The Academic
International Journal of Multidisciplinary Research

An Online Peer Reviewed / Refereed Journal
Volume 4 | Issue 10 | October 2026
ISSN: 2583-973X (Online), SJIF IF(2026): 5.6
Website: www.theacademic.in

Language Learning Apps for Improving English Speaking Skills among Undergraduate Students

Saima Praveen
Research Scholar, Maulana Azad National Urdu University, Hyderabad
Email: saimapraveen1996@gmail.com
Dr. Jarrar Ahamad
Assistant Professor, Maulana Azad National Urdu University, Hyderabad
Email: jarrar@manuu.edu.in

DOI : https://doi.org/10.5281/zenodo.24395125

ARTICLE DETAILS

Research Paper
Received: 27-10-2026
Accepted: 02-11-2026
Published: 20-11-2026

Keywords:
Language learning applications, English speaking skills, undergraduate students, speaking confidence, willingness to communicate

ABSTRACT

English speaking proficiency is an important component of academic participation, interpersonal communication and professional development among undergraduate students. However, many learners experience difficulties in speaking English because of limited opportunities for oral practice, fear of making mistakes, inadequate vocabulary and a lack of confidence in classroom interactions. Language learning applications provide additional opportunities to practise pronunciation, develop vocabulary, construct sentences and engage in simulated conversations beyond the formal classroom. These applications may also support independent learning through repeated practice, immediate feedback and flexible access to learning resources. Nevertheless, their educational value depends on how learners use them and whether digital practice is connected with meaningful communication in real-life situations. This paper discusses the potential contribution of language learning applications to English speaking development among undergraduate students. It examines the development of speaking skills, willingness to communicate, speaking

Disclaimer: The opinions, interpretations, conclusions, recommendations, analyses, and statements expressed in this research article are solely those of the author(s) and do not reflect the views, policies, or positions of the Publisher, Chief Editor, Editors, Editorial Board, Reviewers, or their affiliated institutions. The author(s) are solely responsible for ensuring the originality, authenticity, and integrity of the manuscript and for ensuring that it is free from plagiarism, AI-generated content, copyright infringement, data falsification, and any other form of academic misconduct.

confidence, and the practical limitations of app-based learning. It also presents educational implications for teachers, students and higher education institutions. The discussion highlights that language learning applications are best understood as supplementary learning resources that can strengthen classroom instruction, rather than as complete substitutes for teacher guidance, peer interaction and authentic communication.

Introduction

English has an important place in higher education because it is widely used in academic discussions, presentations, interviews, seminars and professional communication. Undergraduate students are often expected to express their ideas clearly, participate in group discussions, ask questions and communicate with people from different linguistic backgrounds. However, possessing knowledge of English grammar or understanding written texts does not necessarily mean that a learner can speak the language confidently. Speaking requires the ability to select appropriate words, organise ideas, construct meaningful sentences and respond to other speakers within a limited period of time. Many students experience difficulties when they attempt to communicate in English. Students who have limited opportunities to use English outside the classroom may also struggle to develop fluency. In such situations, the problem is not always a lack of knowledge; it may also involve anxiety, insufficient practice and limited exposure to spoken English. Digital technologies have introduced additional possibilities for language learning. Language learning applications allow students to practise vocabulary, listen to model pronunciation, record their speech and participate in interactive exercises. Some applications also provide automated feedback or simulated conversations. Mobile-assisted language learning has been discussed as a means of extending language learning beyond conventional classroom boundaries (Kukulska-Hulme & Shield, 2008). Research on mobile-assisted language learning has also examined its potential contribution to language development, including speaking skills (Li, 2024). For undergraduate students, these applications may be particularly useful because they can support flexible and self-directed practice. Students can practise for a few minutes during their free time, repeat difficult exercises and revisit learning materials according to their individual needs. Such opportunities can be valuable for learners who do not have regular access to English-speaking environments.

Objectives of the Paper

1. To discuss the role of language learning applications in developing English speaking skills among undergraduate students.
2. To explain how app-based practice may support pronunciation, vocabulary, sentence formation and speaking fluency.
3. To examine the relationship between speaking confidence, anxiety and willingness to communicate.
4. To identify the major challenges and limitations associated with the use of language learning applications.
5. To suggest educational practices for integrating language learning applications with classroom teaching and real-life communication.

Language Learning Applications in English Language Learning

Language learning applications are digital platforms designed to help users practise one or more aspects of a language. Depending on their design, they may include vocabulary exercises, listening activities, pronunciation practice, grammar tasks, dialogue simulations and interactive speaking exercises. Some applications use speech recognition to analyse a learner's spoken response, while others provide opportunities to listen to recorded conversations and repeat sentences. The educational significance of these applications lies in the opportunities they create for regular practice. Kukulska-Hulme and Shield (2008) discussed the development of mobile-assisted language learning beyond simple content delivery towards collaboration and interaction. This perspective is relevant because language learning should not be restricted to memorising vocabulary or completing isolated exercises. Students also need opportunities to use language for expressing meaning, asking questions and responding to others.

Language learning applications may support several aspects of English learning:

- Individualised practice: Students can repeat activities according to their learning needs and available time.
- Audio and visual support: Spoken examples, subtitles, images and demonstrations can help learners connect words with their meanings and pronunciation.
- Immediate responses: Some applications indicate whether an answer is correct and provide suggestions for improvement.

- Self-paced learning: Learners can spend additional time on difficult words, expressions or speaking tasks.
- Flexible access: Practice can take place outside the classroom, provided that learners have access to a suitable device and the required digital resources.

Nevertheless, applications differ in their educational design. Some concentrate primarily on vocabulary and grammar, while others offer more extensive speaking activities. Students should therefore select applications according to their learning objectives rather than assuming that every language application provides equivalent support for oral communication.

Development of English Speaking Skills through Digital Practice

Speaking is a complex language skill that involves more than producing grammatically correct sentences. Effective speaking requires pronunciation, vocabulary, grammatical accuracy, fluency, comprehension and the ability to communicate meaning in different situations. Language learning applications can provide practice in several of these areas, but their contribution depends on the activities they offer and the consistency with which students use them.

- **Development of Pronunciation**

Pronunciation influences how clearly a speaker communicates a message. Learners may know the meaning of a word but hesitate to use it because they are uncertain about its pronunciation. Difficulties involving individual sounds, word stress, sentence stress and intonation can also affect the comprehensibility of spoken English. A learner can listen to a word, repeat it, record the response and compare it with a model. Where speech-recognition feedback is available, the application may also identify particular words or sounds that require further practice. However, pronunciation learning should not be reduced to reproducing a single accent. A study by Mingyan et al. (2025) investigated an AI-powered mobile application among undergraduate English as a Foreign Language (EFL) learners.

- **Vocabulary Development and Sentence Formation**

Vocabulary provides the foundation for expressing thoughts, asking questions and participating in conversations. Students with limited vocabulary may understand a classroom discussion but struggle to formulate their own responses. They may repeatedly use a small number of familiar words or stop speaking because they cannot recall an appropriate expression. Students may practise expressions related to everyday conversations, academic presentations, interviews, travel or professional communication. Learning words

within meaningful phrases is particularly useful because it helps learners understand how vocabulary functions in actual sentences. For example, a student preparing for a classroom presentation may practise expressions such as “The main purpose of my presentation is…”, “I would like to draw attention to…” and “In conclusion, the evidence suggests…”. Such expressions provide a starting point for communication and help learners organise their ideas.

- **Improvement in Speaking Fluency**

Speaking fluency refers to the ability to communicate ideas with reasonable continuity and without excessive hesitation. Fluency does not mean speaking as quickly as possible. A fluent speaker can organise thoughts, maintain a conversation and communicate meaning at a natural pace, even when occasional pauses occur. Students often hesitate because they mentally translate every sentence from their first language into English. Others stop frequently to check grammar or search for the correct word. Regular speaking practice can help reduce these difficulties by making familiar expressions and sentence patterns easier to retrieve. Applications may support fluency by offering timed speaking tasks, dialogue completion, story narration and voice-recording activities. Students can begin with short responses and gradually progress towards longer explanations. Repeated practice also allows learners to identify patterns in their own speech, such as unnecessary pauses, repeated words or incomplete sentences. For instance, a student may initially record a one-minute response on the topic “My educational goals.” After listening to the recording, the student can identify where the explanation becomes unclear and record a revised version.

- **Listening and Spoken Interaction**

Speaking and listening are closely connected. During a conversation, learners must understand what another person says, interpret the intended meaning and formulate an appropriate response. A student who can deliver a memorised speech may still experience difficulty when another speaker asks an unexpected question. Language learning applications that include dialogues, audio conversations and interactive listening tasks can help students become familiar with different speaking styles and common expressions. Learners can listen to short conversations, identify important information and practise responding to questions. Activities involving different speakers may also expose students to variation in speaking pace, pronunciation and vocabulary.

- **Transfer from Digital Practice to Real Communication**

An important consideration is whether the skills practised through an application can be used in real-life communication. Students may become familiar with a particular exercise without developing the confidence to speak in a new situation. For this reason, digital practice should be linked with tasks that require learners to use language independently. After completing an app-based activity, a teacher might ask students to discuss the same topic in pairs, deliver a short presentation or participate in a question-and-answer session. The application can provide preparation, while classroom interaction creates an opportunity to use the acquired language.

The relationship between app features and speaking development is summarised in Table 1.

Table 1. Major Features of Language Learning Applications and Their Contribution to Speaking Skills

App feature	Speaking skill supported	Possible educational contribution	Important limitation
Audio models and repetition	Pronunciation	Familiarity with sounds, stress and intonation	Repetition may not ensure spontaneous speaking
Vocabulary exercises	Vocabulary use	Expansion of words and useful expressions	Memorised words may not transfer to conversation
Sentence-building activities	Sentence formation	Practice in constructing meaningful statements	Fixed exercises may restrict creative expression
Timed speaking tasks	Fluency	Practice in producing connected speech	Speed should not be prioritised over clarity
Voice recording	Self-monitoring	Identification of pauses and unclear expressions	Learners may not recognise every error independently
Speech-recognition feedback	Pronunciation and oral production	Additional feedback during individual practice	Automated feedback may be incomplete or inaccurate
Dialogue simulations	Interactive	Opportunities to practise	Simulated interaction may differ from human

and AI chatbots	communication	questions and responses	conversation
Listening activities	Comprehension and response	Familiarity with spoken language	Listening alone does not ensure conversational competence

Table indicates that different application features serve different learning purposes. Teachers and students should therefore evaluate an application according to the skill they intend to develop. A platform designed primarily for vocabulary practice should not automatically be treated as a complete speaking-development programme.

Willingness to Communicate among Undergraduate Students

Willingness to communicate refers to a learner's readiness to initiate or participate in communication when an opportunity arises. In second-language learning, this readiness is important because students need to use the language actively to develop communicative competence. MacIntyre et al. (1998) proposed a situational model of second-language willingness to communicate that considers the role of confidence and other personal and situational factors. Their framework helps explain why a learner may be willing to speak in one setting but remain silent in another. For undergraduate students, willingness to communicate may be influenced by their perceived language ability, familiarity with the topic, relationship with the listener, fear of negative evaluation and the general atmosphere of the classroom.

- **Speaking Confidence**

Speaking confidence involves a learner's belief that they can express ideas and manage communication reasonably well. Students who doubt their ability may avoid answering questions even when they understand the topic. They may worry about selecting the wrong word, pronouncing a word incorrectly or being unable to complete a sentence. Language learning applications may help build confidence by providing a private space for practice. A learner can repeat an activity without the immediate pressure of classmates observing every mistake. Recording speech and reviewing progress may also help learners recognise improvement over time.

- **Speaking Anxiety and Fear of Making Mistakes**

Speaking anxiety may arise when learners anticipate embarrassment, criticism or failure during oral communication. In classrooms where mistakes are treated harshly, students may prefer silence to the risk of

giving an incorrect answer. Such avoidance reduces opportunities to practise and may reinforce the belief that speaking English is difficult. Individual practice through an application may reduce some immediate social pressure. Students can rehearse a response, listen to examples and attempt a task several times before speaking in front of others. AI-supported conversation tools may also offer an additional environment for low-pressure speaking practice. Research has examined the relationship between AI-supported language practice and learners' willingness to communicate, although outcomes depend on the tool and learning context (Wang et al., 2024; From shy to fly, 2024).

- **Motivation and Learner Engagement**

Motivation influences how consistently students participate in learning activities. Applications may encourage engagement through progress indicators, achievement levels, reminders, short exercises and interactive tasks. These features can make practice manageable and provide learners with visible signs of task completion. Students are more likely to benefit when their practice is connected to personal and academic needs. For example, a learner preparing for a placement interview may find role-play exercises useful, while another student may prefer activities involving seminar discussions or academic presentations.

- **Digital Communication and Classroom Participation**

Digital communication and classroom participation offer different kinds of speaking experiences. Applications provide flexibility and repeated practice, while classroom interactions require learners to respond to real people and changing conversational situations. Both environments can contribute to language development when their purposes are clearly connected. Such an approach creates a gradual progression from individual rehearsal to shared communication. It also allows teachers to observe whether students can transfer expressions and skills practised digitally into less predictable speaking situations.

Table 2. Factors Influencing Undergraduate Students' Willingness to Communicate in English

Factor	Possible influence on communication	Educational response
Speaking confidence	Students who believe they can express themselves may participate more readily	Provide achievable speaking tasks and constructive feedback
Speaking anxiety	Fear of mistakes or criticism may lead to silence and avoidance	Establish a respectful, supportive classroom environment
Vocabulary	Limited vocabulary may interrupt expression	Encourage learning words in phrases

knowledge	and sentence formation	and meaningful contexts
Previous speaking experience	Familiarity with oral tasks may reduce hesitation	Offer regular pair discussions, role-plays and presentations
Peer and teacher support	Encouragement may help learners take communicative risks	Use respectful feedback and cooperative learning
Topic familiarity	Familiar subjects may make it easier to generate ideas	Begin with familiar topics and gradually introduce unfamiliar ones
Digital practice	Rehearsal may prepare students for classroom communication	Connect app-based activities with face-to-face speaking
Quality of feedback	Clear guidance may help learners identify areas for improvement	Combine automated feedback with teacher and peer feedback

Table suggests that willingness to communicate cannot be explained by technology alone. Digital tools may create additional opportunities to practise, but the learner's confidence, the social environment and the nature of the speaking task remain important considerations.

Role of Language Learning Applications in Enhancing Speaking Confidence

Language learning applications may contribute to speaking confidence by allowing students to practise at their own pace, repeat challenging activities and prepare for communication before entering a classroom or professional setting. Their contribution is likely to be more meaningful when learners use them with clear objectives and receive opportunities to apply what they practise.

- **Opportunities for Independent Practice**

Independent practice allows students to take greater responsibility for their learning. Instead of waiting for a teacher to provide every speaking opportunity, learners can select topics, practise short conversations and review their own recordings. This can be useful for students who require more time to organise their thoughts or who feel uncomfortable speaking in front of a large group. For example, a student may practise introducing themselves, describing their educational background or explaining a personal interest. After listening to the recording, the student can identify unclear expressions and prepare an improved response.

Repeating this process across different topics may help the learner become more familiar with spoken English.

- **Immediate Feedback and Self-Correction**

Feedback helps learners identify the difference between their current performance and the expected outcome. Some language learning applications provide feedback on pronunciation, word choice or sentence construction. Such feedback can help students notice errors that might otherwise remain unexamined. For instance, a learner who repeatedly mispronounces a word can listen to the model pronunciation and practise it again. A learner who struggles to organise an answer can compare a short response with a model dialogue and identify useful expressions. In this way, feedback can make practice more purposeful.

- **Role of AI-Supported Conversation Tools**

AI-supported conversation tools can offer simulated dialogue, prompts and opportunities for repeated oral practice. These tools may be useful when students have limited access to English-speaking partners or want to practise before participating in a group discussion. Research on AI-supported language learning has investigated its possible contribution to oral proficiency and willingness to communicate. For example, Mingyan et al. (2025) reported improvements in selected aspects of speaking performance among undergraduate EFL learners using an AI-powered mobile application. However, the findings of a particular study should not be generalised to every application, learner group or educational context.

Challenges and Limitations of Language Learning Applications

Although language learning applications provide useful opportunities for additional practice, their educational contribution is not automatic. Several practical and pedagogical limitations must be considered before they are integrated into undergraduate language learning.

- **Unequal Access to Digital Resources**

Students do not always have equal access to smartphones, reliable internet connectivity, suitable headphones or paid application features. Some may share devices with family members or have limited opportunities to practise in a quiet environment. These conditions can affect the regularity and quality of digital learning. Educational institutions should therefore avoid making access to a particular paid application a compulsory condition for academic participation unless appropriate access arrangements are available. Teachers can provide alternative activities, recommend free resources where suitable and allow students to complete speaking tasks through classroom-based or offline methods.

- **Dependence on Automated Feedback**

Automated systems can provide quick responses, but they may not accurately evaluate every aspect of speaking. An application may recognise particular words while overlooking the organisation of ideas, appropriateness of language or effectiveness of a response in a real conversation. Similarly, pronunciation scores should not be treated as a complete measure of speaking ability. A learner may receive favourable automated feedback but still struggle to explain an unfamiliar concept or respond appropriately to another speaker. Teacher observation, peer interaction and authentic speaking tasks remain necessary for a broader understanding of oral competence.

- **Limited Opportunities for Authentic Interaction**

Some applications rely heavily on repetition, isolated sentences or predictable questions. Although these activities can help learners become familiar with vocabulary and pronunciation, they may not adequately prepare students for conversations in which the speaker must clarify meaning, negotiate disagreement or respond to an unexpected question. To address this limitation, students should combine digital activities with pair work, group discussions, role-plays and presentations. These activities allow learners to use language in situations where responses depend on what other people say.

- **Distraction and Inconsistent Practice**

Smartphones provide access to learning resources as well as entertainment, social media and other distractions. Students may begin a speaking exercise but move to unrelated activities before completing it. Irregular practice can also limit the benefits of an otherwise suitable application.

- **Privacy and Responsible Use of AI**

Some applications collect voice recordings, usage information or other personal data. Students should understand the privacy settings and data practices of the platforms they use. They should avoid uploading confidential academic information or sensitive personal details unless there is a clear and appropriate reason. Institutions and teachers should also discuss the responsible use of AI-generated content.

Educational Implications

The integration of language learning applications into undergraduate education requires a clear connection between digital activities and the objectives of English language teaching. Technology should serve a pedagogical purpose rather than being introduced merely because it is available.

- **Implications for English Language Teachers**

Teachers can use language learning applications to extend speaking practice beyond classroom hours. They may assign short activities related to the topics taught in class and subsequently ask students to apply the same language in pair discussions or presentations. This arrangement allows digital practice to complement rather than compete with classroom instruction. Feedback should address both strengths and areas for improvement. Rather than simply identifying mistakes, teachers can explain how a response could be made clearer, more coherent or more appropriate to the situation.

- **Implications for Undergraduate Students**

Students should approach language learning applications with specific goals. Instead of using an application without a clear purpose, they can identify one skill to practise during each session. For example, a student may focus on pronunciation in one activity, explaining an idea in another and responding to questions in a third. Students should also develop the habit of reviewing their own speech. Listening to a recording can help them identify repeated expressions, unclear words, unnecessary pauses and incomplete responses. The objective should be gradual improvement rather than perfection in every attempt.

- **Implications for Higher Education Institutions**

Higher education institutions can support digital language learning through language laboratories, speaking clubs, peer-learning groups and guided digital practice sessions. These arrangements can provide opportunities for students to use English beyond formal classroom periods. Faculty development is another important consideration. Teachers need opportunities to evaluate digital resources, understand the limitations of automated feedback and integrate applications with established language-teaching practices. Effective technology integration depends not only on the availability of tools but also on the quality of instructional planning.

Suggestions for Effective Use of Language Learning Applications

1. Set clear speaking objectives. Each activity should have a defined purpose, such as practising pronunciation, developing a short explanation or responding to interview questions.
2. Practise regularly. Short and consistent speaking activities may be more manageable than occasional lengthy sessions. Students should choose a routine that they can maintain.
3. Combine listening with speaking. Learners should not only listen to model conversations but also repeat, adapt and respond to the expressions they hear.

4. Use recordings for reflection. Recording a response and listening to it again can help students identify areas that require improvement.
5. Connect digital practice with classroom interaction. Expressions and skills practised through applications should be used in discussions, presentations, role-plays and other communicative activities.
6. Seek feedback from different sources. Automated feedback may be supplemented by guidance from teachers and peers, particularly for organisation, appropriateness and clarity of meaning.
7. Avoid dependence on memorised responses. Students should practise expressing the same idea in different ways so that they can respond flexibly in real conversations.
8. Evaluate applications critically. Students should consider the relevance of the activities, the quality of feedback, accessibility and privacy practices before selecting a platform.
9. Monitor progress through meaningful outcomes. Progress should be judged by improvements in communication, not merely by the number of lessons completed or points earned.
10. Maintain a supportive learning environment. Teachers should encourage participation, treat mistakes as opportunities for learning and provide students with gradual opportunities to speak in front of others.

These suggestions emphasise that the educational value of language learning applications depends on purposeful use, appropriate guidance and opportunities to communicate beyond the digital environment.

Conclusion

Language learning applications offer undergraduate students additional opportunities to practise English speaking beyond the boundaries of the formal classroom. Through audio models, vocabulary activities, voice recordings, interactive exercises and simulated conversations, these applications can support the development of pronunciation, sentence formation and speaking fluency. They may also help learners prepare for academic presentations, interviews and everyday communication by allowing them to rehearse responses and review their performance independently. However, the contribution of these applications should be understood in a balanced manner. Speaking proficiency involves not only the production of correct sentences but also the ability to understand others, organise ideas, respond appropriately and communicate in changing situations. An application that provides effective pronunciation practice may not necessarily develop the learner's ability to participate in an extended discussion. Similarly, completing digital exercises does not automatically eliminate speaking anxiety or guarantee confidence in real-life communication.

For undergraduate education, a balanced approach is therefore appropriate. Language learning applications should complement teacher guidance, peer interaction, classroom discussion and authentic speaking tasks. Teachers can provide structured activities, students can practise independently, and institutions can create supportive environments for oral communication.

Summary of Selected Research Studies

The following table presents selected studies relevant to mobile-assisted language learning, speaking performance and willingness to communicate. It summarises the reported focus and implications of each study rather than claiming that all applications produce the same outcomes.

Table 3. Selected Research Studies Related to Digital Language Learning and Speaking Skills

Author(s) and year	Focus of the study	Main contribution or reported finding
Kukulska-Hulme and Shield (2008)	Mobile-assisted language learning	Discussed the development of mobile learning towards supported collaboration and interaction.
MacIntyre et al. (1998)	Willingness to communicate in a second language	Presented a situational model linking communication readiness with confidence and other factors.
Stockwell (2010)	Mobile phones and vocabulary activities	Examined how the platform used for language-learning activities can influence learner behaviour.
Li (2024)	Mobile-assisted language learning and speaking development	Synthesised research examining the contribution of mobile-assisted learning to speaking skills.
Wang et al. (2024)	Conversational generative AI chatbots	Examined learner willingness to communicate, speaking anxiety and perceived communicative competence.
Ouyang et al. (2024)	Duolingo and EFL learning	Investigated willingness to communicate and engagement in online classes.

Metruk (2024)	Mobile-assisted pronunciation instruction	Reviewed research on mobile-supported pronunciation learning.
Mingyan et al. (2025)	AI-powered mobile application for undergraduate EFL learners	Reported improvements in overall speaking performance, particularly pronunciation and fluency, in the investigated context.
Ta and Nghiem (2024)	Mobile-assisted speaking instruction	Investigated mobile-assisted speaking practice among non-English-major university students in Vietnam.
From shy to fly (2024)	AI chatbot and intelligent tutoring system	Examined the use of AI tools to support willingness to communicate among undergraduate EFL learners.

The studies indicate that digital language learning can be examined from several complementary perspectives, including speaking performance, pronunciation, learner engagement and willingness to communicate. Their findings should nevertheless be interpreted according to the particular tools, participants, instructional conditions and outcomes investigated in each study.

References

1. Dörnyei, Z. (2005). The psychology of the language learner: Individual differences in second language acquisition. Lawrence Erlbaum Associates.
2. Gass, S. M., & Mackey, A. (2015). Input, interaction, and output in second language acquisition. Routledge.
3. Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. The Modern Language Journal, 70(2), 125–132.
4. Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. ReCALL, 20(3), 271–289. https://doi.org/10.1017/S0958344008000335
5. Li, R. (2024). Effects of mobile-assisted language learning on foreign language learners' speaking skill development. Language Learning & Technology, 28(1), 1–26. https://doi.org/10.64152/10125/73553

6. MacIntyre, P. D. (2007). Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. The Modern Language Journal, 91(4), 564–576.
7. MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. The Modern Language Journal, 82(4), 545–562.
8. Metruk, R. (2024). Mobile-assisted language learning and pronunciation instruction: A systematic literature review. Education and Information Technologies, 29, 16255–16282. https://doi.org/10.1007/s10639-024-12453-0
9. Mingyan, M., Noordin, N., & Razali, A. B. (2025). Improving EFL speaking performance among undergraduate students with an AI-powered mobile app in after-class assignments: An empirical investigation. Humanities and Social Sciences Communications, 12, Article 370. https://doi.org/10.1057/s41599-025-04688-0
10. Ouyang, Z., Jiang, Y., & Liu, H. (2024). The effects of Duolingo, an AI-integrated technology, on EFL learners' willingness to communicate and engagement in online classes. International Review of Research in Open and Distributed Learning, 25(3), 97–115. https://doi.org/10.19173/irrodl.v25i3.7677
11. Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. ReCALL, 22(2), 95–110.
12. Ta, T. B. L., & Nghiem, T. T. H. (2024). An experiment on applying mobile-assisted language learning (MALL) in teaching speaking to non-English majors in offline classes at a university in Vietnam. VNU Journal of Foreign Studies, 40(3), 78–91. https://doi.org/10.63023/2525-2445/jfs.5224
13. Warschauer, M. (1996). Computer-assisted language learning: An introduction. In S. Fotos (Ed.), Multimedia language teaching (pp. 3–20). Logos International.
14. Wang, C., Zou, B., Du, Y., & Wang, Z. (2024). The impact of different conversational generative AI chatbots on EFL learners: An analysis of willingness to communicate, foreign language speaking anxiety, and self-perceived communicative competence. System, 127, Article 103533. https://doi.org/10.1016/j.system.2024.103533
15. Aditya, A. R., & Kalisa, P. (2025). Investigating students' perspectives on the utilization of mobile-assisted language learning and mobile games for developing speaking proficiencies. ELT Forum: Journal of English Language Teaching, 14(Special Issue). https://doi.org/10.15294/elt.v14iSpecial%20Issue.30037

16. Bai, Y. (2024). A mixed methods investigation of mobile-based language learning on EFL students' listening, speaking, foreign language enjoyment, and anxiety. SAGE Open. https://doi.org/10.1177/21582440241255554
17. Han, R., Alibakhshi, G., Lu, L., & Labbafi, A. (2024). Digital communication activities and EFL learners' willingness to communicate and engagement: Exploring the intermediate language learners' perceptions. Heliyon, 10(3), Article e25213. https://doi.org/10.1016/j.heliyon.2024.e25213
18. Li, J., & Singh, C. K. S. (2024). Effects of using mobile assisted language learning beyond classroom on Chinese college students' English listening comprehension and speaking skills. Journal of Propulsion Technology, 45(3). https://doi.org/10.52783/tjjpt.v45.i03.7655
19. From shy to fly: Facilitating EFL learners' willingness to communicate with an AI chatbot and an intelligent tutoring system. (2024). System, 127, Article 103501. https://doi.org/10.1016/j.system.2024.103501
20. Students' willingness to communicate (WTC) in using artificial intelligence (AI) technology in English-speaking practice. (2025). International Journal of Information and Communication Technology Education, 21(1). https://doi.org/10.4018/IJICTE.375387