



Indonesian Teachers' Perception on Duolingo for English Learning: Opportunities and Challenges

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Received: 2025-03-18 Accepted: 2025-03-27

DOI: 10.24256/ideas.v13i1.6321

Abstract

This study explores Indonesian teachers' perceptions of Duolingo as a supplementary tool for English instruction, emphasizing its advantages, challenges, and feasibility within formal education. Employing a qualitative case study approach at SMP Miftahul Husna, data were gathered from six English teachers through semi-structured interviews, classroom observations, and document analysis. The findings indicate that while teachers acknowledge Duolingo's capacity to enhance student engagement and promote autonomous learning through gamification, they also highlight concerns regarding its limited emphasis on productive language skills, misalignment with the national curriculum, and technological constraints. The study underscores the necessity of a blended learning approach that integrates Duolingo with structured classroom instruction to support communicative competence. These insights contribute to the discourse on digital language learning tools in Indonesian education and offer practical recommendations for their effective integration into pedagogical practices.

Keywords: *Duolingo, Mobile-Assisted Language Learning (MALL), teachers' perceptions, English instruction, educational technology.*

Introduction

The advancement of digital learning platforms has significantly influenced global education, re-shaping pedagogical approaches and expanding access to learning resources. Mobile-Assisted Language Learning (MALL) has gained prominence in language education, offering learners flexibility and accessibility (Iftikhar, 2025; Zain & Bowles, 2021). In Indonesia, the government has actively encouraged digital learning adoption through policies like *Merdeka Belajar*, which

promotes the integration of technology into formal education (Isnaini et al., 2024). According to the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek), over 75% of schools have incorporated some form of digital learning, yet challenges remain in ensuring effective implementation and teacher readiness. Despite the widespread use of digital platforms, little research has examined how educators perceive these tools within structured learning environments.

One of the most widely recognized MALL applications is Duolingo, which utilizes gamification to enhance language learning through interactive exercises, progress tracking, and reward-based engagement (Macey et al., 2024; Shortt et al., 2023). Research indicates that Duolingo supports vocabulary acquisition and grammar comprehension (Loewen et al., 2020) while fostering autonomous learning (Handayani, 2024). However, concerns persist regarding its limitations in developing productive language skills, particularly speaking and writing (Helal, 2024; Minh, 2024). Additionally, teachers often face challenges in aligning Duolingo with national curricula, raising questions about its effectiveness in formal education (Lo et al., 2025).

While existing studies have explored student engagement and language proficiency improvements with Duolingo (Lo et al., 2025; Rashov, 2024), limited research has investigated teachers' perspectives on its use in classroom instruction. Teachers play a crucial role in bridging digital learning tools with pedagogical objectives, yet their views on the feasibility, benefits, and challenges of Duolingo remain underexplored. Furthermore, factors such as institutional support, technological accessibility, and pedagogical alignment influence teachers' acceptance or resistance toward digital tools, but these aspects have not been adequately addressed in prior research. Understanding teachers' perceptions is essential for determining how Duolingo can be effectively integrated into Indonesian language education.

This study aims to address these gaps by examining Indonesian teachers' perceptions of Duolingo as a supplementary tool for English language instruction. The research objectives are to identify the perceived benefits and limitations of Duolingo in formal education, explore the factors influencing teachers' acceptance or resistance toward Duolingo, including institutional support, digital literacy, and curriculum alignment, and provide recommendations for enhancing the integration of Duolingo in structured classroom instruction.

This study is guided by the Technology Acceptance Model (TAM) and Constructivist Learning Theory (Al-Azawei et al., 2017). TAM is used to assess teachers' perceptions of Duolingo's ease of use and usefulness in instructional settings (Nelson, 2022). Constructivist Learning Theory (Jumaah, 2024) supports the analysis of how interactive, learner-centered approaches influence engagement and language acquisition. By combining these frameworks, the study

evaluates both technological adoption and pedagogical effectiveness in using Duolingo.

This research contributes to the discourse on technology-enhanced language learning by providing empirical insights into Indonesian teachers' perspectives on Duolingo. The findings will inform policymakers, educators, and technology developers on best practices for integrating MALL applications into formal curricula. By focusing on teachers' perspectives, this study aims to bridge the gap between digital learning initiatives and practical classroom implementation, ensuring that language-learning technologies align with educators' needs and instructional goals.

Literature Review

Mobile-Assisted Language Learning (MALL)

Mobile-Assisted Language Learning (MALL) is a pedagogical approach that leverages mobile technology to facilitate language acquisition by providing learners with ubiquitous access to instructional materials, interactive exercises, and communication tools (Alisoy & Sadig, 2024; Guo et al., 2024; Iftikhar, 2025). MALL enhances flexibility in learning, allowing individuals to engage with language content in both formal and informal educational contexts (Moghal et al., 2020; Shihri et al., 2025). Through mobile applications, multimedia integration, and real-time interaction, this approach supports the development of key language competencies, including listening, speaking, reading, and writing. Additionally, MALL fosters autonomous learning by enabling personalized and adaptive learning experiences tailored to individual proficiency levels and learning needs (İlker Kul, 2023; Noor & Islam, 2024).

(Gutiérrez-Colón et al., 2020) define MALL as *"a fast-developing field that is constantly growing and evolving in education,"* underscoring its expanding role in contemporary language pedagogy. Furthermore, (Ghorbani & Ebadi, 2020) highlight that *"MALL has largely been an interesting field of research for scholars from the beginning of the 21st century. One of the aspects of MALL which has largely been emphasized in different studies is the mobility of devices that allows users to have unlimited access,"* emphasizing the role of mobile devices in enhancing accessibility and flexibility in language learning.

Gamification in Educational Settings

Gamification refers to the application of game-design elements, such as points, leaderboards, rewards, and challenges, in non-game contexts to enhance engagement, motivation, and participation (Saleem et al., 2022; Triantafyllou & Georgiadis, 2022). (Macey et al., 2024) define gamification as *"the intentional generation of graceful experiences and interactions in non-game contexts, aiming to motivate specific behaviors, achieve goals, or enhance user experience"*.

In educational settings, gamification is widely implemented to foster learner engagement by integrating interactive and competitive elements (Saleem et al., 2022). Research suggests that the effectiveness of gamification is influenced by contextual factors and user characteristics, as different individuals may respond differently to game-based learning strategies (Bennani et al., 2022). For instance, certain gamification elements may enhance intrinsic motivation for some learners while primarily fostering extrinsic motivation for others (Santos et al., 2025). By incorporating structured game mechanics into learning environments, gamification aims to create an immersive and stimulating educational experience that promotes sustained participation and knowledge retention.

Duolingo Application

Duolingo is a digital language-learning application designed to facilitate accessible and interactive language education through a gamified approach (Shortt et al., 2023). Available on both mobile devices and web platforms, Duolingo employs structured lessons, adaptive exercises, and real-time feedback to support language acquisition (Tuong & Dan, 2024). The application offers courses in multiple languages and is widely recognized for its intuitive interface, personalized learning pathways, and motivational features, including experience points (XP), streak rewards, and progress tracking.

As a tool within the framework of Mobile-Assisted Language Learning (MALL), Duolingo enables learners to engage in self-directed and flexible learning at any time and place, making it a valuable complement to traditional language instruction (Pérez-paredes & Zhang, 2022). The platform integrates artificial intelligence (AI) and spaced repetition techniques to enhance vocabulary retention, grammatical understanding, and overall linguistic proficiency (Fraidan & Almarri, 2024; Jamila, 2024). Due to its accessibility and effectiveness, Duolingo has been extensively adopted by individual learners, educators, and academic institutions as a supplementary resource in language education (Fathi et al., 2024; Shortt et al., 2023).

Method

This research employs a qualitative case study approach to explore Indonesian teachers' perceptions of Duolingo in English learning at SMP Miftahul Husna. A case study design is chosen to gain an in-depth understanding of teachers' experiences and the contextual factors influencing their views (Dong et al., 2020). Two English teachers—one familiar with Duolingo and one without prior experience—are selected through purposive sampling to ensure relevant insights (Rahman et al., 2022; Susanti, 2019). Data collection includes semi-structured interviews, classroom observations, and document analysis (Susanti, 2019). Interviews, lasting 45–60 minutes, focus on Duolingo's effectiveness, curriculum alignment, and instructional challenges. Observations span three 90-minute English lessons, assessing classroom interactions and student engagement.

Institutional records, lesson plans, and policies serve as supplementary data sources.

Data analysis follows Miles and Huberman's (1994) three-stage process: data reduction, data presentation, and conclusion drawing (Agustina, 2021). Triangulation is applied to enhance validity, including source triangulation by comparing data from different informants, methodological triangulation by cross-referencing interview, observation, and document findings, and observer triangulation through supervisor evaluation. Ethical considerations include obtaining informed consent, ensuring participant anonymity, and securely storing data. This study provides insights into the opportunities and challenges of integrating Duolingo into formal English instruction within the Indonesian educational context.

Result and Discussion

Result

This research involves two English teachers with distinct experiences regarding Duolingo. One teacher (T1) had no prior experience using the application, while the other (T2) had previously integrated Duolingo into English instruction. To ensure a balanced perspective, T1 was introduced to Duolingo and used it in three English lessons. The findings highlight their perceptions regarding technology integration, Duolingo's advantages and limitations, challenges in implementation, and strategies for optimization.

Teachers' Perspectives on Technology in English Instruction

T1 initially relied on conventional teaching methods but acknowledged the benefits of digital tools after using Duolingo:

"Before trying Duolingo, I was more comfortable using conventional methods such as textbooks and direct classroom exercises. However, after being introduced to this application, I realized that technology can be a useful tool to engage students." (T1)

T2, on the other hand, already supported digital learning, emphasizing its role in increasing student engagement:

"I strongly support the use of technology in English learning. Applications like Duolingo can be an innovative solution to increase student engagement." (T2)

Advantages and Limitations of Duolingo

Both teachers identified strengths such as gamification and independent learning support. T1 stated:

"Students are motivated because they feel like they are learning while playing." (T1)
However, concerns about the lack of speaking practice were raised:

"One weakness is that the application does not emphasize speaking skills in real communication." (T1)

Similarly, T2 recognized Duolingo's effectiveness but noted its limitations: *"The app gives instant feedback, but it cannot replace real-life interactions."* (T2) These findings align with (Lahji, 2024; Lo et al., 2025), who emphasize the motivational aspects of gamification but also highlight its limitations in promoting oral proficiency.

Challenges in Duolingo Implementation

Technological accessibility emerged as a major issue, particularly regarding student access to devices and the internet. T1 pointed out:

"Not all students have smartphones or stable internet access." (T1) Additionally, curriculum alignment was a concern: *"Duolingo is not fully aligned with the school curriculum, so I still have to adjust the material."* (T1)

These findings are consistent with (Zain & Bowles, 2021), who emphasize disparities in digital access as a barrier to implementing mobile-assisted language learning.

Strategies for Optimizing Duolingo in English Instruction

Both teachers suggested blended learning approaches. T1 proposed using Duolingo as a supplementary tool:

"I might assign weekly tasks through the application and then discuss the results in class." (T1)

Meanwhile, T2 integrated Duolingo with in-class activities: *"After students complete certain exercises in the app, I ask them to create dialogues based on the material they learned."* (T2)

This aligns with recommendations from (Fathi et al., 2024) and (Lo et al., 2025), who advocate for integrating digital learning tools with teacher-led discussions.

Discussion

The results indicate that while Duolingo enhances motivation and provides structured learning opportunities, its effectiveness depends on how it is integrated into the curriculum. T2's prior experience with Duolingo enabled a more seamless implementation, whereas T1 initially faced adaptation challenges. These findings align with previous research (Aliyeva, 2024; Shortt et al., 2023), which highlights the importance of contextualizing MALL applications within formal education.

From an Indonesian educational context, technology integration faces infrastructural barriers, particularly in rural schools where digital access is limited. Despite these challenges, teachers can leverage Duolingo's strengths by adopting a hybrid instructional model. Future research should explore how speaking activities can be incorporated to address the application's limitations in communicative language practice.

This study is limited to two participants, which restricts generalizability. Additionally, the short implementation period may not fully capture long-term impacts. Future studies should involve larger samples and extended observation periods.

Findings suggest that policymakers should improve digital infrastructure and provide teacher training on integrating educational technology. Schools should consider structured implementation strategies to ensure alignment with national curriculum standards. By structuring findings clearly and integrating comparative analysis, this study provides valuable insights into Duolingo's role in Indonesian English instruction.

Conclusion

The findings of this study highlight that Duolingo serves as a valuable supplementary tool in English language instruction, particularly in enhancing vocabulary acquisition and grammar comprehension. Teachers acknowledge its ability to sustain student engagement through gamification elements such as progress tracking and rewards, which encourage independent learning. However, challenges remain in fully integrating Duolingo into classroom instruction, particularly in developing speaking skills and fostering real-time communication. The structured nature of the application, while beneficial for self-paced learning, does not fully align with formal curricula and requires additional instructional support from teachers. Moreover, technological disparities among students, including limited access to devices and internet connectivity, present obstacles to its widespread adoption in educational settings.

Despite these challenges, Duolingo holds promise when integrated into a blended learning model that combines digital resources with teacher-led instruction. To optimize its implementation, educators should consider incorporating supplementary speaking exercises and structured discussions to enhance communicative competence. Future research may further explore how Duolingo can be adapted to strengthen other language skills, such as listening and writing, and assess its long-term impact on students' language proficiency in diverse educational contexts.

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