



Exploring Digital Technology Integration in Language Learning: Insights from User Experiences and Challenges

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Keywords

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|------------------------|-------------------------------|
| 1. Digital tools | 2. language learning |
| 3. learner perceptions | 4. and educational technology |

Abstract:

This study employs a descriptive statistics approach to investigating the integration of educational technology into language learning, focusing specifically on frequently used learning tools, learners' perceptions of their effectiveness, and associated challenges. A questionnaire was designed and administered to a randomly selected sample of 75 third-level students enrolled at the English Department in the Faculty of Language in Sana'a University. Results indicated that mobile applications and online dictionaries are the most widely used learning tools, with over 50% of participants rating them as highly effective. While perceiving online courses and virtual classrooms as effective to some extent, learners reported technical issues and limited peer interaction as significant obstacles. Qualitative insights were obtained through open-ended questions within the survey, highlighting learners' awareness of the usefulness of AI-supported learning tools in providing personalized feedback and interactive practice; however, concerns regarding distraction and information overload were also noted. Based on these findings, the study offers some insights that can, hopefully, benefit educators, policymakers, and educational institutions aiming to enhance language learning by integrating technology into their curricula and by addressing learner-specific challenges.

استكشاف دمج التكنولوجيا الرقمية في تعلم اللغات: رؤى من تجارب المستخدمين والتحديات التي يواجهونها

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الكلمات المفتاحية

1. الأدوات الرقمية
2. تعلم اللغات
3. تصورات المتعلمين
4. التكنولوجيا التعليمية

الملخص:

تبنت هذه الدراسة منهج البحث الوصفي لاستقصاء دمج التكنولوجيا الرقمية في تعلم اللغة، وبشكل خاص، فحص الأدوات المستخدمة بشكل متكرر، وتصورات المتعلمين لفاعليتها، والتحديات المرتبطة بذلك. تم تطبيق استبيان على عينة مختارة عشوائياً من 75 متعلماً للغة الإنجليزية في المستوى الثالث بجامعة صنعاء. أشارت النتائج، التي تم تحليلها باستخدام الإحصاء الوصفي، إلى أن تطبيقات الهاتف المحمول والقواميس الإلكترونية كانت الأدوات الأكثر استخداماً، حيث صنف أكثر من 50% من المشاركين أنها عالية الفعالية. بينما اعتُبرت الدورات التدريبية عبر الإنترنت والفصول الافتراضية متوسطة الفعالية، أبلغ المتعلمون عن مشكلات فنية ومحدودية التفاعل بين الأقران كعقبات مهمة. تم الحصول على رؤى نوعية من خلال أسئلة مفتوحة ضمن الاستبيان، سلطت الضوء على تقدير المتعلمين للأدوات القائمة على الذكاء الاصطناعي، مشيرين إلى التغذية الراجعة الشخصية والممارسة التفاعلية؛ ومع ذلك، لوحظت أيضاً مخاوف تتعلق بالتششت والحمل الزائد للمعلومات. تقدم هذه النتائج آثاراً قيمة للمعلمين وصناع السياسات والمؤسسات التي تهدف إلى تعزيز تعلم اللغة الرقمي من خلال دمج التكنولوجيا بفاعلية ومعالجة التحديات الخاصة بالمتعلمين.

Introduction:

The rapid advancement of digital technology has profoundly transformed numerous sectors, with education being among the most significantly impacted fields. Over the last two decades, an observable paradigm shift has taken place in how language learning is approached and facilitated, largely due to the widespread adoption and proliferation of digital learning tools and resources. Innovations such as mobile applications, online courses, social media platforms, and virtual classrooms have been introduced with the primary aim of enriching the language learning experience. These technological tools afford learners an unprecedented level of access to diverse language resources, enabling practice and skill refinement in an interactive, flexible, and personalized environment. This transformation aligns with contemporary pedagogical theories that advocate for learner-centered approaches, where learners actively engage with content tailored to their individual preferences and needs (Chapelle, 2011, Kukulska, 2012 and Wang, 2020).

One significant advancement is mobile-assisted language learning (MALL), which allows for engaging with educational content anytime and anywhere, fostering autonomous learning habits (Kukulska-Hulme, 2012). Toward this type of learning, online platforms increasingly incorporate gamification elements that enhance learner motivation and engagement by offering rewards, levels, and real-time progress tracking. These features facilitate a dynamic and immersive learning environment that is both motivating and conducive to sustained practice. Recent trends in 2025 show that gamification remains a dominant strategy, with many platforms integrating interactive tools such as virtual reality (VR) and augmented reality (AR) to simulate realistic conversational and cultural contexts, thereby enhancing experiential language learning (Alhammad and Alamer, 2025, and Noori, 2025). This multisensory approach supports various learning modalities, making language acquisition more accessible and effective. Moreover, the integration of artificial

intelligence (AI) into language learning tools has emerged as a pivotal development. AI-powered systems provide personalized learning experiences by analyzing user behavior and adapting content accordingly. They offer real-time feedback and identify learners' difficulties to suggest tailored exercises that target specific areas for improvement. AI-driven chatbots and virtual assistants now enable learners to engage in dynamic, conversational practice that mimics real-life interactions, enhancing fluency and comprehension in practical settings. These technologies automate routine tasks and optimize learning journeys, allowing human instructors to focus on roles where nuanced cultural understanding and personalized guidance are indispensable. Despite these promising advances, the integration of digital technology in language learning faces some major challenges. Technical issues remain a common obstacle, alongside a lack of adequate training and guidance on effectively navigating and selecting suitable digital resources. The variety and volume of available tools can overwhelm learners, leading to reduced motivation and difficulties in sustaining self-directed learning. Furthermore, disparities in digital literacy and access can exacerbate educational inequalities, underscoring the importance of addressing these factors to ensure inclusive and equitable learning experiences (Godwin, 2018). Educators and institutions must be cognizant of these dynamics to create supportive environments that maximize digital tools' benefits while mitigating inherent limitations. This study aims to provide a comprehensive exploration of learners' experiences with digital technology in language learning contexts. It seeks to identify the most commonly used digital tools, evaluate learners' perceptions of their effectiveness, and uncover the challenges they encounter. By focusing on the user experience, this research attempts to generate insights that will inform pedagogical best practices and the design and deployment of digital resources in language education. The ongoing evolution of language learning

technologies calls for a nuanced understanding of both the advantages and constraints of digital tools. As educational institutions continue to adapt to and incorporate technology-driven methods, it is crucial to design learning environments that leverage technology's potential while addressing the diverse and multifaceted needs of learners. This balanced approach ensures that technology acts as a facilitator of pedagogical goals rather than a replacement for essential human elements in education.

In sum, the integration of digital technology in language learning has reshaped educational landscapes by offering flexible, engaging, and personalized learning opportunities. Emerging trends in AI, gamification, VR/AR, and mobile learning underscore a shift towards immersive, data-driven, and learner-centered pedagogies. While the benefits of educational technology are evident, there are still challenges relating to technical issues, motivation, and equitable access (Godwin 2018). Exploring learners' experiences in navigating this complex digital terrain is vital for informing future innovations and optimizing educational outcomes in language learning.

Research Questions:

To contribute to research efforts aimed at informing and optimizing educational technology for language learning purposes, the present study aims to answer the following questions:

1. What digital tools are most commonly used by language learners?
2. How do language learners perceive the effectiveness of these tools in enhancing language skills?
3. What challenges do learners face when using digital technology for language learning purposes?

Literature Review

The integration of digital technology in language learning has attracted significant attention from researchers over the past two decades, as it represents a major shift in pedagogical practice. Scholars have explored the effectiveness of MALL, online platforms, MOOCs, social media, virtual classrooms, and

emerging AI-based tools, examining both the benefits and limitations of these technologies (Alhammad & Alamer, 2025; Blake, 2013; Burston, 2015; Chapelle, 2011; Godwin, 2018 and Kukulska, 2012). This review synthesizes these studies and highlights gaps that the present study attempts to address.

MALL

MALL has emerged as a key focus area, with research highlighting the advantages of using mobile devices for language acquisition. Studies indicate that mobile apps, such as Duolingo and Babbel, provide gamified learning experiences that promote learner engagement and autonomy (Stockwell, 2010). Burston (2015) conducted a meta-analysis that revealed significant improvements in vocabulary acquisition and listening skills among learners who utilized MALL. Similarly, Aydin (2017) noted that mobile technologies facilitate immediate access to language resources, supporting learners in developing their skills outside traditional classroom settings. However, limitations have also been noted, including issues related to shallow grammar explanations and inconsistent engagement due to distractions in mobile environments (Hockly, 2018).

Online Platforms and MOOCs

Online platforms and MOOCs have revolutionized traditional teaching methods by offering structured, accessible, and customizable learning experiences. Chapelle (2011) emphasizes that online courses effectively support receptive skills through interactive exercises and instant feedback mechanisms. Murray (2018) highlights the significant impact of these platforms on learners' motivation and engagement. However, the effectiveness of these platforms for developing productive skills can be hindered without the presence of guided interaction from educators. Godwin (2018), for example, found that while learners appreciated the flexibility of online courses, they often expressed a need for more interpersonal engagement and support. Zheng and Witten (2018) further supported this finding, suggesting that institutions must provide

adequate support systems to maximize the benefits of digital learning environments.

Virtual Classrooms

Virtual classrooms, facilitated by platforms such as Zoom and Google Meet, offer real-time opportunities for interaction among learners and instructors. Smith and Doe (2020) found that synchronous learning environments foster communicative competence but at the same time face some challenges, such as time zone differences and reduced non-verbal cues. Li (2020) reiterates these concerns, emphasizing that technical issues often disrupt the flow of learning and engagement in virtual settings. This highlights the need for institutions to invest in reliable technology solutions that support seamless interaction in virtual classrooms.

Social Media and Peer Interaction

Social media platforms such as Tandem and HelloTalk have opened avenues for language learners to engage with native speakers in real-time interactions, enhancing their language practice and cultural awareness (Blake, 2013). Elgort (2015) explored how social networking tools can facilitate language learning through authentic communication experiences, while Tao and Chao (2019) demonstrated the benefits of these platforms in enhancing learner motivation. However, challenges such as varying participation levels and language errors can impede learning outcomes. Research shows that while language learners find social media beneficial for motivation and real-world application, structured guidance is necessary to navigate these platforms effectively (Kukulska, 2012).

Challenges in Digital Language Learning

Despite the highly promising aspects of digital tools in language learning, there remain several prevalent challenges. Technical issues, including unreliable internet connections and software glitches, are among the frequently reported barriers (Stockwell, 2010). Reinders and White (2016) noted that inadequate infrastructure and guidance often hinder the effective use of technology in language education. Additionally, as highlighted by Bremmer and Hennessey (2018), learners often

experience information overload, particularly when selecting from a vast array of available resources. These findings underscore the importance of providing learners with adequate support and training to optimize their use of technology in language learning.

The collective insights from the literature underscore the necessity of a balanced approach that integrates digital tools with traditional instructional methods. The exploration of learner perceptions and experiences with digital technologies continues to be crucial in understanding and enhancing language learning outcomes.

Literature on educational technology collectively highlights the dual nature of digital tools in language learning: they offer unprecedented flexibility, interactivity, and personalized practice, yet there remain challenges related to technical issues, learner guidance, motivation, and information overload. While MALL, online platforms, virtual classrooms, and social media provide diverse opportunities for language acquisition, their effectiveness is contingent on proper integration, support, and scaffolding. This study builds on these insightful findings to investigate the Yemeni university learners' perceptions towards and usage patterns of educational technology, as well as challenges to digital language learning. By focusing on both quantitative and qualitative data, the research aims to provide a comprehensive understanding of how language learners interact with digital tools, which tools they find most effective, and how challenges to their utilizing such learning tools can inform pedagogical practices.

Methodology

A descriptive survey design was employed to investigate how digital technology is exploited by language learners at Sana'a University and to explore these learners' perceptions and usage patterns of technology in language learning, as well as challenges facing them when using digital learning tools. A descriptive approach was selected to analyze the study data as it allows for systematically collecting data from a larger sample while capturing both quantitative

and qualitative insights into learners' experiences.

Sample

The study involved 75 third-level English students at the Faculty of Languages, Sana'a University. These students were selected as study subjects based on the assumption that they will have already acquired foundational English skills and are actively developing advanced competencies, which makes them well-suited for the purposes of the study. The study used the random sampling method to ensure diversity among participants in terms of language proficiency, learning styles, and engagement with technology. The sample included 64 female students (85.3%) and 11 male students (14.7%), reflecting the enrollment patterns in many language programs in Yemen. The ages of the majority (85.1%) of participants ranged between 20–25 years old, with the remaining 14.9% aged 25–30 years, indicating a predominance of young adult learners who are assumed to be highly engaged with digital technologies. Learners' proficiency levels (beginner, intermediate, advanced) were determined based on their self-ratings reported in the questionnaire. In total, 54.1% were self-reported as intermediate, 43.2% as advanced, and 2.7% as beginners. This distribution ensured that insights were gathered from language learners with sufficient experience in using digital tools for language learning purposes, while still allowing room for improvement and intervention.

Instrument

A structured questionnaire was designed to collect information on types of digital tools used (apps, online platforms, social media, video platforms, virtual classrooms).

It consists of five distinct sections designed to obtain both quantitative and qualitative data on language learners' experiences with digital tools:

- **Personal Information (Demographic):** Collects basic participant data such as age, gender, and current language learning level.
- **Digital Tools Utilized (Checklist):** Identifies the specific types of

predefined digital tools participants use to learn English language.

- **Effectiveness Perception (Likert Scale):** Measures participants' perception of the effectiveness of various digital tools, using a 5-point Likert scale (Not Effective through Very Effective).
- **Challenges Faced (Checklist):** Gathers information on common difficulties encountered when using digital technology for language learning, with an "Other" option for additional specifics.
- **Additional Comments (Open-ended):** Allows participants to provide detailed qualitative feedback, insights, and suggestions regarding their experiences.

Validity

To ensure content validity, the questionnaire was developed based on previous literature on digital tools in the domain of language learning (Godwin, 2018; Kukulska, 2012; Stockwell, 2010). Experts in language education and educational technology reviewed the questionnaire items to confirm their clarity, relevancy, and accurate representation of the constructs under study. A pilot test was administered to a small group of students ($n=5$) from the same population to check clarity, comprehension, and alignment with research objectives. Subsequent adjustments were made to certain items based on the feedback from the pilot study subjects to improve wording and relevancy of those items.

Reliability

Reliability was assessed using internal consistency measures. Cronbach's alpha was calculated for the Likert-scale items measuring perceived effectiveness and frequency of use, yielding values above 0.80, indicating high reliability. The consistency of responses across similar items and sections suggests that the instrument produces stable and repeatable results.

Data Collection Procedure

Data were collected online through language learning communities and social media platforms frequently used by the participants. Each student received a detailed account of the

study's purposes, instructions for the filling-out of the questionnaire, and a statement to the effect that participation is voluntary and anonymous. Participants were given one week to complete and send back the survey.

Ethical Considerations

Ethical standards were strictly followed throughout the research process. Informed consent was obtained from all participants, who were assured of the confidentiality of their responses and their right to withdraw at any point of filling out the questionnaire without penalty. No personal identifying information was collected beyond basic demographic data. The study adhered to institutional ethical guidelines and prioritized respondents' comfort and privacy.

Data Analysis

Quantitative data were analyzed using descriptive statistics (frequencies, percentages, mean scores) to summarize usage patterns, perceived effectiveness, and challenges. Qualitative responses were subjected to thematic analysis to identify recurring patterns, insights, and learner suggestions. The combination of validated items and reliable scales ensured that the findings would accurately reflect the students' experiences and perceptions.

Demographic information

The questionnaire was completed by seventy-five junior students enrolled at the English Department, the Faculty of Languages, Sana'a University. As shown in the data, the age range of most participants (85.1%) is 20–25 years, while that of 14.9% is 25–30 years. This indicates that the sample mainly consisted of young adult learners who are in the prime stage of university education and are highly engaged with digital technology.

Regarding gender distribution, female students represented the majority (85.1%) whereas male students accounted for only 14.9%. This gender imbalance reflects the actual enrollment pattern across language departments, where females often outnumber males.

As for language proficiency, most participants (54.1%) rated their level as Intermediate, (43.2%) as Advanced, and only 2.7% as

Beginner. This profile suggests that the respondents possessed sufficient exposure to English and experience in using digital tools for learning purposes.

Digital Tools Utilized

Participants reported using a variety of digital tools to support language learning. Figer (1) shows the most frequently used tools.

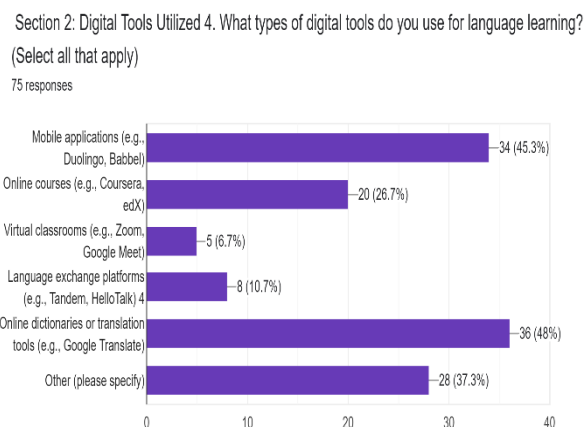


Figure (1) Digital Tools Utilized

Online Dictionaries/Translation Tools: 48% of participants regularly used online dictionaries or translation tools. These resources are valued for instant access to vocabulary definitions, pronunciation assistance, and translation support, facilitating autonomous learning and immediate clarification of language queries. **Mobile Applications:** 45.3% of learners frequently used mobile apps such as Duolingo, Babbel, Quizlet, YouTube, ELSA Speak, and ChatGPT. Mobile applications were popular due to their gamified features, interactivity, and flexibility, allowing learners to practice at their own pace. **Online Courses:** 26.7% reported using online courses that provide structured lessons and opportunities for skill development. While these courses support vocabulary acquisition and receptive skills, some participants noted that interaction and feedback were limited compared to real-time platforms. **Virtual Classrooms:** 6.7% used virtual classrooms (e.g., Zoom, Google Meet) for synchronous learning, benefiting from live interaction with instructors and peers. However, technical

issues such as unstable internet connections occasionally disrupted learning flow. **Language Exchange Platforms:** 10.7% utilized language exchange platforms to communicate with native speakers, enhancing oral practice and cultural exposure. Learners highlighted their experiencing difficulty in finding suitable partners as a limiting factor. **Other Resources:** 37.8% mentioned using additional tools such as YouTube, ChatGPT, and AI-enhanced platforms, reflecting an emerging preference for interactive, personalized, and AI-supported learning. These tools provide flexibility, instant feedback, and opportunities for practice beyond traditional curricula.

Results revealed that learners favored learning tools that are easily accessible, mobile-friendly, and self-paced, highlighting a preference for resources that support autonomy, vocabulary acquisition, and interactive engagement.

Perceived Effectiveness of Digital Tools

Participants evaluated the effectiveness of the learning tools they used on a 5-point Likert scale. Results are summarized in Figure 2.

Section 3: Effectiveness Perception 5. On a scale of 1 to 5, how effective do you find the following tools in improving your language skills? - Mobile applications:
75 responses

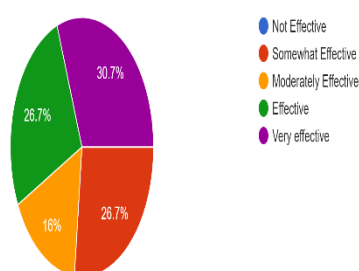


Figure (2) Effectiveness of Digital Tools

Mobile Applications: 56.8% of learners rated mobile apps as effective or very effective. Their interactivity, gamification, and instant feedback enhanced learning motivation, vocabulary retention, and engagement in learning activities. **Online Courses:** 56% of participants found online courses moderately to

highly effective, while others reported challenges with information overload, limited interaction, and delayed feedback. **Virtual Classrooms:** 73% considered virtual classrooms moderately to very effective, appreciating synchronous interaction with instructors. Nevertheless, unstable internet connectivity and limited non-verbal cues occasionally hampered communication and comprehension. **Language Exchange Platforms:** Learners valued these tools for conversational practice, but participation challenges and inconsistent availability of partners affected their overall effectiveness. **Online Dictionaries/Translation Tools:** These tools were rated highest in perceived effectiveness, with over 66% of participants finding them effective or very effective. Learners relied on these tools for instant translation, pronunciation support, and vocabulary learning.

Overall, the results reveal that learners perceive digital learning tools as beneficial, especially the tools that provide flexibility, interactivity, and immediate feedback. Respondents' preference for mobile apps and translation tools underscores learners' desire for autonomy and efficiency in managing their own learning process.

Challenges in Using Digital Technology

Despite their positive perceptions of using educational technology, learners reported several challenges, as is displayed in Figure (3).



Figure (3) Challenges in Using Digital Technology

As can be seen from the data in Figure (3), technical issues (e.g. poor internet connectivity) constituted the most frequent challenge to the effective use of educational technology, with 44% of respondents reporting these issues as the major problem facing them

when trying to utilize digital learning tools to enhance their language skills. Next come the difficulty to find suitable resources and information overload, as reported by (40%) and (25.3%), respectively. A smaller proportion (13.3%) of respondents reported lack of motivation, and 16% reported other issues (e.g. distractions and limited institutional support). These findings are consistent with earlier research (e.g., Reinders & White, 2016; Li, 2020), which suggests that inadequate infrastructure and guidance often hinder the effective use of technology in the field of language education. Students expressed a need for clearer direction and digital literacy training to identify reliable resources and balance online study with other academic responsibilities.

Qualitative Insights from Open-Ended Responses

The open-ended responses in the survey offered rich insights into learners' experiences with digital technology used for language learning purposes. Participants emphasized both the advantages and limitations of digital tools, which provides qualitative findings that, in addition to the quantitative findings mentioned earlier, can help us have a more nuanced understanding of how language learners at Sana'a University perceive the use of digital learning tools to improve language proficiency.

Flexibility and Engagement: Learners frequently highlighted that digital tools allowed them to study at their own pace and schedule. Mobile applications, online dictionaries, and AI-assisted platforms were particularly valued for providing autonomous learning, instant access to resources, and interactive exercises. Many students reported that gamified features in mobile apps increased motivation and facilitated vocabulary retention, while AI tools like ChatGPT provided personalized guidance and immediate feedback.

Skill Development:

Participants noted improvements in multiple language skills, including vocabulary acquisition, pronunciation, listening comprehension, and reading. For instance, applications such as YouGlish, ELSA Speak,

and YouTube tutorials helped learners practice pronunciation and listening skills in authentic contexts. Language exchange platforms provided opportunities to practice conversational skills and engage with native speakers, enhancing both linguistic competence and cultural understanding.

Challenges and Limitations:

Despite their positive experiences with digital learning tools, learners reported several challenges. Technical issues, such as unstable internet connectivity and software glitches, were common barriers to an effective use of educational technology. Some learners experienced information overload, struggling to single out the relevant resources because of the preponderance of learning tools available to choose from. Motivation was another concern, particularly when learning tools lacked interactive features or when students felt isolated from peers. Several learners also stressed that digital learning could not fully replicate the social and collaborative dynamics of classroom instruction, highlighting the ongoing importance of face-to-face interaction.

AI Tools and Emerging Trends:

Interestingly, several participants acknowledged the growing role of artificial intelligence in language learning. AI-supported platforms were praised for providing immediate corrections, personalized exercises, and opportunities for simulated conversations. Learners expressed optimism about AI's potential to enhance individualized learning and assist in such areas as pronunciation, grammar, and adaptive practice. This aligns with recent trends in educational technology that emphasize learning environments integrating AI apps as an aid to traditional instruction.

In sum, the key findings of the study are as follows:

1. *Most Frequently Used Tools:* Mobile applications and online dictionaries were the most frequently used learning tools, followed by online courses and virtual classrooms. AI-based tools and video platforms like YouTube are emerging as important supplementary resources.

2. *Perceived Effectiveness*: Learners rated mobile apps and online dictionaries as highly effective, whereas online courses and virtual classrooms were moderately effective. Effectiveness was closely tied to interactivity, immediate feedback, and ease of access.

3. *Challenges*: These include technical issues, difficulty in finding suitable resources, information overload, and limited motivation as primary obstacles to utilizing educational technology. Lack of institutional support and guidance was also reported as a significant factor affecting learners' experiences.

4. *Qualitative Insights*: Learners tended to rate highly digital learning tools that offer the flexibility, interactivity, and personalized feedback. They appeared aware that self-discipline and proper tool selection are critical to maximizing learning outcomes. AI-assisted tools were seen as promising add-ons to traditional digital resources.

Conclusion

This study underscores the significant role of digital technology in contemporary language learning among Yemeni university students. The findings reveal that learners demonstrate strongly positive attitudes toward the use of digital learning tools, particularly mobile applications and online dictionaries, which offer flexibility, interactivity, and immediate feedback. These tools allow learners to take control of their learning, engage autonomously, and practice language skills at their own pace, reflecting the principles of learner-centered pedagogy. MALL tools and online dictionaries were highly valued because they not only provide instant access to language resources but also support vocabulary retention, pronunciation practice, and listening comprehension in authentic contexts. Such tools encourage self-directed learning, a critical skill in higher education, and offer learners the opportunity to bridge gaps between classroom instruction and real-world language use.

Despite their generally positive perceptions toward the use of digital learning tools, language learners reported several challenges when integrating digital technology into their language learning processes. Technical issues, such as low-quality internet connectivity,

software glitches, and device limitations, were frequently cited as obstacles that disrupt engagement and learning flow. Furthermore, participants highlighted difficulties in selecting appropriate resources due to the overwhelming number of learning tools available on the Internet, leading to what is often termed information overload. Limited guidance and insufficient institutional support were also identified as barriers to the effective use of learning tools, demonstrating that while digital tools offer vast potential, their effectiveness is closely linked to the availability of structured support and instructional scaffolding. Learners emphasized the importance of training in digital literacy and resource selection, which can enable them to navigate the digital learning environment efficiently and avoid distractions or ineffective tools.

Interestingly, learners showed increasing interest in AI-enhanced tools, such as ChatGPT, YouGlish, and other AI-supported language platforms. These emerging technologies were perceived as highly valuable because they provide personalized feedback, adaptive exercises, and opportunities for interactive practice that closely simulate real-life communication.

Participants expressed optimism regarding AI's capacity to support individualized learning paths, improve pronunciation, and provide corrective feedback in real-time. However, learners also expressed concerns about potential distraction and overreliance on AI-generated suggestions, highlighting the need for guidance in balancing AI-assisted practice with traditional learning methods and critical thinking. These insights underscore the importance of viewing AI not as a replacement for human instruction but as a supplementary tool that can enhance learning outcomes when integrated thoughtfully.

The study is a mixed-methods design, incorporating both quantitative and qualitative data, allowed for a comprehensive understanding of learners' experiences with digital tools. Quantitative findings provided measurable insights into usage patterns, perceived effectiveness, and challenges, while qualitative responses offered rich, nuanced

perspectives on learners' motivations, preferences, and concerns. Together, these findings demonstrate that while digital learning tools are widely appreciated and used by language learners, their effectiveness is context-dependent and can be influenced by certain factors such as accessibility, learner autonomy, digital literacy, and instructional support.

In terms of practical implications, this research highlights some key points that do merit consideration and attention on the part of educators, educational institutions, and policymakers. First, the integration of digital tools into learning environments should be accompanied by structured guidance, including clear instructions for an effective use of digital learning tools, targeted training, and ongoing support to help learners make the most of these digital resources. Blended learning models that combine asynchronous tools (e.g., apps and AI platforms) with synchronous interaction (e.g., virtual classrooms, live discussions) can optimize engagement and facilitate the development of productive skills. Second, educational institutions should invest in reliable technological infrastructure and provide continuous technical support to minimize disruptions caused by connectivity issues or platform errors. Third, digital literacy programs should be designed and incorporated into curricula to equip learners with the skills needed to critically evaluate, select, and effectively utilize online resources. Such training will not only enhance language learning outcomes but also foster lifelong digital competence.

Finally, this study emphasizes the potential of AI-assisted tools as an emerging trend in language education. AI platforms can offer highly personalized learning experiences and facilitate adaptive practice that targets learners' individual strengths and weaknesses. Future research could further explore the effectiveness of AI tools in comparison to that of other digital resources, examine long-term impacts on development of language skills, and investigate learners' engagement across diverse cultural and educational contexts.

In conclusion, digital tools have become an indispensable component of modern language learning, offering unprecedented flexibility, interactivity, and opportunities for autonomous practice. When thoughtfully integrated with structured guidance, support, and AI-enhanced features, these tools can significantly improve learners' language skills, motivation, and engagement. This study contributes to a deeper understanding of how Yemeni university students interact with digital learning technologies, the challenges they encounter when using such tools, and the strategies that can maximize the benefits of technology-enhanced language learning. By addressing both opportunities and limitations, the study provides valuable guidance and insights to educators, institutions, and policymakers seeking to develop effective, learner-centered, technology-enhanced language programs. Ultimately, the study reinforces the importance of balancing technological innovation with pedagogical principles to ensure meaningful, equitable, and sustainable language learning experiences in the digital age.

Recommendations for Future Research

This study also highlights areas for future research:

1. Mixed-Methods Approaches: Combining quantitative surveys with qualitative interviews or focus groups could yield deeper insights into learner experiences and motivations.
2. Longitudinal Studies: Observing learners over extended periods can reveal trends in tool usage, engagement, and learning outcomes, especially for AI-assisted technologies.
3. Diverse Populations: Expanding research to include learners from different cultural, educational, and proficiency backgrounds would help explore the impact of contextual factors on digital learning experiences.
4. Effectiveness of AI Tools: Further research could compare the effectiveness of AI-based tools to that of the other digital tools in enhancing specific language skills.

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