



**Exploring the Use of Mobile-Assisted Language Learning (MALL) to Support Oral Skills
Development in EFL Learners: A Literature Review**

Jenifer Vanegas Ceballos

Trabajo de grado de maestría presentado para optar al título de Magíster en Procesos de
Aprendizaje y Enseñanza de Segundas Lenguas

Asesor

Juan Rodrigo Bedoya González, Doctor (PhD) en Educación

Universidad Pontificia Bolivariana

Escuela de Educación y Pedagogía

Maestría en Procesos de Aprendizaje y Enseñanza de Segundas Lenguas

Medellín, Antioquia, Colombia

2026

El contenido de este documento no ha sido presentado con anterioridad para optar a un título, ya sea en igual forma o con variaciones, en esta o en cualquier otra universidad.

NOTA DE ACEPTACIÓN

Firma

Nombre

Presidente del jurado

Firma

Nombre

Presidente del jurado

Medellín, junio de 2026

Dedicatoria

En primer lugar, dedico este trabajo a Dios, quien puso en mi corazón tanto el deseo de ser como el de hacer posible este sueño. En segundo lugar, a mis familiares por animarme a continuar y terminar este proceso de estudio.

Agradecimientos

Agradezco a Dios y a mis familiares por el apoyo incondicional durante la realización de este hermoso trabajo de grado.

A mi asesor de investigación, quien, con paciencia y pasión por su labor, me orientó y me enseñó cada parte del proceso para que este estudio fuera posible.

A los profesores de la Universidad Pontificia Bolivariana, quienes me acompañaron en el crecimiento académico y personal durante toda mi maestría.

En general, a cada una de las personas que estuvieron presentes y apoyaron mi trabajo.

.

Table of Contents

Abstract	10
1 Introduction	11
2 Conceptual Framework	15
2.1 Mobile-Assisted Language Learning (MALL)	15
2.2 Main Characteristics of MALL	17
2.2.1 Portability and Accessibility:	18
2.2.2 Personalization of Learning:	18
2.2.3 Interactivity and Immediate Feedback:	19
2.2.4 Ubiquitous Learning:	19
2.3 Mobile Tools for Language Learning	20
2.3.1 Oral Practice Applications:	21
2.3.2 Voice Recording and Video Communication Tools:	21
2.3.3 Multimedia Resources:	22
2.4 Oral Skills in L2 learning	23
2.5 Interaction as a Central Component of Oral Skills	24
2.6 Relationship between MALL and Oral Skills	25
2.7 Previous and Similar Studies	26
3 Methodology	29
4 Discussion and Conclusions	33
4.1 MALL as a Key Technological Tool for Supporting Oral Skills Development in EFL Learners	34
4.2 MALL as a Means of Enhancing Learners' Motivation, Confidence, and Engagement in Oral Communication	39
4.3 MALL as a Learning Environment Involving Teacher and Learner Mediation	40

4.4 MALL as a Component of Pedagogical Approaches for Oral Skill Development:	43
4.5 Implications and Limitations	46
4.6 Recommendations for Future Research	52
4.7 Conclusions	55
5 References	57
6 Appendix	66

List of Tables

Table 1	<i>Variables included in the Documentary Analysis Matrix.....</i>	<i>31</i>
Table 2	<i>Discussion Framework Categories.....</i>	<i>34</i>
Table 3	<i>Search Registration Matrix (Appendix A).....</i>	<i>66</i>

Abbreviations and Acronyms

AI	Artificial Intelligence
App	Application
ASR	Automatic Speech Recognition
EFL	English as a Foreign Language
E-LEARNING	Electronic learning
ELSA	English Language Speech Assistant
L2	Second Language
MALL	Mobile-Assisted Language Learning
PBL	Project-Based Learning
TBLT	Task-Based Language Teaching

Abstract

This literature review explores how Mobile-Assisted Language Learning (MALL) has been used to support the development of oral skills in English as a Foreign Language (EFL) learners between 2021 and 2025. The study followed a structured process to identify and analyze empirical peer-reviewed studies on the use of mobile technologies in English language learning. The search included academic databases such as Scopus, Springer Nature, JSTOR, ScienceDirect, Taylor & Francis, and Google Scholar. After applying the inclusion and exclusion criteria, fifty studies were selected for analysis.

The reviewed literature showed that MALL can support the development of oral skills, particularly in areas such as fluency, pronunciation, confidence, and opportunities for autonomous language practice beyond the classroom. The findings also revealed that mobile technologies may increase learners' motivation, engagement, and willingness to communicate by creating more flexible and less intimidating learning environments. However, the effectiveness of MALL appears to depend on factors such as pedagogical integration, task design, opportunities for interaction, and the quality of feedback provided. Overall, the reviewed studies suggest that mobile technologies can serve as meaningful resources for supporting oral skills development in EFL contexts when integrated through purposeful and pedagogically informed learning experiences.

Keywords: Mobile-Assisted Language Learning (MALL), Oral skills in L2 learning, Mobile applications, Pedagogical Approaches and Strategies in MALL.

1 Introduction

Today, English holds a prominent role worldwide as the main lingua franca that enables communication across cultures, governments, and professional sectors (Rao, 2019). Its presence in education, business, and technology highlights its importance for global academic and professional growth. In non-English-speaking regions, such as Latin America, learning English has become crucial for gaining access to higher education and better job opportunities (Córdoba Valencia, 2024; Álvarez et al., 2025). In Colombia, English is also seen as a strategic tool to promote internationalization and competitiveness; however, ongoing inequalities in access to resources and technological infrastructure continue to hinder its effective teaching and learning (Álvarez et al., 2025; Mejía & Oviedo, 2024).

The rapid growth of technology has transformed educational practices worldwide, positioning digital tools as fundamental mediators of learning processes (Kukulska-Hulme, 2021; Adijaya et al., 2023; Iftikhar, 2025). The integration of information and communication technologies (ICT) in education supports the goals of the National Bilingualism Program and aligns with global trends in digital and mobile learning (Córdoba Valencia, 2024; Mejía & Oviedo, 2024; Álvarez et al., 2025). For instance, in Colombia, teachers increasingly rely on technology to enhance motivation, interaction, and accessibility in English classes (Córdoba Valencia, 2024).

In recent years, the use of technology in language teaching has gained considerable attention, particularly with the widespread adoption of mobile devices (Adijaya et al., 2023; Jabbar, 2024). This evolution has given rise to Mobile-Assisted Language Learning (MALL), an approach

that leverages the ubiquity, portability, and interactivity of mobile technologies to extend language learning beyond classroom walls. Mobile devices provide learners with access to interactive applications, instant feedback, and multimodal resources that support flexible and autonomous learning experiences (Zhen & Hashim, 2022; Sholekhah & Fakhurriana, 2023).

Several studies have demonstrated the positive effects of MALL on English language learning outcomes (Benlaghrissi and Ouahidi, 2024; Adijaya et al., 2023; Alzieni, 2024; Zhen & Hashim, 2022). For instance, Benlaghrissi and Ouahidi (2024) found that Mobile-Assisted Project-Based learning improved EFL learners' fluency, pronunciation, and vocabulary. Similarly, Adijaya et al. (2023) reported that MALL-based instructional designs in vocational education increased learner engagement and perceived usefulness. In another study, Alzieni (2024) highlighted that integrating mobile podcasts improved learners' listening and speaking skills, while Zhen and Hashim (2022) showed that mobile applications fostered learners' readiness to communicate in English.

In the Middle Eastern context, Al Shihri et al. (2025) and Ahmad et al. (2025) demonstrated that combining mobile applications such as Quizlet, WhatsApp, and Kahoot can enhance vocabulary learning and oral communication by creating dynamic and collaborative learning environments. Their findings reveal that these tools not only increase learners' participation and interaction but also foster a sense of community and reduce speaking anxiety, enabling more spontaneous and confident oral communication in English. Likewise, Jabbar (2024) emphasized that the pedagogical design of MALL activities, especially when they include elements such as gamification, real-time feedback, and interactive tasks, has a direct impact on students' motivation

and oral performance. Collectively, these studies illustrate how strategically implemented mobile technologies can enrich oral language learning by making practice more engaging, contextualized, and socially meaningful.

Although previous literature reviews have highlighted the benefits of Mobile-Assisted Language Learning (MALL) for English language learning, many have focused on specific aspects of MALL, such as pronunciation, oral fluency, particular educational contexts, or specific mobile applications (Zhou, 2021; Zhao et al., 2024; Metruk, 2024; Padilla et al., 2025; Álvarez et al., 2025). Given the continuous growth of research in this field, an updated synthesis of recent empirical evidence is needed. This need is further reinforced by the rapid evolution of mobile technologies, which now incorporate features such as artificial intelligence, speech recognition, and interactive feedback, expanding the possibilities for developing English oral skills (Hwang et al., 2024; Dimas & Daulay, 2025; Jabbar, 2024; Jia & Lu, 2025). Consequently, reviewing the most recent studies provides a more comprehensive understanding of current research trends, pedagogical approaches, and technological developments related to the use of MALL in EFL contexts.

To address this need, the present review not only identifies the reported benefits, challenges, and emerging trends associated with the implementation of MALL, but also brings together studies conducted in diverse educational settings around the world, including Latin American countries such as Colombia, Ecuador, and Mexico (Garcia-Ponce et al., 2023; Córdoba Valencia, 2024; Estrella, 2025). In addition, it examines a wide range of mobile applications and pedagogical approaches used to support the development of oral skills while identifying common patterns,

contradictory findings, and areas requiring further research. By doing so, this review offers English language teachers and researchers an updated overview of current evidence that may inform future research and pedagogical decision-making across different educational contexts.

This systematic literature review examines the implementation of Mobile-Assisted Language Learning (MALL) in English language education between 2021 and 2025 across different educational settings. By synthesizing empirical evidence from these contexts, the review provides an updated and integrated understanding of how MALL is currently being used to support the development of English oral skills while highlighting practical insights that may inform both future research and English language teaching. Accordingly, this study addresses the following research question: How is Mobile-Assisted Language Learning (MALL) currently being used to support the development of oral skills in EFL learners?

2 Conceptual Framework

This section presents the main concepts that guide the present study. It begins by defining Mobile-Assisted Language Learning (MALL) through different theoretical perspectives to clarify its scope and role in language education. It then describes the main characteristics of MALL identified in the literature, including portability and accessibility, personalization of learning, interactivity with immediate feedback, and ubiquitous learning. Subsequently, the framework introduces the technological tools commonly associated with MALL that support language practice in mobile environments. The section also defines the concept of oral skills and highlights interaction as a central component of spoken communication. Together, these concepts provide the theoretical foundation for examining the relationship between MALL and the development of oral skills addressed in this study.

2.1 Mobile-Assisted Language Learning (MALL)

Aliakbari and Mardani (2022) define MALL as “a new learning strategy that improves language learning by utilizing handheld and portable gadgets such as smartphones, tablets, MP3/MP4 players, and personal digital assistants” (p.2). This concept has become a fundamental key for research over the last five years, especially since the coronavirus pandemic, which interrupted the educational system worldwide. For instance, universities, schools, and English institutes in Iran “embraced e-learning due to the recommendation of the World Health Organization” (p.1), contributing to the rapid expansion of digital and mobile learning practices in language education.

Likewise, in the Colombian context, students stayed at home during the pandemic and used the internet and digital tools, such as cellphones and computers, in order to communicate with teachers (Mesa Rave & Hoechsmann, 2023, p. 270). Therefore, the use of these technologies in educational settings continues to be common, especially in language learning environments where digital tools provide students with greater access to communication, educational resources, and opportunities to practice English (Stockwell & Wang, 2023).

Additionally, Ahmed et al. (2022) emphasize the functional role of mobile learning by asserting that “MALL is regarded as an excellent answer to the restrictions of foreign language learning caused by time and location constraints.” This definition stresses the importance of mobility and accessibility, positioning MALL as a solution to barriers traditionally associated with classroom-based language instruction.

Due to the frequent use of mobile devices in English classes, MALL is a strong and important field of investigation. According to Alisoy and Sadig (2024), MALL refers to “the use of mobile devices, such as smartphones, tablets, and portable media players, to facilitate the acquisition of language skills” (p. 61). This definition highlights the central role of mobile technologies as mediators of the learning process and reflects how digital tools have become embedded in students’ everyday routines, allowing learning to extend beyond the boundaries of the physical classroom.

For the purpose of this research, MALL is understood as the integration of mobile devices into language learning in order to provide flexible, accessible, and portable opportunities for linguistic practice. This study adopts a combined definition derived from the three authors, understanding MALL as: (1) a technology-mediated strategy supported by handheld devices (Aliakbari & Mardani, 2022), (2) an approach that overcomes temporal and spatial constraints in foreign language learning (Ahmed et al., 2022), and (3) a means to facilitate the acquisition of language skills through mobile tools (Alisoy & Sadig, 2024). Together, these perspectives frame MALL as a pedagogical environment that supports autonomous, continuous, and context-flexible engagement with the target language.

These definitions show that MALL involves the integration of mobile technologies into language learning processes. To understand how this approach operates in practice, it is necessary to examine the specific characteristics that define it.

2.2 Main Characteristics of MALL

Studies on Mobile-Assisted Learning identify several core characteristics that describe how mobile devices function within language learning contexts. These characteristics provide a conceptual structure for understanding MALL and clarifying its main components. The following subsections outline four recognized features: portability and accessibility, personalization of learning, interactivity with immediate feedback, and ubiquitous learning.

2.2.1 Portability and Accessibility:

Stockwell (2021) understands portability in mobile learning as a key affordance that allows learners to access learning tools when and where they are needed. He explains that “the portability of mobile devices makes it possible for learners to have access to them for learning when they require them, and in many cases in the context in which their language skills are needed” (p. 9). From this perspective, portability refers to the capacity of mobile devices to accompany learners across different physical environments, enabling access to learning resources within authentic and situated contexts rather than being restricted to formal instructional spaces.

Regarding accessibility, Criollo-C et al. (2021) explain that “the use of mobile devices allows users to move and access content and information from anywhere and at any time” (p. 9), highlighting the flexible nature of access supported by mobile technologies. This condition is further enabled by the technological affordances of mobile phones, as “cell phones combine the functions of audio and video playback, use of GPS, sensors and gyroscopes” (Criollo-C et al., p.4), contributing to learning environments that are more ubiquitous and adaptable. From this perspective, accessibility can be understood as the constant availability of learning resources through mobile devices, regardless of location or time.

2.2.2 Personalization of Learning:

Personalization in MALL is defined by Díaz-Ramírez et al. (2023), who state that “mobile resources provided participants with personalized feedback and opportunities to practice their language skills in an entertaining and interactive way” (p. 27). In this sense, personalization involves learners’ ability to structure and adjust their own learning patterns. Similarly, Estrella

(2025) notes that mobile devices in learning environments “adapt to diverse learning styles and preferences, empowering students to personalize their language learning paths” (p.2). Therefore, learning environments are perceived as personalized because they allow students to regulate their pace and mode of engagement, reinforcing the idea that personalization is an inherent characteristic of mobile-supported instruction.

2.2.3 Interactivity and Immediate Feedback:

Within the Mobile-Assisted Language Learning (MALL) approach, interactivity and immediate feedback play a central role in keeping learners engaged and supporting the development of oral skills. In this sense, Sholekhah and Fakhurriana (2023) point out that ELSA Speak offers “interactive tasks that actively include students in the learning process” (p.96), allowing learners to repeat, imitate, and practice pronunciation in a way that feels purposeful and connected to real communicative needs. Complementing this view, Durán-Bautista and Huertas-Malagón (2021) describe immediate feedback as a component of mobile-assisted learning that enables learners to observe and adjust their oral production through prompt responses. Thus, immediacy of feedback is conceptualized as a dimension emerging directly from the interactive nature of MALL environments.

2.2.4 Ubiquitous Learning:

Ubiquitous learning refers to learning conditions supported by mobile technologies that allow instructional content to be accessed across different contexts and moments. Stockwell and Wang (2024) explain that mobile technologies expand the “learning ecology” (p.65) by enabling learners to engage with language content in multiple environments rather than exclusively in

formal instructional settings. “ Mobile technology allows ubiquitous access to learning and to all educational resources” (Criollo-C et al., 2021, p.8). These authors also describe ubiquitous learning as the continuous availability of digital resources that can be accessed “at any time and in any place,” which frames ubiquity as a structural feature of mobile-supported environments. Taken together, these perspectives show that ubiquitous learning extends language learning beyond the classroom by allowing learners to access learning opportunities beyond the classroom in different contexts and at different times.

After describing the main characteristics of MALL, it is important to consider the technological tools that make these characteristics operational in practice. Mobile-assisted language learning relies on a range of applications and digital resources that mediate how learners access, produce, and interact with language through their devices. Although these tools differ in format and design, they share the common purpose of supporting language learning in mobile environments. The following subsections present the main types of mobile tools commonly discussed in the literature: oral practice applications, voice-recording and video communication tools, and multimedia resources.

2.3 Mobile Tools for Language Learning

Mobile tools constitute an important component of MALL because they mediate the ways in which learners access, practice, and produce language. These tools vary in format and functionality, but they share the common feature of being designed for use on mobile devices. The following subsections outline three categories of tools frequently referenced in the literature: oral practice applications, voice-recording and video communication tools, and multimedia resources.

2.3.1 Oral Practice Applications:

Several studies identify mobile applications designed for oral practice as key tools within MALL environments. Li (2024) explains that mobile applications create structured opportunities for learners to practice speaking through organized tasks and prompts delivered on mobile devices. Likewise, Armijos Paucar (2023) notes that mobile applications, used in language learning, incorporate speaking tasks that guide learners in producing language under controlled or semi-controlled conditions. Also, Padilla et al. (2025), in their systematic review of mobile applications for oral fluency, describe these tools as platforms that provide “structured and personalized learning pathways” (p.4) in order to practice speaking through diverse interactive tasks.

In addition, Lestari (2021) found that applications with AI speech recognition allow students to “record the voice and get immediate feedback” (p.5), which may contribute to improving speaking skills and increasing confidence in pronunciation. Based on these perspectives, oral practice apps can be understood as mobile platforms specifically designed to support spoken production through guided activities.

2.3.2 Voice Recording and Video Communication Tools:

Voice-recording features and video communication tools are also recognized as prominent mobile resources for language learning. According to Garcia-Ponce et al. (2023), the use of audio-based tools allows learners to produce, revisit, and refine their oral output through repeated recordings and spoken tasks. Durán-Bautista and Huertas-Malagón (2021) highlight that voice-recording functions on mobile devices enable learners to document their spoken performance in different contexts, which facilitates the creation of spoken artifacts that can later be reviewed. In addition, Kristiani and Pradnyadewi (2021) describe video-based tools as means through which

“students can hear the pronunciation, increase their vocabulary, and see the gesture or expression of the speaker” (p.10). Thus, learners engage with spoken language in both visual and auditory modes simultaneously. Collectively, these authors indicate that voice and video functionalities serve as mobile tools that support the production and examination of spoken language.

2.3.3 Multimedia Resources:

Multimedia resources, including podcasts, videos, and interactive platforms, are also widely referenced in MALL research. Stockwell (2021) emphasizes that mobile devices enable learners to access spoken and audiovisual materials, providing them with language input in different formats. Similarly, Estrella (2025) points out that students commonly use multimedia resources on mobile devices as part of their everyday engagement with language content. Moreover, Criollo-C et al. (2021) note that multimedia materials accessed through mobile platforms offer varied representations of language that form part of learners’ mobile learning environments. Therefore, multimedia resources are understood as mobile-based materials that deliver language input through audio, video, or multimodal formats at “anytime and anywhere for the language learners” (Jabbar, 2024).

Having outlined the main concepts and technological elements that characterize Mobile-Assisted Language Learning, it is necessary to turn to the linguistic construct that this study seeks to develop. Because the intervention proposed in this research focuses specifically on spoken language performance, the next section shifts from the technological dimension of MALL to the communicative dimension of language learning. This transition allows for a clearer understanding

of how mobile environments intersect with the development of oral abilities, and why speaking skills constitute the central focus of the present study.

2.4 Oral Skills in L2 learning

Athoillah (2022) defines oral skills as learners' capacity to "express ideas, thoughts, and feelings" (p. 134) through spoken language in a way that is understandable to others, emphasizing the communicative nature of spoken production. Similarly, Garcia-Ponce et al. (2023) explain that oral skills relate to the "production of spoken language that is intelligible, coherent, and appropriate to communicative situations" (p. 70), highlighting the role of clarity and organization in spoken interaction. Furthermore, Kristiani and Pradnyadewi (2021) describe oral skills as the ability to "produce spoken language with appropriate rhythm, intonation, and flow" (p. 7), pointing to the prosodic and temporal features that shape spoken performance. Together, these perspectives show that oral skills encompass multiple dimensions of spoken communication, including intelligibility, articulation of ideas, coherence, and prosodic control.

For the purpose of this research, oral skills are understood as the learner's ability to produce spoken language that is intelligible, coherent, and contextually appropriate, incorporating rhythm, intonation, and temporal flow. This definition integrates the communicative focus described by Athoillah (2022), the emphasis on organized and meaningful production highlighted by Garcia-Ponce et al. (2023), and the prosodic elements identified by Kristiani and Pradnyadewi (2021).

2.5 Interaction as a Central Component of Oral Skills

Interaction is a fundamental dimension of oral skills because spoken communication requires the exchange of meaning between speakers. Li (2024) underscores this idea by stating that speaking development occurs through “ongoing interaction in which learners negotiate meaning and respond to communicative cues” (p. 8), emphasizing that oral performance is shaped by reciprocal exchanges rather than isolated production. Estrella (2025) similarly notes that interaction involves the active participation of learners in communicative events, where they must interpret input, formulate responses, and maintain conversational flow. In addition, Díaz-Ramírez et al. (2023) explain that oral interaction involves coordinating comprehension and production in real time, highlighting the simultaneous cognitive and linguistic demands of spoken exchanges.

These perspectives show that interaction is not merely an additional skill but a core component of oral communication, as it integrates comprehension, production, responsiveness, and the management of turn-taking. Within foreign language contexts, interaction also provides the conditions under which learners organize their contributions, interpret those of others, and sustain communicative coherence.

Having established the conceptual basis for oral skills, it is now necessary to examine how these skills relate to the mobile-assisted environment that frames this study. Understanding this relationship helps clarify the ways in which the characteristics of MALL interact with the linguistic and communicative demands of spoken language performance. This connection provides the rationale for exploring oral skill development within a mobile-supported instructional context.

2.6 Relationship between MALL and Oral Skills

Research on mobile-assisted learning highlights several points of connection between the characteristics of MALL and the components of oral skills. Stockwell and Wang (2024) explain that mobile environments extend the learning ecology, allowing learners to encounter spoken language input in diverse contexts and moments, a condition that aligns with the temporal and prosodic demands of oral production. Garcia-Ponce et al. (2023) describe spoken language performance as requiring coherent and contextually appropriate contributions, which corresponds to the flexible, context-sensitive conditions afforded by mobile learning environments. Similarly, Durán-Bautista and Huertas-Malagón (2021) note that mobile-supported oral practice involves continuous monitoring and adjustment of spoken output, a process closely related to the prosodic and organizational components of oral skills.

Additionally, Padilla et al. (2025) suggest that mobile environments create conditions in which learners can encounter spoken models repeatedly and engage in structured oral production tasks. Although their work focuses on fluency, their description points to a broader relationship in which mobile-mediated exposure and practice interact with the cognitive and linguistic processes necessary for oral performance. Together, these perspectives indicate that MALL provides a learning context in which the key dimensions of oral skills intelligibility, coherence, prosodic control, and interaction can be engaged through mobile-based tasks and interactions.

The concepts presented in the previous sections provide the theoretical basis for understanding the relationship between Mobile-Assisted Language Learning (MALL) and the development of English oral skills. However, it is also important to examine how these concepts

have been explored in previous empirical studies. Reviewing previous and similar studies helps to identify the contexts in which MALL has been implemented, the methodological approaches adopted by researchers, and the main findings reported in relation to the development of English oral skills. Together, these studies provide the context for the present systematic literature review.

2.7 Previous and Similar Studies

Understanding how Mobile-Assisted Language Learning has been used to support the development of English oral skills requires reviewing previous empirical research conducted in different educational contexts. The following studies provide evidence on the relationship between mobile technologies and oral production, offering insights that are relevant to the present systematic literature review. Although they differ in design, tools, and participant characteristics, together they illustrate how MALL has been implemented to enhance learners' speaking skills across diverse educational settings.

Aliakbari and Mardani (2022) examined the use of mobile devices to develop EFL learners' speaking abilities in Iran and found that students who engaged in mobile-assisted tasks demonstrated notable improvement in their speaking performance, particularly in fluency and confidence. Their study aligns with the growing recognition of MALL as a viable approach for oral practice. Similarly, Ahmed et al. (2022) analyzed the impact of WhatsApp and Duolingo on learners' speaking skills and reported that mobile platforms facilitated more frequent oral practice opportunities, which contributed to learners' ability to produce more extended and coherent utterances.

Other studies have also explored mobile-supported speaking activities from different perspectives. For example, Garcia-Ponce et al. (2023) investigated the use of WhatsApp as a platform for spoken task repetition and found that interactive recording and sending of spoken messages helped learners refine accuracy and fluency over time. Their findings highlight the value of repeated oral production within mobile environments. Likewise, Kristiani and Pradnyadewi (2021) reported that the use of YouTube videos for oral practice supported improvements in rhythm, intonation, and flow, demonstrating how multimedia resources accessed via mobile devices can reinforce prosodic aspects of speech.

Additional work has focused on learners' experiences and perceptions. Estrella (2025) explored students' views on MALL in Ecuador and found that learners perceived mobile tools as supportive of speaking development because they allowed them to rehearse and access spoken models repeatedly. Parallel results were observed by Armijos Paucar (2023), who concluded that Ecuadorian learners considered mobile-based activities helpful for practicing pronunciation and organizing their speech. These studies suggest that MALL is not only effective but also well-received by learners in Latin American contexts.

Research has also addressed specific oral components. Padilla et al. (2025), in a systematic review, concluded that mobile applications can effectively foster EFL learners' oral fluency, especially when tasks involve repetition, shadowing, or guided oral production (Sari & Jaya, 2025). Their findings are consistent with those of Li (2024), who found that repeated exposure to mobile-mediated spoken input contributed to measurable gains in fluency and coherence. Furthermore, Sholekhah and Fakhurriana (2023) explored the use of ELSA Speak for

pronunciation training and reported improvements in segmental and suprasegmental features, indicating that mobile applications can support specialized components of oral skills.

Some studies have also examined mobile learning in broader contexts. Criollo-C et al. (2021) discussed the benefits and pending issues of mobile technologies in education, noting that mobile tools create conditions for ubiquitous communication and diversified language practice. Although not focused exclusively on speaking, their work provides conceptual support for understanding why mobile environments can accommodate oral practice. Similarly, Mendieta et al. (2023) and Díaz-Ramírez et al. (2023) investigated mobile strategies for English teaching in Colombia, emphasizing that mobile tools facilitate authentic communicative engagement and provide flexible conditions for learners to produce and interact in English.

Taken together, these studies indicate that MALL has consistently been associated with improvements in speaking skills, including fluency, coherence, prosody, and pronunciation. They also show that mobile devices create favorable conditions for oral production through repetition, accessibility, and multimodal input. These previous studies provide the foundation for the present systematic literature review by illustrating how MALL has been implemented to support the development of English oral skills across different educational contexts. They also reveal differences in research contexts, mobile applications, and methodological approaches, highlighting the value of synthesizing recent empirical evidence to provide an updated overview of current research in this field.

3 Methodology

The state of the art was developed through a systematic literature review aimed at identifying empirical studies related to the use of Mobile-Assisted Language Learning (MALL) for the development of oral skills in English language learning. A comprehensive search strategy was implemented using academic databases, including Scopus, Springer Nature, JSTOR, Red Colombiana de Información Científica, Taylor & Francis, ScienceDirect, and the journal Íkala (Universidad de Antioquia), as well as Google Scholar.

Additionally, Consensus AI was used as a supplementary search tool to identify potentially relevant peer-reviewed studies related to the research topic. Any articles suggested by the platform were individually reviewed by the researcher and evaluated using the same inclusion and exclusion criteria applied to all studies identified through the database searches. Therefore, Consensus AI was used to complement the search process, while all decisions regarding the selection and inclusion of studies remained under the responsibility of the researcher.

The literature search and study selection process was documented using a Search Registration Matrix (see Appendix A). This matrix systematically recorded the databases consulted, search equations, filters applied, number of retrieved records, number of studies retained after screening, and the reasons for inclusion and exclusion in each database. Maintaining this record ensured consistency throughout the search process and provided a transparent audit trail of the study selection procedure.

The search process involved the use of keyword combinations and Boolean operators (e.g., AND, OR) to refine the results and ensure the retrieval of relevant studies. For example, the following search equation was used: (“Mobile-assisted language learning” OR MALL) AND (speaking OR “oral skills”) AND (“mobile phone” OR apps) AND (“EFL learners” OR “English as a Foreign Language learners”). This strategy facilitated the identification of studies focusing on the use of mobile technologies to support the development of oral skills in English language learners. Variations of this search equation were adapted to the specific requirements of each database. These criteria were progressively refined during the initial exploratory phase of the literature search.

The inclusion criteria comprised: (a) publication period between 2021 and 2025, (b) studies published in English or Spanish, (c) focus on Mobile-Assisted Language Learning (MALL) in English language teaching and learning, (d) emphasis on oral skills development (e.g., speaking, fluency, pronunciation), and (e) empirical or peer-reviewed publications. Studies were excluded if they were published before 2021, did not address oral skills, lacked a clear mobile learning component, were not focused on English language learning, were not accessible in full text, or were duplicates.

The initial search across the selected databases yielded a total of 377 records. During the screening process, the titles and abstracts of the retrieved records were reviewed to determine their relevance to the purpose of this review. When the same study was identified across different databases, it was retained only once for further screening. The full texts of potentially relevant studies were consulted when necessary to confirm whether they met the established inclusion

criteria. Studies were excluded if they did not focus on Mobile-Assisted Language Learning (MALL), addressed language skills other than oral skills, were published outside the selected time frame (2021–2025), were not empirical studies, or were not available in English or Spanish. After applying these criteria, a final sample of 50 studies was selected for documentary analysis.

Following the selection of the final sample, the selected studies were organized and analyzed using a Documentary Analysis Matrix. This instrument was designed to systematically extract and organize relevant information from each study to ensure consistency throughout the documentary analysis process. The variables included in the Documentary Analysis Matrix are presented in Table 1.

Table 1.

Variables included in the Documentary Analysis Matrix

Variable	Description
Study	Author(s) and year of publication.
Educational Context	Country where the study was conducted and educational level of the participants.
Participants	Sample characteristics, including the number and type of participants.
Research Design	Methodological approach employed in the study.
MALL Tools	Mobile applications, platforms, or digital tools used to support English oral skills development.
Oral Skill Focus	Oral language skills addressed (speaking, pronunciation, fluency, oral interaction, or communicative competence).
Main Findings	Principal findings reported by the authors regarding the use of MALL for English oral skills development.
Reported Limitations	Methodological or contextual limitations identified by the authors.
Contributions to the Review	Relevance of the study to the synthesis of evidence and the development of the thematic categories.

The Documentary Analysis Matrix was systematically completed for all 50 studies included in this review and served as the basis for the coding, comparison, and thematic analysis of the selected literature. After the information from the selected studies had been organized in the Documentary Analysis Matrix, the analysis followed an inductive approach. Rather than establishing analytical categories before reviewing the studies, the categories emerged progressively from the analysis of the information extracted from each article.

The studies were systematically compared and grouped according to the themes they addressed and the findings they reported. Specifically, several studies emphasized learners' motivation and confidence, while others focused on opportunities for oral practice and communication, pedagogical approaches, or the role of teachers and learners in Mobile-Assisted Language Learning (MALL). As the analysis progressed, these recurring themes gave rise to four overarching analytical categories, which were used to organize and interpret the findings presented in this review.

These categories include: (1) MALL as a tool for expanding opportunities for oral practice and communication, (2) MALL as a means of enhancing learners' motivation, confidence, and engagement in oral communication, (3) MALL as a learning environment involving teacher and learner mediation, and (4) MALL as a component of pedagogical approaches for oral skill development. These four thematic categories provided the framework for organizing and interpreting the findings of the reviewed studies. They also facilitated the identification of common trends, recurring challenges, and research gaps regarding the use of Mobile-Assisted Language Learning (MALL) to support the development of English oral skills.

4 Discussion and Conclusions

The purpose of this literature review is to examine the role of Mobile-Assisted Language Learning (MALL) in the development of speaking skills among students of English as a Foreign Language (EFL). Through the analysis of fifty peer-reviewed empirical studies published between 2021 and 2025, several recurring patterns, trends, and contradictions were identified regarding the use of MALL to support oral skills development in EFL contexts.

In general terms, MALL has become a relevant pedagogical resource for supporting speaking development, particularly in areas related to fluency, pronunciation, motivation, confidence, and opportunities for oral practice beyond the classroom (Hwang et al., 2024; Benlaghrissi & Ouahidi, 2024; Stockwell & Wang, 2024; Kukulska-Hulme, 2021). At the same time, the contribution of mobile technologies extends beyond the tools themselves and is related to how they are integrated into teaching and learning processes (Criollo-C et al., 2021; Stockwell, 2021; Jia et al., 2025).

To address the research question, the discussion is organized around four analytical categories that represent the main ways MALL is used to support the development of oral skills in EFL learners. These categories were derived from the recurring themes identified across the selected studies and serve as a framework for the interpretation of the findings. Table 2 presents the discussion framework.

Table 2.*Discussion Framework Categories*

Category	Description
1	MALL as a tool for expanding opportunities for oral practice and communication.
2	MALL as a means of enhancing learners' motivation, confidence, and engagement in oral communication.
3	MALL as a learning environment involving teacher and learner mediation.
4	MALL as a component of pedagogical approaches for oral skill development.

The discussion begins by examining MALL as a tool for expanding opportunities for oral practice and communication. It then explores how MALL contributes to learners' motivation, confidence, and engagement in oral communication. The third category focuses on the role of teacher and learner mediation within mobile-assisted learning environments. Finally, the discussion addresses the integration of MALL into broader pedagogical approaches aimed at supporting oral skill development.

4.1 MALL as a Key Technological Tool for Supporting Oral Skills Development in EFL Learners

Mobile-Assisted Language Learning (MALL) can play an important role in developing oral skills in English as a foreign language (Alzieni, 2024; Li, 2024; Hwang et al., 2024; Benlaghrissi & Ouahidi, 2024). Various articles and theses have noted that students often face difficulties with spoken production, pronunciation, comprehension, and fluency (Alisoy & Sadig, 2024; Dimas & Daulay, 2025). Furthermore, anxiety and nervousness during conversations or presentations in English have consistently been reported as factors that negatively affect learners' oral performance (Zhen & Hashim, 2022; Zhao et al., 2025; Al-Abri et al., 2025). As a result, speaking ability

remains one of the most difficult skills to develop in English language learning (Hilmi, 2024; Zhao et al., 2025; Padilla et al., 2025). However, MALL can contribute positively to overcoming many of these challenges.

Across the literature, the use of mobile apps was associated with improvements in pronunciation and confidence when communicating in English (Ahmad et al., 2025; Benlaghrissi & Ouahidi, 2024; Dimas & Daulay, 2025; Padilla et al., 2025). Similarly, mobile technologies offer students greater opportunities for speaking practice beyond the traditional classroom setting, allowing them to engage in conversation activities more frequently and flexibly (Ahmed et al., 2022; Hwang et al., 2024; Stockwell & Wang, 2024; Pebiana & Febria, 2023). This constant exposure to the language appears to contribute significantly to improving learners' oral performance, especially in contexts where opportunities for oral interaction are limited.

Among the oral skills identified in literature, fluency and pronunciation emerged as the areas showing the most consistent improvements (Zapata Pachón, 2023; Metruk, 2024; Melasari et al., 2025). Several studies indicated that students who used mobile apps to practice speaking demonstrated greater discourse continuity, fewer pauses, and greater confidence when speaking compared to those who participated solely in traditional methodologies (Dimas & Daulay, 2025; Hilmi, 2024; Muslimah & Tarihoran, 2025).

Likewise, the asynchronous nature of many mobile apps such as KEPHAM App, Cambly, Rosetta Stone, Vocaroo, and Memrise allowed students to record, replay, and practice their oral productions multiple times before sharing them, which fostered greater speech automation and

reduced anxiety during speaking activities (Zhen & Hashim, 2022; Díaz-Ramírez et al., 2023; Al-Abri et al., 2025; Rahman et al., 2025). Additionally, applications powered by Artificial Intelligence (AI) and Automatic Speech Recognition (ASR) technologies provided immediate feedback on students' spoken output (Metruk, 2024; Padilla et al., 2025; Sholekhah & Fakhurriana, 2023). Apps such as Cake, ELSA Speak, Duolingo, Liulishuo, and SpeakingPal allow learners to compare their pronunciation with native models and identify areas for improvement in real time (Zhou, 2021; Mendieta et al., 2023; Pratiwi et al., 2024; Muslimah & Tarihoran, 2025; Rahman et al., 2025).

Together, these features support oral development by encouraging learners to monitor their own performance and engage in repeated speaking practice. Many of these applications also visually highlight pronunciation or speech errors through colors, lines, or underlined words, making it easier for learners to recognize areas that require improvement (Lestari, 2021; Sholekhah & Fakhurriana, 2023; Hilmi, 2024). Such opportunities for individualized practice and self-monitoring are often difficult to achieve in traditional classrooms due to time constraints and limited personalized feedback (Ahmad et al., 2025; Zapata Pachón, 2023).

In many traditional learning contexts, students have limited opportunities to use English in meaningful ways outside the classroom (Vides, 2022; Zapata Pachón, 2023). In contrast, mobile devices such as smartphones and tablets allow learners to engage with the language through multimodal resources such as videos, audio, and interactive activities (Athoillah, 2022; Kalli, 2024; Iftikhar, 2025; Díaz-Ramírez et al., 2023). This multimodality appears to promote language

exposure in more natural contexts while also adapting to each student's needs, interests, and learning pace (Stockwell, 2021; Al-Abri et al., 2025; Hwang et al., 2024).

MALL contributes to the development of communicative and interactive competence through social apps such as WhatsApp, WeChat, Hello Talk, and Tandem (Vides Cabrera, 2022; Zapata Pachón, 2023; Jia et al., 2025). These mobile apps facilitated both synchronous and asynchronous interactions, allowing students to engage in authentic communicative exchanges beyond the school setting. From a sociocultural perspective, these digital spaces promote collaborative learning, the negotiation of meaning, and meaningful interaction with other users and even with native speakers (Alisoy & Sadig, 2024; Hilmi, 2024). Furthermore, this type of interaction strengthens not only oral fluency but also sociocultural and pragmatic language competence (Vides Cabrera, 2022; Mejía & Oviedo, 2024; Álvarez et al., 2025).

While MALL was associated with positive developments in oral skills, contradictory evidence also emerged regarding lexical and grammatical development. Vocabulary growth and greater grammatical accuracy appeared to benefit from mobile learning activities (Kristiani & Pradnyadewi, 2021; Dimas & Daulay, 2025), whereas lexical complexity showed more limited improvement despite gains in fluency and pronunciation (Mejía & Oviedo, 2024; Jia & Lu, 2025). One possible explanation for this inconsistency could be that during mobile activities, many students prioritize communicative speed and task completion over the use of more complex linguistic structures (Iftikhar, 2025; Ahmad et al., 2025). Therefore, although MALL appears effective in increasing oral participation and speaking confidence, its contribution to linguistic

development may require more structured and sustained pedagogical interventions over time (Stockwell, 2021; Peters & Brooks, 2024, cited in Padilla et al., 2025).

MALL also showed considerable potential in rural educational settings with limited access to technological resources (Pérez, 2021; Alisoy & Sadig, 2024; Alzieni, 2024). Smartphones represented a more accessible alternative than computers or other devices, allowing students in rural areas to practice speaking through audio, video, and recordings shared via apps such as WhatsApp (Pérez, 2021; Mesa Rave & Hoechsmann, 2023; Kalli, 2024). Although MALL appears to expand opportunities for speaking practice in rural contexts, its implementation remains closely linked to technological infrastructure and equitable access to digital resources (Córdoba Valencia, 2024; Iftikhar, 2025).

In general, Mobile-Assisted Language Learning appears to have considerable potential to promote the development of oral skills, particularly in fluency, pronunciation, and interactive communication (Li, 2024; Metruk, 2024; Padilla et al., 2025; Benlaghrissi & Ouahidi, 2024). Moreover, the use of mobile technologies is frequently associated with positive learner responses, including increased motivation, confidence, and engagement in oral communication activities (Zhen & Hashim, 2022; Pebiana & Febria, 2023; Álvarez et al., 2025). Finally, the most positive outcomes in oral skill development were often reported when MALL was accompanied by teacher support and integrated into broader pedagogical approaches and instructional practices (Adjijaya et al., 2023; Jabbar, 2024; Iftikhar, 2025). These dimensions are explored in greater detail in the following sections.

4.2 MALL as a Means of Enhancing Learners' Motivation, Confidence, and Engagement in Oral Communication

Motivation emerged as one of the most consistently reported affective factors associated with the use of MALL (Zhen & Hashim, 2022; Armijos Paucar, 2023). Positive attitudes toward mobile apps were frequently linked to students' perceptions of their effectiveness in improving speaking skills (Estrella, 2025; Kalli, 2024; Rahman et al., 2025). Consequently, students expressed higher levels of interest, enjoyment, and willingness to participate in speaking activities when using mobile apps (Hwang et al., 2024; Al Shihri et al., 2025; Armijos Paucar, 2023). In some cases, even students who experienced high levels of anxiety or fear of speaking English were able to engage more actively in oral tasks (Zhen & Hashim, 2022; Zhao et al., 2025).

Therefore, MALL not only promotes language development but also supports affective dimensions such as confidence, motivation, comfort, and enjoyment during communication in English (Hwang et al., 2024; Ahmad et al., 2025). One factor that appears to contribute to these positive learner responses is the incorporation of gamification elements, such as digital rewards, badges, and scoring systems, which encourage more frequent practice and sustained engagement (Lestari, 2021; Sholekhah & Fakhurriana, 2023). In this sense, mobile technologies can contribute to the creation of a less threatening learning environment, where learners feel more willing to experiment with language and engage in oral communication despite making mistakes (Zapata Pachón, 2023; Alisoy & Sadig, 2024; Dimas & Daulay, 2025).

The importance attributed to motivation, anxiety, perceptions, and learner experiences is also reflected in the way these dimensions have been examined in MALL research. Surveys,

questionnaires, and Likert-scale instruments were used to explore learners' perceptions, levels of motivation, anxiety, and experiences related to the use of mobile applications for language learning (Ahmed et al., 2022; Al Shihri et al., 2025; Rahman et al., 2025; Metruk et al., 2025; Estrella, 2025). This emphasis reflects a growing recognition that the effectiveness of MALL cannot be understood exclusively through improvements in speaking performance. Learners' perceptions, motivation, anxiety, and overall learning experiences also appear to play an important role in explaining how mobile technologies support oral language development.

Finally, the benefits associated with MALL extend beyond the technology itself (Armijos Paucar, 2023; Stockwell, 2021; Hwang et al., 2024). Learners' motivation, engagement, and participation in oral activities appear to be influenced by the pedagogical conditions under which mobile technologies are implemented (Benlaghrissi & Ouahidi, 2024; Jia & Lu, 2025). For this reason, the roles of teachers, learners, and mediation processes become important considerations in understanding how MALL supports language learning (Mejía & Oviedo, 2024; Stockwell & Wang, 2024; Jabbar, 2024). These aspects are explored in the following section.

4.3 MALL as a Learning Environment Involving Teacher and Learner Mediation

Pedagogical mediation emerged as a central element in the implementation of MALL for oral skills development (Zapata Pachón, 2023; Metruk et al., 2025). Although mobile technologies offer greater opportunities for independent practice (Ahmed et al., 2022; Alzieni, 2024; Jabbar, 2024), the roles of teachers and learners remain essential in ensuring that these technologies effectively support language learning (Jia & Lu, 2025; Mejía & Oviedo, 2024). In this sense,

MALL can be understood not as a replacement for the teacher but as a complementary tool that requires active pedagogical mediation (Vides Cabrera, 2022; Stockwell & Wang, 2024).

The teacher's role undergoes an important transformation within mobile technology-mediated environments (Kukulska-Hulme, 2021; Benlaghrissi & Ouahidi, 2024). Rather than transmitters of knowledge, teachers are described as facilitators, guides, and mediators who structure meaningful learning experiences (Mejía & Oviedo, 2024; Stockwell & Wang, 2024). In this context, mobile applications appeared to be more beneficial when students were provided with clear objectives, communicative tasks, and opportunities to reflect on their language use (Ahmed et al., 2022; Jia & Lu, 2025). Consequently, teacher support remains important to ensure that technology is integrated into meaningful learning experiences rather than being used as a repetitive or isolated practice activity (Kukulska-Hulme, 2021; Hwang et al., 2024; Mendieta et al., 2023).

Furthermore, teacher mediation plays an important role in processes of interaction and scaffolding within MALL environments (Stockwell, 2021; Hwang et al., 2024; Jia et al., 2025). In this context, scaffolding refers to the temporary support provided by teachers, peers, or digital tools to help learners accomplish tasks and gradually develop greater autonomy (Stockwell & Wang, 2024). From sociocultural perspectives on learning, collaborative interaction, peer support, and guided participation are considered important elements of oral development (Kukulska-Hulme, 2021; Stockwell & Wang, 2024). Through apps such as WhatsApp, WeChat, and Telegram, teachers were able to extend communication beyond the formal classroom and promote collaborative activities in which students negotiated meaning, exchanged feedback, and engaged in authentic communicative practices (Pérez, 2021; Li, 2024; Kalli, 2024).

At the same time, students assume more active and autonomous roles within MALL environments (Lestari, 2021; Zhen & Hashim, 2022; Córdoba Valencia, 2024). Unlike traditional teacher-centered instruction, mobile-assisted learning requires students to self-regulate their practice, manage their time, and engage independently with digital resources (Stockwell, 2021; Alzieni, 2024). These opportunities for autonomous practice are often associated with increased learner confidence and oral development, particularly when students consistently engage in oral activities beyond the classroom (Rahman et al., 2025; Ahmad et al., 2025).

By contrast, autonomy should not be understood as total independence from pedagogical guidance (Córdoba Valencia, 2024; Padilla et al., 2025). Some researchers noted that students may struggle to maintain consistent engagement when activities lack structure, monitoring, or clear communicative purposes (Zhao et al., 2025; Zhou, 2021). In some cases, students used the apps superficially, focusing more on completing activities than on developing deep language skills (Vides Cabrera, 2022; Stockwell & Wang, 2024; Jia & Lu, 2025; Jabbar, 2024). Thus, learners' autonomy in MALL may be enhanced by pedagogical guidance, self-regulation strategies, and ongoing teacher support.

Another important aspect of MALL implementation is the need for teachers to consider learners' characteristics and contextual conditions (Ahmad et al., 2025; Al Shihri et al., 2025). Factors such as students' familiarity with digital technologies, access to mobile devices and internet connectivity, and the educational context may influence participation and engagement in mobile-mediated oral activities (Criollo-C et al., 2021; Stockwell, 2021; Rahman et al., 2025; Mesa Rave & Hoechsmann, 2023). Consequently, teachers need to make pedagogical decisions

that respond to learners' needs and the realities of the learning environment when integrating MALL into their instructional practices.

Overall, pedagogical roles remain fundamental within MALL environments, despite the growing presence of digital technologies in language learning (Jabbar, 2024; Criollo-C et al., 2021; Jia et al., 2025). Teachers maintain a central role in structuring learning experiences, guiding interaction, and facilitating meaningful communication, while students are called upon to participate more actively and autonomously in their own learning process (Stockwell & Wang, 2024; Kukulska-Hulme, 2021; Mendieta et al., 2023). These pedagogical roles also shape how MALL is implemented in classroom practice, particularly in relation to the selection of instructional approaches and strategies, which will be explored in the following section.

4.4 MALL as a Component of Pedagogical Approaches for Oral Skill Development:

Consistent with the pedagogical roles discussed earlier, MALL is also integrated with various pedagogical approaches geared toward communicative and student-centered teaching (Kukulska-Hulme, 2021; Stockwell & Wang, 2024; Jia & Lu, 2025). Rather than being used as isolated tools, mobile technologies are incorporated into structured pedagogical frameworks that promote interaction, collaboration, and meaningful language use (Benlaghrissi & Ouahidi, 2024; Mejía & Oviedo, 2024; Adijaya et al., 2023).

Task-Based Language Teaching (TBLT) has been integrated with MALL as a way of supporting oral skill development (Estrella, 2025; Jia et al., 2025). Task-based activities supported by mobile devices create opportunities for students to engage in authentic communication while

developing fluency, pronunciation, and interactive competence (García-Ponce et al., 2023; Mejía & Oviedo, 2024; Jia & Lu, 2025). Throughout the different stages of the tasks, students combine formal classroom instruction with additional opportunities for practice outside the classroom (Estrella, 2025; Jia & Lu, 2025). Through this integration, students are provided with additional opportunities for oral production and active participation in the learning process. Beyond their use in the classroom, mobile technologies can broaden the scope of Task-Based Language Teaching (TBLT) by extending opportunities for oral practice to more flexible and self-directed contexts (Jia & Lu, 2025; Ahmad et al., 2025). While progress can be observed in traditional task-based activities, students who also use mobile resources outside the classroom tend to show greater development in oral fluency and participation (Jia & Lu, 2025; Ahmad et al., 2025).

Interactive real-life learning environments can be fostered using digital tools that promote authentic communication and more meaningful oral practice. To corroborate this, Mejía and Oviedo (2024) show that tools such as Nearpod, Padlet, Quizizz, and Wordwall, as well as digital communication apps such as WhatsApp, fostered more interactive and contextualized learning environments, enabling students to use idiomatic expressions in communicative situations that closely mirrored their everyday lives. These results suggest that the combination of formal instruction and interaction mediated by mobile technologies increases opportunities for authentic language use and promotes more consistent oral practice.

Another approach integrated with mobile technologies is Project-Based Learning (PBL). Project-based activities supported by digital resources encourage students' active participation in collaborative tasks that require planning, communication, and oral presentation (Benlaghrissi &

Ouahidi, 2024; Mejía & Oviedo, 2024; Alzieni, 2024). Communication tools such as Reddit, Twitter, and LINE App; presentation platforms like Keynote, Haiku Deck, Flipgrid, and Padlet, and audiovisual resources such as YouTube, podcasts, TED Talks, Toontastic 3D, VoiceTooner, and interactive digital books contribute to more dynamic, student-centered speaking experiences (Zapata Pachón, 2023; Díaz-Ramírez et al., 2023; Armijos Paucar, 2023; Alzieni, 2024; Li, 2024; Melasari et al., 2025). Unlike isolated repetition activities, projects engage learners in meaningful language use for communicative purposes while supporting both language development and collaborative learning (Hwang et al., 2024; Álvarez et al., 2025).

In addition to these approaches, MALL shows a growing incorporation of social and collaborative perspectives within its environments (Alisoy & Sadig, 2024; Hwang et al., 2024; and Jia, et al., 2025). Language exchange and mobile communication apps such as Naver Cafe, Facebook, TikTok, Tandem, and Instagram facilitate discussions, peer interaction, and collaborative speaking practice beyond the classroom walls (Vides Cabrera, 2022; Armijos Paucar, 2023; Melasari et al., 2025). These digital spaces allow students to negotiate meanings and receive support from both peers and teachers, fostering interaction and collaborative learning (Stockwell & Wang, 2024; Rahman et al., 2025).

An emerging trend in the literature is the incorporation of AI-powered tools and automated feedback systems into oral instruction (Alisoy & Sadig, 2024; Jia et al., 2025). Technologies based on Automatic Speech Recognition (ASR), such as Cake, ELSA Speak, and Loora, are associated with improvements in pronunciation and individualized feedback (Padilla et al., 2025; Sholekhah & Fakhurriana, 2023; Metruk, 2024). These tools allow students to receive corrective input on

phonological accuracy, stress, and spoken production, thereby expanding opportunities for self-correction and repetitive practice (Pratiwi et al., 2024; Li, 2024; Muslimah & Tarihoran, 2025). However, some authors also caution that automated feedback should not completely replace opportunities for human interaction or pedagogical mediation, as interaction with teachers and peers continues to play an important role in oral language learning. In addition, some systems still struggle to recognize non-standard accents or provide contextualized feedback (Padilla et al., 2025; Jabbar, 2024).

Taken together, the integration of MALL in EFL contexts reflects the combined influence of mobile technologies, student engagement, pedagogical mediation, and instructional design (Stockwell, 2021; Mejía & Oviedo, 2024; Jabbar, 2024; Al-Abri et al., 2025). Rather than functioning as a standalone solution, mobile technologies appear to support the development of oral skills when they are embedded in meaningful, communicative, and pedagogically structured learning experiences.

4.5 Implications and Limitations

Despite the many benefits identified in the use of Mobile-Assisted Language Learning (MALL), speaking skills remain one of the most complex competencies to develop in the learning of English as a foreign language (Zhen & Hashim, 2022; Benlaghrissi & Ouahidi, 2024). Factors such as anxiety, difficulties in listening comprehension, and problems related to language production continue to affect the performance of many students during speaking activities (Zhen & Hashim, 2022; Zhao et al., 2025; Rahman et al., 2025). In this sense, the use of mobile devices

can contribute to reducing some of these difficulties by offering more flexible, dynamic, and personalized learning experiences that support oral practice (Hwang et al., 2024; Benlaghrissi & Ouahidi, 2024; Estrella, 2025).

In this regard, access to mobile apps and multimodal resources promotes personalized learning, something that is not always easy to achieve in traditional classroom settings (Stockwell & Wang, 2024; Kukulska-Hulme, 2021). Through various apps such as Hello English, Lingvist, TalkEnglish, FluentU, Speechling, and Duolingo, students could practice the language according to their interests, needs, and learning pace (Athoillah, 2022; Alisoy & Sadig, 2024; Ahmad et al., 2025; Rahman et al., 2025; Padilla et al., 2025). Likewise, the use of visual aids and immediate feedback facilitates the identification and correction of pronunciation errors, particularly benefiting students who learn more effectively through visual support.

Furthermore, many mobile apps incorporate motivational strategies that encourage students' consistent participation in speaking-related activities. Elements such as digital rewards, interactive activities, and shadowing exercises foster more dynamic and flexible learning environments, supporting learners' interest and engagement in their daily routines, both at school and at home (Lestari, 2021; Sholekhah & Fakhurriana, 2023; Zhen & Hashim, 2022; Al-Abri et al., 2025; Sari & Jaya, 2025). Therefore, MALL not only promotes linguistic aspects related to pronunciation and oral fluency, but also affective dimensions such as motivation, self-confidence, and willingness to communicate in English (Rahman et al., 2025; Zhen & Hashim, 2022; Ahmad et al., 2025). Moreover, the ability to practice privately and repeat activities multiple times

contributes to more comfortable learning environments for students of English as a foreign language (Zhao et al., 2025; Alzieni, 2024; Aliakbari & Mardani, 2022).

Another important implication identified in the literature relates to the expansion of opportunities for authentic interaction through social apps such as WhatsApp, Tandem, Hello Talk, and WeChat (Melasari et al., 2025; Vides Cabrera, 2022; Kukulska-Hulme, 2021). These platforms allow students to interact with peers and native speakers through video calls, voice messages, and asynchronous conversations, fostering not only consistent oral practice but also the development of sociocultural and pragmatic skills (Stockwell & Wang, 2024; Rahman et al., 2025; Athoillah, 2022). In many cases, these interactions help students use the language in more realistic and meaningful contexts, transcending the limitations of the traditional classroom (Álvarez et al., 2025; Jia & Lu, 2025; Pebiana & Febria, 2023).

Despite these opportunities, MALL should not be viewed as a replacement for traditional teaching, but rather as a complementary tool that requires teacher support and appropriate pedagogical planning (Vides Cabrera, 2022; Mejía & Oviedo, 2024; Stockwell & Wang, 2024). From this perspective, the teacher's role remains fundamental as a mediator, guide, and facilitator of meaningful learning experiences (Kukulska-Hulme, 2021; Benlaghrissi & Ouahidi, 2024). Some students even expressed the need to complement the use of mobile apps with in-person activities and constant guidance from the teacher (Zhao et al., 2025; Zhou, 2021; Mendieta et al., 2023). These insights reinforce the idea that, although mobile technologies promote autonomy and independent practice, pedagogical support remains essential to ensure deeper and more meaningful learning processes.

MALL also offers important opportunities for the monitoring and assessment of oral language development. Teachers are using various digital tools such as Kahoot, Mentimeter, and Duolingo for Schools to monitor aspects such as pronunciation, fluency, participation, and students' oral performance during speaking activities in real time (Al-Abri et al., 2025; Metruk, 2024; Hwang et al., 2024; Padilla et al., 2025; Li, 2024; Córdoba Valencia, 2024). This suggests that MALL not only promotes oral language practice but also facilitates continuous monitoring of the learning process and the provision of personalized feedback.

Beyond these pedagogical implications, this study also contributes to the understanding of MALL by bringing together recent empirical evidence from different educational contexts, including studies conducted in Latin America and Colombia. In addition to synthesizing evidence on the effectiveness of MALL, this study identifies a wide range of mobile applications, digital tools, and pedagogical approaches that have been associated with positive outcomes in the development of English oral skills (Hwang et al., 2024; Benlaghrissi & Ouahidi, 2024; Jia et al., 2025; Padilla et al., 2025). These findings contribute to a more comprehensive understanding of the use of MALL for the development of English oral skills and highlight the importance of continuing to investigate how MALL can be implemented to support oral language learning across diverse educational contexts.

This research may serve as a useful resource for English language teachers, researchers, and students interested in exploring different ways of integrating MALL into classroom instruction or autonomous learning. In this way, the study contributes to expanding the understanding of MALL in Colombian and Latin American contexts and offers educators and researchers a broader

perspective on the technological resources and pedagogical strategies that may be adapted to different educational settings.

Despite the positive results associated with the use of MALL, various methodological and contextual limitations affect the interpretation and generalizability of the findings. A common limitation was the use of quasi-experimental designs and small-scale studies. Many studies used small samples, often fewer than 100 participants, and were limited to a single educational institution (Zhou, 2021; Ahmed et al., 2022; Jia et al., 2025). In some cases, the studies did not include control groups or were limited to pretest-posttest comparisons, making it difficult to determine whether the observed improvements were specifically due to MALL or to other pedagogical variables present during the intervention (Zhao et al., 2025; Hwang et al., 2024).

Another important limitation concerns the duration of the interventions. The studies reviewed focused mainly on short-term implementations lasting a few weeks or an academic semester (Ahmed et al., 2022; Pratiwi et al., 2024; Hwang et al., 2024). Although immediate improvements in speaking were reported, there is limited evidence regarding the long-term persistence of these gains or the sustainability of student motivation and participation over time (Al Shihri et al., 2025; Iftikhar, 2025; Ahmad et al., 2025). In some cases, positive results may also be influenced by a “novelty effect,” where students’ initial enthusiasm for using new technologies, rather than sustained pedagogical impact, may explain part of the outcomes (Zhou, 2021; Zhao et al., 2025; Li, 2024).

Limitations related to the assessment of oral skills were also identified. While some studies used standardized instruments such as IELTS-based rubrics (Benlaghrissi & Ouahidi, 2024; Hwang et al., 2024; Alzieni, 2024; Al-Abri et al., 2025), others relied primarily on perception questionnaires, self-assessments, or tests designed by the researchers themselves (Li, 2024; Al Shihri et al., 2025; Jia & Lu, 2025; Ahmad et al., 2025). This raises concerns regarding the validity, reliability, and subjectivity of the results. In addition, many studies prioritized technical aspects of speaking, such as pronunciation and fluency, while paying less attention to broader dimensions of communicative competence, including negotiation of meaning, spontaneous interaction, and pragmatic competence (Li, 2024; Zhao et al., 2025; Dimas & Daulay, 2025).

Technological challenges continue to represent a significant barrier to the implementation of MALL, particularly in rural and low-income settings. Issues related to connectivity, audio quality, limited device storage, and unequal access to digital resources have been widely reported (Kalli, 2024; Pérez, 2021). In the case of Colombia, research conducted in rural areas shows that, although smartphones are a more accessible option than other technological devices, barriers related to internet stability and the digital divide persist (Mesa Rave & Hoechsmann, 2023).

Difficulties related to the affordability of premium versions of certain mobile apps were also identified (Hwang et al., 2024; Dimas & Daulay, 2025). The constant presence of advertisements, interruptions during activities, and limited features in free versions negatively affected the learning experience and the continuity of oral practice (Rahman et al., 2025; Ahmad et al., 2025). In addition, AI-powered apps and ASR systems showed limitations in recognizing

non-standard accents and in providing contextualized and consistent feedback (Padilla et al., 2025; Pratiwi et al., 2024; Sholekhah & Fakhurriana, 2023).

Finally, despite the insights provided by the previous sections, important research gaps remain that warrant further investigation. Although numerous studies have examined students' perceptions and motivation regarding the use of MALL (Zhou, 2021; Kukulska-Hulme, 2021; Armijos Paucar, 2023), evidence concerning teachers' experiences, pedagogical challenges, and the professional preparation required to effectively integrate mobile technologies into English oral language instruction is still limited (Alisoy & Sadig, 2024; Iftikhar, 2025; Álvarez et al., 2025). Furthermore, more longitudinal research and mixed-methods studies are needed to better understand not only whether MALL improves oral skills, but also how and why these learning processes occur across different educational contexts. These gaps open the need for future research directions, which are presented in the following section.

4.6 Recommendations for Future Research

Based on the findings identified in the reviewed literature, there are several opportunities to continue expanding our understanding of the role of Mobile-Assisted Language Learning in the development of language skills in EFL contexts. One of the main gaps identified is the limited diversity of educational settings examined, as much of the existing research has focused primarily on universities, secondary schools, or rural contexts (Zhou, 2021; Zhen & Hashim, 2022; Li, 2024; Iftikhar, 2025). In this regard, future research could explore the implementation of MALL in language institutes and private English language schools, which remain relatively

underrepresented in the literature. Such contexts may provide valuable insights into how mobile technologies support oral language development across different instructional approaches and learning environments. This recommendation may be particularly relevant in cities such as Medellín, where language institutes play an important role in English language education and could offer additional perspectives on technology integration in language learning.

Similarly, some studies have suggested that mobile technologies can support preparation for standardized English proficiency tests by expanding opportunities for oral practice, feedback, and language exposure beyond the classroom (Durán-Bautista and Huertas-Malagón, 2021; Hwang et al., 2024; Al Shihri et al., 2025). These findings indicate that the potential of MALL may extend beyond traditional educational settings and contribute to more specific academic and professional objectives (Hwang et al., 2024). Therefore, future research could further explore the use of MALL in test-preparation contexts to better understand how mobile technologies influence learners' communicative performance, motivation, and confidence when preparing for international English proficiency examinations.

Future research could explore how mobile environments contribute to the interaction among different language skills in the language learning process. Although most of the studies reviewed focused primarily on oral production, some findings suggest that mobile-mediated experiences may foster multimodal processes in which skills such as listening, reading, and writing interact in a complementary manner (Athoillah, 2022; Zapata Pachón, 2023; Al-Abri et al., 2025; Jia et al., 2025). In addition, it would be valuable to delve deeper into the relationship between

these competencies and their potential contribution to comprehensive communicative development.

Another aspect that requires further attention is the need to implement broader, longitudinal methodological designs that allow for an examination of the long-term effects of MALL. Some of the reviewed research was conducted over short intervention periods, making it difficult to determine whether the observed improvements in fluency, pronunciation, motivation, or participation are sustained over time (Li, 2024; Ahmad et al., 2025; Al Shihri et al., 2025). Therefore, future studies could incorporate extended observation periods to analyze the sustainability of the linguistic and affective gains associated with the use of mobile technologies.

Lastly, future research could explore the role of teachers in MALL environments, particularly their technological and pedagogical readiness to integrate mobile applications into English language instruction. Although numerous studies have focused on student perceptions and outcomes (Ahmed et al., 2022; Al Shihri et al., 2025; Rahman et al., 2025; Metruk et al., 2025; Estrella, 2025), there is still limited evidence regarding teachers' experiences, implementation challenges, and the mediation strategies needed to foster more meaningful learning processes through mobile technologies. Further research in this area could contribute to a better understanding of the support, training, and resources teachers may require to effectively implement MALL in diverse educational contexts.

4.7 Conclusions

The review of fifty peer-reviewed empirical studies highlights the growing presence of MALL in English language teaching due to its capacity to expand opportunities for oral practice beyond the traditional classroom setting. Overall, mobile technologies have been used to promote more flexible, interactive, and accessible speaking activities through mobile applications, automated feedback tools, social interaction spaces, and multimodal resources designed to support language learning.

The literature also highlights the value of mobile technologies in creating additional opportunities for oral practice and interaction in both formal and informal learning contexts. By allowing learners to engage with English beyond classroom boundaries, mobile applications may support more flexible, personalized, and consistent learning experiences while fostering greater confidence and willingness to participate in speaking activities.

Moreover, the use of MALL is associated with improvements in oral fluency, pronunciation, communicative confidence, and participation in speaking activities. However, the evidence reviewed also highlights that the impact of these tools does not depend exclusively on the presence of technology, but rather on factors related to instructional design, the quality of interactions, teacher support, and the integration of communicative strategies that enable meaningful language use.

Furthermore, the findings suggest that the development of oral skills through MALL involves more than the use of mobile technologies alone. Affective, pedagogical, and contextual factors also play an important role in the learning process. Although the reviewed literature reported positive results, it also highlighted contradictions, methodological limitations, and contextual inequalities that continue to influence the implementation of MALL in different educational settings. This review provides an integrative perspective that helps to explain not only the benefits associated with MALL but also the conditions under which these results have been reported.

At the same time, the reviewed literature revealed several inconsistencies and methodological limitations. While positive outcomes were reported in areas such as fluency and pronunciation, evidence regarding lexical development, authentic interaction, and long-term learning remains less conclusive. Overall, MALL represents a valuable tool for supporting oral skill development in EFL contexts; however, effective implementation requires careful pedagogical integration, equitable access to technology, and the design of meaningful learning experiences.

5 References

- Adijaya, M. A., Armawan, I. K., & Kristiantari, M. G. R. (2023). Mobile-assisted language learning (MALL) innovation for vocational education. *International Journal of Language Education*, 7(3), 469–480. <https://doi.org/10.26858/ijole.v7i3.52910>
- Ahmad, Y., Hussain, S., Mumtaz, U., & Riaz, S. (2025). Investigating the influence of Duolingo, Elsa Speak, and Hello English mobile applications on students' attitudes and speaking skills. *Review Journal of Social Psychology & Social Works*, 3(1), 640–669. <https://socialworksreview.com/index.php/Journal/article/view/131>
- Ahmed, A. A. A., Keezhatta, M. S., Hassan, I., Pallathadka, H., Haryadi, R. N., Al Mashhadani, Z. I., Attwan, L. Y., & Rohi, A. (2022). MALL and EFL learners' speaking: Impacts of Duolingo and WhatsApp applications on speaking accuracy and fluency. *Education Research International*, 2022, Article 6716474. <https://doi.org/10.1155/2022/6716474>
- Al Shihri, H. B. S. G., Mahfoodh, O. H. A., & Khan, A. B. B. M. (2025). Examining the effect of the integration of multiple MALL applications on EFL students' academic vocabulary acquisition: A mixed-methods study. *Cogent Education*, 12(1), Article 2473229. <https://doi.org/10.1080/2331186X.2025.2473229>
- Al-Abri, A., Ranjbaran Madiseh, F., & Morady Moghaddam, M. (2025). Exploring learning-oriented assessment in enhancing students' lexical fluency through MALL. *The Asia-Pacific Education Researcher*, 34, 1–13. <https://doi.org/10.1007/s40299-024-00832-7>

-
- Aliakbari, M., & Mardani, M. (2022). Mobile-assisted language learning and its effects on learners' speaking development. *Education Research International*, 2022, Article 9043326. <https://doi.org/10.1155/2022/9043326>
- Alisoy, H. & Sadig, Z. (2024). Mobile-Assisted Language Learning (MALL): Revolutionizing Language Education. *Luminis Applied Science and Engineering*, 1(1), 60-72. <https://doi.org/10.69760/lumin.202400002>
- Álvarez Martínez, J. A., Gómez, J. F., & Restrepo Botero, J. C. (2025). Mobile-assisted language learning (MALL) for improving English language teaching and learning in higher education: A systematic literature review. *Knowledge Management & E-Learning*, 17(2), 258–277. <https://doi.org/10.34105/j.kmel.2025.17.012>
- Alzieni, H. (2024). The impact of mobile-assisted language learning (MALL) in developing the speaking skill: An empirical study in the United Arab Emirates. *Journal of Teaching English for Specific and Academic Purposes*, 12(1), 165–173. <https://doi.org/10.22190/JTESAP230708014A>
- Armijos Paucar, B. J. (2023). *The effects of the mobile-assisted language learning method in the EFL/ESL context* [Bachelor's thesis, Universidad de Cuenca]. University of Cuenca Institutional Repository. <http://dspace.ucuenca.edu.ec/handle/123456789/42627>
- Athoillah, U. (2022). The use of mobile-assisted language learning (MALL) in teaching students' listening and speaking skills. *Jurnal Guru Dikmen dan Dikus*, 5(1), 131–144. https://www.academia.edu/82618931/The_Use_of_Mobile_Assisted_Language_Learning_MALL_in_Teaching_Students_Listening_and_Speaking_Skills

-
- Benlaghrissi, H., & Ouahidi, L. M. (2024). The impact of mobile-assisted project-based learning on developing EFL students' speaking skills. *Smart Learning Environments*, 11(1), 18. <https://doi.org/10.1186/s40561-024-00303-y>
- Córdoba Valencia, E. (2024). *Diseño e implementación de tareas comunicativas soportadas en el aprendizaje móvil para el mejoramiento de las habilidades orales en inglés de los de estudiantes de grado 10° de la Institución Educativa Federico Carrasquilla de la ciudad de Medellín* [Master's thesis, Universidad Pontificia Bolivariana]. UPB Institutional Repository. <http://hdl.handle.net/20.500.11912/11811>
- Criollo-C, S., Guerrero-Arias, A., Jaramillo-Alcázar, Á., & Luján-Mora, S. (2021). Mobile learning technologies for education: Benefits and pending issues. *Applied Sciences*, 11(9), 4111. <https://doi.org/10.3390/app11094111>
- Díaz-Ramírez, M., Rodríguez-Silva, K., Mendieta-Ramírez, H., & Herreño-Contreras, Y. (2023). Implementation of mobile learning strategies and their effect on English Language Teaching (ELT). *Cultura, Educación y Sociedad*, 14(2), 25–48. <https://doi.org/10.17981/cultedusoc.14.2.2023.02>
- Dimas, & Daulay, E. (2025). Improving students' speaking ability through Loora as mobile-assisted language learning application. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 13(1), 375–401. <https://doi.org/10.24256/ideas.v13i1.6335>

-
- Durán-Bautista, D. C., & Huertas-Malagón, S. P. (2021). Mobile phones-assisted practice and note-taking in foreign language oral production. *International Journal of Mobile and Blended Learning*, 13(2), 1–22. <https://doi.org/10.4018/IJMBL.2021040104>
- Estrella, F. (2025). Mobile-assisted language learning: Ecuadorian undergraduate polytechnic students' perceptions. *Social Education Research*, 6(1), 1–19. <https://doi.org/10.37256/ser.6120255210>
- Garcia-Ponce, E. E., Lengeling, M. M., Mora-Pablo, I., & Conaway Arroyo, L. M. (2023). Use of WhatsApp as a platform to promote English oral fluency and accuracy: A task repetition approach. *Íkala, Revista de Lenguaje y Cultura*, 28(1), 69–85. <https://doi.org/10.17533/udea.ikala.v28n1a04>
- Hilmi, N. (2024). *The use of Cake app to improve the speaking skill from the perspective of senior high school students; through mobile-assisted language learning (MALL)* [Manuscript]. Academia.edu
- Hwang, G. J., Rahimi, M., & Fathi, J. (2024). Enhancing EFL learners' speaking skills, foreign language enjoyment, and language-specific grit utilising the affordances of a MALL app: A microgenetic perspective. *Computers & Education*, 214, 105015. <https://doi.org/10.1016/j.compedu.2024.105015>
- Iftikhar, N. (2025). Mobile-assisted language learning (MALL): Revolutionizing second language acquisition. *Journal of Applied Linguistics and TESOL*, 8(1), 1038–1045. <https://jalt.com.pk/index.php/jalt/article/view/424>

-
- Jabbar, S. A. (2024). Mobile-assisted language learning (MALL) in English education: Trends and developments. *International Journal of English Literature and Social Sciences*, 9(6), 113–116. <https://doi.org/10.22161/ijels.96.20>
- Jia, S., & Lu, Z. (2025). Enhancing EFL oral production through mobile-assisted task-based language teaching: A study in effectiveness. *Journal of Information Technology Education: Research*, 24, Article 12. <https://doi.org/10.28945/5482>
- Jia, S., Lu, Z., & Bava Harji, M. (2025). A mobile-assisted language learning speaking model: Development and evaluation. *Computer Assisted Language Learning*. Advance online publication. <https://doi.org/10.1080/09588221.2025.2599150>
- Kalli, A. B. (2024). Investigating the impact of mobile-assisted language learning (MALL) in improving the speaking skills of NCE students in Nigeria. *International Journal of Multidisciplinary Research in Science, Technology and Innovation*, 3(1), 232–243. <https://www.ijmrsti.com/wp-content/uploads/2024/07/Investigating-the-Impact-of-Mobile-Assisted-Language-Learning-MALL-in-Improving-the-Speaking-Skills-of-NCE-Students-in-Nigeria-1.pdf>
- Kristiani, P. E., & Pradnyadewi, D. A. M. (2021). The effectiveness of YouTube as learning media in improving learners' speaking skills. *The Art of Teaching English as a Foreign Language*, 2(1), 7–11. <https://doi.org/10.36663/tatefl.v2i1.97>
- Kukulska-Hulme, A. (2021). Reflections on research questions in mobile-assisted language learning. *Journal of China Computer-Assisted Language Learning*, 1(1), 28–46. <https://doi.org/10.1515/jccall-2021-2002>

-
- Lestari, R. D. (2021). The use of Cake English application in EFL speaking skill. *Master's thesis*, State Islamic University of North Sumatra. https://www.academia.edu/45150824/The_Use_of_Cake_English_Application_in_EFL_Speaking_Skill
- Li, R. (2024). Effects of mobile-assisted language learning on foreign language learners' speaking skill development. *Language Learning & Technology*, 28(1), 1–26. <https://hdl.handle.net/10125/73553>
- Mejía Vasquez, B. E. & Oviedo Cardenas, M. C. (2024). The Implementation of MALL for Teaching Idiomatic Expressions with Young Students from a Public High School in Pereira [Bachelor's thesis, Technological University of Pereira]. Institutional Repository. Retrieved from: <https://hdl.handle.net/11059/15140>
- Melasari, S., Agustina, D. R., Nurfayyisa, S. M., & Tarihoran, N. A. (2025). Use of mobile-assisted language learning (MALL) through the HelloTalk application in improving speaking skills: A systematic literature review. *International Journal of Social and Education*, 2(9), 2665–2687. <https://languar.net/index.php/INJOSEDU/article/view/552>
- Mendieta Ramírez, H. A., Rodríguez Silva, K. J., & Díaz Ramírez, M. I. (2023). Promoting ELT through mobile-assisted language learning – MALL. *Espiral, Revista de Docencia e Investigación*, 13(1), 23–32. <https://doi.org/10.15332/erdi.v13i1.3063>
- Mesa Rave, N., & Hoechsmann, M. (2023). Digital divide and bridges: Navigating COVID-19 in Colombian education. *American Journal of Distance Education*, 37(4), 261–275. <https://doi.org/10.1080/08923647.2023.2231809>

-
- Metruk, R. (2024). Mobile-assisted language learning and pronunciation instruction: A systematic literature review. *Education and Information Technologies*, 29(13), 16255–16282. <https://doi.org/10.1007/s10639-024-12453-0>
- Metruk, R., Klimszová, S., & Guziurová, T. (2025). University EFL students' perceptions of smartphone-assisted language learning. *Information Technologies and Learning Tools*, 105(1), 73–84. <https://doi.org/10.33407/itlt.v105i1.5806>
- Muslimah, N., & Tarihoran, N. (2025). MALLing your way to perfect pronunciation: A systematic review (2020–2024). *International Journal of Social and Education*, 2(6), 1702–1715. <https://languar.net/index.php/INJOSEDU/article/view/210>
- Padilla, K., Valencia Silva, E., Anrango, G. M., Flores Albuja, F., & Vásquez Flores, S. (2025). Mobile applications for enhancing oral fluency in English as a foreign language learners: A systematic review. *Revista Ecos de la Academia*, 11(21), e1268. <https://doi.org/10.53358/ecosacademia.v11i21.1268>
- Pebiana, P., & Febria, D. (2023). Increasing student motivation for speaking skills with MALL (mobile-assisted language learning). *Study of Applied Linguistics and English Education (SALLE)*, 4(2), 424–439. <https://doi.org/10.35961/salee.v4i2.820>
- Pérez Pérez, Y. P. (2021). *Mobile-assisted language learning (MALL) for EFL rural learners: Development of oral production through the use of non-authentic sources* (Bachelor's thesis). Universidad Santo Tomás, Bogotá, Colombia. <http://hdl.handle.net/11634/34636>

-
- Pratiwi, D. F., Julianti, R., Anggung, S. D., Ima, N., & Halim, N. M. (2024). Mobile-assisted language learning (MALL) to enhance students' speaking. *ELS Journal on Interdisciplinary Studies in Humanities*, 7(4), 545–555. <https://doi.org/10.34050/els-jish.v7i4.41949>
- Rahman, M. A., Hossain, M. M., & Somiya, R. A. (2025). *Mobile-assisted language learning apps in Bangladeshi English speaking classrooms at tertiary level: Prospects and challenges*. *International Journal of Multidisciplinary Research and Analysis*, 8(4), 2201–2213. <https://doi.org/10.47191/ijmra/v8-i04-76>
- Rao, P. S. (2019). The role of English as a global language. *Research Journal of English*, 4(1), 65–79. <https://doi.org/10.36993/rjoe>
- Sari, D. K., & Jaya, A. (2025). *Boosting oral proficiency through shadowing: A study on fluency and pronunciation gains in EFL students*. *English Community Journal*, 9(1), 23–31. <https://jurnal.um-palembang.ac.id/englishcommunity/article/view/9808>
- Sholekhah, M. F., & Fakhurriana, R. (2023). The use of ELSA Speak as a mobile-assisted language learning (MALL) towards EFL students' pronunciation. *Journal of Education, Language Innovation, and Applied Linguistics*, 2(2), 93–100. <https://doi.org/10.37058/jelita.v2i2.7596>
- Stockwell, G. (2021). Living and learning with technology: Language learning with mobile devices. *English Teaching*, 76(Suppl. 1), 3–16. <https://doi.org/10.15858/engtea.76.s1.202109.3>

-
- Stockwell, G., & Wang, Y. (2024). Expanding the learning ecology and autonomy of language learners with mobile technologies. *Educational Technology & Society*, 27(2), 60–69. [https://doi.org/10.30191/ETS.202404_27\(2\).SP05](https://doi.org/10.30191/ETS.202404_27(2).SP05)
- Vides Cabrera, L. J. (2022). *La aplicación móvil para el intercambio de lenguas Tandem y su influencia en la comunicación oral en inglés de tres estudiantes de la Licenciatura en Lenguas Modernas de la Pontificia Universidad Javeriana* (Bachelor's thesis). Pontificia Universidad Javeriana. <http://hdl.handle.net/10554/60575>
- Zapata Pachón, N. Y. (2023). *Mobile learning stimulates English speaking practice* (Bachelor's thesis). Universidad Santo Tomás. <http://hdl.handle.net/11634/49169>
- Zhao, M., Noordin, N., Ahmad, N. K. B., & Liu, L. (2025). Effectiveness of mobile-assisted language learning in developing oral English in higher education: A comparative systematic review. *World Journal of English Language*, 15(1), 56–69. <https://doi.org/10.5430/wjel.v15n1p56>
- Zhen, L. S., & Hashim, H. (2022). The usage of MALL in learners' readiness to speak English. *Sustainability*, 14(23), Article 16227. <https://doi.org/10.3390/su142316227>
- Zhou, Z. (2021). A systematic literature review on the use of mobile-assisted language learning (MALL) for enhancing speaking skills in Chinese EFL context. *International Journal of Frontiers in Sociology*, 3(15), 12–24. <https://doi.org/10.25236/IJFS.2021.031502>

6 Appendix

Table 3.*Search Registration Matrix (Appendix A)*

Database	Search equation	Filters applied	Number of results	Number selected after screening	Inclusion and exclusion criteria
Scopus	TITLE-ABS-KEY ("mobile assisted language learning" OR MALL) AND TITLE-ABS-KEY (speaking OR "oral skills" OR pronunciation OR fluency) AND TITLE-ABS-KEY (EFL OR "English as a foreign language")	Publication year filter (2021–2025)	68	10	After applying the publication year filter (2021–2025), 68 studies remained for screening. Studies unrelated to English oral skills, focused on input-based instruction or general technology integration, not explicitly involving MALL (e.g., AI-based pronunciation studies without a mobile learning component), lacking empirical evidence, unavailable in full text, or duplicates were excluded.
Springer Nature	("mobile assisted language learning" OR MALL) AND (speaking OR "oral skills") AND ("mobile phone" OR apps) AND ("EFL learners" OR "English as a Foreign Language learners")	Publication year filter (2021–2025)	63	2	Studies published between 2021 and 2025, written in English or Spanish, focused on MALL and English oral skills in EFL contexts, and reporting peer-reviewed empirical research were included. Studies published before 2021, unrelated to oral skills or lacking a clear MALL component, unavailable in full text, or duplicates were excluded.
JSTOR	("mobile assisted language learning" OR MALL) AND (speaking OR "oral skills") AND ("mobile phone" OR apps) AND ("EFL learners" OR "English as a Foreign Language learners")	Publication year filter (2021–2025)	32	3	Peer-reviewed empirical studies published between 2021 and 2025 in English or Spanish, focused on MALL and English oral skills, were included. Studies unrelated to speaking skills, not explicitly involving MALL, unavailable in full text, or duplicates were excluded.

Database	Search equation	Filters applied	Number of results	Number selected after screening	Inclusion and exclusion criteria
Consensus	Seek for articles, books or literature reviews related to the following keywords: ("mobile assisted language learning" OR MALL) AND (speaking OR "oral skills") AND ("mobile phone" OR apps) AND ("EFL learners" OR "English as a Foreign Language learners")	Publication year filter (2021–2025)	20	2	Only open-access studies published between 2021 and 2025 and directly related to MALL and oral skills development were included. Studies were excluded if they lacked a clear connection to mobile learning, did not focus on speaking, or were not academic or fully accessible.
Red Colombiana de Información Científica	"Mobile learning" AND "speaking" OR "oral skills"	Publication year filter (2021–2025)	28	7	Studies published between 2021 and 2025 in English or Spanish, focused on MALL and English oral skills in EFL contexts, and reporting peer-reviewed empirical research were included. Studies not explicitly involving MALL, unrelated to speaking skills, unavailable in full text, or duplicates were excluded.
Google Scholar	TITLE-ABS-KEY ("mobile assisted language learning" OR MALL) AND TITLE-ABS-KEY (speaking OR "oral skills" OR pronunciation OR fluency) AND TITLE-ABS-KEY (EFL OR "English as a foreign language")	Publication year filter (2021–2025)	88	20	Due to the broad scope of this database, strict inclusion criteria were applied during screening. Only studies published between 2021 and 2025 that met all criteria (MALL focus, oral skills, English language learning context, and empirical design) were selected. Duplicates, inaccessible documents, and studies unrelated to mobile learning or speaking were excluded.

Database	Search equation	Filters applied	Number of results	Number selected after screening	Inclusion and exclusion criteria
Science Direct	No search equation was used; an author-based search was conducted focusing on Glenn Stockwell due to his relevance in MALL research.	Author name filter: Glenn Stockwell	8	1	Studies published between 2021 and 2025 and authored by Glenn Stockwell were screened for relevance. Only those addressing MALL and oral skills in English language learning contexts were included. Studies not directly related to speaking development or lacking a mobile learning component were excluded.
Taylor & Francis	("mobile assisted language learning" OR MALL) AND (speaking OR "oral skills") AND ("mobile phone" OR apps) AND ("EFL learners" OR "English as a Foreign Language learners")	Publication filter (2021–2025)	60	4	Peer-reviewed studies published between 2021 and 2025 focusing on MALL and oral communication in EFL contexts were included. Studies focusing on other skills (e.g., grammar, reading), lacking a mobile component, not available in full text, or identified as duplicates were excluded.
Íkala, Revista de Lenguaje y Cultura UDEA	"MALL" AND "Speaking" OR "Oral Skills"	Publication year filter (2021–2025)	10	1	Studies published between 2021 and 2025 were included if they addressed MALL and speaking skills in English language learning contexts. Articles not focused on oral communication or without a clear mobile learning component were excluded.
Total number of studies selected			377	50	A total of 377 records were identified across all databases after applying the initial search filters. Following the screening process and the application of the predefined inclusion and exclusion criteria, 50 studies were included in the final review.