Technology integration in arabic language learning: A literature review on the effectiveness of e-learning and mobile applications

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Abstract: The integration of digital technology in Arabic language learning offers benefits such as increased student motivation and personalized learning, but faces challenges such as the digital divide, limited infrastructure, and inadequate teacher training, especially in rural areas. Objectives This study analyzes the effectiveness of technology integration, particularly e-learning and mobile applications, in Arabic language learning, as well as identifies the challenges of its implementation. The research used a systematic literature review method by reviewing articles from databases such as Scopus, Web of Science, ERIC, and Google Scholar (2019-2024). The data collected included research methods, technology type, sample size, main results, and conclusions and recommendations. And the findings of this study are E-learning increases student participation and material access, while mobile applications are effective in increasing motivation and language comprehension. The integration of these technologies not only provides a more affordable and customized learning solution, but also supports the achievement of better learning outcomes, especially for non-native speakers and migrants. Thus, the utilization of e-learning and mobile applications in Arabic language education holds great promise for improving the quality of language acquisition in a broader context.

Keywords: Adaptive education technology, Arabic language learning, gamification

Abstrak: Integrasi teknologi digital dalam pembelajaran bahasa Arab menawarkan manfaat seperti peningkatan motivasi siswa dan pembelajaran yang dipersonalisasi, tetapi menghadapi tantangan seperti kesenjangan digital, keterbatasan infrastruktur, dan pelatihan guru yang tidak memadai, terutama di daerah pedesaan. Tujuan Penelitian ini menganalisis efektivitas integrasi teknologi, khususnya e-learning dan aplikasi mobile, dalam pembelajaran bahasa Arab, serta mengidentifikasi tantangan implementasinya. Penelitian menggunakan metode tinjauan literatur sistematis dengan menelaah artikel dari database seperti Scopus, Web of Science, ERIC, dan Google Scholar (2019-2024). Data yang dikumpulkan mencakup metode penelitian, jenis teknologi, ukuran sampel, hasil utama, serta kesimpulan dan rekomendasi. Dan temuan penelitian ini adalah E-learning meningkatkan partisipasi siswa dan akses materi, sementara aplikasi mobile efektif dalam meningkatkan motivasi dan pemahaman bahasa. Integrasi teknologi ini tidak hanya memberikan solusi pembelajaran yang lebih terjangkau dan disesuaikan, tetapi juga mendukung pencapaian hasil belajar yang lebih baik, terutama bagi penutur non-pribumi dan migran. Dengan demikian, pemanfaatan e-learning dan aplikasi mobile dalam pendidikan bahasa Arab sangat menjanjikan untuk meningkatkan kualitas penguasaan bahasa dalam konteks yang lebih luas.

Kata kunci: Teknologi pendidikan adaptif, pembelajaran bahasa Arab, gamifikasi

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INTRODUCTION

Arabic language learning has undergone a significant transformation with the integration of digital technology. E-learning and mobile applications offer new approaches that are more interactive and flexible, allowing students to learn anytime and anywhere. Research shows that the use of these technologies improves student motivation, engagement and learning outcomes. The Arabic language, with its complexity, is often a challenge for non-native learners (Baryshnikova et al., 2021). Digital technology comes as

an innovative solution by providing diverse and interactive learning materials, as well as facilitating interaction with native speakers. E-learning platforms and mobile applications not only facilitate the understanding of basic concepts, but also improve listening, speaking and reading skills through features such as voice recognition and augmented reality (Tsai, 2022). Thus, digital technology has opened up new opportunities to learn Arabic more effectively and efficiently, overcoming various challenges previously faced by learners.

E-learning, or electronic learning, has become a rapidly growing trend in language education. Online learning platforms allow wider access to Arabic learning materials, facilitate interaction between teachers and learners, and provide a flexible and adaptive learning environment. Recent research by Ritonga et al. (2021) shows that the use of e-learning platforms in Arabic language learning can significantly increase student motivation and engagement. In addition, Ritonga et al. (2021) found that students who used e-learning showed increased understanding of the subject matter compared to conventional methods. The use of technology in Arabic language learning also allows for more effective personalization of learning, so that students can learn according to their own pace and learning style. Thus, e-learning not only enriches students' learning experience, but also helps them achieve better learning outcomes (Arifin et al., 2023).

Meanwhile, mobile applications for Arabic language learning have experienced rapid development in recent years. These apps offer various interactive features such as vocabulary exercises, Arabic letter recognition, and conversation exercises that can be accessed anytime and anywhere. A study conducted by Yusof (2023) revealed that the use of mobile applications in Arabic language learning can improve students' vocabulary retention and reading skills. In addition, the app also allows students to learn at their own pace, thus accommodating various learning styles. This technological advancement also helps in reducing geographical barriers, making Arabic language learning more accessible to many people in different parts of the world (Kerras & Essayahi, 2022). Thus, the integration of mobile applications in Arabic language learning becomes one of the innovative solutions in overcoming the challenges of conventional learning (Bradley et al., 2020).

The integration of technology in Arabic language learning also brings about changes in teaching methods. Arabic language teachers are now required to adopt a more student-centered approach and utilize various digital tools to improve learning effectiveness. According to Hassan et al., 2021), the use of technology in Arabic language teaching can help create a more interactive and collaborative learning environment. The effectiveness of e-learning in Arabic language learning has been the focus of various studies. A meta-analysis study conducted by Azis et al. (2023) showed that e-learning-based Arabic language learning can produce significant improvements in students' language skills, especially in the aspects of listening and reading comprehension.

Mobile applications have also been shown to be effective in supporting self-directed learning of Arabic. Research by Elsherbini and Elashri (2023) revealed that the use of mobile apps can increase learning motivation and facilitate more personalized and adaptive learning. Features such as gamification and instant feedback in mobile apps contribute to a more engaging and effective learning experience. In addition, mobile apps allow flexible access to learning, so students can study anytime and anywhere at their convenience (Damopolii & Kurniadi, 2019). With various interactive methods, such as videos, quizzes

and games, mobile apps can cater to different individual learning styles (Lazaro & Duart, 2023). The use of this technology also encourages active engagement in the learning process, which has a positive impact on comprehension and retention of material (Dita et al., 2024; Wekerle et al., 2022).

However, the integration of technology in Arabic language learning also presents its own challenges. Issues such as the digital divide, the need for adequate digital literacy, and limited technological infrastructure in some regions are important concerns. A study conducted by Rahman et al. (2020) identified various barriers in the implementation of e-learning for Arabic language learning, including lack of training for teachers and limited internet access in some areas. These barriers result in difficulties in maximizing the potential of technology to support the teaching and learning process. In addition, limited technological resources often lead to disparities in learning quality between urban and rural areas. Therefore, collaborative efforts from the government, educational institutions and communities are needed to overcome these constraints and ensure that all students have equal access to educational technology (Hirsch et al., 2023).

However, despite this great potential, the application of digital technology in Arabic language learning still faces various challenges, including limited infrastructure and lack of training for teachers. Moreover, it is important to ensure that the technologies used are not only efficient but also support effective and contextualized pedagogical approaches. Research by Saad and Elazhary, 2022) shows that AI-based adaptive learning systems can significantly improve the efficiency of Arabic language learning by customizing materials and exercises based on learners' individual abilities and needs.

Another important aspect to consider is the impact of technology integration on learners' motivation and attitudes towards Arabic. Some studies, such as the one conducted by Zainuddin et al. (2023), show that the use of technology can increase students' interest and motivation in learning Arabic, which is often considered a difficult language to learn. Although many studies show positive results, it is important to consider that the effectiveness of technology integration in Arabic language learning also depends on various contextual factors. Factors such as cultural background, individual learning styles, and the level of technological readiness of the educational institution play an important role in determining the successful implementation of e-learning and mobile applications in Arabic language learning.

This study aims to examine the effectiveness of using e-learning in improving learning outcomes and student motivation in Arabic language learning. In addition, this research also focuses on analyzing the effectiveness of mobile applications as a tool in learning Arabic in the digital era. By conducting an in-depth literature review, this research will identify the advantages and challenges that arise in the application of e-learning technology and mobile applications. Finally, this research will provide recommendations to maximize the use of these technologies in the learning process of Arabic language in various educational institutions.

METHOD

This study uses a systematic literature review method to analyze the effectiveness of technology integration in Arabic language learning, focusing on the use of e-learning and mobile applications. A literature search was conducted on electronic journal databases such

as Scopus, Web of Science, ERIC, and Google Scholar, using keywords such as "Arabic language learning", "e-learning", "mobile applications", "technology integration", and "effectiveness". Inclusion criteria included research articles published between 2019-2024, in English or Arabic, focusing on the use of e-learning and mobile applications in Arabic language learning, and measuring the effectiveness of technology use.
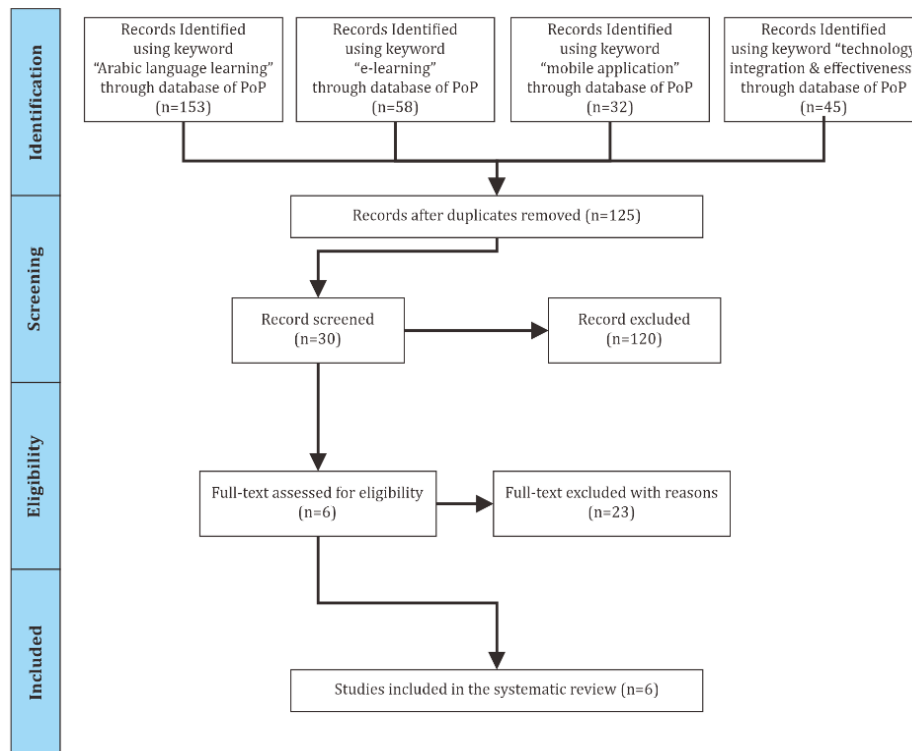

Fig 1. The procedure of the systematic review using the PRISMA Protocol

The selection process was conducted through title and abstract screening, followed by full-text review of articles that passed the first stage. Data extracted included bibliographic information, research methods, type of technology used, sample size, main results of the study, and conclusions and recommendations. This review aims to provide a comprehensive insight into recent developments in the utilization of technology for Arabic language learning, evaluate various aspects of e-learning and mobile applications, and identify implementation challenges. The results are expected to provide useful information for educators, educational technology developers, and policy makers to improve the effectiveness of Arabic language learning in the digital era.

Tabel 1. Articles included in the systematic review

Reseach Questions	Author
How effective is the use of e-learning in improving learning outcomes and student motivation in Arabic language learning?	Fitriana et al. (2023), Azis et al. (2023), and Elawadi et al. (2019)
What is the effectiveness of using mobile applications for Arabic language learning in the digital era?	Ghani et al. (2022), Puasa, (2023), and Bradley et al. (2020)

RESULTS AND DISCUSSION

Improving the effectiveness of Arabic language learning through e-learning

Tabel 2. Findings literature review

Articles	Consideration	Theme
Fitriana et al. (2023)	1. Badrul Al-Khan's e-learning-based Arabic teaching strategy is implemented in Indonesian Islamic primary schools. 2. E-learning-based learning increases student participation. 3. E-learning technology facilitates accessibility of learning materials. 4. Teachers play an important role in implementing e-learning strategy. 5. E-learning enables interactive learning.	Teaching Strategy
Azis et al. (2023)	1. E-learning increases student learning activity. 2. Students' achievement in Arabic learning increases with e-learning. 3. E-learning is more effective than traditional methods. 4. Students' interaction with learning materials increases. 5. E-learning technology supports better learning evaluation.	Learning Effectiveness
Elawadi et al., 2019	1. E-learning is effective in teaching Arabic to non-native speakers. 2. E-learning technology supports faster language acquisition. 3. E-learning materials are more accessible to non-native students. 4. Interaction between teachers and students is more flexible. 5. E-learning increases student motivation.	Non-Native Teaching

E-learning as a teaching strategy

E-learning has become one of the teaching strategies implemented in various educational institutions, including in Islamic schools in Indonesia. This strategy, adopted from Badrul Al-Khan's teaching model, allows teachers to integrate technology in Arabic language learning. This e-learning implementation provides opportunities for students to access more varied teaching materials, ranging from digital texts, interactive videos, to language learning applications. Fitriana et al. (2023) highlighted that the implementation of e-learning technology in Islamic schools helps students develop their language skills in a more effective and enjoyable way. With the digital platform, learning becomes more flexible, not limited by time and space, which is very important in the modern era.

E-learning as a teaching strategy has a significant impact in increasing student participation. With the use of interactive digital technology, students are encouraged to be more active in the learning process. For example, students can participate in online discussions, take real-time quizzes and collaborate with classmates through digital platforms. This more active participation is also due to a more comfortable environment, where students feel more free to express and interact without pressure like in a conventional classroom. Eltahir et al. (2021) noted that the presence of e-learning technology provides a higher sense of engagement, which in turn improves student motivation and learning outcomes.

Another advantage of e-learning is easier accessibility to learning materials. This technology allows students to get learning resources anytime and from anywhere. This is very beneficial especially for students who need flexibility in learning. According to Räbiger et al. (2020) e-learning technology makes learning materials more accessible, whether in the form of digital texts, videos, or interactive simulations. This convenience supports students' individual learning styles, where they can learn at their own pace without being burdened by limited class time. In addition, with the availability of various resources, students can expand their understanding of the topic being studied.

Although technology plays an important role in e-learning, teachers remain a key element in the success of this strategy. Teachers are not only the deliverers of materials, but also the managers of the digital learning process. They must ensure that technology is used in an appropriate way to support the achievement of learning objectives. In this regard, teacher training is essential. Fitriana et al. (2023) showed that teachers who are trained in the use of e-learning technology are better able to create an interactive and fun learning environment. In addition, research Gaspard-Richards (2022) confirms that support for teachers in the form of technology training should be provided so that they can optimize the potential of e-learning in improving student learning outcomes.

One of the main attractions of e-learning as a teaching strategy is its ability to create interactive learning. Through digital platforms, teachers can structure various activities that involve active student participation, such as online discussions, interactive quizzes and collaborative projects. This interactivity not only makes learning more interesting, but also helps students develop critical and analytical thinking skills. Huang and Sun (2022) state that with e-learning, students can engage in a more in-depth and reflective learning experience, where they are encouraged to explore the material independently while still collaborating with their classmates. This technology also opens up opportunities for distance learning, which is increasingly relevant in the post-pandemic era.

This whole discussion confirms that e-learning is not just a technological tool, but a teaching strategy that can expand accessibility, increase participation, and create a more interactive and meaningful learning experience for students, with the teacher playing a crucial role as the director and facilitator of the learning process.

Learning effectiveness improving effectiveness in learning

The use of e-learning has been proven to significantly improve student learning activities. This is due to more flexible and varied access to learning materials. Research by Azis et al. (2023) confirms that through e-learning, students can access various learning resources at any time, which encourages them to be more active in the learning process. In

this context, a study by Thakkar and Joshi (2015) also supports this finding, suggesting that e-learning platforms provide flexibility for students to learn according to their own pace. In conclusion, e-learning offers a more adaptive approach and allows students to take a greater role in the management of their learning activities.

The effectiveness of e-learning is also evident in the improvement of student achievement, especially in Arabic language learning. Azis et al. (2023) highlighted that students who utilized e-learning in Arabic language learning showed better improvement in their understanding and academic achievement compared to traditional methods. This is reinforced by research Sobaih et al. (2022) which found that the use of interactive media and online exercises through e-learning platforms made difficult concepts easier for students to understand. Therefore, the implementation of e-learning not only helps students better understand the material, but also provides more structured support to improve their learning outcomes.

One of the main advantages of e-learning is its ability to increase interaction between students and learning materials, as well as support more efficient learning evaluation. Azis et al. (2023) showed that e-learning technology allows students to more easily interact with learning content in a personalized manner, which ultimately improves the quality of the learning experience. In addition, research by Li and Cui (2011) confirms that learning evaluation through e-learning can be done in real-time, allowing teachers to provide faster and more relevant feedback. With this more effective evaluation, e-learning plays an important role in helping students and teachers achieve more optimal learning outcomes.

Effectiveness of e-learning on non-native teaching

E-learning is increasingly recognized as an effective method of teaching Arabic to non-native speakers. Research Elawadi et al. (2019) shows that the use of technology in language learning makes it easier for students to understand the material, increases engagement, and allows flexibility in learning. With the help of e-learning platforms, students can learn Arabic through interactive modules tailored to their needs. This creates a more conducive learning environment, where students can repeat the material as many times as necessary, improving their comprehension ability without strict time pressure

Technology in e-learning also plays an important role in accelerating language acquisition. Digital media, such as mobile applications and learning software, provide students with opportunities to practice and receive immediate feedback. As stated by Elawadi et al. (2019), non-native students can practice Arabic speaking, listening and writing skills at any time, which contributes to the acceleration of language acquisition. This technology allows students to access a variety of resources that enrich their learning experience, making learning more effective and efficient.

Another major advantage of e-learning is the ease of access to teaching materials. Non-native students who are in remote locations or have time constraints can learn independently through e-learning platforms. According to Elawadi et al. (2019), it is very beneficial in overcoming geographical barriers and providing more inclusive learning opportunities. Digitally uploaded materials can be accessed anytime and anywhere, allowing students to continue learning without physical restrictions, thus expanding the scope of Arabic language teaching among non-native speakers.

Finally, e-learning also has a positive impact on students' learning motivation. With the flexibility of interaction between students and teachers, as well as gamification elements and interactive features, e-learning is able to increase students' motivation and engagement in learning. Research Elawadi et al. (2019) emphasizes that a technology-based learning environment allows students to feel more comfortable and motivated in exploring Arabic. This flexibility gives students more control over their learning process, which ultimately improves overall learning outcomes. Thus, e-learning is proven to be effective in teaching Arabic to non-native speakers, both in terms of material comprehension, learning speed, accessibility, and student motivation.

Effectiveness of mobile applications in Arabic language learning

Tabel 3. Findings Literature Review

Articles	Considered	Theme
Ghani et al. (2022)	1. The use of mobile digital games increases motivation to learn Arabic at the college level. 2. Mobile digital games help students understand Arabic vocabulary and grammar better. 3. Fun interaction in the game increases students' participation. 4. Mobile games provide immediate feedback. 5. Mobile technology makes learning more flexible.	Impact of Digital Games
Puasa, (2023)	1. CEFR-based gamification mobile application is effective in improving Arabic speaking skills. 2. The use of this application increases students' confidence in speaking Arabic 3. Application provides structured exercises according to skill level. 4. The use of the application facilitates access to learning. 5. Interactive feedback from the app increases learning effectiveness.	Effectiveness of Gamification Mobile Apps
Bradley et al. (2020)	1. Mobile language learning is specifically designed for Arabic-speaking migrants. 2. The mobile app facilitates self-directed language learning. 3. User-friendly app design increases user engagement. 4. The app provides materials relevant to migrant needs. 5. Mobile technology enables language learning anytime and anywhere.	Mobile Learning Design for Migrants

Impact of digital games on arabic learning

The use of digital games on mobile devices contributes significantly to increasing motivation to learn Arabic, especially at the college level. According to Ghani et al. (2022), interactive and fun game elements make students more motivated to engage in learning. In the context of foreign language learning, motivation is an important factor that encourages

students' active engagement. Digital games not only offer entertainment, but also build a spirit of competition through challenges and rewards, thus increasing students' intrinsic motivation. Research by Liu et al. (2022) shows that the integration of games in learning can significantly improve motivation and learning outcomes, strengthening competitiveness and the desire to continue learning.

In addition to increasing motivation, digital games have also proven effective in helping students strengthen their understanding of Arabic vocabulary and grammar. Ghani et al. (2022) found that mobile games allow students to practice and learn vocabulary and grammar repeatedly in an interactive and immersive environment. These games not only add new vocabulary, but also allow students to understand grammar in relevant contexts, which in turn strengthens their overall understanding. Research by Yang and Li (2024) adds that context-based learning through games accelerates the absorption of material because students can see how language is used in real life in various situations. This suggests that digital games have the potential to improve overall language learning, especially in the aspects of vocabulary and grammar.

Fun interactions in digital games are also proven to increase student engagement and participation in Arabic language learning. Ghani et al. (2022) stated that games that offer challenges, levels and competitions can spur students to more actively participate in the learning process. These engaging interactions make students more interested in engaging in learning, both individually and in groups. Further research by Taşkın and Çakmak (2023) supports the idea that fun and interactive learning environments can increase students' cognitive engagement, strengthen social interactions between students, and create a more conducive learning atmosphere. This suggests that digital games not only improve comprehension, but also foster a sense of community and collaboration in the learning process.

One very beneficial feature of digital games is their ability to provide immediate feedback to students. Ghani et al. (2022) revealed that the instant feedback provided in digital games helps students understand mistakes and gives them the opportunity to correct them immediately. Thus, students can learn independently and accelerate their learning process. This instant feedback also enables personalization of learning, where each student can learn at their own pace based on the results they achieve. Research by Nor et al. (2021) confirms that immediate feedback is crucial in developing critical and reflective thinking skills, which are essential elements in Arabic language learning.

The mobile technology used in digital games allows for greater learning flexibility, giving students the freedom to learn anytime and anywhere. Ghani et al. (2022) emphasized that this flexibility is very helpful for students in managing their time, especially for those who have other activities outside of academic activities. In addition, mobile technology enables wider accessibility to learning resources, allowing students to access materials whenever they need to. Research by Liu and Correia (2021) shows that this flexibility increases student engagement in learning, strengthens learning autonomy, and enables a more efficient and effective learning process. In the context of Arabic language learning, this flexibility allows students to organize learning time according to their needs, so that they can learn more productively.

Overall, digital games on mobile devices have a significant impact on Arabic language learning, in terms of motivation, vocabulary and grammar comprehension, student

engagement, immediate feedback, and learning flexibility. The implementation of this technology has the potential to revolutionize traditional learning methods, making them more adaptive, fun, and effective for the current generation of students.

Effectiveness of gamification mobile apps

Gamification-based mobile applications are proven to be effective in improving students' speaking skills in Arabic (Puasa, 2023). By changing the learning process to be more engaging through game elements, students are more motivated to actively participate. Research by Abdel-Ghany Al-Sabbagh (2023) supports these findings, showing that the use of gamification elements, such as rewards and challenges, can encourage the improvement of language skills, particularly in speaking. In addition, this gamification app also contributes to the improvement of students' confidence when speaking. The interactive and supportive atmosphere presented by the app encourages students to practice without fear of being wrong. Chen (2019) highlights the importance of customizing learning materials in creating an optimal learning experience.

Another advantage of the app is the provision of structured exercises according to each student's ability level. With a personalized approach, students can learn gradually, proceeding to a more difficult level after mastering the previous level. Research by Ahmad Faudzi et al. (2023) menyoroti pentingnya penyesuaian materi pembelajaran dalam menciptakan pengalaman belajar yang optimal. The accessibility of gamified mobile apps is also an important factor in their effectiveness. Students can learn anytime and anywhere, which makes it easy to integrate learning into daily routines. This ease of access greatly affects the frequency of learning, especially in the context of distance education.

Finally, the interactive feedback provided by the app serves to enhance the effectiveness of learning. Students get immediate feedback on their performance, allowing them to understand mistakes and improve skills. It can be concluded that prompt and constructive feedback is a key element in technology-based learning, providing additional motivation for students to continue learning.

Mobile learning design for migrants

A mobile learning design aimed at Arabic-speaking migrants offers an innovative solution to the challenges of language learning. This specially designed learning app not only addresses the unique needs of migrants, but also enables them to learn independently. With features that support self-directed learning, users can access materials according to their ability and time, without relying on face-to-face instructors. Bradley et al. (2020) emphasize that this flexibility is crucial, especially for migrants who often have limited time and access to formal education.

User-friendly interface design also contributes significantly to user engagement levels. Intuitive apps make navigation easy and create a pleasant learning experience. And it has been shown that an attractive and simple design can increase users' motivation, making them more likely to continue using the app. This high engagement is especially important, given that migrants often face pressures in their daily lives, and finding time for language learning can be a challenge.

In addition, learning materials that are relevant to the needs of migrants are a key element in the effectiveness of the app. Bradley et al. (2020) noted that content covering

real-life situations, such as workplace communication or interactions with health services, helps users feel better prepared for new challenges. Research by Heil et al. (2016) also confirms that the presentation of contextualized material can improve understanding and practical application of language.

Finally, one of the biggest advantages of mobile learning is its ability to provide access to learning anytime and anywhere. With mobile technology, migrants can integrate language learning into their daily routine, which is crucial for social and cultural adaptation. This suggests that this constant access not only accelerates the learning process, but also helps migrants feel more connected to their new environment. Thus, mobile learning is not only a learning tool, but also a bridge to social integration for migrants.

Mobile learning design for Arabic-speaking migrants is a highly effective approach in addressing the challenges of language learning in the modern era. By offering flexibility, relevant content and user-friendly design, it not only supports self-directed learning but also increases user engagement. Easy and anytime access provides opportunities for migrants to learn in the context of their daily lives, which is crucial for the process of social and cultural adaptation. Overall, mobile learning serves as a crucial tool in improving migrants' language skills, while helping them better integrate into their new societies. With the continuous development of technology, the potential of mobile learning to empower migrants is wide open, providing hope for improving their quality of life through education.

CONCLUSION

Based on the results of the review on e-learning and mobile applications in Arabic language learning, it can be concluded that these two approaches are very effective tools in improving language learning. E-learning strategies increase student participation and accessibility of learning materials, while the role of the teacher is crucial in the implementation of such strategies to achieve optimal results. Mobile applications, especially those based on gamification, have been shown to increase student motivation and understanding of Arabic vocabulary and grammar. Apps designed specifically for Arabic-speaking migrants also facilitate independent learning, offering relevant content and flexible learning experiences. Overall, the integration of these technologies not only provides a more affordable and customized learning solution, but also supports the achievement of better learning outcomes, especially for non-native speakers and migrants. Thus, the utilization of e-learning and mobile applications in Arabic language education holds great promise for improving the quality of language acquisition in a broader context.

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