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# The Role of Mobile Applications in Enhancing English Speaking Proficiency: A Systematic Literature Review

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**Abstract**

With the popularity of smartphones and tablets, mobile-assisted language learning (MALL) has become an effective way to improve English speaking skills. This study adopts a systematic literature review approach to explore the effectiveness, student perceptions and challenges associated with the use of mobile apps to improve students' spoken English skills in the context of higher education. A total of 18 empirical research papers meeting the criteria were searched in Scopus and Web of Science databases and analysed. The results show that various types of mobile applications, including video call software, instant messengers, AR applications, AI chatbots, etc., play a positive role in improving students' oral English skills. Students generally held positive attitudes that these apps could enhance their interest and motivation in learning and reduce anxiety. However, unstable network quality, limited access to devices, and distraction of concentration are the main challenges faced during the implementation process. This study provides an important basis for making full use of mobile technology to improve English language teaching and learning, and makes recommendations for future research.

**Keywords:** Systematic Review, Mobile Applications, English Speaking Skills, Higher Education

## Introduction

English plays a vital role as the global lingua franca, with over 3 billion people engaging with the language daily across more than 85 countries (British Council, 2023). English has been acknowledged as a crucial communication medium since globalization has sparked innovation and competition worldwide. Among the four core language skills (listening, speaking, reading, and writing), speaking is considered the most essential as it directly reflects learners' communicative competence and confidence (Chien et al., 2020; Rao, 2019). The proliferation of smartphones and mobile technologies has transformed the educational landscape, offering learners increased flexibility, autonomy, and opportunities for real-time practice. By the end of 2023, more than 70% of the global population owned smartphones, and the number of smartphone subscriptions exceeded 7 billion (Statista, 2024), paving the way for the widespread use of mobile applications in language learning. In the era of technological

innovation, mobile applications have emerged as a powerful tool in enhancing English speaking skills, enabling learners to access authentic content, receive real-time feedback, and practice in flexible, low-anxiety environments(Shadiev & Yang, 2020; Heil et al., 2016). This need for innovation has led to a rise in new teaching methods, with mobile-assisted language learning (MALL) leading the way in this educational shift. The integration of mobile applications into English language courses in higher education has gained momentum globally (Pérez-Paredes & Zhang, 2022). The COVID-19 pandemic further accelerated this trend, pushing institutions to adopt mobile and online learning platforms to ensure educational continuity.

The significance of this review lies in its contribution to both theory and practice. It offers a timely synthesis of research that can inform educators, curriculum designers, application developers, and institutional policymakers. By identifying the types of applications used, learner outcomes, and implementation barriers, the review provides a foundation for future pedagogical innovation and technological integration in speaking-focused English instruction.

This study aims to address the following research questions:

a) What is the scope of existing research on using mobile applications to enhance English speaking skills in higher education?
b) What challenges do students and educators face in using mobile applications to enhance English speaking skills?

*The Use of MALL in Enhancing English Speaking Skills*

While the use of mobile applications for language learning has gained significant attention in recent years, there remains a critical gap in our understanding of their effectiveness, particularly in enhancing English speaking skills within higher education contexts.

Although there have been many studies on mobile apps for enhancing English speaking skills in higher education, attempts to conduct a systematic review of these studies are still limited. Therefore, this study will fill this gap by analysing and investigating the effects of using mobile apps on higher education students' English speaking skills, the perceptions towards the use of mobile applications, and the challenges encountered by students in using mobile apps to enhance English speaking skills are analysed and studied. This systematic literature review aims to explore the effectiveness, perceptions and challenges of using mobile applications to improve English speaking skills in higher education contexts.

**Methodology**

A systematic review is an examination of a formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research and to collect and analyse data from studies that are included in the review. Via a systematic review, authors' claims of rigour in their research can be justified, allowing for the identification of gaps and needed directions for future research. This study conducts a systematic literature review on the use of mobile applications to enhance English speaking skills in higher education. It involves a structured methodology as below:

1) Formulating the research questions
2) Identifying databases
3) Developing the search protocol

4) Literature search
5) Screening and selecting the studies
6) Data extraction
7) Data synthesis

The study began with the formulation of clear research questions that guide the search for relevant literature. This is followed by selecting the databases and sources for literature sources based on the research questions and topic area. The review utilised the Web of Science (WoS) and Scopus databases. WoS is a robust database consisting of more than 34,600 peer-reviewed journals with coverage of over 256 disciplines including subjects related to environmental studies, interdisciplinary social sciences, social issues and development and planning. It encompasses comprehensive backfile and citation data spanning over 150 years, established by Clarivate Analytics. The journals and research within WoS are ranked by three separate measures: citations, papers, and citations per paper. Scopus is the second database used in the review. It is one of the largest databases of its kind, offering access to a vast array of peer-reviewed literature. With a robust collection that includes over 29,200 journals from approximately 5,000 publishers around the world, Scopus covers a wide range of subject areas such as environmental sciences, social sciences, agriculture, and biological sciences.

After the databases were identified, the search protocol was developed. It outlined the inclusion and exclusion criteria to filter studies effectively. Kusmaryani (2023) suggested a hybrid methodology that could be explored in the review. For instance, her search protocol covered the importance of utilizing mobile technologies and educational applications to improve students' speaking abilities. Drolia et al. (2022) further stated that the search strategy should be exhaustive, employing multiple databases and including studies without language or date restrictions, as demonstrated by in the authors' systematic review methodology.

Several eligibility and exclusion criterion were determined. First with regard to literature type, only articles with empirical data were selected, hence, article reviews, book series, books, chapters in book and conference proceedings were excluded. Second, to avoid any confusion and difficulty in translating, the search efforts excluded the non-English publication and focused only on articles published in English. Thirdly, a period of article publication between 2014 and 2024 was selected. 10 year-period is an adequate period for the evolution of research publications. The evaluation method specifically targeted mobile applications that improve English speaking skills. Therefore, only publications listed in social science-based indexes were chosen, while materials published in a hard-science index such as Science Citation Indexed Expanded were excluded (refer to Table 1).

Table 1
*Inclusion and exclusion criteria*

| Criterion | Eligibility | Exclusion |
|---|---|---|
| Literature type | Journal (research articles) | Systematic review journals, monographs, chapter in book, conference proceeding |
| Language | English | Non-English |
| Timeline | Between 2014-2024 | <2014 |
| Open Access | All open access | Others |
| Indexes | Social Science Citation Index | Science Citation Indexed Expanded |

Once relevant literatures were searched and identified, data extraction was performed independently to enhance reliability, a practice noted by in their systematic review on educational apps (Hussain et al., 2021). Finally, the analysis phase involved synthesizing the findings from the selected studies, which included qualitative and quantitative data, and applying frameworks such as the PRISMA guidelines to ensure transparency and replicability in reporting (Drolia et al., 2022). Additionally, the review addressed the usability and effectiveness of the mobile applications in improving English speaking skills, drawing on methodologies from existing literature on mobile learning applications (Kumar & Mohite, 2018). Ultimately, the systematic review aims to provide a comprehensive overview of the current state of research, identify gaps in the literature, and suggest directions for future studies in the field of mobile-assisted language learning.

The review was guided by the PRISMA framework (Preferred Reporting Items for Systematic reviews and Meta-Analyses). PRISMA is often utilized within the environmental management field. According to Sierra-Correa and Cantera Kintz (2015), PRISMA offers three unique advantages which are 1) defining clear research questions that permits systematic research, 2) identifying inclusion and exclusion criteria and 3) examining large database of scientific literature in a defined time. The PRISMA framework allows for rigorous search of the use of mobile applications in enhancing English speaking skills. This guideline was employed to systematically examine how mobile applications to enhance English speaking skills in higher education and identifying the related gap.

## Results

This section presents the results of the review process which focus on the selection criteria and process, profile of included studies, and synthesis of the results.

### *Selection Criteria and Process*

The systematic review process was divided into four phases namely keyword identification, article screening, eligibility criteria and review result (Khan et al., 2003). The synthesis process was conducted in August 2024. The first phase identified the keywords used in the search process for the Scopus and Web of Science databases. Based on past research, the following related keywords have been identified; mobile applications, English speaking skills and higher education (Table 2). At this stage, duplicate articles (articles that can be found in both databases) were removed to ensure that each study is only counted once, leading to a more accurate and reliable synthesis of the selected literature.

Table 2
*The search string used for the systematic review process*

| Databases | Keywords used |
|---|---|
| Scopus | TITLE-ABS-KEY ("Mobile App*" OR "App*" OR "Educational App*") AND ("English Speak* skill*" OR "English Speak* Proficienc*" OR "Oral English Proficienc*" OR "Spoken English" OR "EFL speak*" OR "ESL speak*") AND ("Higher Educat*" OR "Universit*" OR "College*" OR "Tertiary Educat*" OR "Undergraduat*" OR "Postgraduat*") ) |
| Web of Science | TS= ("Mobile App*" OR "App*" OR "Educational App*") AND ("English Speak* skill*" OR "English Speak* Proficienc*" OR "Oral English Proficienc*" OR "Spoken English" OR "EFL speak*" OR "ESL speak*") AND ("Higher Educat*" OR "Universit*" OR "College*" OR "Tertiary Educat*" OR "Undergraduat*" OR "Postgraduat*" ) |

The second phase involved the article screening stage. Out of 322 articles eligible to be reviewed, a total of 231 articles were removed. The third phase is eligibility, where the full articles were accessed. After careful examination, a total of 73 articles were excluded as some did not focus on mobile applications, were not empirical studies or did not have the same context of English-speaking skills and higher education. The last phase of review resulted in a total of 18 articles that were used for the qualitative analysis (see Figure 1).

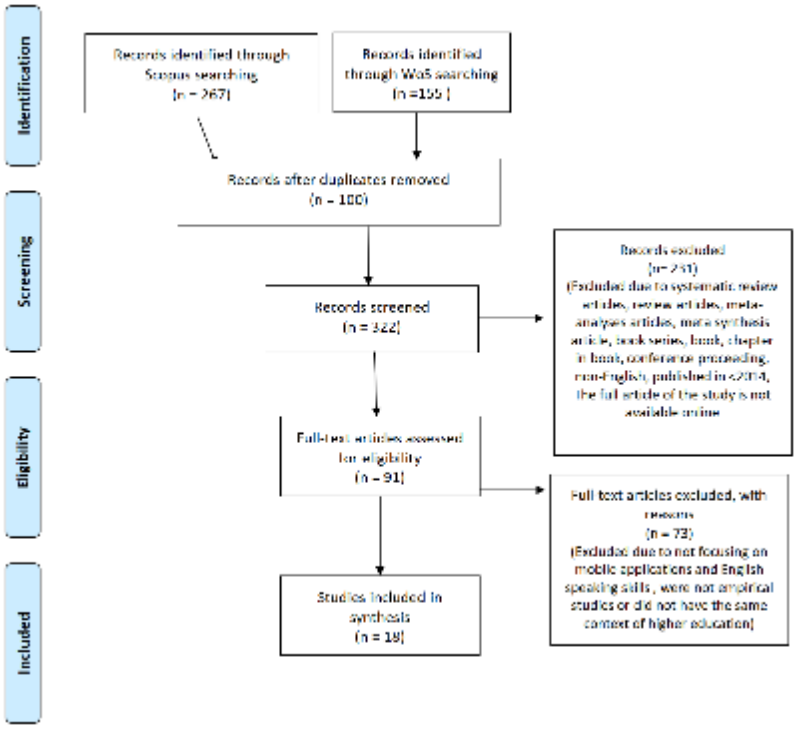


Figure 1: PRISMA flow diagram

*Profile of Included Studies*

All 18 articles were assessed and analyzed. Data on the various use of video technology in oral presentation course were presented in Table 3 according to its effectiveness, perceptions and challenges. A narrative summary was performed. In systematic review, narrative summary is often used together with systematic searching and appraisal technique. It incorporates

quantitative and qualitative data using narrative juxtaposition to offer clearer and better comprehensive and summarized evidence.

The remaining articles were assessed and analyzed. Efforts were concentrated on specific studies that responded to the formulated questions. The data were extracted by reading through the abstracts first, then the full articles to identify appropriate themes and sub-themes. Qualitative analysis was performed using content analysis to identify themes related to the use of mobile apps to enhance English speaking skills.

The results of the review were categorized into four major themes that comprised of the applications used to improve students' English-speaking skills, students' improvement of English speaking skills using mobile apps, students' perceptions of the use of mobile apps in improving their English speaking skills, and the challenges students faced in using mobile apps in their English speaking courses. The results of the study comprehensively analyzed the effectiveness of using mobile applications to improve students' English-speaking skills in higher education (see Table 3).

Existing research on using mobile applications to enhance English speaking skills in higher education has primarily focused on evaluating the effectiveness of specific tools and methods. Studies have shown that mobile applications can improve pronunciation, fluency, and general oral proficiency through interactive features, speech recognition, and personalized exercises (Khalil, 2022; Chen & Chew, 2021; Bai, 2024). For instance, Khalil (2022) demonstrated significant improvements in vowel articulation among Saudi EFL learners using mobile applications, while Bai (2024) highlighted the motivational benefits and anxiety reduction facilitated by AI-powered platforms. However, the majority of studies are concentrated in specific regions such as the Middle East and East Asia, including Saudi Arabia, China, and Taiwan, with limited representation from Africa, South America, and other cultural contexts (Lin & Tsai, 2021; Alzieni, 2024; Zou et al., 2023). This geographic concentration limits the generalizability of findings to diverse learner groups. Furthermore, most studies emphasize quantitative outcomes through pre/post-tests and surveys, while qualitative insights into learners' and educators' experiences are often lacking (Metruk, 2020; Alzieni, 2024).

While mobile applications provide opportunities for improving English speaking skills, several challenges hinder their effective implementation. Technological barriers, such as unstable internet connectivity and limited access to devices, remain significant obstacles, particularly in resource-limited regions (Butarbutar et al., 2023; Maiier & Yukhymenko, 2022). Moreover, both students and teachers often lack the necessary technical proficiency to navigate mobile learning platforms, reducing their overall effectiveness (Kemelbekova et al., 2024; Metruk, 2020).

Teacher support and guidance also present critical challenges. Many studies report that teachers lack adequate training and resources to integrate mobile-assisted language learning (MALL) into their teaching practices effectively. For example, Woldetsadik et al. (2022) and Alzieni (2024) highlight the limited role of teachers in providing guidance, leaving students to rely solely on the feedback provided by mobile applications.

Additionally, learners face behavioral challenges when using mobile applications. The multifunctionality of mobile devices often leads to distractions, as students may be tempted to use non-educational apps, such as social media or games, during study sessions (Metruk, 2020; Chen & Chew, 2021). While mobile applications can boost initial motivation, maintaining long-term engagement remains a significant issue, with learners often struggling to sustain consistent effort over time (Bai, 2024; Du et al., 2024).

Finally, cultural and contextual issues limit the applicability of many mobile learning tools. Most applications are not designed to accommodate diverse linguistic and cultural contexts, making them less effective for learners from underrepresented backgrounds (Khalil, 2022; Alzieni, 2024). Addressing these challenges requires a more holistic approach to the design and implementation of MALL, incorporating considerations of cultural diversity and long-term learner support.

Table 3
*Summary of Reviewed Studies*

| Author | Improvement in English Speaking Skills | | | | Student Perceptions | | | | Challenges | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pronunciation | Accuracy | General Oral Performance | The Use of Professional Terminology | Increase Motivation | Engagement | Reduce Anxiety | Feedback and Autonomy | Technical and Infrastructure Limitations | Anxiety and Technological Familiarity | Limited Teacher Support and Guidance | Distractions and Concentration Issues |
| Ataeifar et al. (2019) | | / | / | | / | / | | / | / | / | | |
| Metruk (2020) | / | | | | / | / | | / | / | | | / |
| Dirjal & Ghabanchi (2020) | / | / | / | | / | / | | | / | | | |
| Chen & Chew (2021) | / | | / | | | | / | | | / | | |
| Palpanadan (2021) | | | / | | / | / | / | | / | | / | |
| Lin & Tsai (2021) | / | / | | | / | / | | / | / | / | / | |
| Woldetsadik et al. (2022) | | / | / | | / | / | / | / | / | | / | |
| Khalil(2022) | / | / | | | / | | / | / | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maiier & Yukhymenko(2022) | | / | / | / | / | / | | / | | | / | |
| Albogami & Algethami (2022) | / | | / | | / | / | / | | | | | |
| Butarbutar(2023) | / | | / | | / | | / | / | / | / | | / |
| Basta and Pejic (2023) | | / | / | | / | / | | / | / | | | / |
| Zou et al. (2023) | / | / | | | / | | | / | / | | | |
| Alzieni (2024) | / | / | | | / | / | | / | / | | / | |
| Mudhsh et al. (2024) | / | / | / | | / | / | / | / | / | | | / |
| Bai(2024) | / | / | / | | / | / | / | | | / | | |
| Kemelbekova et al. (2024) | | / | / | / | / | / | | | / | / | / | / |
| Du et al. (2024) | | | / | | / | / | / | / | | | | |

**Synthesis of the Results**

*Origin of the Studies*

The studies included in the analysis were conducted in various countries. Specifically, five studies were conducted in China, two studies in Saudi Arabia, one study each from Iran, Slovakia, Iraq, Malaysia, Ethiopia, Ukraine, Indonesia, Serbia, Dubai, Oman, and Kazakhstan. Nine studies employed quantitative research methodologies while three studies utilised qualitative research methodologies. Six studies employed a mixed research design to examine the effects, perceptions, and obstacles associated with utilising mobile applications to enhance students' English speaking proficiency. The studies had sample sizes that varied from 15 to 355.

Table 4
*Origin of the Studies* ✓

| Country | Author | Quan/Qual/ Mixed | Type of MALL | Sample size | Research Focus |
|---|---|---|---|---|---|
| China | Bai (2024) | Mixed | Mobile-based language learning app | 69 | Application on improving listening and speaking skills, and affective variables |
| | Du et al. (2024) | Quan | Liulishuo app, language learning app | 350 | Factors influencing students' intention to continue using Liulishuo for speaking |
| | Zou et al. (2023) | Mixed | AI-based, social network platforms | 120 | Supporting speaking practice via interactive AI-powered tools |
| | Lin & Tsai (2021) | Quan | AR-supported mobile app | 54 | Student perceptions of AR in enhancing vocabulary and speaking skills |
| | Chen & Chew (2021) | Mixed | Synchronous Voice Chat (SVC) | 40 | Comparing face-to-face and voice chat for reducing anxiety and improving fluency |
| Saudi Arabia | Khalil (2022) | Quan | Mobile phonetics learning apps | 45 | Effectiveness of MALL in improving phonetics and pronunciation |
| | Albogami & Algethami (2022) | Mixed | WhatsApp | 36 | Teaching speaking via WhatsApp and its impact on motivation and anxiety |
| Slovakia | Metruk (2020) | Quan | Smartphones | 200 | Student perspectives on smartphone use for learning English |
| Iraq | Dirjal & Ghabanchi (2020) | Mixed | Skype | 60 | Comparing Skype-based speaking practice with traditional methods |
| Malaysia | Palpanadan (2021) | Mixed | Skype | 50 | Perceptions of online speaking practice and student confidence |

| | | | | | |
|---|---|---|---|---|---|
| Iran | Ataeifar et al. (2019) | Mixed | Voice Thread | 40 | Impact of mobile-assisted learning on female students' speaking skills |
| Indonesia | Butarbutar (2023) | Qual | WhatsApp, Google Classroom | 30 | Collaborative learning in rural areas using MALL |
| UAE | Alzieni (2024) | Mixed | Mobile-assisted language learning apps | 80 | Examining challenges and effectiveness of MALL in higher education |
| Kazakhstan | Kemelbekova et al. (2024) | Quan | AI tools | 92 | Role of AI in teaching English and improving oral communication |
| Russia | Maiier & Yukhymenko (2022) | Mixed | Telegram-based mobile courses | 65 | Enhancing professional English speaking for military students |
| Oman | Mudhsh et al. (2024) | Mixed | Smartphones | 100 | Perceptions and performance improvements through smartphone-assisted speaking |
| Serbia | Basta & Pejić (2023) | Mixed | Google Classroom | 80 | Student perceptions of Google Classroom in language learning |
| Ethiopia | Woldetsadik et al. (2022) | Quan | Mobile-based oral lessons | 30 | Examining MALL's impact on EFL teacher trainees' oral communication skills |

*Types of Mobile Applications to Improve English Speaking Skills*

The studies highlighted the use of various mobile applications to enhance English language learning. Social media and instant messaging apps have been frequently utilized, with Skype improving speaking skills among Iraqi students (Dirjal & Ghabanchi, 2020) and boosting confidence in speaking (Palpanadan et al., 2021). WeChat facilitated better performance in speech via synchronous video communication (Chen & Chew, 2021), while WhatsApp enhanced speaking performance and reduced anxiety among Saudi EFL learners (Albogami & Algethami, 2022). Similarly, Telegram was used to support professional English communication (Maiier & Yukhymenko, 2022).

Specialized language learning apps have also played a significant role. The AR-supported STEMUP (Science, Technology, Engineering, Mathematics Upskilling Platform) app improved both speaking and listening skills among Taiwanese students (Lin & Tsai, 2021), and the Moodie 3.0 app positively impacted Ethiopian teacher trainees' speaking abilities (Woldetsadik et al., 2022). Pronunciation apps were shown to enhance phonetic skills (Khalil, 2022), while popular platforms such as Duolingo, Babbel, and Rosetta Stone improved speaking skills among Dubai students (Alzieni, 2024). Rosetta Stone also significantly boosted listening and speaking abilities in another study (Bai, 2024), and Liulishuo was noted for its positive influence on student engagement and continued use intentions (Du Kai et al., 2024).

AI-driven technologies are gaining traction as well, with AI chatbots showing potential benefits for English teaching (Kemelbekova et al., 2024) and AI applications supporting social network-based speaking practice (Zou et al., 2023). Additionally, online learning platforms like Google Classroom have been highly valued by students for language learning (Basta & Pejic, 2023), and YouTube channels have supported professional English communication skills (Maiier & Yukhymenko, 2022). These findings demonstrate the diverse range of mobile applications used to enhance English speaking skills in different educational contexts.

*The Effectiveness of Mobile Applications in Improving English Speaking Skills*

The reviewed literature demonstrates the effectiveness of mobile applications in improving English speaking skills across diverse contexts. MALL has shown significant positive impacts on learners' speaking abilities, from general improvements to specific gains in pronunciation, confidence, and engagement. Studies like those by Ataeifar et al. (2019) and Woldetsadik et al. (2022) reveal that mobile-assisted instruction, such as the use of learning apps like Moodie 3.0, can notably enhance speaking skills among learners. Additionally, the integration of AR-supported applications, such as STEMUP, has proven effective in improving both speaking and listening skills (Lin & Tsai, 2021).

Social media and instant messaging apps like Skype, WeChat, and WhatsApp have been instrumental in boosting oral communication, as seen in the studies by Dirjal and Ghabanchi (2020) and Albogami and Algethami (2022), with findings indicating that these platforms help reduce anxiety and increase confidence in speaking. Meanwhile, pronunciation-focused apps, such as those studied by Khalil (2022), have shown success in helping learners improve their phonetic accuracy.

Furthermore, AI-driven applications and chatbots have emerged as promising tools in supporting English speaking practice, particularly through social network-based interactions (Zou et al., 2023; Kemelbekova et al., 2024). Studies also emphasize the importance of user engagement and the sustained use of mobile applications for continuous improvement in speaking skills (Du Kai et al., 2024).

Therefore, various mobile applications such as video call software, instant messaging software, AR applications, AI chatbots, etc. play an active role in improving learners' English-speaking skills, providing learners with flexible, interactive, and personalized learning experiences that can complement traditional teaching methods. These apps provide learners with a lot of opportunities to practice communication and help them correct pronunciation and grammar problems through intelligent feedback. Compared with traditional classroom

teaching, m-learning can create a more relaxed and comfortable practice environment for learners, thus improving their speaking confidence and motivation.

*Student' Perceptions towards the Use of MALL Applications*

The studies reviewed reveal generally positive perceptions among students regarding the use of mobile applications for improving their English-speaking skills. In several contexts, students expressed favorable attitudes toward these technologies, recognizing their potential to enhance language learning. For instance, Metruk (2020) found that Slovakian university EFL learners held moderately positive views on the use of mobile phones for English learning, indicating a growing acceptance of MALL. Similarly, Mudhsh et al. (2024) noted that Omani students viewed smartphones as beneficial tools for improving their speaking abilities.

Students also appreciated specific features of these applications, such as their ability to reduce anxiety and build confidence. Albogami and Algethami (2022) reported that Saudi EFL learners found WhatsApp to be effective not only in enhancing speaking performance but also in motivating them and alleviating anxiety. Similarly, Palpanadan et al. (2021) highlighted that student perceived Skype as a valuable platform for boosting their confidence in speaking English.

Engagement and ease of use were also important factors in students' positive perceptions. For instance, students using AI-driven apps and chatbots saw potential advantages in their ability to provide interactive and responsive language practice (Kemelbekova et al., 2024; Zou et al., 2023). Furthermore, apps like Google Classroom and Rosetta Stone were seen as highly useful and enjoyable for language learning (Basta & Pejic, 2023; Bai, 2024), with students acknowledging the apps' role in making language learning more accessible and engaging.

Overall, students generally perceive mobile applications as beneficial to their English-speaking skills, valuing the flexibility, interactivity, and motivational aspects these tools offer. Students were generally positive about using mobile applications for English learning. They believe that mobile learning can increase interest and motivation, reduce anxiety levels, and thus facilitate the development of oral English skills. Some studies also found that learners' perceived usefulness and enjoyment of mobile applications increased their willingness to continue using them. This suggests that m-learning is well suited to meet the needs of learners and has been widely welcomed by them.

*Students' Challenges in Using MALL for Language Learning*

While mobile applications for language learning offer numerous advantages, students also face several challenges in their use. One common issue is related to technical and infrastructure limitations, particularly in regions with less developed digital infrastructure. Butarbutar et al. (2023) highlighted that students in rural Indonesian areas encountered significant network and technology barriers, which hindered their ability to effectively participate in online collaborative learning. Anxiety and familiarity with technology also emerged as challenges. Chen and Chew (2021) noted that high anxiety levels negatively affected students' speaking performance during mobile-mediated interactions. Additionally, Khalil (2022) pointed out that varying levels of familiarity with mobile technology posed difficulties for Saudi students using pronunciation apps, making it harder for some learners to integrate these tools into their language learning routines.

Another challenge is the need for continuous engagement and motivation. Studies such as those by Du Kai et al. (2024) emphasized that maintaining students' engagement with language learning apps can be difficult. While these apps are designed to be user-friendly and enjoyable, sustained use often requires ongoing motivation, which can be challenging for students balancing other academic or personal responsibilities.

Lastly, there are concerns about limited teacher support and guidance (Alzieni, 2024; Kemelbekova et al., 2024; Butarbutar et al., 2023; Woldetsadik et al., 2022; Metruk, 2020). While mobile apps offer flexibility, students may struggle without adequate teacher involvement, especially in managing their learning progress. This underscores the need for integrating mobile learning with structured pedagogical support, as highlighted by studies emphasizing the irreplaceable role of teachers in facilitating MALL.

In the process of using mobile applications for English language learning, both learners and teachers face a number of challenges and obstacles. For example, unstable network quality, limited access to devices, and lack of technological proficiency (Alzieni, 2024; Kemelbekova et al., 2024; Butarbutar et al., 2023; Maiier & Yukhymenko, 2022; Metruk, 2020) may affect the actual effectiveness of mobile learning. In addition, some studies have found that learners may be distracted when using mobile applications (Bai, 2024; Du et al., 2024; Chen & Chew, 2021; Metruk, 2020), which may affect their concentration on learning. All these factors may become bottlenecks that hinder the promotion and application of mobile English teaching.

**Discussion**

This study has attempted to systematically analyze the existing literature on using mobile applications to enhance English speaking skills in higher education. Most studies indicate that mobile applications have a significant positive effect on improving English speaking skills. Research by Ataeifar et al. (2019), Dirjal and Ghabanchi (2020), and Alzieni (2024) all confirm the positive impact of mobile-assisted instruction on speaking abilities. Notably, Lin and Tsai (2021) found that AR-supported applications not only enhanced speaking skills but also improved listening abilities, underscoring the potential of mobile apps as valuable tools for language learning.

Research generally shows that students have a positive attitude toward using mobile applications for English learning. Metruk (2020) found that students had moderately positive attitudes towards mobile-assisted language learning, while Mudhsh et al. (2024) reported that students held strongly positive views about using smartphones to improve their speaking skills. Bai (2024) further highlighted that mobile apps not only enhanced language abilities but also increased learning enjoyment and reduced anxiety. These findings highlight the potential of mobile applications to boost student motivation and engagement in language learning.

Despite the widespread recognition of mobile applications as effective tools, several studies reveal challenges associated with their use. Butarbutar et al. (2023) pointed out that in rural areas, network and technical barriers can limit the effectiveness of online collaborative learning. Additionally, Chen and Chew (2021) noted that anxiety levels can affect learning performance, suggesting the need to consider psychological factors when implementing mobile-assisted learning.

**Limitations of the Study**

This study focuses on systematic reviews on the use of mobile applications to improve college students' English-speaking skills. One of the strengths of this review is the organized and comprehensive search of existing literature, including academic databases. In addition, the systematic review focused on specific areas such as the types of mobile applications used, the improvement of students' English-speaking skills, students' perceptions and challenges encountered. Considering the heterogeneity of the studies due to differences in outcome measures, study designs, sample sizes, nationalities and contexts, as well as differences in the criteria used to assess students' English-speaking competence, narrative summaries, rather than meta-analyses, were conducted to highlight the heterogeneity of the studies.

Existing literature primarily focuses on the effectiveness of various mobile applications and teaching methods (Bai, 2024; Kemelbekova et al., 2024; Zou et al., 2023; Maiier & Yukhymenko, 2022; Albogami & Algethami, 2022; Khalil, 2022; Lin & Tsai, 2021; Dirjal & Ghabanchi, 2020) but often lacks longitudinal studies to assess long-term benefits and impacts on learners' overall language capabilities.

Additionally, many studies are geographically concentrated and do not account for diverse learner contexts, backgrounds, and learning environments. Khalil (2022), Bai (2024), Alzieni (2024), Metruk (2020), Kemelbekova et al. (2024) and Du et al. (2024) use surveys or tests, but there is not enough qualitative data to understand learners' experiences or contextual challenges.

**Recommendations for Future Research**

The impact of technology on language acquisition will be assessed over time to gain insights into the changes and evolution of learner attitudes. More research will be needed on how mobile learning tools can be systematically integrated into existing curricula, with a particular focus on teacher training and development. There was a minimal number of studies that examined the use of mobile application in English speaking skills in higher education between the year 2014-2024. Therefore, future studies will require larger sample sizes. While electronic keyword searches are commonly used in most studies for systematic literature review, researchers can also apply alternative tactics to enhance their searching efforts.

**Conclusion**

This systematic literature review highlights the importance of using mobile applications to enhance English speaking skills in the context of higher education. Existing studies have shown that various mobile applications, such as video call software, instant messengers, AR applications, AI chatbots, etc., play a positive role in enhancing learners' spoken English skills. Students' perceptions were generally favorable, with findings indicating increased motivation, enhanced interest, and reduced speaking-related anxiety associated with mobile app usage. Nonetheless, there are some technical, environmental, and learning behavioural challenges faced by students and teachers in the implementation process. Future research should further explore the specific manifestations and root causes of these problems to provide more targeted recommendations to address the barriers to the implementation of m-learning. At the same time, the integration of m-learning with other teaching modes should also be studied to provide more comprehensive guidelines for optimising mobile assisted English teaching.

The significance of this study lies in its practical implications for multiple stakeholders. For educators, the findings provide insight into best practices for using mobile tools in oral English teaching. Curriculum developers and app designers can use the evidence to align instructional materials with learner needs and pedagogical goals. Institutional decision-makers may also benefit from the review by understanding the conditions under which MALL is most effective. Overall, the findings contribute to ongoing discussions on integrating digital tools into English language curricula to support accessible and contextually relevant instruction.

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