are some limitations that have to be dealt with. With a growing number of students engaging in technology-based independent language learning, it becomes crucial to establish whether such applications as Duolingo are able to meet their needs effectively, in particular, in terms of vocabulary mastery, being the foundation of any language proficiency.

The primary objective of this study is to investigate or explore university students' perceptions about using Duolingo in an English language learning process, regarding the mastery of vocabulary. This research aims to understanding the level to which the students feel this application helps in enriching and retaining new vocabulary. Moreover, the research will try to establish the direct effect of using Duolingo on the university students' vocabulary skills how easily a student apply those words in everyday situations. The effectiveness of using Duolingo, as established by this research based on the assessment by the students, may go on to recommend the potential of this application as a supportive tool in English language learning within academic environments.

METHOD

This study adopts a mixed-method approach, integrating both qualitative and quantitative methods to provide a more comprehensive understanding of the research topic (Creswell, 1999). The qualitative method was chosen to explore in depth and enrich the explanations obtained from the quantitative data collection. With this approach, the researcher aims to gain a broader insight into the factors influencing students' perceptions of using Duolingo as a tool to enhance foreign language vocabulary. Meanwhile, the quantitative method is used to objectively measure and analyse numerical data related to students' perceptions, as well as to explore the extent to which the Duolingo app is effective in improving foreign language vocabulary comprehension and mastery among students. The combination of these two methods is expected to provide more accurate and thorough results.

Respondents

This study employs a purposive sampling technique, which is a method of selecting samples based on certain characteristics that have been predetermined by the researcher (Creswell, 1999). In this case, the research subjects are students who use the Duolingo app to learn foreign languages, so the chosen sample consists of Duolingo users. The researcher selected 30 students from various universities in Indonesia as the sample. The purpose of this sampling choice is to obtain a more representative picture of the perceptions and experiences of students using Duolingo.

Instruments

To collect data, the researcher used an online questionnaire distributed via Google Forms. The questionnaire consists of 12 statements designed to explore various aspects of students' perceptions regarding the use of Duolingo. Each statement is measured using a Likert scale, which includes five response options: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). This approach is expected to provide a clearer picture of how students assess the effectiveness of Duolingo in improving their foreign language vocabulary, as well as other aspects related to the use of the app. In addition to the questionnaire, data collection in this study was also conducted through in-depth interviews to gain a more comprehensive understanding of the results from the questionnaire. The researcher prepared two interview questions designed to further explore students' perceptions and experiences with Duolingo. The interviews aim to confirm and enrich the data collected through the questionnaire.

Data analysis

Once all the data has been gathered, the researcher performs an analysis focusing on students' perceptions of the Duolingo app as a foreign language learning tool. This study integrates two types of data analysis: quantitative analysis and qualitative analysis. The quantitative analysis is conducted using the approach proposed by Creswell (2013), which involves systematic calculations to determine the percentage of responses to each question in the questionnaire. This technique aims to provide a clear picture of the percentage of students who gave specific answers, such as whether they agree or disagree with using Duolingo.

Meanwhile, for the qualitative analysis, the researcher explores the interview data and open-ended responses from the questionnaire to gain deeper insights into the reasons and

perspectives of students regarding their experiences with Duolingo. The researcher then draws conclusions based on the distribution of the most frequent responses, which will provide an overview of the majority students' perceptions. By combining these two analytical approaches, the study is expected to present findings that are more holistic and provide a deeper understanding of the effectiveness of Duolingo in helping students enrich their foreign language vocabulary.

FINDINGS AND DISCUSSION

Linguistic problems in Indonesia are still a big challenge, especially in mastering foreign languages. Even though English has been taught at various levels of education, the level of Indonesian people's mastery of foreign languages in general is still relatively low (Stockton, 2018). This is caused by several factors, such as limited access to quality education, ineffective teaching methods, and low interest and motivation to learn foreign languages. Apart from that, everyday environments that do not support foreign language practice also worsen people's language skills. This condition not only limits individual opportunities in the world of education and employment, but also hinders Indonesia's competitiveness in the era of globalization which demands cross-cultural and linguistic communication skills.

According to the EF English Proficiency Index 2023 (EF EPI 2023), Indonesia is ranked 79th out of 113 countries, which shows that the English language skills of Indonesian people are still relatively low (Persiana, 2023). With an average score of 469, Indonesia is in the middle ability category and continues to strive to improve its English language skills to be able to compete globally. Based on the same data, Java Island recorded the highest level of English proficiency in Indonesia, with Jakarta and Surabaya as the cities with the best proficiency. In contrast, the Papua region is in the lowest position in terms of English proficiency. This index was compiled based on tests involving 2.2 million participants from various countries, with around 55 percent of participants coming from the group of women aged between 18 and 60 years, the average age is 26 years. This data shows that there are quite significant gaps both at the national and inter-regional levels, reflecting the big challenges in equalizing English language mastery in Indonesia. This highlights the urgent need for a more strategic and inclusive approach to improving the foreign language skills of society as a whole.

Currently, various breakthroughs have been made to make it easier for Indonesian people, especially pupils and students, to learn English. One innovation that is becoming increasingly popular is app-based learning platforms such as Duolingo. With a practical and interactive approach, Duolingo offers a fun learning experience that can be accessed anytime and anywhere, making it a solution for those who want to improve their English skills without the limitations of place and time (Vesselinov & Grego, 2012). The existence of this application provides a new alternative in learning English, especially in strengthening vocabulary mastery which is the basis of language skills.

Duolingo is a language learning platform designed for all ability levels, from beginner to advanced (Shortt et al., 2023). This application offers various excellent features, such as game-based lessons that make the learning process fun, adaptive learning modules according to user abilities, and a reward system that motivates users to continue learning. Additionally, Duolingo uses a micro-learning approach that allows users to learn English in short sessions, making it ideal for students with busy schedules. In the context of higher education, Duolingo is relevant because it supports students in strengthening their vocabulary mastery, reading, writing, listening, and speaking skills, all of which are important for their academic and professional success. This application also provides flexibility in independent learning, making it an effective tool to complement formal classroom learning.

After conducting qualitative and quantitative research, the frequency of use of Duolingo by students varies depending on individual needs and motivation. In everyday life, many students use this application to study flexibly between their activities, such as waiting for class or during breaks. Some students use it consistently, for example 15-20 minutes every day, to

maintain a study routine. However, there are also those who use it only when exams are approaching or when they need to improve their English skills for certain academic assignments. This phenomenon reflects that even though Duolingo provides easy access, its effectiveness still depends on user discipline.

Students usually use Duolingo to learn vocabulary through interactive exercises designed to introduce and repeat new words in the context of sentences. Some features such as "Strengthen Skills" or thematic vocabulary modules help users memorize words relevant to specific situations, such as travel or academics. The time spent studying on Duolingo is directly proportional to the progress in vocabulary mastery. Students who spend more time tend to show more rapid improvement, while those who study sporadically may experience slower progress. Case studies of students who use Duolingo regularly show that they are more confident in understanding academic texts, writing essays, and communicating in English, highlighting the importance of consistency in using this application.

Questionnaire Results

In this research, a questionnaire was used to determine students' perceptions of the questions given. The first question was designed to explore whether English was perceived as a challenge in the memorization process. There were students who agreed that English could be a challenge to memorize, namely 60%, then 36.7% said they strongly agreed, and 3.3% said they were neutral. Based on this data, the majority of students, namely 96.7% (60% agree and 36.7% strongly agree), consider English as a challenge in the process of memorizing vocabulary. Only 3.3% of students had a neutral attitude, indicating that almost all respondents had the perception that mastering English, especially in the memorization aspect, requires significant effort.

The second question aims to find out whether mastery of English vocabulary is considered very important for progress in learning English. From a total of 30 samples, 66.7% or 20 respondents said they strongly agreed, 26.7% said they agreed, and 6.7% said they were neutral with this statement. The majority of respondents (93.4%, a combination of those who strongly agree and agree) believe that vocabulary mastery plays an important role in supporting progress in learning English. Only a small majority (6.7%) were neutral, indicating that almost all respondents recognized the importance of vocabulary as the basis of effective English language skills.

The third question aims to find out whether students like the Duolingo application because it allows them to study anytime and anywhere. This is also related to students' perceptions of Duolingo as an application that helps in mastering vocabulary. Of the total respondents, 46.7% said they strongly agreed, 36.7% said they agreed, and 16.7% said they were neutral. The majority of students (83.4%, a combination of those who strongly agree and agree) like Duolingo because of its flexibility in supporting vocabulary learning anytime and anywhere. A small majority of students (16.7%) were neutral, which shows that in general this application is assessed positively as a learning aid. These results underscore Duolingo's superiority in providing easy access that is relevant to student needs.

Next, the fourth question aims to find out whether students feel Duolingo is very easy to use. As many as 40% said they strongly agreed, 40% said they agreed, 16.7% said they were neutral, and 3.3% said they disagreed. Most students (80%, a combination of strongly agree and agree) found Duolingo very easy to use. Only a small majority (16.7%) were neutral and 3.3% said they disagreed. This shows that Duolingo is generally well received by students, especially regarding its ease of use as a language learning application.

The fifth and sixth questions aim to find out whether the material or information provided by Duolingo is easy for students to understand and whether students understand the language used in the Duolingo application. 38.35% said they strongly agreed, 48.3% said they agreed, and 13.35% said they were neutral. Most students (86.6%, a combination of those who strongly agreed and agreed) felt that the material and information provided by Duolingo was easy to understand and they understood the language used in the application. Only 13.3%

said they were neutral, indicating that in general Duolingo succeeded in conveying learning material clearly and understandably for the majority of students.

The seventh question is to ascertain whether students really like using the Duolingo application because it makes learning English more fun and interesting. As many as 40% of students said they strongly agreed, while 43.3% said they agreed, 10% said they were neutral, while 6.7% said they disagreed. The majority of the students, 83.3%, feel that Duolingo has made learning English more fun and interesting. Only 10% were indifferent, and 6.7% opposed, while all others regarded this application as being successful in creating an enjoyable learning environment for the majority of the students.

The eighth to the eleventh questions aimed at exploring the extent to which students use Duolingo to practice various English language skills such as reading and writing vocabulary, listening, speaking, learning grammar or vocabulary structures, and translating words and sentences. Analysis indicated that 28.3% of students strongly agreed, 49.2% agreed, while 18.3% were neutral, and only 4.2% disagreed. The majority of the students, 77.5%, were those who strongly agreed and agreed that they frequently use Duolingo to practice these aspects of the English language. On the other hand, 18.3% were neutral, presumably due to uncertainty or inconsistent usage. Only 4.2% felt that the app was less helpful in improving their English skills. These findings show that the majority of students perceive Duolingo as helpful for practicing and developing comprehensive English language skills. The application is interactive, with a variety of features focusing on different aspects of the language, enhancing not only vocabulary acquisition but also grammar, speaking, listening, writing, and translation skills. This makes Duolingo flexible and relevant in learning English to support student needs.

Next, question number 12 had to do with the students' experience of using the Duolingo app to enrich their vocabulary. The results showed that 26.7% strongly agreed, 60% agreed, 10% were neutral, and 3.3% strongly disagreed. A majority of students, 86.7%, felt that Duolingo was effective in enriching their vocabulary—a combination of the strongly agreed and agreed. Only 10% were neutral, probably due to a lack of certainty or inconsistency in usage patterns. Another 3.3% strongly disagreed that the app was helpful for improving vocabulary. From this, it can be presumed that the majority of students have derived positive benefits from the Duolingo app in improving their English vocabularies. Most consider the app to be a very beneficial tool in learning and memorizing new words; thus, this is where its strength lies in vocabulary development. This suggests that Duolingo is a helpful tool for students in developing their proficiency in the language, particularly in their vocabulary acquisition.

From the analyses of 12 statements, it was found that 85.95% of the students were positive about using the Duolingo app in improving their English vocabulary. The high percentage indicates that the app has been useful in solving student problems, where many students reported its use as quite impressive and easier to study. Neutral responses accounted for 11.87%, indicating that while they do not hold strong opinions, they know the app can achieve its goal of language learning. Another 2.18% disagreed, meaning only a small group of students was unconvinced about the app's effectiveness in language learning.

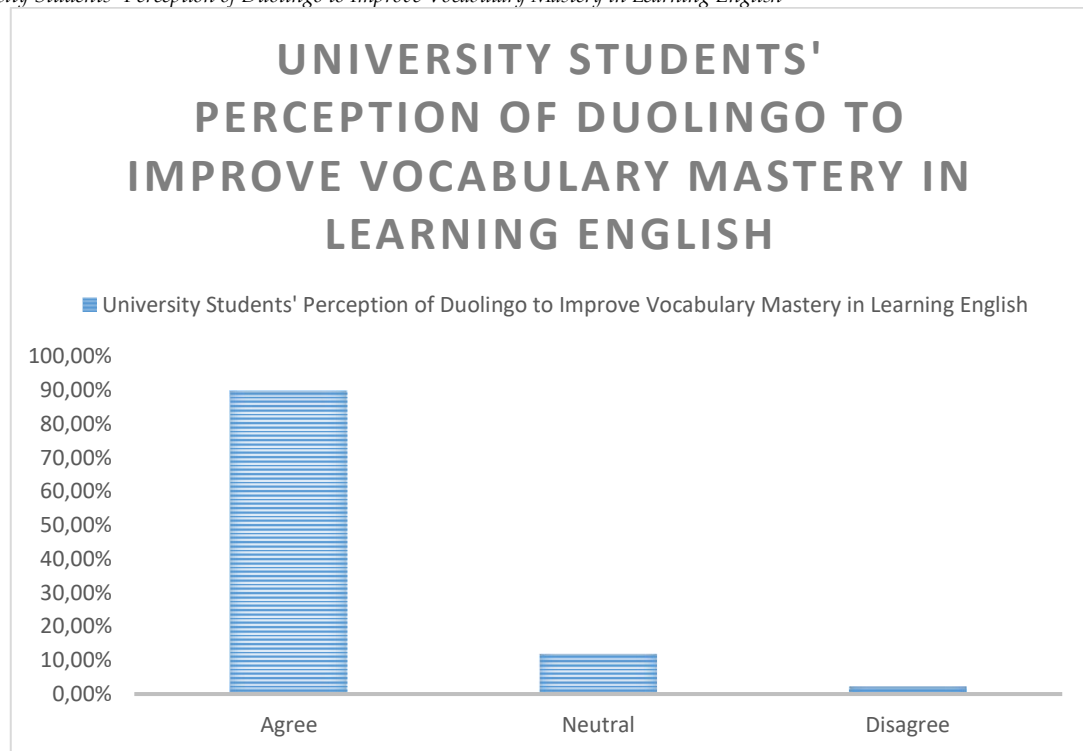


Figure 1. Questionnaire Results

Interview Results

Researchers conducted interviews with three respondents who used Duolingo as a digital English learning medium to enrich vocabulary. This interview aims to dig deeper into the respondents' experiences and perceptions of the application. The five respondents involved in this interview were Lutfi Nuraeni, Sefti Yuliana, and Dannu Putro, all of whom are active students with various educational backgrounds. Each respondent was asked to provide their perception regarding the effectiveness of Duolingo in improving English language skills, especially in terms of vocabulary mastery.

The first question was "What positive aspects and benefits do you feel when using the Duolingo application to improve your mastery of English vocabulary?" This question aims to find out how students perceive the benefits of using the Duolingo application. Lutfi Nuraeni answered as follows "Duolingo is fun because it uses game-based learning methods, so learning is more fun and not boring. Apart from that, this application also has a repetition system which makes it easy for me to remember the vocabulary I have learned. The best thing is, I can study anytime and anywhere, according to my free time." This is also similar to Sefti Yuliana's statement, he added "Duolingo is really helpful for learning vocabulary because the learning method is fun and interactive. Every practice there is always immediate feedback that lets me know whether I have mastered the vocabulary correctly or not. I've noticed that I don't just learn words and forget them. Instead, Duolingo's spaced repetition means that I constantly revisit words I've learned in new contexts. This method really helps me retain what I've learned" Then Dannu Putro also said "Duolingo helps me learn English vocabulary in a way that is fun, easy to understand, and accessible every day. Repeated practice makes me memorize quickly, and features like points and challenges make learning more fun and consistent."

Based on the answers from the three respondents, it can be concluded that the Duolingo application is considered effective in improving mastery of English vocabulary. They appreciate game-based learning methods, which make learning more fun and less boring. In addition, the repetition features, direct feedback, and challenges in the application are proven to help them remember vocabulary better. Duolingo also provides the flexibility to learn anytime and anywhere, which greatly supports smooth language learning.

The second question seeks to find out what shortcomings or challenges you face when using the Duolingo application in the process of learning English. The three respondents gave different answers. Lutfi Nuraeni answered "Users are limited, what is meant by limited is that not everyone can access Duolingo. For example, people who are technologically clueless, people who don't have gadgets, and don't have proper internet." Then, Sefti Yuliana also answered "The downside is that sometimes the translation of each word is a bit ambiguous and confusing. In the previous lesson it was correct, sometimes after it it was wrong. "The challenge is that we have to study English diligently every day so we can maintain points so we don't repeat ourselves from the beginning." Finally, Dannu Putro added "The shortcomings of Duolingo that I feel include a lack of in-depth grammar explanations, exercises that feel repetitive, and sometimes requiring a stable internet connection."

From the answers given by the three respondents, there were several shortcomings and challenges they faced when using the Duolingo application in the process of learning English. Lutfi Nuraeni highlighted accessibility issues, such as limitations on users who do not have devices, internet access or technological skills. Sefti Yuliana revealed that word translations in Duolingo sometimes feel ambiguous and confusing, and it is a challenge to consistently study so as not to lose points. Meanwhile, Dannu Putro felt that Duolingo lacked in-depth grammar explanations, exercises seemed repetitive, and depended on a stable internet connection. However, these shortcomings do not detract from the overall benefits of the application, but remain challenges that need to be addressed to improve the user experience.

From the results of this interview it can be concluded that From this interview, it was found that the three respondents felt that Duolingo was effective in improving their vocabulary mastery. They appreciate the game-based learning method which makes learning more fun and less boring, as well as the repetition and direct feedback features which help remember vocabulary. Apart from that, the flexibility of the application which allows them to study anytime and anywhere is also an added value. However, respondents also revealed several shortcomings and challenges they faced. Lutfi Nuraeni highlighted accessibility issues, such as limited devices and internet access. Sefti Yuliana revealed that word translations are sometimes ambiguous and it is a challenge to remain consistent in studying so as not to lose points. Meanwhile Dannu Putro felt a lack of in-depth grammar explanations and repetition in exercises, as well as dependence on a stable internet connection. Despite some drawbacks, Duolingo is still considered useful overall, with challenges that need to be addressed to improve the user's learning experience.

Student Perception Findings

The findings indicate that the effectiveness of Duolingo in enriching students' English vocabulary is perceived positively by the majority. Most participants agreed that studying using Duolingo was more enjoyable and entertaining due to its interactive, game-based approach. Students liked how the structure encouraged the functionality of the app, with the gamification elements serving to motivate them to be more consistent in learning. Besides this, most participants in the interview pointed out that the most favorable factor is the freedom given by Duolingo, which enables it to be used at any time and from any location. According to them, this is a very critical advantage for maintaining regular learning speed and improving vocabulary retention. In fact, the possibility of practicing language competencies in short, series of sessions helped students more easily incorporate language learning into daily practice.

Moreover, the repetition system, immediate feedback, and challenging features in the app were other important elements enhancing the students' mastery of vocabulary. Such functions make it possible for the learner to revise the newly acquired words, which is very important for their long-term memorization. Immediate feedback after every exercise showed them where they went wrong and could correct it on the spot, so they always continued on a path of improvement in their language. Besides, the challenges included gaining points and leveling up, which also served as a motivator for students when doing difficult exercises. The

feedback was also good because Duolingo was easy to use and had a user-friendly interface; most students had been satisfied with the design and functionality of the app.

However, despite the generally positive experience, a number of challenges were raised in the responses of students. Some participants noted a few limitations in accessibility, especially for participants who do not have appropriate devices or internet access. These limitations make the app difficult for some students to use; hence, such students will have less regular learning. Students also noted that word translations provided in Duolingo were sometimes ambiguous, hence causing confusion and incorrect understanding of certain terms. Furthermore, the way the app was approaching the grammatical explanation was noted as its limitation by some users, who said more comprehensive grammatical insights could help learners develop their language learning comprehensively. Though these setbacks are major, they do not make a great difference to the app's general gains it replaces with such an advantage. The positive feedback regarding Duolingo's interactivity and flexibility suggests that, despite these limitations, Duolingo does indeed provide a valid support for vocabulary improvement in English and that by solving such issues, the tool could be further optimized.

Some of the challenges identified include that some users, especially those with limited access to devices or a stable internet connection, may face access issues. Also, a few students said they noticed that sometimes word translations were inconsistent, and grammatical explanations were sparse and superficial, which could be a problem to achieve higher language proficiency. Despite these downsides, Duolingo's overall positive effect on the acquisition of vocabulary was clear; the app might consider such drawbacks for future improvements in order to be more functional and pleasant.

These findings correspond to other works that have touched on Duolingo's contribution to vocabulary retention and enhancing the motivation of learners through game-based mechanisms. Studies by Irzawati & Unamo (2023) emphasize such features as effective in engaging learners. However, other research works identified methodological weaknesses like limited sample sizes and short testing periods, implying that this is an area that might require further research to establish the effect of Duolingo on learning outcomes. These findings give further credence to Duolingo as a potentially valuable tool in language learning, while at the same time pointing out the need for future studies to refine and extend these preliminary findings.

CONCLUSIONS

The linguistic challenges in Indonesia, particularly in mastering foreign languages like English, remain significant despite the inclusion of English in early education. Issues such as poor educational quality, ineffective teaching methods, low motivation, and unsupportive environments hinder language proficiency and affect competitiveness globally. Indonesia's 79th ranking in the 2023 EF English Proficiency Index highlights these struggles, with disparities between regions like Java, where urban areas excel, and places like Papua, which lag behind. Innovative tools like Duolingo offer potential solutions, providing engaging, game-based, and flexible modules that help students, especially in vocabulary mastery, through repetition, feedback, and interactive challenges. However, barriers like limited internet access, occasional translation ambiguities, and insufficient grammar depth need addressing. Despite these limitations, most students report positive outcomes with Duolingo, emphasizing its potential for enhancing English proficiency if further refined and made more accessible.

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