



# Implementation of Duolingo Application in Enhancing Vocabulary Skills of Fourth-Grade Elementary Students at SDN Ngadirejo 5 Kediri

Marzam Zunaya<sup>1</sup>, Suhartono<sup>2</sup>

<sup>1,2</sup>University of Nusantara PGRI Kediri, Indonesia  
[suhartono.unp@gmail.com](mailto:suhartono.unp@gmail.com)

## ABSTRACT

*This study investigates the implementation of the Duolingo application to improve English vocabulary acquisition among fourth-grade students at SDN Ngadirejo 5 Kediri. Vocabulary is a foundational component of language learning, particularly for young learners who are at the initial stages of their linguistic development. Using engaging and accessible tools like Duolingo can help to reinforce vocabulary learning in a fun and effective way. This research aims to assess Duolingo's effectiveness in enhancing vocabulary retention, word recognition, and usage skills among elementary school students.*

*This study follows a quantitative approach, involving pre-tests and post-tests to measure vocabulary improvement before and after a structured eight-week intervention period using Duolingo. The sample consists of 30 fourth-grade students who will engage in 15-minute daily practice sessions on Duolingo, focusing specifically on vocabulary-building activities. Results are anticipated to demonstrate measurable vocabulary improvements and to highlight the potential of gamified applications in supporting vocabulary acquisition for young learners. This study aims to contribute to the growing field of technology-assisted language learning in primary education and offers insights into best practices for integrating language-learning apps into elementary curricula.*

**KEYWORDS:** Duolingo, vocabulary acquisition, elementary education, language learning, gamification, English proficiency.

## 1.0 INTRODUCTION

The use of technology in education has grown significantly, and language learning applications are increasingly popular. Among these, Duolingo is known for its engaging and accessible language-learning platform, which includes activities designed to enhance vocabulary skills. This study investigates the implementation of Duolingo to improve the English vocabulary skills of fourth-grade students at SDN Ngadirejo 5 Kediri. The aim is to determine the effectiveness of this tool in enhancing students' vocabulary acquisition and retention.

The use of Duolingo specifically targets vocabulary acquisition by introducing words through visual aids, repetition, and gamified tasks, which makes learning both interactive and fun. Fourth-grade students are at a critical age for language development, making them an ideal group for this study.

## 2.0 LITERATURE REVIEW

Vocabulary acquisition is fundamental to language learning and comprehension. According to Nation (2001: p. 18), vocabulary knowledge directly impacts language skills, including reading, writing, and comprehension. Technology in language learning has proven effective, especially for vocabulary improvement (Godwin-Jones, 2011: p. 5). Duolingo's structured language learning paths



and gamification elements have shown promise in supporting vocabulary learning in various studies (Munday, 2016: p. 31).

Furthermore, studies suggest that elementary students benefit significantly from digital tools that provide interactive learning experiences (Kukulska-Hulme, 2009: p. 48). These tools help students learn in a stress-free environment and increase retention through repetitive and engaging activities.

### 3.0 METHODOLOGY

Third-level headings should be numbered to two decimal points. Please do not go beyond two decimal points for each section.

If further sub-divisions need to be made, please use a different style for the sub-subsections, such as underlining or italicizing the font for the sub-subheadings.

This study was conducted with fourth-grade students at SDN Ngadirejo 5 Kediri, involving a sample size of 30 students. A mixed-method approach was employed, combining quantitative assessments and qualitative observations. The study was divided into three phases: pre-assessment, intervention (Duolingo use), and post-assessment.

#### 3.1 Data Collection

Data were collected over a period of six weeks. The vocabulary knowledge of students was assessed through a pre-test and post-test, each containing a set of 20 vocabulary items. Qualitative observations were recorded to assess student engagement and motivation during the intervention phase.

#### 3.2 Intervention

During the intervention, students used Duolingo for 20 minutes per session, twice a week. They completed vocabulary exercises focused on basic English words suitable for their grade level. These sessions were monitored to ensure students completed each task as intended by the application.

## 4.0 RESULTS AND DISCUSSION

### 4.1 Quantitative Results

The analysis of test scores indicated an average improvement of 25% from the pre-test to the post-test scores. Table 1 shows the distribution of student performance, revealing that 80% of students improved their scores after using Duolingo, with the highest gains in commonly used vocabulary.

Table 1: Student Performance Improvement

Improvement Category	Number of Students	Percentage
High Improvement	12	40%
Moderate Improvement	9	30%
No Improvement	3	10%

### 4.2 Qualitative Observations

Observations revealed that students responded positively to the interactive features of Duolingo. The game-like structure, combined with visual aids, kept students engaged and motivated to complete tasks. Many students reported feeling more confident in recognizing and using the new vocabulary words.



#### 4.3 Discussion

The results suggest that Duolingo is an effective tool for vocabulary enhancement in elementary students, supporting findings from similar studies on digital tools in language learning (Godwin-Jones, 2011: p. 5). The gamified elements particularly benefited younger learners, aligning with research indicating that interactive digital tools improve engagement (Munday, 2016: p. 31)

(3) Reflective observation

(4) Abstract conceptualization

### 5.0 CONCLUSION

In conclusion, the use of Duolingo has proven to be a successful strategy for enhancing vocabulary skills among fourth-grade students at SDN Ngadirejo 5 Kediri. The study highlights the potential of educational technology in language learning, especially when used with structured guidance. Future research could explore the long-term retention of vocabulary and the potential for integrating more advanced vocabulary as students progress.

### REFERENCES



Critser, G. (2007). *Generation Rx: How prescription drugs are altering American lives, minds, and bodies*. New York: Houghton Mifflin.

Godwin-Jones, R. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology*, 15(2), 2-11.

Kukulska-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, 21(2), 157-165.

Munday, P. (2016). The case for using Duolingo as part of the language classroom experience. *Teaching English with Technology*, 16(3), 25-35.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.