International Journal of Engineering Research and Science & Technology

www.ijerst.org

ISSN : 2319-5991

Vol. 22 No. 2 (2026)



ijerst.editor@gmail.com

editor@ijerst.com

ISSN 2319-5991 www.ijerst.com
© 2026 IJERST. All Rights Reserved
Peer Reviewed, Referred & Indexed Journal

Research Paper

"Effectiveness of Mobile-Assisted Language Learning in Developing English Communication Skills among Undergraduate Students"

Dr. GUNDLA PRAVEEN KUMAR
Assistant Professor of English, Government Degree College,
Hayathnagar, Rangareddy District, Telangana
Mail: gpkumar1983@gmail.com

Abstract
Mobile-Assisted Language Learning (MALL) enables students to practise English through smartphones, applications, audio recordings, videos, podcasts, and interactive exercises. This proposed study examines the contribution of MALL to speaking, listening, pronunciation, vocabulary, and learner confidence among undergraduate students. A mixed-methods design is proposed, combining pre-test and post-test assessments, questionnaires, and interviews. Approximately 120 students from selected colleges may participate, subject to institutional approval and appropriate sampling. Quantitative data will be analysed using descriptive statistics and suitable comparative tests, while interview responses will be analysed thematically. Previous research indicates that mobile learning can extend practice beyond the classroom and support language development when activities are purposeful and well guided. However, distraction, unequal access, connectivity, affordability, and insufficient teacher support may limit its effectiveness. As data have not yet been collected, this article outlines the research framework and anticipated outcomes rather than reporting empirical findings. The study is intended to inform the responsible integration of mobile technologies into English language teaching in Indian higher education.

Keywords: Mobile-Assisted Language Learning, English Communication Skills, Undergraduate Students, Mobile Applications, Language Education.

I. Introduction

English communication skills are important for academic achievement, employability, and professional advancement. Undergraduate students need to understand spoken English, express ideas clearly, speak confidently, and use vocabulary appropriately. Yet students enter higher education with different levels of proficiency because of differences in school education, linguistic background, and opportunities to practise English.

Classroom instruction, textbooks, written exercises, and teacher-led discussions provide a foundation, but limited class time may restrict individual practice and feedback. Students who feel anxious about speaking may also hesitate to participate. Mobile-Assisted Language Learning refers to the use of portable devices, especially smartphones and tablets, to support language learning inside and outside the classroom. It offers flexible access to lessons and practice at times convenient to learners.

Applications such as Duolingo and BBC Learning English, together with podcasts, educational videos, and voice-recording tools, can support vocabulary, listening, pronunciation, and speaking. Learners can repeat exercises, listen to different accents, record their own speech,

and review mistakes. Mobile learning may also strengthen learner autonomy by allowing students to monitor their progress and practise at their own pace.

Its contribution can be considered across four areas. Speaking and pronunciation practice may develop fluency and confidence through recorded presentations, dialogues, and repeated exercises. Listening resources provide exposure to different speaking styles and real-life contexts. Vocabulary activities use definitions, examples, quizzes, and repetition to support retention. Flexible access can encourage independent learning, although motivation, time management, and the reliability of resources remain important.

The Indian higher education setting is relevant because students come from multilingual backgrounds and have unequal access to English-speaking environments, devices, affordable data, and reliable internet. The National Education Policy 2020 supports technology integration and competency development, but mobile learning should complement rather than replace teachers and classroom interaction. Notifications, social media, unrelated browsing, and overreliance on translation tools may reduce the benefits. Therefore, effectiveness should be assessed through actual language performance as well as students' perceptions. This study proposes to examine whether structured mobile-assisted activities can improve communication skills and identify conditions that support effective implementation.

II. Review of Literature

Early work established the potential of mobile technology to extend language practice beyond conventional classrooms. Thornton and Houser (2005) investigated mobile phones in English education in Japan and demonstrated ways to deliver language-learning content through portable devices. Chinnery (2006) reviewed emerging mobile technologies and their potential for language teaching. Kukulska-Hulme and Shield (2008) emphasised interaction and collaboration, while Kukulska-Hulme (2009) discussed how mobile devices can connect formal and informal learning.

Research also highlights the importance of learner needs and task design. Stockwell (2008) examined learner preparedness and usage patterns, suggesting that technology adoption should take account of learners' preferences and practical constraints. Kukulska-Hulme and Bull (2009) discussed noticing and recording as ways for learners to capture language encountered in everyday settings. Stockwell (2010) examined mobile phones in vocabulary activities and showed that effectiveness depends on the learning task and the platform, not simply on device availability. Miangah and Nezarat (2012) described MALL as a flexible approach that can support vocabulary practice and independent learning.

Reviews and meta-analyses provide broader evidence. Burston's meta-analysis (2015) found positive outcomes in many methodologically stronger MALL studies, while also noting weaknesses such as small samples and short interventions. Sung, Chang, and Yang (2016) reported positive potential for mobile-device-integrated instruction across educational settings, with outcomes dependent on instructional design. Duman, Orhon, and Gedik (2015) reviewed research trends in MALL, and Hwang and Fu (2019) examined research designs and applications in mobile language learning. Godwin-Jones (2011) discussed mobile applications as tools for personalised and flexible practice.

More recent research has investigated specific communication outcomes. Hwang, Rahimi, and Fathi (2024) examined a mobile application for English speaking skills and learner motivation,

reporting stronger outcomes for the mobile-assisted group than for a face-to-face comparison group. Zhao and colleagues (2025) reviewed mobile-assisted learning for oral English in higher education and highlighted the need for larger studies, stronger theoretical frameworks, and systematic speaking assessments.

Studies in India add contextual relevance. Sam's case study of undergraduate engineering students reported generally positive perceptions of MALL and its potential to make English practice more accessible. Research on mobile applications in Indian colleges has also examined adoption, perceived usefulness, motivation, ease of use, and technological conditions. Studies of instructional mobile applications and Duolingo suggest interest in independent language practice, although positive perceptions alone do not prove measurable improvement. Overall, the literature supports the potential of MALL but also indicates a need for context-specific studies combining objective assessments with students' experiences.

III. Identification of Research Gap

Despite growing interest in MALL, several gaps remain. First, studies often focus on one skill, such as vocabulary or listening, rather than examining speaking, listening, pronunciation, and vocabulary as connected elements of communication. Second, many studies emphasise attitudes and willingness to use applications; positive perceptions do not necessarily demonstrate improved proficiency. Third, findings from one institution or student group cannot automatically be generalised to India's diverse undergraduate population. Fourth, some studies use small samples, short interventions, inconsistent assessment tools, or no comparison group, making it difficult to attribute improvement to mobile learning. Finally, the influence of teacher guidance, motivation, digital distraction, affordability, and internet access requires further examination. The proposed study addresses these gaps through a mixed-methods approach, combining pre-test and post-test assessments with questionnaires and interviews. Where feasible, a comparison group receiving conventional instruction will be included, allowing the study to distinguish perceived benefits from measured outcomes.

IV. Objectives of the Study

The primary objective is to examine the effectiveness of MALL in developing English communication skills among undergraduate students. The specific objectives are:

1. To identify the extent and purposes of students' mobile application use for English learning.
2. To assess changes in speaking fluency, pronunciation, and confidence after structured mobile-assisted practice.
3. To evaluate changes in listening comprehension.
4. To examine vocabulary acquisition, retention, and contextual use.
5. To analyse students' perceptions of usefulness, accessibility, and flexibility.
6. To identify challenges such as distraction, connectivity, affordability, and limited guidance.
7. To recommend strategies for integrating mobile applications into undergraduate English teaching.

V. Methodology

Research design: A mixed-methods, quasi-experimental pre-test/post-test design is proposed. It will combine quantitative language assessments with qualitative information about student experiences.

Population and sample: The population will consist of undergraduate students from selected Indian colleges or universities. Approximately 120 students may be recruited, subject to institutional access and approval. Stratified or purposive sampling may be used to represent different academic years and proficiency levels. Where feasible, students will be placed in an intervention group and a comparison group with similar baseline proficiency.

Instruments and data collection: Speaking assessments will evaluate fluency, pronunciation, intelligibility, and coherence. Listening tests will assess understanding of main ideas and specific information. Vocabulary tests will measure recognition, contextual meaning, and appropriate use. Questionnaires will examine application usage, motivation, perceived usefulness, and challenges; semi-structured interviews will explore experiences in greater depth.

Intervention: The proposed intervention will last six to eight weeks. The MALL group will complete guided listening exercises, recorded speaking tasks, pronunciation practice, vocabulary quizzes, and short communication activities using selected mobile resources. The comparison group will complete equivalent learning activities using conventional classroom resources. Both groups should receive comparable instructional time and learning objectives.

Data analysis and ethics: Frequencies, percentages, means, and standard deviations will summarise usage and scores. Appropriate within-group and between-group tests, effect sizes, and confidence intervals will be reported. Correlation analysis may examine associations between application use and learning gains, without assuming causation. Interviews will be coded thematically. Participation will be voluntary and based on informed consent. Student identities and recordings will be kept confidential, stored securely, and used only for the stated research purpose.

VI. Data Analysis and Interpretation

Actual statistical results should be inserted only after data collection. The first stage will describe how often students use mobile applications and whether they use them for speaking, listening, pronunciation, vocabulary, or general English practice. Frequencies and percentages may be compared by academic year and baseline proficiency. Frequent use indicates adoption, but does not by itself establish effectiveness.

Speaking will be assessed before and after the intervention using a common rubric covering fluency, pronunciation, intelligibility, and coherence. Two trained assessors should independently rate recordings where possible. A paired-samples test may examine within-group changes, while an appropriate between-group comparison may account for baseline performance. Speaking confidence should be measured separately from assessed proficiency. If confidence increases but performance changes little, more guided practice may be needed.

Listening outcomes will be measured using comparable audio materials and questions on main ideas, specific information, vocabulary in context, and interpretation. Pre-test and post-test scores will be compared between groups. Any improvement should be interpreted in relation to prior proficiency, test difficulty, and the amount of practice completed.

Vocabulary tests should assess word recognition, contextual understanding, and appropriate use. A delayed assessment is recommended to determine whether vocabulary is retained after the intervention. A positive change would indicate improvement on the selected measures; delayed results would help distinguish short-term recognition from sustained learning.

Correlation analysis may explore whether frequency of mobile learning is associated with changes in speaking, listening, or vocabulary scores. Pearson's correlation may be suitable for continuous data meeting its assumptions; Spearman's rank correlation may be preferable for ranked or ordinal data. Correlation does not establish causation because motivation, teacher support, baseline proficiency, and independent study habits may also influence outcomes.

VII. Findings and Suggestions

As the study has not yet been conducted, these are anticipated outcomes rather than established findings. Mobile activities may provide more opportunities for speaking and pronunciation practice; podcasts and videos may support listening comprehension; and quizzes and contextual examples may assist vocabulary learning and retention. Flexible access and rapid feedback may encourage regular practice. However, digital distraction, unreliable connectivity, limited digital literacy, affordability, and insufficient teacher guidance may reduce effectiveness.

Teachers should integrate mobile applications into planned lessons with clear objectives and assess students' independent performance. Students should follow a regular practice schedule, maintain vocabulary records, record speaking tasks, and review errors while limiting unnecessary notifications. Colleges should offer digital-literacy support and help students who face device or connectivity barriers. Curriculum designers should include structured activities for speaking, listening, pronunciation, and vocabulary, assessing communication outcomes rather than application use alone. Future studies should include larger samples, longer interventions, comparison groups, and delayed assessments, and examine differences by proficiency, linguistic background, and application type.

In conclusion, MALL can extend English communication practice beyond the classroom, but its effectiveness depends on activity quality, sustained engagement, suitable assessment, and teacher guidance. A balanced approach combining mobile resources, classroom interaction, and independent practice may strengthen English language education in Indian higher education.

VIII. References (MLA Style)

1. Burston, Jack. "Twenty Years of MALL Project Implementation: A Meta-Analysis of Learning Outcomes." ReCALL, vol. 27, no. 1, 2015, pp. 4–20. https://doi.org/10.1017/S0958344014000159.
2. Chinnery, George M. "Going to the MALL: Mobile Assisted Language Learning." Language Learning & Technology, vol. 10, no. 1, 2006, pp. 9–16.
3. Duman, Güler, Gülşah Orhon, and Nuray Gedik. "Research Trends in Mobile Assisted Language Learning from 2000 to 2012." ReCALL, vol. 27, no. 2, 2015, pp. 197–216.
4. Godwin-Jones, Robert. "Emerging Technologies: Mobile Apps for Language Learning." Language Learning & Technology, vol. 15, no. 2, 2011, pp. 2–11.
5. Hwang, Gwo-Jen, and Qunyan Fu. "Trends in the Research Design and Application of Mobile Language Learning: A Review of 2007–2016 Publications in Selected SSCI Journals." Interactive Learning Environments, vol. 27, no. 4, 2019, pp. 567–581.
6. Hwang, Gwo-Jen, Masoud Rahimi, and Jalil Fathi. "Enhancing EFL Learners' Speaking Skills, Foreign Language Enjoyment, and Language-Specific Grit Utilising the Affordances of a MALL App: A Microgenetic Perspective." Computers &

Education, vol. 210, 2024, article 105015. https://doi.org/10.1016/j.compedu.2024.105015.
7. Kukulska-Hulme, Agnes. "Will Mobile Learning Change Language Learning?" ReCALL, vol. 21, no. 2, 2009, pp. 157–165.
8. Kukulska-Hulme, Agnes, and Lesley Shield. "An Overview of Mobile Assisted Language Learning: From Content Delivery to Supported Collaboration and Interaction." ReCALL, vol. 20, no. 3, 2008, pp. 271–289. https://doi.org/10.1017/S0958344008000335.
9. Kukulska-Hulme, Agnes, and Stephen Bull. "Theory-Based Support for Mobile Language Learning: Noticing and Recording." International Journal of Interactive Mobile Technologies, vol. 3, no. 2, 2009, pp. 12–18.
10. Miangah, Tayebeh Mosavi, and Amin Nezarat. "Mobile-Assisted Language Learning." International Journal of Distributed and Parallel Systems, vol. 3, no. 1, 2012, pp. 309–319.
11. Sam, Vijayalakshmi. "Learning English as a Foreign Language afar Wall with MALL—A Case Study with Undergraduate Students." Think India Journal, 2019.
12. Stockwell, Glenn. "Investigating Learner Preparedness for and Usage Patterns of Mobile Learning." ReCALL, vol. 20, no. 3, 2008, pp. 253–270.
13. Stockwell, Glenn. "Using Mobile Phones for Vocabulary Activities: Examining the Effect of the Platform." Language Learning & Technology, vol. 14, no. 2, 2010, pp. 95–110.
14. Sung, Yao-Ting, Kuo-En Chang, and Tzu-Chien Liu. "The Effects of Integrating Mobile Devices with Teaching and Learning on Students' Learning Performance: A Meta-Analysis and Research Synthesis." Computers & Education, vol. 94, 2016, pp. 252–275.
15. Thornton, Patricia, and Chris Houser. "Using Mobile Phones in English Education in Japan." Journal of Computer Assisted Learning, vol. 21, no. 3, 2005, pp. 217–228.
16. Zhao, Mengfei, et al. "Effectiveness of Mobile-Assisted Language Learning in Developing Oral English in Higher Education: A Comparative Systematic Review." World Journal of English Language, vol. 15, no. 1, 2025.
17. Government of India, Ministry of Education. National Education Policy 2020. Government of India, 2020.
18. "An Experimental Study on the Influence of Instructional Mobile Applications in Enhancing Listening Comprehension of Rural Students in India." Frontiers in Education, 2023.
19. "Mobile Assisted Language Learning: Evaluation of Accessibility, Adoption, and Perceived Outcome among Students of Higher Education." Electronics, vol. 11, no. 7, 2022, article 1113.
20. Naresh, Nikethana, and Deepa Viswam. "Usage and Impact of Duolingo MALL App among College Students in Chennai." 2024.