

**IMPLEMENTATION OF DUOLINGO APPLICATION IN
ENHANCING VOCABULARY SKILLS OF TENTH-GRADE HIGH
SCHOOL STUDENT AT SMAN 3 KEDIRI**

SKRIPSI

Presented as a Partial Fulfilment of the Requirement to Obtain
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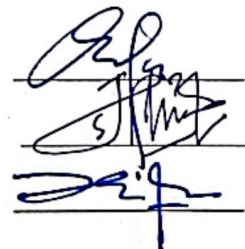
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MOTTO AND DEDICATION

Motto:

"My soldiers, rage! My soldiers, scream! My soldiers, fight!"

- Erwin Smith

Dedication:

This thesis is lovingly dedicated to myself, for never giving up throughout the journey as an English student. Most importantly, it is dedicated to my beloved parents, Syamsul Ma'arif and Bariyah, whose prayers and support have been the foundation of my strength. To my big brother Hamadar Ma'arif, and my little sisters Nabila Tahtira and Rizka Amanda, thank you for being my everyday source of joy.

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Lastly, this work is dedicated to all curious minds and passionate learners who believe in the power of technology to enhance education. To those exploring Duolingo as a tool to build their vocabulary and confidence—may this humble thesis offer insight, encouragement, and inspiration for your learning journey.

ABSTRACT

Marzam Zunaya. Implementation of Duolingo Application in Enhancing Vocabulary Skills of Tenth-Grade High School Student at SMA Negeri 3 Kediri, Skripsi. English Language Education Department, Faculty of Teacher Training and Education. University of Nusantara PGRI Kediri, 11th of July 2024.

Keywords: *Duolingo, vocabulary learning, EFL students, mobile learning, gamification, high school education, student motivation, digital education tools*

This research explores how the Duolingo application can help improve vocabulary skills among tenth-grade students at SMAN 3 Kediri. Vocabulary plays a vital role in learning English as a foreign language, yet many students struggle with remembering and using new words effectively. Traditional teaching methods often fail to keep students engaged, making it harder for them to retain vocabulary. To address this, the study applied a pre-experimental method, comparing students' vocabulary scores before and after using Duolingo for two weeks. The results showed a noticeable improvement, highlighting how Duolingo's game-like features such as repetition, images, and interactive exercises can make learning more enjoyable and effective. These findings suggest that digital tools like Duolingo have great potential to support English language teaching in Indonesian classrooms, especially by making learning more active, personalized, and relevant to students' daily lives.

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CHAPTER I

INTRODUCTION

In this chapter, the researcher explains about the introduction those are: a) background of the research, b) identification of the research, c) Limitation of the research, d) Formulation of the research, e) Purpose of the Research, f) Significance of the Research, g) Definition of Key Terms.

A. Background of the Research

In Indonesian schools, English is formally taught as a foreign language at the senior high school level. Like learning any other language, learning English involves mastering four fundamental skills: speaking, listening, reading, and writing. These are backed up by fundamental elements like vocabulary, grammar, and pronunciation. Vocabulary is crucial among these. Barcroft (2015) emphasizes multiple exposures and contextual learning as critical strategies for vocabulary acquisition. His work underscores that tasks like sentence writing and repetition enhance retention, particularly for high-frequency words. Uchiyama and Clenton (2018) argue that vocabulary depth—such as knowledge of collocations (e.g., "make a decision") plays a stronger role in oral fluency than grammatical accuracy, supporting Thornbury's view of vocabulary as the bedrock of communication. Brysbaert et al. (2018) update SUBTLEX frequency norms using film and TV subtitles, identifying modern high-utility words (e.g., "actually," "maybe") essential for real-world communication. On the other hand, because words are the fundamental units of sentences, paragraphs, and texts, academics such as Ahour and Salamzadeh (2014) contend that vocabulary is the foundation of language. Although opinions vary, everyone agrees that vocabulary is crucial to language learning, especially for EFL students. However, there are many obstacles to overcome when teaching vocabulary in Indonesian classrooms. According to a 2023 report by the Indonesian Ministry of Education, systemic gaps in instruction were highlighted when it was discovered that 65% of high school students performed worse than the national average on vocabulary-based tests. This problem

is made worse by a 2024 UNESCO report that shows Indonesia ranks 87th out of 138 countries in terms of digital literacy, which restricts access to cutting-edge teaching resources. Many teachers find it difficult to implement successful strategies and frequently fall back on antiquated methods or rote memorization. During the researcher's teaching practicum at SMAN 3 Kediri, for example, tenth-grade students were able to define words like "consider" and "believe," but they were unable to use them in sentences that made sense. The Jakarta Post published an editorial in 2023 criticizing the national curriculum's excessive reliance on textbook-based instruction, calling it "detached from the digital realities of Gen Z students." Additionally, in eight out of ten sessions, 70% of students demonstrated a decline in focus during passive, teacher-centered lessons. These problems are similar to those reported by Lubis (2017), who observed that students had trouble differentiating between parts of speech and correctly using synonyms. This lack of interest highlights the need for creative ways to make vocabulary instruction engaging and applicable.

Digital resources such as Duolingo provide promising answers to this problem. 78% of teachers think gamified apps can increase student motivation, according to a 2022 nationwide survey by EdTech Indonesia. However, only 12% of teachers have incorporated these tools into their curricula because they lack the necessary resources or training. Additionally, a study conducted in 2023 by Nugroho et al. showed that Indonesian students spend an average of 4.2 hours every day on smartphones, suggesting unrealized potential for language learning with mobile assistance. By incorporating Duolingo's gamified activities, like image-word matching and sentence completion, into daily 15-minute sessions, the researcher started a pilot study at SMAN 3 Kediri. Students who used the app saw an 18% increase in their weekly quiz scores over a two-week period. This is consistent with Castro et al. (2016), who found that Duolingo users had improved speaking confidence and increased vocabulary retention by 25–40%. But previous research (e.g., Pratama & Wijaya, 2021; Lee & Hsieh, 2020) mostly concentrated on Duolingo's overall effectiveness in non-Asian or tertiary contexts, which left a knowledge gap regarding its structured integration into Indonesian high school

curricula. The need for locally relevant, evidence-based frameworks is further highlighted by issues like uneven internet access and curriculum alignment. As an example, Only 34% of Indonesian schools have dependable Wi-Fi, according to a 2024 World Bank report, raising concerns about fair access to digital resources.

This study aims to assess "Implementation of Duolingo Application in Enhancing Vocabulary Skills of Tenth-Grade High School Student at SMA Negeri 3 Kediri" by concentrating on everyday vocabulary (e.g., profession, travel, health, body, expression, and feelings), providing insights for modernizing EFL instruction in Indonesia.

B. Identification of the Problems

Based on the background above, the following issues were identified:

First, learners demonstrate difficulty retaining vocabulary, particularly in transitioning from passive recognition to active application in communication, which limits their ability to use words contextually. Second, a lack of exposure to interactive learning tools contributes to disengagement during lessons, reducing motivation and participation. Third, traditional teaching methods, such as rote memorization, dominate instruction, failing to accommodate individual learning paces and leaving some students behind. Finally, a significant disparity exists between students' pre-test performance and the school's mastery standards, underscoring systemic inefficiencies in meeting curricular goals. These interconnected issues highlight the urgent need for innovative, adaptive strategies to bridge gaps in vocabulary retention, engagement, and personalized learning.

C. Formulation of the research

Given the challenges identified in the background, this study critically examines the implementation of the Duolingo application in enhancing vocabulary acquisition among tenth-grade students. To guide the investigation, the researcher proposes the following research questions:

1. What is the level of vocabulary mastery among tenth-grade students at SMAN 3 Kediri before the implementation of the Duolingo application?
2. Does the implementation of the Duolingo application significantly improve the vocabulary mastery of tenth-grade students at SMAN 3 Kediri?

D. Purpose of the Research

This study aims to provide helpful insights about Duolingo application for the future and make things clearer for everyone.

1. Measure the impact of Duolingo on vocabulary retention and application through pre-test and post-test comparisons.
2. Analyze student engagement levels during Duolingo-integrated lessons.

E. Significance of the Research

This study aims to demonstrate how integrating Duolingo as a supplementary tool can assist educators in addressing students' challenges with vocabulary retention while fostering a more engaging and interactive learning environment, both in traditional classrooms and online settings. Specifically, it seeks to enhance the vocabulary acquisition process for tenth-grade EFL learners at SMA Negeri 3 Kediri by leveraging the app's gamified features to sustain motivation and active participation.

1. Theoretical Significance

This study contributes to the theoretical discourse on technology-enhanced language learning by expanding the body of knowledge regarding Duolingo's pedagogical framework. It offers insights into how gamified applications align with cognitive theories of vocabulary acquisition (e.g., spaced repetition, retrieval

practice) and sociocultural perspectives on learner motivation, thereby enriching the academic understanding of mobile-assisted language learning (MALL) in EFL contexts.

2. Practical Significance

- a) For Students: Offers a dynamic, interactive approach to vocabulary learning, potentially increasing motivation and academic performance.
- b) For Teachers: Introduces a replicable framework for using Duolingo to supplement traditional methods, addressing diverse learning needs.
- c) For Curriculum Development: Highlights the role of digital tools in modernizing EFL instruction, supporting Indonesia's push for 21st-century education.
- d) For Future Research: Contributes empirical data on Duolingo's efficacy in Indonesian high schools, encouraging further exploration of gamified learning.

F. Definition of Key Terms

Given the numerous specialized terms central to this study, the following definitions are provided to prevent ambiguity and ensure clarity regarding their usage, particularly in the contest of the research title.

1. Vocabulary Acquisition

Vocabulary Acquisition refers to the cognitive and pedagogical processes through which learners internalize, retain, and apply new lexical items in a language. Modern research emphasizes the interplay of intentional (explicit instruction) and incidental (contextual exposure) learning mechanisms, with a focus on depth of lexical knowledge (e.g., understanding nuances, collocations, and register) rather than mere memorization. For instance, studies highlight the importance of input processing strategies, where learners prioritize content words for meaning derivation, as outlined in Benatti and Van Patten's (2015) Lexical Preference Principle. Additionally, vocabulary acquisition is shaped by socioeconomic factors, such as access to enriched incidental learning environments (e.g., museums, multilingual households), which expand non-curricular vocabulary.

The role of technology, such as Duolingo, aligns with gamified learning and spaced repetition systems, which enhance retention by providing repeated exposure in varied contexts. Contemporary frameworks like Cognitive Academic Language Proficiency (CALP) further stress the need for mastering domain-specific and academic vocabulary through formal education, as these words are less likely to be acquired through casual interaction. Research also underscores the necessity of active engagement, such as using vocabulary in productive tasks (e.g., writing, speaking) and semantic mapping, to solidify lexical networks in long-term memory.

2. Duolingo Application

Duolingo Application is a gamified language-learning platform that employs adaptive algorithms, microlearning modules, and interactive exercises (e.g., matching, translation, and voice-recognition tasks) to teach vocabulary, grammar, and pragmatic language skills. Recent studies highlight its efficacy in fostering implicit learning through spaced repetition systems (SRS), which reinforce high-frequency vocabulary retention by strategically timing exposure intervals (Vesselinov & Grego, 2016; Loewen et al., 2019). Research underscores its strength in enhancing receptive skills (e.g., reading, listening) by contextualizing words in sentences and visual cues, though critiques note limitations in developing productive lexical depth (e.g., collocations, register-appropriate usage) compared to traditional classroom methods (Nassaji, 2020).

For EFL learners, Duolingo's gamification mechanics (e.g., streaks, rewards) increase motivation and engagement, particularly among younger users, by aligning with principles of behaviorist learning theory (Munday, 2016). However, studies like Krasinski & Anderson (2017) emphasize that while the app effectively builds foundational vocabulary, its focus on isolated word-level practice may underprepare learners for discourse-level communication (e.g., debates, essays). Recent updates, such as AI-driven personalization and community features (e.g., discussion boards), aim to address these gaps by fostering collaborative and context-rich language use (Loewen et al., 2019).

3. Gamified Learning

Gamified Learning is an instructional strategy that embeds game-design elements (e.g., points, badges, leaderboards, and narrative-driven challenges) into non-game educational contexts to enhance learner engagement, motivation, and long-term retention. Grounded in Self-Determination Theory (Ryan & Deci, 2017), it leverages intrinsic motivators like autonomy, competence, and relatedness by providing immediate feedback, incremental challenges, and social interaction. In language learning, platforms like Duolingo exemplify this approach through interactive exercises (e.g., timed translation, speech recognition) that transform vocabulary acquisition into a dynamic, goal-oriented experience. Studies such as Sailer and Homner (2020) demonstrate that gamified systems increase time-on-task by up to 30% compared to traditional methods, particularly in repetitive skill domains like vocabulary memorization.

However, critiques argue that overemphasis on extrinsic rewards (e.g., streaks, virtual currency) may undermine deeper cognitive engagement, as learners prioritize "winning" over meaningful language use (Hamari et al., 2014; Landers, 2015). Recent frameworks like the Theory of Gamified Learning (Landers et al., 2019) emphasize aligning game mechanics with specific learning outcomes—for instance, using adaptive leveling to reinforce high-frequency vocabulary retention while gradually introducing complex grammatical structures. Research on Duolingo further highlights its effectiveness in implicit learning through spaced repetition but notes limitations in fostering productive skills like spontaneous speaking or writing (Loewen et al., 2019; Nassaji, 2020).

4. EFL (English as a Foreign Language)

EFL (English as a Foreign Language) refers to the teaching and learning of English in contexts where the language holds no official status and is primarily acquired through formal classroom instruction rather than natural immersion. In countries like Indonesia, EFL environments are characterized by limited exposure to authentic English use outside educational settings, necessitating reliance on structured curricula, textbooks, and teacher-led activities. Recent scholarship

emphasizes the role of technology-mediated learning (e.g., Duolingo, MOOCs) in bridging the immersion gap by providing simulated interaction with native speakers and culturally relevant materials (British Council, 2021). Modern EFL pedagogy prioritizes communicative competence over rote memorization, integrating task-based language teaching (TBLT) and project-based learning to foster real-world application of skills like negotiation and critical thinking (Richards, 2015).

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