A DESCRIPTIVE STUDY OF STUDENTS' PREFERENCES IN LEARNING ENGLISH VOCABULARY THROUGH DIGITAL APPLICATIONS

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Abstract

The rapid growth of technology has significantly influenced language learning, particularly in the acquisition of English vocabulary through digital tools. While EFL learners often struggle with vocabulary due to the sheer volume of core words and the complexity of word mastery, the continuous evolution of modern technology provides innovative ways to tackle these difficulties. Consequently, students could enhance their word knowledge through various digital platforms, ranging from mobile applications and web-based communication tools to electronic glossaries and interactive gaming. This study aimed to describe the preferences of students at STBA LIA Yogyakarta in learning English vocabulary using digital applications, identifying the specific tools and features that provide for their needs. A descriptive quantitative methodology was employed, involving 20 students selected through purposive sampling who have experience using digital vocabulary tools. Data were collected using a systematic questionnaire and analyzed through descriptive statistical techniques, focusing on frequency and percentage distributions. The findings revealed that students demonstrated a distinct preference for specific digital applications. Duolingo emerged as the most dominant application, used by 55% of respondents, followed by Quizizz (25%) and Kahoot (15%). In terms of usage patterns, 65% of students utilize these applications 1-2 times per week, indicating a moderate but consistent integration of digital tools into their study routines. The study concluded that the interactive and gamified features of applications like Duolingo are highly valued by learners. These results suggested that educators and developers should focus on user-friendly, engaging designs to optimize vocabulary learning strategies and cater to diverse student habits.

Keywords: English vocabulary, digital applications, student preferences, Duolingo, vocabulary acquisition

INTRODUCTION

The integration of digital technology has catalyzed a profound paradigm shift in the global educational landscape, fundamentally altering how information is disseminated and internalized. This evolution has made the process of knowledge transfer significantly more efficient, streamlined, and accessible, particularly within the specialized realm of English language learning (Amir, 2025, p. 2; Parveen, 2024, p. 1). As we navigate the complexities of the 21st century, the traditional classroom is no longer the sole locus of learning; instead, a hybrid ecosystem has emerged where digital tools supplement and, in some cases, replace conventional instructional methods.

In the modern context, digital applications have emerged as indispensable tools for acquiring vocabulary, marking a shift from traditional textbooks and classroom instruction toward a more dynamic era of language acquisition. These platforms transcend the limitations of rote

memorization by offering sophisticated interactive features such as gamification, multimedia integration, and personalized feedback loops that significantly boost student engagement. By utilizing AI-driven platforms and interactive websites, learners can now create tailored learning experiences that specifically cater to their unique needs and preferences (Ram, 2025, p. 1). Research consistently demonstrates that these technological interventions enhance overall language proficiency, as vocabulary serves as the fundamental pillar—the very bedrock—for effective communication and sustained academic success (Frost, 2025, p. 1). Without a robust lexicon, learners find themselves unable to decode complex texts or express nuanced thoughts, regardless of their grammatical competence.

Within the specific institutional context of STBA LIA Yogyakarta, the pursuit of linguistic excellence is paramount. While mastering a broad and versatile lexicon is critical for these students, the actual effectiveness of digital tools is often mediated by a complex interplay of individual learning styles and the perceived ease of use of the platforms themselves. It is not enough for an application to be technologically advanced; it must also be intuitive and resonate with the user’s cognitive habits.

Current teaching theories, such as the learner-centered approach, emphasize the absolute necessity of aligning instructional resources with students' specific needs and goals. However, research suggests that such strategies frequently underperform or fail to reach their full potential when the overall curriculum remains a 'relic of a previous paradigm' that fails to reflect an equitable, constructivist focus (Cullen, 2013, p. 2). This systemic lag often creates a friction point where innovative students use modern tools within an outdated framework, leading to a fragmented educational experience.

Furthermore, constructivist learning theory posits that student do not passively absorb information but instead actively build knowledge through direct interaction with meaningful content. This is a process uniquely facilitated by the immediate feedback and immersive, interactive environments provided by digital applications. This digital integration allows for a more flexible, decentralized, and autonomous learning mode. It empowers students to break free from the constraints of the traditional school day, enabling them to study anytime and anywhere while adjusting the difficulty levels of lessons to match their individual language proficiency (Lai & Zheng, 2018; Zhai et al., 2020, as cited in Lu, 2022, p. 2). Such autonomy is vital in fostering a sense of ownership over one's own linguistic development.

This independence is crucial for fostering a sense of ownership over students' linguistic development. Empirical evidence shows that integrating mobile apps into vocabulary learning significantly improves word retention compared to conventional methods thanks to their interactive features and instant feedback (Polakova & Klimova, 2022, p. 3). Furthermore, the flexibility of

Mobile-Assisted Language Learning (MALL) technology allows students to overcome classroom limitations through self-paced learning that can be accessed anytime, anywhere.

While previous studies have established the general benefits of technology in the classroom on a macro level, there remains a notable lack of specific, granular data regarding the unique preferences and behavioral patterns of Indonesian students, particularly those enrolled in specialized language institutions. These students often face unique cultural and environmental factors that influence their digital consumption. In order to close this critical gap in the literature, this study offers a comprehensive descriptive examination of how STBA LIA Yogyakarta students use, perceive, and choose digital platforms for their studies. The principal objective of this research is to directly address the following inquiry: What are the preferences of STBA LIA Yogyakarta students regarding the acquisition of English vocabulary via digital applications?

METHOD

This research uses a descriptive quantitative methodology to characterize and analyze student preferences. The descriptive method provides an organized overview of the data collected through numbers and percentages.

Respondents/Participants

The research subjects are 20 active students of STBA LIA Yogyakarta. The sampling technique used purposive sampling with the criteria: registered active students and those with experience using digital applications to learn vocabulary.

Data collection

Data was collected through a systematic questionnaire designed to capture information regarding the types of applications preferred, the features considered most effective, usage frequency, and overall satisfaction levels. The distribution of the questionnaire link was done using the WhatsApp application.

Data analysis

Descriptive statistical techniques are used to process questionnaire data. Responses to closed-ended questions are counted and analyzed to see the frequency distribution and percentage in order to draw conclusions using the IBM SPSS application.

RESULTS AND DISCUSSION

Understanding the demographic profile and technology usage patterns of students is a crucial step in evaluating the effectiveness of digital learning tools. A balanced distribution of participants ensures that the analysis of student preferences and actions considers various perspectives, thereby providing a solid foundation for analyzing gender-related factors in digital literacy. The following section provides details regarding the gender distribution of the respondents involved in this study.

The table below illustrates the classification of research participants based on their gender:

Table 1. Respondent Gender

Gender	Frequency	Percentage
Male	11	55%
Female	9	45%
Total	**20**	**100%**

The data presented in the table above illustrates the distribution of respondents based on their gender identity. Out of a total of 20 participants, 55% (11 respondents) are male and 45% (9 respondents) are female. While this indicates a slightly higher participation rate among male students, the distribution remains well-balanced. This equilibrium ensures that the study's analysis takes into account perspectives from both genders, providing a solid foundation for analyzing overall preferences while remaining mindful of potential gender-related factors.

Understanding the moderating role of gender in the relationship between technology self-efficacy and digital literacy has become a critical area of research. This insight is essential to understand how gender impacts the development of technology-related skills and confidence among students (Ajani & Itasanmi, 2023, p. 2). In alignment with these theoretical frameworks, the empirical data gathered in this study reflects a similar trend, wherein male respondents constitute the majority of the sample at 55%. This demographic dominance corresponds directly with the high preference for Duolingo (55%), a platform highly valued by the participants not only for its user interface but primarily for its AI-driven adaptive learning capabilities that cater to individual proficiency. The prominent selection of an AI-integrated tool underscores that the respondents, heavily represented by male students, strongly prioritize the functional utility and personalized effectiveness (perceived usefulness) of the digital application to ensure tangible vocabulary acquisition.

By maintaining a representative sample, this study avoids a skewed interpretation of how interactive and gamified features—such as those found in Duolingo or Quizizz—facilitate English vocabulary acquisition. Aligning these instructional tools with the diverse needs of learners is a key

requirement of the learner-centered approach, which posits that an equitable educational plan must reflect the actual experiences of the student body (Cullen & Hill, 2013, p. 6). Consequently, the balanced gender distribution strengthens the generalizability of the findings, ensuring that the results offer an objective view of the digital learning experiences at STBA LIA Yogyakarta, applicable to all students regardless of gender.

While gender distribution provides a foundational context for the study's objectivity, the specific tools through which these students exercise their digital literacy are equally significant. To gain a deeper understanding of their digital learning habits, Table 2 outlines the applications most frequently utilized by the respondents.

The rapid evolution of technology, particularly in the realm of artificial intelligence (AI), has catalyzed transformative opportunities to elevate the standards of English language pedagogy (Özdere, 2023, as cited in Yuniar et al., 2026, p. 2). Among the various innovations emerging from this digital shift, AI-based language learning applications have become widely adopted tools for linguistic development. This global trend is mirrored in the specific choices made by students, as they gravitate toward platforms that offer interactive and personalized experiences. To understand how these trends manifest locally, the following table presents the specific preferences for digital vocabulary learning tools among students at STBA LIA Yogyakarta:

Table 2. Most Frequently Used Applications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Duolingo**	11	55.0	55.0	55.0
	Quizizz	5	25.0	25.0	80.0
	Kahoot	3	15.0	15.0	95.0
	Others	1	5.0	5.0	100.0
Total		20	100.0	100.0	

The data reveal that Duolingo is the most dominant application within this sample, utilized by 55% (11 respondents), followed by Quizizz at 25% (5 respondents) and Kahoot at 15% (3 respondents). This sharp contrast in application preferences highlights a distinct shift in how the writers' respondents independently approach vocabulary acquisition. While Quizizz and Kahoot are highly interactive, they are conventionally perceived by students as teacher-centered, synchronous evaluation tools that are heavily dependent on formal classroom instruction. In contrast, the overwhelming preference for Duolingo reflects the students' active demand for asynchronous, self-paced, and autonomous learning environments that can be integrated easily into their personal

schedules outside of formal lectures. This preference among the respondents is largely attributed to its integrated gamification elements, such as rewards and levels, which have been shown to significantly bolster student motivation and consistent engagement (Chiriboga et al., 2025, p. 112). Furthermore, the application's reliance on AI-driven adaptive learning allows for a personalized educational experience, catering specifically to the user's proficiency level (Tuong & Dan, 2024, p. 45). Consequently, the high adoption rate of Duolingo in this study reflects its perceived efficacy by the local students in providing a dynamic and individualized learning environment for vocabulary acquisition. However, the effectiveness of these digital tools is not only determined by the type of application chosen but also by the consistency of their implementation in daily study routines. Therefore, it is essential to examine the intensity of student engagement to understand how deeply these technologies are integrated into their learning habits.

Table 3. Frequency of Student's Digital Applications Usage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Never**	1	5.0	5.0	5.0
	1-2 times	13	65.0	65.0	70.0
	3-4 times	3	15.0	15.0	85.0
	More than 4 times	3	15.0	15.0	100.0
Total		20	100.0	100.0	

Based on the data presented in Tabel 3, the majority of respondents (65%) use digital applications to learn English vocabulary 1–2 times per week. Notably, a minimal percentage of the sample (5%, n=1) reported a frequency of "Never" during the weekly observation period. Although the purposive sampling design required all participants to be active users of digital learning applications, this single respondent represents a case where the application, though possessed and previously utilized by the student, was not actively accessed during the specific week of data collection. This temporary non-usage is reasonable given that the application was introduced as a voluntary learning supplement rather than a compulsory coursework component, leading this individual to rely temporarily on conventional study methods due to personal schedules or minor technical constraints.

These findings indicate that although technology has been integrated into the learning process, students tend to utilize it as an additional supplement rather than a primary intensive instructional tool. This moderate usage pattern aligns with research by Polakova and Klímová

(2022), which highlights that mobile applications are effective in enhancing students' performance and contributing to positive learning outcomes through continuous, albeit varied, use. This behavior reflects the students' strategic efforts to balance independent technology exploration with their existing academic workloads and formal classroom requirements. Furthermore, this intermittent usage suggests that while students recognize the value of digital tools, they may still prioritize traditional study methods or face time constraints that prevent daily engagement.

The integration of digital tools in English vocabulary instruction has become a critical necessity, given Indonesia's relatively low English proficiency, currently ranked 80th globally (EF EPI, 2024). Challenges in institutions such as STBA LIA Yogyakarta often stem from conventional, translation-based methods that fail to foster deep lexical knowledge or sustain learner motivation (Handikaningtyas, Ulfa, Slamet, & Degeng, 2025, p. 2; Zhou & Wu, 2024, p. 2). Furthermore, 30% of respondents show a higher level of engagement, with a usage frequency of more than three times a week. This heightened frequency is likely driven by the sophisticated gamification features embedded in applications like Duolingo or Quizizz, which effectively trigger users' intrinsic motivation through streaks, leaderboards, and immediate feedback. Such interactive elements transform rote memorization into a rewarding experience, encouraging more frequent interaction (Klimova et al., 2023, p. 5). Overall, these findings demonstrate that the preference for using digital applications is highly personal and significantly influenced by the convenience of access, individual learning styles, and the psychological appeal of the application's interface.

The diverse results of this study mark a significant turning point in the learning experiences of students at STBA LIA Yogyakarta. By examining the nuances of usage frequency, gender distribution, and specific application preferences, it becomes evident that digital integration is no longer a peripheral occurrence; rather, it has become a significant personal endeavor for EFL (English as a Foreign Language) learners. Although challenges regarding consistency and the persistence of traditional methods remain, the overarching shift toward interactive, AI-based, and gamified platforms indicates a fundamental change in how vocabulary is acquired. In this context, technology now serves as a primary catalyst for enhancing student engagement and memory retention (Kohnke, Moorhouse, & Zou, 2025, p. 2). The interplay between student autonomy and the appeal of these technologies necessitates a broader synthesis of the research results. Consequently, the following section presents a comprehensive conclusion that encapsulates the core insights of this study and offers strategic recommendations for the future of digital language learning within the institutional environment.

CONCLUSION

The integration of Artificial Intelligence (AI) and digital technology has brought a fundamental transformation to the landscape of English Language Teaching (ELT), creating a new, more

dynamic, and adaptive paradigm in English as a Foreign Language (EFL) education. This study specifically aimed to describe the preferences of students at STBA LIA Yogyakarta in utilizing digital applications for English vocabulary acquisition. Based on a comprehensive data analysis, several crucial points can be concluded to provide a complete overview of this phenomenon.

Firstly, the study found a highly balanced gender distribution among the student population, consisting of 55% male and 45% female participants. This balance is not merely a demographic statistic but serves as a representative foundation ensuring that the findings regarding digital literacy trends in this study are not gender-biased. It indicates that accessibility to and interest in digital learning tools at STBA LIA Yogyakarta are evenly distributed, lending objectivity to the results which suggest that interactive features and gamification are well-received across the entire student spectrum.

Secondly, there is a significant preference for specific digital tools, with Duolingo emerging as the most dominant platform, used by 55% of the respondents. The popularity of this platform is driven by the effective integration of gamification elements—such as rewards systems, levels, and streaks—as well as AI-based adaptive learning features capable of tailoring material to individual proficiency levels. The success of Duolingo in dominating student choices demonstrates that modern learners tend to prefer tools that can transform repetitive vocabulary memorization into an entertaining and intrinsically motivating experience.

Thirdly, regarding usage patterns, the majority of students (65%) utilize these digital tools with a frequency of 1-2 times per week. This finding indicates that although technology has been integrated into their learning ecosystem, its use remains a supplementary addition and has not yet become the primary intensive instructional tool. Students appear to make strategic efforts to balance independent technological exploration with their formal academic workload in the classroom. However, the existence of a 30% subgroup that uses the applications more than three times a week proves that robust interactive features have great potential to foster more consistent and autonomous learning habits.

Fourthly, this research confirms that the adoption of language learning applications is heavily influenced by individual learning styles and the perception of technological efficacy in making the learning process more personalized. The ability of Mobile-Assisted Language Learning (MALL) to facilitate autonomous, flexible, and anytime-anywhere learning has helped students overcome the limitations of traditional classroom settings. This aligns with constructivist theory, where students are no longer passive absorbers of information but active builders of knowledge through direct interaction with meaningful digital content.

In conclusion, educators and application developers must continue to collaborate in creating user-centered and engaging designs that align with student habits. To optimize vocabulary

mastery in the digital education era, the integration between technological innovation and the actual needs of students must be strengthened to foster more autonomous and effective linguistic development. By leveraging the efficiency of AI-based tools, educational institutions such as STBA LIA Yogyakarta can address the challenges of conventional methods and enhance the overall standards of English pedagogy.

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