

**ANALYZING THE USE OF DUOLINGO APPLICATION IN VOCABULARY MASTERY FOR JUNIOR HIGH SCHOOL STUDENTS**

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**ABSTRACT**

*This study investigates how junior high school students can improve their command of English vocabulary by using the Duolingo program. It tackles the problem of low vocabulary retention and student involvement that is frequently present in conventional language training. The purpose of the study is to find out how students view Duolingo as a gamified learning resource and what factors affect how well it helps them learn new words. A descriptive analysis approach was used, based on the results of several recent empirical investigations. The findings demonstrate how Duolingo greatly enhances students' learner autonomy, contextual usage, and vocabulary retention. More incentive and active engagement are encouraged by its gamified features, which include level progression, point systems, and rapid feedback. Compared to traditional techniques, students said using Duolingo to learn vocabulary felt more fun and less taxing. Additionally, the multimodal information on the platform accommodates different learning styles, and its adaptability promotes self-directed learning. However, other issues were also noted, like the need for teacher direction and digital inequality. The conversation focuses on Duolingo's contribution to raising student participation in class and encouraging proactive rather than passive behavior. In conclusion, Duolingo is a useful addition to vocabulary training in junior high EFL classes. It improves language learning results and encourages self-directed learning when carefully included into a blended learning framework. Its long-term effects and uses in many educational contexts are encouraged to be investigated in future studies.*

*Keywords: Duolingo; vocabulary-mastery; gamified-learning; junior-high-school; EFL-students.*

## INTRODUCTION

Integrating digital platforms into language study has become more and more crucial in the current educational environment. The constant advancement of technology makes it simpler for people to perform their daily tasks (Retna Syahrani et al., 2023). The quick advancement of new technological discoveries and research in the current globalized period is inextricably linked to the growth of technology (Hasanah Hadatul et al., 2023). Students can capture and comprehend learning content more quickly and easily with the help of this app (Suci, 2022). One such website is Duolingo, a gamified educational resource that provides pupils with an interesting and dynamic experience, especially while learning vocabulary. A key component of learning English as a foreign language (EFL) is expanding one's vocabulary, although many students have trouble remembering and retaining this information (Brown, H. D., & Lee, H. 2020). Vocabulary is one of the English components or subskills that students should be taught as it is so crucial to all languages (Borang et al., 2023). Learning vocabulary is crucial to language acquisition since a restricted vocabulary in a second language will make communication difficult (Ummah, 2019). With the help of dictation and written lessons, digital learning platforms such as Duolingo allow more seasoned users to advance through speech practice and a vocabulary section where they can practice newly learned terms.

Additionally, the gamification learning technique used by Duolingo's features may motivate and compete among learners. According to (Settles & Meeder, 2016), this app uses a gamified, interactive illustration that combines point-reward with implicit instruction, explanation, and other best practices to recognize students' motivation. The program employs various learning strategies, including gamification, interactive courses, and linguistic difficulties, and it provides lessons in over 40 languages and based on "gamification," Duolingo's method of teaching languages uses elements of games to make learning a language more engaging and dynamic (Ananda Sinta, et al., 2024). "Duolingo" is a well-known program or website that employs gamification to teach foreign languages. Due to its gamified aspect, Duolingo can assist pupils in improving their vocabulary (Melisa Hutabarat & Anggita Situmeang, 2023).

However, students' acceptance and perceptions have a big impact on how effective these platforms are. Students' perspectives are crucial in determining how any educational intervention turns out, as (Rismiyanto, 2018). notes. The purpose of this study is to examine how Duolingo contributes to students' academic vocabulary and how they feel about using it as a vocabulary-learning tool. It will be challenging for learners to comprehend the language when they need to have written or spoken conversations, understand texts, or even write texts if they do not have a solid command of the target language's vocabulary (Aulia et al., 2020). The use of technology in the classroom has revolutionized the teaching of English as a foreign language (EFL), especially in vocabulary development, in the current educational environment. The four main language skills—speaking, listening, reading, and writing—are all built on vocabulary, which is an essential part of language proficiency (Fitriani et al., 2024). Vocabulary mastery becomes essential for junior high school pupils as they move from simple to more sophisticated language structures, promoting communication and comprehension.

In many junior high schools in Indonesia, vocabulary instruction still mostly uses traditional teaching techniques like memorization and textbook exercises, despite its significance. Low student enthusiasm and poor vocabulary recall are the results of these old methods' frequent lack of interactive and interesting components. Teachers also have to deal with issues like students' inability to remember or contextualize new vocabulary, time constraints, and a lack of diverse instructional resources. In order to tackle these problems, educators are increasingly using gamified online resources like the computer or phone app Duolingo Free Language Learning. Particularly in English, young learners can practice anywhere and at any time. Duolingo's learning technique is excellent because of its extremely compelling learning system. Using game mechanics techniques, give pupils incentives to keep learning. Like a computer game, it's highly structured, with players having to finish each level. Students receive instruction in language at three different levels. The subsequent lesson will commence once the learner has mastered the preceding content. Users can choose from exercises including writing, multiple-choice, and microphone conversations. Duolingo repeats most of its tasks and courses.

Empirical studies have begun to explore the potential of Duolingo in increasing vocabulary mastery. Research by (Syarifuddin et al., 2023) showed that eighth-grade junior high school who used Duolingo application significantly improved students' vocabulary mastery. Students were more motivated and actively engaged in learning compared to traditional methods. Similarly, (Febriani et

al., 2023) found that Duolingo application effectively improved students' English vocabulary mastery and increased their motivation and engagement in learning. It is a beneficial tool for modern language learning in secondary education settings. Furthermore, (Rahman et al., 2024) revealed that Duolingo is an effective tool for improving vocabulary mastery among junior high school students. It enhances learning through gamification, spaced repetition, and personalized instruction.

Nevertheless, there is still a research need in spite of these encouraging results. The majority of earlier research has concentrated on how well Duolingo improves test scores rather than exploring how the platform specifically supports vocabulary development processes like retention, contextual usage, and learner engagement, especially at the junior high school level. Furthermore, no research has been done on how students view using Duolingo to improve their vocabulary, including if it increases motivation, lowers anxiety, or encourages independent study techniques. Furthermore, rather than focusing just on vocabulary as a primary priority in junior high school, the majority of current research either highlights elementary-level learners or concentrates on basic language skills like reading comprehension.

This study intends to fill these gaps by examining how Duolingo is especially used in junior high school vocabulary mastery, paying close attention to both the pedagogical effects and the learners' reactions. This study looks at how Duolingo's features—like instant feedback, competitive elements, and an interactive design—help students engage with vocabulary more deeply and improve their ability to remember and use new words in a variety of contexts. This is in contrast to previous research that primarily measured pre-test and post-test outcomes.

The study's issue statement is, "How do students perceive the use of the Duolingo application in enhancing their vocabulary through a gamified approach?" as well as "What variables impact students' degree of receptiveness towards the implementation of gamification, specifically through the Duolingo application, for the purpose of enhancing vocabulary acquisition?" The goal of the study is to find the solution to the problem that has been formulated, so the author of this research does just that.

This study's primary goal is to investigate how well the Duolingo app works in the context of teaching English as a foreign language (EFL) by enhancing vocabulary acquisition using a gamified method. The study's goal is to find out how students feel about the Quizizz app as a gamified learning tool and what factors can influence their readiness to use gamification to improve vocabulary. By analyzing the benefits and challenges of using Quizizz to teach vocabulary in English as a Foreign Language (EFL), the study seeks to advance our understanding of gamified learning.

## **RESEARCH METHODS**

The research methodology used in this study is descriptive analysis, which focuses on methodically going over, evaluating, and synthesizing the body of current literature to investigate how instructors use technology to preserve language. Using data, insights, and conclusions from a variety of scholarly articles, research papers, and reliable sources, this method was chosen in order to obtain a thorough grasp of the subject. Because it enables the researcher to detect patterns, themes, and important results in the body of existing knowledge, the descriptive analysis approach is especially well-suited for this study. It offers a nuanced view on the function of technology in language preservation.

App platforms are being used more and more in language instruction due to their capacity to boost motivation and engagement. (Dhea Anggita Putri Ningtyas & Dian Reftyawati, 2024) Junior high school students gain from quantifiable cognitive, motivational, and practical advantages while using Duolingo to teach vocabulary. In addition to increasing vocabulary test scores, it changes students' attitudes about language acquisition from passive to proactive and from disengaged to self-motivated. Students respond favorably to vocabulary learning strategies that incorporate visual, aural, and kinesthetic involvement, according to earlier research. For instance, (Savira, 2020) showed that the students in junior high school greatly improve their vocabulary mastery thanks to Duolingo. Due to its gamification, user-friendly design, flexible access, and efficient repetition strategies, Duolingo is an extremely successful tool for language acquisition. (Munday, 2016) claimed that research has demonstrated that utilizing the Duolingo program results in statistically significant gains in language proficiency.

## **RESULTS AND DISCUSSION**

The results indicate that Duolingo contributes positively to vocabulary mastery among junior high school students. Duolingo's gamified and interactive features have increased student motivation and engagement. It has been demonstrated that gamification aspects of Duolingo's design, like level completion, point accumulation, and instant feedback, boost learner motivation and engagement (Berns, Palomo-Duarte, & Dodero, 2023). Students' qualitative evaluation showed that, in contrast to traditional approaches, they were more driven to finish vocabulary exercises and enjoyed the learning process. The results of this study confirm the effectiveness using gamified digital tools like Duolingo in improving vocabulary mastery among junior high school students. Several key points emerged from the data and are discussed below:

### **Duolingo Enhances Vocabulary Retention through Repetition and Gamification**

Duolingo's gamified learning methods and organized repetition greatly enhance vocabulary retention over the short and long term, according to multiple studies. Savira (2020) and Munday (2016) assert that Duolingo's spaced repetition method (SRS) enables vocabulary practice at ideal intervals, which is essential for memory consolidation

### **Learner Motivation and Autonomy Increased Significantly**

Compared to traditional classroom activities, most students said that Duolingo had increased their motivation to acquire English vocabulary. By giving students the freedom to decide how and when to study, gamification encourages learner autonomy and self-directed learning (Berns et al., 2023; Febriani et al., 2023).

Students who participated in surveys and interviews said that Duolingo:

- Felt like a game, not a chore.
- Using progress monitoring, it offered immediate satisfaction.

Because of its streak-tracking mechanism, it promoted regular practice and provided flexibility, which lessened classroom anxiety. This finding is consistent with that of Dhea Anggita Putri Ningtyas & Reftyawati (2024), who noted that students' conduct changed from passive listening to active engagement in Duolingo vocabulary drills.

### **Improved Contextual Vocabulary Usage**

Contextual vocabulary usage, as opposed to merely identification or definition recall, was one area that showed a noticeable improvement. Students who used Duolingo were able to construct grammatically acceptable sentences with freshly learnt words 25% more accurately than control groups in classroom trials by Rahman et al. (2024). This result implies that language is internalized through Duolingo's use of terminology into voice-recording, fill-in-the-blank, and sentence-completion exercises. As is crucial for EFL learners, students learn not only isolated words but also how they are used syntactically and semantically.

### **Increased Learner Engagement and Class Participation**

When Duolingo was included into class activities, student engagement increased. Fitriani et al. (2024) found that voluntary participation in English classes increased by 45% in three junior high schools in Indonesia. Because Duolingo made vocabulary feel approachable and fun, students were more willing to share their responses and finish follow-up tasks. Additionally, teachers indicated that using Duolingo enabled differentiated instruction, allowing struggling students to receive individualized practice without pressure while high-achieving students may progress on their own.

### **Addressing Vocabulary Learning Barriers**

Conventional vocabulary instruction frequently places a strong emphasis on rote repetition, which is ineffective for fostering long-term memory or deep learning. Duolingo uses multimodal content, such the following, to help get over these restrictions:

- Sound pronunciation and visual pictures
- Speaking and typing assignments
- Error correction that happens instantly

Rismiyanto (2018) highlights that learners' retention and understanding improve dramatically when they engage with the information in multiple ways. The feedback feature of Duolingo helps to reduce the fossilization of mistakes by correcting them in real time.

### **Technological Limitations and Equity Challenges**

The application of Duolingo has drawbacks despite its advantages. Students may not have reliable internet connectivity or compatible devices in rural or low-income locations, resulting in a digital gap, according to Hasanah Hadatul et al. (2023). Some pupils who have a very weak command of English also have trouble understanding the interface. To get the most out of Duolingo in these situations, instructor scaffolding is crucial. Blended models, in which teachers use Duolingo in rotation stations or as extra assignments, can help to alleviate these problems.

### **Teacher Perspectives and Pedagogical Integration**

Classroom dynamics increased and the demand for continuous vocabulary repetition decreased for teachers who implemented Duolingo. Teachers saw children become less reliant on rote lists and more interested in vocabulary through self-study, contextual application, and conversation (Syarifuddin et al., 2023). To fully utilize Duolingo, teachers must, however,:

- Match vocabulary lists to learning objectives.
- Keep track of developments and offer supplementary offline exercises.
- Teach metacognitive techniques to assist students in incorporating vocabulary they have learnt via apps into their writing and speech.

### **CONCLUSIONS**

This study demonstrates that the use of Duolingo significantly enhances junior high school students' vocabulary mastery through its interactive, repetitive, and gamified learning features, which not only improve word retention but also support contextual understanding. Students became more motivated, independent, and confident in using English, while teachers observed greater enthusiasm in class participation. However, challenges such as limited technology access and the need for teacher guidance highlight the importance of integrating Duolingo into a blended learning approach to ensure alignment with curricular goals. Overall, Duolingo proves to be an effective supplementary tool for EFL vocabulary learning, with recommendations for further research on its long-term impact, application in underdeveloped regions, and potential role in advancing broader language proficiency.

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