

EXPLORING ENGLISH EDUCATION STUDENTS' EXPERIENCES AND ATTITUDES TOWARD USING DUOLINGO FOR VOCABULARY LEARNING: A QUALITATIVE STUDY AT UNPARI

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Abstract: In the digital era, mobile-assisted language learning (MALL) has gained increasing attention as a flexible tool to support vocabulary acquisition, particularly among university students. This study explores the experiences and attitudes of English Education students at Universitas PGRI Silampari (UNPARI) toward Duolingo, a MALL application, in developing English vocabulary. The objective of this research is to understand how students perceive and engage with Duolingo to support their vocabulary learning. Using a qualitative descriptive design, six participants who had consistently used Duolingo for at least three months were selected through purposive sampling. Data were gathered through semi-structured interviews and analysed thematically. The analysis revealed four major themes: motivation through gamification, flexibility and accessibility, challenges of maintaining consistency, and the contextual relevance of vocabulary content. While Duolingo enhanced learner motivation and enabled flexible, autonomous learning, participants also reported limitations such as lack of sustained consistency and the mismatch between vocabulary content and their academic context. In conclusion, Duolingo provides valuable support for vocabulary development but should be complemented by context-specific instruction to ensure academic relevance. This research implies that educators in regional universities can optimize Duolingo's potential by integrating it with formal teaching strategies. Future studies may investigate its effectiveness across different linguistic skills or educational levels.

Keywords: Duolingo, vocabulary learning, mobile-assisted language learning, student experience, qualitative study

1. Introduction

In the contemporary era of global communication, English is widely regarded as an essential tool for academic achievement, international collaboration, and career advancement. It functions not only as a global lingua franca but also as a medium of access to scientific knowledge, digital resources, and transnational discourse communities. Among the core components of English language proficiency, vocabulary is often cited as one of the most crucial elements. It serves as the foundation upon which listening, speaking, reading, and writing skills are built. As emphasized by Lei et al. (2022), vocabulary knowledge is a primary predictor of learners' language competence, and without sufficient lexical resources, learners are unable to process input effectively or express output with clarity and precision. This positions vocabulary learning as a non-negotiable focus within English language education, particularly for learners in English as a Foreign Language (EFL) contexts.

However, many EFL learners in Indonesia, especially those in non-metropolitan or under-resourced regions face persistent challenges in vocabulary acquisition. Conventional approaches, such as rote memorization, bilingual word lists, and textbook-bound drills, often dominate classroom practices. These methods, while systematic, are limited in their ability to promote long-term retention, contextual application, or learner autonomy (Apoko et al., 2023). The pedagogical landscape in regional institutions like Universitas PGRI Silampari (UNPARI) is further constrained by minimal exposure to authentic English input and a lack of individualized learning environments. In such contexts, students may struggle to stay motivated, access up-to-date learning materials, or practice vocabulary in meaningful communicative settings. These constraints necessitate innovative approaches that transcend traditional classroom limitations and empower learners to take charge of their vocabulary development.

One promising solution to these pedagogical limitations is the use of mobile technology in language learning, more specifically known as Mobile-Assisted Language Learning (MALL). The increasing penetration of mobile devices such as smartphones among tertiary students provides an opportunity to support language learning beyond the classroom. As described by Pérez-Paredes and Zhang (2022), MALL offers learners a flexible, accessible, and learner-centered alternative to traditional instruction. It supports microlearning, facilitates on-the-go access to content, and accommodates different learning styles and paces. Mobile applications such as Duolingo, Babbel, and Memrise leverage technological affordances to enhance learner

engagement and motivation through features like gamification, adaptive feedback, and progress tracking. Iftikhar (2025) notes that such applications revolutionize vocabulary learning by promoting regular interaction, immediate feedback, and a sense of achievement through points and streak systems.

Duolingo, in particular, has gained global popularity for its intuitive design, gamified learning modules, and user autonomy. Its structured lessons and level-based system allow learners to track progress and receive instant corrections, while its reward mechanisms encourage daily practice and habit formation. Studies by Rachman et al. (2023) and Lei et al. (2022) provide empirical evidence that Duolingo users often show measurable vocabulary gains over time. However, it is important to note that most of these studies rely on quantitative measures, such as pre- and post-tests or vocabulary recognition scores, to assess effectiveness. While such methods provide useful statistical outcomes, they may fail to capture the deeper, qualitative dimensions of learners' experiences such as emotional engagement, personal motivation, contextual relevance, or perceptions of app usability.

Indeed, language learning is not merely a cognitive process, but also an affective and social experience. Learners' attitudes, beliefs, and motivations play a central role in shaping how effectively they engage with technological tools. As noted by Chaitanya (2024), the use of mobile learning applications can yield highly variable results depending on how learners internalize the content and navigate the digital interface. In the context of Indonesian regional universities, where digital literacy levels and access to support may vary significantly, there is a critical need to investigate not just what learners gain from MALL tools like Duolingo, but how they experience these tools in their educational reality. This is especially important considering that gamified platforms may be engaging for some students, but alienating or confusing for others depending on their preferences and familiarity with technology.

Moreover, the relevance and cultural appropriateness of vocabulary content also influence learner engagement and satisfaction. Several participants in prior studies have criticized Duolingo for presenting vocabulary and sentence structures that feel unrelated to their real-life contexts (Kessler et al., 2023). For example, words like "castle" or "owl" may be useful in fantasy-themed contexts but offer little utility for learners whose primary goal is to improve academic or professional English. This mismatch between content and context underscores the importance of localizing digital vocabulary learning tools to suit the sociolinguistic and educational needs of specific learner populations.

Despite the growing body of literature on MALL, very few studies have qualitatively explored how learners at regional Indonesian universities perceive, experience, and reflect upon their use of Duolingo. Okumuş Dağdeler (2023) identifies this as a significant gap in mobile vocabulary learning research, noting that most reviews tend to overlook non-urban learning environments and the specific cultural factors that shape learner interaction with technology. This study seeks to address this research gap by providing an in-depth qualitative investigation of English Education students' experiences at UNPARI as they engage with Duolingo for vocabulary development.

By employing a descriptive qualitative design and thematic analysis approach (Sundler et al., 2021), this research aims to illuminate students' lived experiences, motivations, frustrations, and perceived outcomes related to Duolingo usage. In doing so, it contributes context-sensitive insights into how mobile applications function in under-resourced educational settings, and offers recommendations for more effective integration of MALL into language education policy and practice. The findings are expected to support educators, curriculum designers, and technology developers in optimizing digital tools for vocabulary learning particularly in regions where access to English learning support is limited.

Therefore, this study is guided by the following research questions: (1) What are the experiences of English Education students in using Duolingo for vocabulary learning? and (2) How do students perceive the benefits and limitations of Duolingo in their language learning process? These questions aim to address the research gap in the current literature, particularly the lack of qualitative investigations into mobile-assisted vocabulary learning in regional Indonesian universities. The research question as below:

1. What are the experiences of English Education students in using Duolingo for vocabulary learning?
2. How do students perceive the benefits and limitations of Duolingo in their language learning process?

3. Literature Review

3.1 Vocabulary Learning in the EFL Context

Vocabulary acquisition is essential for developing all other language skills (Lei et al., 2022). It serves as the foundation for listening, speaking, reading, and writing in English. Without

sufficient vocabulary, learners cannot effectively understand input or produce meaningful output. In EFL contexts like Indonesia, vocabulary learning is often hindered by limited exposure to English outside the classroom and a reliance on traditional methods such as rote memorization or translation-based learning (Apoko et al., 2023). These approaches may improve short-term recall but often fail to promote long-term retention or contextual usage.

Recent studies have emphasized the importance of meaningful vocabulary exposure and repeated contextual practice to enhance acquisition and usage. For example, learners benefit more from seeing words used in authentic situations than from memorizing lists of isolated terms. Teachers and educators have therefore begun to explore digital and mobile learning tools to address these limitations, encouraging learners to engage with vocabulary in interactive and context-rich environments.

Mobile applications, especially those that integrate gamification and spaced repetition, have demonstrated the potential to bridge the gap between passive memorization and active vocabulary use. The use of these technologies is particularly relevant for tertiary-level students who are more likely to have access to smartphones and digital learning tools in their daily lives. Thus, rethinking vocabulary learning strategies in the EFL context is crucial to meet the evolving needs of modern learners.

3.2 Mobile-Assisted Language Learning (MALL)

MALL supports flexible, learner-centered language instruction (Pérez-Paredes & Zhang, 2022). As mobile technology becomes more integrated into daily life, language educators are increasingly adopting MALL as a supplementary or alternative method to traditional instruction. The key advantage of MALL lies in its ability to provide learners with autonomy, immediacy, and personalized learning paths. Mobile apps for language learning, such as Duolingo, Memrise, and Babbel, allow learners to set their pace, choose topics of interest, and practice consistently without being confined to classroom schedules.

According to Noyan et al. (2023), MALL environments contribute positively to language learning outcomes by facilitating continuous exposure and practice in informal settings. This is especially beneficial for learners in resource-limited settings, where access to qualified teachers or English-speaking communities may be scarce. Furthermore, mobile learning allows for microlearning – delivering content in small, manageable chunks – which has been shown to enhance retention and learner satisfaction.

The integration of MALL into formal education systems also presents challenges, such as the need for digital literacy, teacher training, and alignment with curricular goals. However, when appropriately integrated, MALL tools can promote learner engagement and support differentiated instruction, particularly in vocabulary learning.

3.3 Duolingo and Gamified Vocabulary Practice

Duolingo integrates gamification features such as streaks, points, and levels to encourage repeated practice (Iftikhar, 2025). Studies show that these features increase learner motivation and engagement (Sakkir & Syamsuddin, 2023).

Gamification not only enhances learner engagement through rewards and competition but also supports long-term retention by increasing time-on-task and daily repetition (Teymouri, 2024). This is especially important in vocabulary learning, where frequency and exposure determine retention.

3.4 Gaps in the Literature

Despite a growing body of research, most focus on quantitative results. Few studies explore how learners internalize and reflect on their vocabulary learning experiences using Duolingo (Chaitanya, 2024).

Although existing literature supports the use of MALL tools like Duolingo, few studies address learners' perceptions within specific educational contexts such as regional universities in Indonesia. This qualitative study addresses that gap by focusing on lived experiences and user-centered reflections.

4. Methodology

4.1 Research Design

This study employed a qualitative descriptive design to explore the experiences and attitudes of EFL learners toward using Duolingo for vocabulary learning. Given the aim to capture in-depth, contextualized perspectives, a small sample size was deemed appropriate. Qualitative research prioritizes depth over breadth, and as noted by Sundler et al. (2021), even a limited number of rich interviews can yield meaningful thematic insights when analyzed rigorously.

Thematic analysis was chosen to identify recurring patterns and unique perspectives in participants' narratives.

4.2 Participants

The study involved six undergraduate students from the English Education Program at Universitas PGRI Silampari (UNPARI), selected through purposive sampling. All participants had used Duolingo consistently for at least three months, ensuring they possessed sufficient experience to reflect meaningfully on their use of the application. Although the number of participants is limited, this is consistent with qualitative research standards where the focus is on information-rich cases rather than statistical generalizability. The inclusion of participants from different academic years and learning backgrounds was intended to increase the diversity of perspectives and enhance thematic depth. Furthermore, member checking and peer debriefing were used to strengthen trustworthiness, compensating for the small sample size.

4.3 Data Collection

Data were gathered through in-depth semi-structured interviews conducted via Zoom and WhatsApp video calls, depending on participant availability. The interviews ranged from 30 to 45 minutes and followed a pre-designed guide with open-ended questions focusing on participants' motivations, usage patterns, challenges, and perceived benefits of Duolingo. Examples of guiding questions included: "How often do you use Duolingo and why?", "What part of the app do you find most helpful or unhelpful?", and "Can you share a situation where Duolingo helped you with vocabulary in real life?" All interviews were audio recorded with the participants' consent and transcribed verbatim for analysis.

4.4 Data Analysis

Thematic analysis was used to interpret the data, based on the framework proposed by Sundler et al. (2021), who highlight the importance of inductive analysis rooted in participants' descriptions. The analysis involved multiple stages: initial familiarization with the data through reading transcripts, generating initial codes, grouping codes into themes, and refining themes to ensure clarity and consistency. Coding was conducted manually using color markers and analytic memos to identify recurrent ideas and unique perspectives. To enhance the trustworthiness of the study, the researcher employed member checking by allowing

participants to verify their responses, and peer debriefing with another academic to review coding logic and thematic grouping. These steps helped ensure credibility, transferability, and confirmability in the findings.

To ensure trustworthiness, the researcher conducted member checking by sharing interview summaries with each participant for confirmation. In addition, peer debriefing was carried out with a faculty member familiar with qualitative methods to discuss emerging themes and confirm coding accuracy.

5. Results

5.1. The experiences of English Education students in using Duolingo for vocabulary learning

Thematic analysis of the interview data yielded four central themes: (1) Motivation through gamification, (2) Flexibility and accessibility, (3) Challenges in maintaining consistency, and (4) Contextual relevance of vocabulary. Representative quotes from all six participants are included to reflect the diversity of experiences.

5.1.1 Motivation through Gamification

All six participants indicated that Duolingo's point system, level badges, and streak features significantly enhanced their motivation to learn vocabulary. One participant described the emotional satisfaction from maintaining a high streak count:

“I always feel proud when I keep my 20-day streak. It feels like I'm being productive every day.” (Participant 3)

Another participant noted that gamification made learning less intimidating:

“Because it feels like a game, I don't feel nervous like I do in class.” (Participant 1)

5.1.2. Flexibility and Accessibility

Students appreciated that Duolingo could be accessed anytime and anywhere. Three participants used it during breaks, commuting, or just before bed. One participant highlighted its benefit in managing time:

“Duolingo helps me study without setting aside big time. I use it when I wait in line or before sleeping.” (Participant 2)

Another found it especially helpful during the fasting month:

“During Ramadan, I still used Duolingo after breaking fast. It doesn’t feel like a burden.” (Participant 5)

5.1.3. Challenges in Maintaining Consistency

Despite the app’s convenience, most participants acknowledged difficulty maintaining daily practice. One student cited academic workload:

“Sometimes I skip because of assignments. Then I lose motivation to start again.” (Participant 4)

Another shared that holidays disrupted their learning rhythm:

“During semester break, I forgot to open the app at all.” (Participant 6)

Only one participant reported consistent daily usage for over two months, attributing success to personal discipline.

5.1.4. Contextual Relevance of Vocabulary

While most students enjoyed the interactive exercises, four felt that some vocabulary lacked practical use in their daily or academic lives.

“I don’t see how ‘the cat drinks milk’ helps me write a paragraph in class.” (Participant 1)

However, one participant defended Duolingo’s use of “weird” sentences:

“Weird examples stick in my mind. They help me remember the word even if I never use it.”
(Participant 5)

This diversity of opinion reflects that learner perceptions of vocabulary relevance are shaped by individual learning goals and experiences.

5.2. Students perceive the benefits and limitations of Duolingo in their language learning process

5.2.1. Perceived Benefits and Limitations

To directly address the second research question, participants shared their perceptions regarding the benefits and limitations of using Duolingo for vocabulary learning. Several participants highlighted the application’s gamification features and ease of access as key benefits. For instance, Duolingo’s reward system and level progression created a sense of achievement and encouraged daily engagement:

“I like earning points and seeing my progress. It feels like a game, but I’m also learning.”
(Participant 2)

Additionally, its flexibility allowed students to study in short bursts throughout the day, making learning feel less burdensome:

“I often use it when I’m traveling or waiting, it makes use of free time.” (Participant 4)

However, participants also expressed several limitations. One concern was the lack of depth in the vocabulary exercises. Some learners felt that the app did not sufficiently promote productive skills such as speaking or writing:

“I can recognize the words, but I don’t get to use them in real conversations.” (Participant 5)

Another limitation was the lack of contextual relevance in some content, as discussed earlier. Vocabulary items sometimes felt unrelated to the students’ academic or daily needs:

“It teaches words like ‘castle’ or ‘owl’ which are not useful in my university tasks.” (Participant 6)

Overall, while Duolingo was perceived as a helpful supplementary tool, participants suggested that it should be used alongside formal instruction and with more localized or contextualized content to maximize its effectiveness.

6. Discussion

This study aimed to explore the lived experiences and attitudes of EFL learners at a regional Indonesian university in using Duolingo for vocabulary development. The findings affirm that while Duolingo provides important benefits such as motivation and flexibility, several limitations especially regarding consistency and contextual fit must be addressed to optimize its impact in local educational settings.

6.1. Gamification as a Sustained Engagement Mechanism

The study reinforces prior research (Iftikhar, 2025; Teymouri, 2024) on the effectiveness of gamification in increasing user persistence. However, the participants' reflections show that gamification is not a one-size-fits-all motivator. While visual rewards created a sense of progress, the loss of streaks led to demotivation, suggesting that extrinsic motivation alone may not sustain long-term use. Educators could intervene by pairing Duolingo use with intrinsic goal-setting tasks (e.g., reflective vocabulary journals or oral presentations).

6.2. Mobile Learning as a Bridge for Informal Practice

As emphasized by Noyan et al. (2023), MALL allows students to engage in informal learning beyond the classroom. In this study, flexibility was especially valuable in a regional setting with infrastructure challenges (e.g., power outages, inconsistent internet). This underscores MALL's strategic relevance for rural or semi-urban learners, enabling them to continue language development despite limitations in formal instruction.

6.3. Challenges of Self-Regulation and Autonomy

Although autonomy is celebrated in digital learning theory (Pérez-Paredes & Zhang, 2022), this study reveals that autonomy without guidance may lead to inconsistency. The data supports Okumuş Dağdeler's (2023) call for hybrid integration of MALL within formal learning structures. Teachers at institutions like UNPARI could schedule weekly Duolingo sessions or assign app-based tasks to promote continuity.

6.4. Culturally Misaligned Vocabulary Content

Duolingo's universal curriculum sometimes failed to meet learners' real-life needs, echoing critiques by Kessler et al. (2023). Participants questioned the relevance of vocabulary related to fantasy or Western cultural concepts. For rural Indonesian students, cultural and situational misalignment limits application and engagement. Local vocabulary modules aligned with school, family, and university contexts could significantly increase learner motivation and long-term retention.

6.5. Pedagogical Integration for Deeper Learning

Participants expressed a desire for collaborative features and teacher feedback. This suggests that Duolingo works best as a supplementary tool, not a standalone solution. As Lei et al. (2022) argue, mobile learning must be supported by structured pedagogical frameworks. Teachers could design classroom activities that expand upon app-based vocabulary, such as story-building, peer teaching, or context-based speaking tasks.

7. Conclusion and Recommendations

This study explored the experiences and attitudes of English Education students at Universitas PGRI Silampari (UNPARI) in using Duolingo as a mobile-assisted language learning (MALL) application for English vocabulary development. Through a qualitative descriptive design and thematic analysis, four key themes were identified: motivation through gamification, flexibility and accessibility, challenges in maintaining consistent use, and the contextual relevance of vocabulary content. The findings indicate that Duolingo offers significant advantages in fostering learner engagement and enabling flexible learning routines, particularly in regional university contexts where instructional resources may be limited.

However, the study also revealed limitations that warrant attention. Learners struggled with self-regulation, especially when external motivation diminished or when vocabulary items lacked contextual relevance. Furthermore, while Duolingo supports receptive vocabulary skills, it appears insufficient in promoting productive language use, such as speaking or writing.

Based on these findings, several recommendations are proposed. First, educators are encouraged to integrate Duolingo as a supplementary tool within classroom instruction, supported by reflective assignments, contextual vocabulary tasks, and feedback mechanisms.

Second, application developers should consider adapting vocabulary content to better reflect the cultural and academic realities of local users, especially in non-urban educational settings. Third, institutional stakeholders should provide orientation or digital literacy support to maximize the pedagogical value of MALL tools.

Future research is recommended to investigate the long-term impacts of mobile-assisted vocabulary learning, the comparative effectiveness of different MALL applications, and the integration of collaborative or output-focused features. Expanding the participant pool across various regions and educational levels may also enhance the generalizability and depth of future studies.

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