

Expediencies of Duolingo in English Language Learning: A Systematic Literature Review

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Abstract	
<p>Article History: Received: 03/06/2025 Accepted: 12/07/2025 Published: 13/07/2025</p> <p>Keywords: <i>Duolingo,</i> <i>EFL Teaching-learning,</i> <i>Advantages</i></p> <p>Kata Kunci: <i>Duolingo,</i> <i>EFL Teaching-learning,</i> <i>Keunggulan</i></p>	<p>In EFL classroom, employing technology in teaching-learning session is inevitable since technology becomes essential. One of the well-known online language learning applications is Duolingo. Thus, this study aimed to discover how Duolingo works as students' learning medium in EFL teaching-learning. The writers attempted to synthesize 5 articles that were linked to Google Scholar with the publish years from 2020-2025 to show the advantages of Duolingo h in EFL teaching-learning. The findings showed that Duolingo allowed the students to have independent learning, improved their vocabulary, English syntax, and spoken scenario. Duolingo was also proven triggering students' metacognitive awareness.</p> <p>Abstrak</p> <p>Dalam kelas Bahasa Inggris sebagai Bahasa Asing, penggunaan teknologi dalam sesi belajar-mengajar merupakan hal yang tak terelakkan karena teknologi menjadi hal yang esensial. Salah satu aplikasi pembelajaran bahasa online yang terkenal adalah Duolingo. Oleh karena itu, penelitian ini bertujuan untuk mengetahui bagaimana <i>Duolingo</i> bekerja sebagai media pembelajaran siswa dalam proses belajar-mengajar bahasa Inggris. Para penulis mencoba untuk mensintesis 5 artikel yang ditautkan ke <i>Google Scholar</i> dengan tahun penerbitan dari 2020-2025 untuk menunjukkan keunggulan <i>Duolingo</i> dalam proses belajar-mengajar Bahasa Inggris sebagai Bahasa Asing. Temuan menunjukkan bahwa <i>Duolingo</i> memungkinkan siswa untuk belajar secara mandiri, meningkatkan kosakata, sintaksis bahasa Inggris, dan skenario lisan. <i>Duolingo</i> juga terbukti memicu kesadaran metakognitif siswa.</p>

INTRODUCTION

The integration of technology is inevitable for this modern civilization. It is validated by the fact that the technologies of storing, manipulating, and disseminating data through both hardware (e.g., smartphones) and software (e.g., email) has been used widely in this modern era (Poudel, 2022). The influences of ICT are not only affecting STEM, but every layer of education fields, like English language study. The integration of ICT for educational purposes is mandatory, driven by the benefits that follow from ICT (Haerazi, 2024). In this situation, teachers are required to be integrated technology with their teaching strategy so that they may bring up the full potential of significant and engaging learning ambiance (Bahari, 2022). Therefore, the learning dynamic may be upgraded by the presence of ICT.

The emergence of game-based learning or gamification approach as a learning approach is one of the upgrade version of EFL teaching-learning session using ICT. This approach designs the game elements and implements it to the non-game-based learning environments (Bacher-Hicks et al., 2021). This approach aims to improve the effectiveness of learning situations by engaging the participation of the students with more interesting and interactive situations (Al-Hafdi & Alhalafawy, 2024). Duolingo is one of language learning mobile applications that implement gamification-based approach. Duolingo focuses on creating effortless yet effective language learning experience for the users (Muttaqin et al., 2025).

In term of implementing Duolingo in EFL teaching-learning, this mobile-assisted language learning (MALL) is proven beneficial. Gualán and Loaiza (2025) state that Duolingo enhanced students' vocabulary retention, improved students' learning motivation due to its gamification-based approach, and gave the opportunity to students to enhance their EFL skills. These were also in line with the research results of Kazu and Kuvvetli (2025) that highlighted the ability of Duolingo in improving the English language skills (listening, speaking, reading, and writing) among students, and also promoting didactic teaching-learning in-class or out-class. However, Humairoh and Martriwati (2025) suggested that in implementing Duolingo in English language learning should be supplemented with

conventional teaching method to optimize the English-speaking surrounding and to expand the vocabulary range to real-talk topics.

This paper examines noteworthy published articles on the influence of Duolingo in teaching and learning EFL by academics in a number of fields, with a particular emphasis on how these necessary studies demonstrate learners' performance in learning EFL. This analysis will help both teachers and students realize the value of Duolingo in teaching and studying EFL. This study is also beneficial to researchers because it paves the way for future studies in the same field.

METHOD

The study employed the systematic literature review method. This method gathers, critically examines, integrates, and aggregates the various results of studies on a research question or topic of interest (Norlita et al., 2023). The writer aimed to gather, examine, integrate, and aggregate the various studies' results related to improving English language studies performance and students' learning motivations by employing Duolingo.

Carrera-Rivera et al. (2022) propose two phases in doing systematic literature review method. They are planning and conducting. The first phase is planning the systematic review by defining PICOC (population, intervention, comparison, outcome, and context) to dismantle the topic to several keywords that help the writer in arranging research questions (Petersen et al., 2015). The writer chose to discover Duolingo's advantages in English language teaching-learning session. The conducting phase was done by gathering the related studies and synthesize their findings. The writer chose 5 articles from various reputable journals that were linked to Google Scholar with the publish years from 2020-2025. The synthesize results were served in a form of table and be discussed afterwards. Lastly, the writer drew conclusions of the analysis.

FINDINGS AND DISCUSSION

The data results of this study are the analysis and documented summary of the articles that related to the effects of Duolingo in EFL teaching-learning. There were 5 articles that had been synthesized. The data results served in a table as follows:

Table 1: Analysis of Selected Articles

Researchers	Title	Results
Ajisoko, P. (2020)	The Use of Duolingo Apps to Improve English Vocabulary Learning	The result showed that Duolingo motivated the students to enhance their vocabulary range. Its practicability usage facilitated the students in understanding the new vocabulary and increased the students' learning intervals.
Wati et al. (2025)	The Effectiveness of Duolingo as A Medium Vocabulary Learning for Vocational School	This quasi-experimental study showed that Duolingo had the potential in improving grade XI AKL/TB students' vocabulary range.
Budiono et al. (2025)	Developing Metacognitive Awareness through Duolingo Application in Enhancing Students' Self-reliance in Learning Speaking	This pre-experimental study demonstrated that using Duolingo to build metacognitive awareness and improve self-learning attitude among high school students was successful. The effectiveness was demonstrated by the large improvement of 12.38 points and the students' positive comments from the interview.
Renova, H. I., & Kurniawan, F. (2025)	English Language Education Students' Use of the Duolingo App in English Learning	The writers found out that students at Language Education Study Program of Muhammadiyah University of Surakarta were satisfied with the use of Duolingo in maintaining motivation and engagement in language learning.
Flores-Delgado et al. (2025)	Using Duolingo in the EFL Classroom: A Study on Effectiveness and Student Perceptions	The authors commented on their findings, stating that from a communicative practice standpoint, Duolingo had a beneficial influence as an additional aid in English language teaching-learning situations in class. These results show that instructional technology has the ability to improve students' EFL competency and engagement.

The article entitled *The Use of Duolingo Apps to Improve English Vocabulary Learning* by Pangkuh Ajisoko (2020) was pre-experimental research with one-group pre-test post-test approach that was held in Indonesia. This research aimed to explore whether there was an effect of Duolingo in expanding EFL students' vocabulary range. The samples of this research were 19 second-semester students of English Education Department of Borneo University of Tarakan in academic year of 2018/2019. Each sample was mandated to get 20 XP per day from daily practicing vocabulary in Duolingo for 30 days. The result showed that after getting treatment, the mean score between pre-test and post-test was raised 0.678. This meant that Duolingo had proven its advantage in expanding EFL students' vocabulary mastery. This result was also in line with the research conducted by Aulia et al. (2020) that showed that Duolingo was effective in teaching vocabulary as the mean score of the experimental group was proven higher than the control group with the 2-tailed score was $0.017 < 0.05$ (had significant effect).

In order to know the reason of the improvement, Ajisoko (2020) also provided a questionnaire that elaborated the students' perceptions on employing Duolingo for vocabulary mastery. The questionnaire revealed that Duolingo gave some advantages in term of enhancing students' learning motivation. It was possible because Duolingo is very easy to be applied and has interactive task types that are not only expand the vocabulary range, but also teach how to pronounce words properly. It was consistent with Marinda's (2025) claim that Duolingo provided a variety of game-like exercises that motivated students even if they were not high scorers. Thus, Duolingo was proven well in enhance students' pronunciations.

In terms of language proficiency, such as the pronunciation, the second study was showed the in-line result. Quasi-experimental research entitled *The Effectiveness of Duolingo as A Medium Vocabulary Learning for Vocational School* by Irma Wati, Wiwied Pratiwi, and Khuloud Alouzi (2025) aimed to explore the effectiveness of Duolingo as a vocabulary learning medium during educational process of grade XI AKL/TB of SMK Ma'arif 1 Metro. According to the findings,

gamification learning approach. This reason made the students more motivated and nailed the post-test. Moreover, the students also nailed the vocabulary diction, verb rules, pronunciation, and even writing skill after implementing Duolingo in their EFL teaching-learning situation. Lastly, Duolingo enhanced the student's confidence in learning a new language because it gave immediate feedbacks and remedials.

Aside of enhancing students' confidences in learning new language, the third study gave the insight that Duolingo enhanced the metacognitive awareness of the students. The article entitled *Developing Metacognitive Awareness through Duolingo Application in Enhancing Students' Self-reliance in Learning Speaking* by Agustinus Dheny Budiono, Senowarsito, and Dias Andris Susanto (2025) was a concurrent nested study aimed to explore the effectiveness of Duolingo in developing metacognitive awareness of EFL learning among students. This study was done by using a mixed method. The researchers gathered the quantitative data through pre-experimental design and qualitative data through interview in seeking their perspective of Duolingo in EFL teaching-learning. The result showed that among 70 samples of research, most students performed a very well metacognitive awareness in the post-test. The metacognitive in this research was how the students might adapt in the EFL independent learning because of the support of Duolingo during their EFL learning situation. It was also strengthened by the interview results that showed that Duolingo promoted self-learning situation due to its learning system that can mate the users plan, monitor and evaluate their learning tempo in the application. Thus, the students might set transparent and measurable EFL learning goals (Cheng et al., 2019).

Another advantage that people could get from learning English language in Duolingo was enhancing students' competitiveness in achieving goals. *English Language Education Students' Use of the Duolingo App in English Learning* written by Hanindya Ichthy Renova and Fitri Kurniawan (2025) was descriptive qualitative research focused on investigating the perceptions of utilizing Duolingo in EFL teaching-learning among English Education students of Universitas

Muhammadiyah Surakarta. The samples claimed that Duolingo enhanced students'

motivations in EFL learning due to its gamification approach. This built the sense of achieving goals whenever the students had successfully completed the study session or reached higher badge. This sense may lead the students to be more independent in learning process due to the transparent and quick learning trace (Dehganazadeh & Dehganazadeh, 2020).

The independency in English language learning among students while using Duolingo was also portrayed in the last study. *Using Duolingo in the EFL Classroom: A Study on Effectiveness and Student Perceptions* was an exploratory mixed-methods study that was conducted in a private school in Chihuahua, Mexico, written by Lizette Drusila Flores-Delgado, Irlanda Olave-Moreno, Ana Cecilia Villarreal-Ballesteros, and Carla Paola Cancino-Ríos (2025). This study delved the 12 English language students' attitudes and perceptions of Duolingo in revamping their language proficiency through interviews, a questionnaire, and an assignment. The outcomes showed that Duolingo was proven adequate in helping the students on reinforcing students' vocabulary range and expanding their knowledge in English grammar structures. In terms of motivation and language confidence, the students showed positive impacts of employing Duolingo in their language learning by become more confident in responding in target language (English). Additional information, the writers still suggested that Duolingo should be integrated with textbooks and real-life topics.

Based on the findings above, Duolingo has been proven having various advantages in EFL teaching-learning. Firstly, this application facilitates its users to learn everywhere and every time the users are available (Ajisoko, 2020; Renova & Kurniawan, 2025). In term of EFL teaching-learning, Duolingo may expand students' mastery in vocabulary and English syntax (Budiono et al., 2025; Flores-Delgado et al., 2025). Moreover, Duolingo triggers students to be more confident in oral situation. In term of metacognitive awareness, Duolingo motivates the students in becoming more active due to its gamification approach and triggers the desire to di self-taught session in-class or out-class (Budiono et al., 2025).

CONCLUSION

The emergence of technology is unavoidable in this current society. ICT's influence extends beyond STEM to all levels of education, including English language studies. In an EFL classroom, using technology in teaching-learning sessions is inescapable because technology has become important. Duolingo, the integrated ICT in EFL teaching-learning, has been shown providing a variety of benefits in EFL teaching and learning. To begin, this program allows users to learn whenever and wherever they are available. In terms of EFL teaching and learning, Duolingo may help students improve their vocabulary and English syntax. Furthermore, Duolingo encourages students to become more confident in a spoken scenario. In terms of metacognitive awareness, Duolingo stimulates the students to be more active and inspires them to do self-taught sessions in or out of class.

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