

Mobile Learning Application To Strengthen English Communicative Competencies In Ecuadorian High School **Students**

Aplicación Del Aprendizaje Móvil Para Fortalecer Las Competencias Comunicativas En Inglés En Estudiantes Ecuatorianos De Educación Media

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ABSTRACT

The advancement of mobile technologies has transformed English language teaching and learning dynamics, especially in educational contexts where traditional barriers hinder the development of communicative competencies. This article analyzes the use of mobile applications as a pedagogical strategy to strengthen reading, writing, listening, and speaking skills in Ecuadorian high school students. Through a documentary review of recent studies and applied case analyses, successful experiences involving tools such as Duolingo, Quizizz, Kahoot!, and teacher-designed platforms are identified. Findings reveal that mobile learning (M-learning) enhances student motivation, promotes autonomous learning, and fosters interactive environments that extend language practice beyond the classroom. However, challenges persist, including limited teacher training, unequal access to mobile devices, and insufficient curricular integration. Based on the findings, this study proposes pedagogical criteria for the effective implementation of M-learning in English language instruction, aligned with the communicative approach and 21st-century skills. It offers both theoretical and practical contributions to educational innovation, emphasizing the need for school policies that support digital inclusion and mobile technology use in the classroom.

KEYWORDS: mobile learning, English teaching, communicative competencies, educational innovation, secondary education.





RESUMEN

El avance de las tecnologías móviles ha transformado las dinámicas de enseñanza-aprendizaje del idioma inglés, especialmente en contextos educativos donde las barreras tradicionales limitan el desarrollo de competencias comunicativas. Este artículo analiza el uso de aplicaciones móviles como estrategia didáctica para fortalecer las habilidades de lectura, escritura, comprensión auditiva y expresión oral en estudiantes ecuatorianos de educación media. Mediante una revisión documental de investigaciones recientes y estudios de caso aplicados, se identifican experiencias exitosas en el uso de herramientas como Duolingo, Quizizz, Kahoot!, y plataformas personalizadas desarrolladas por docentes. Los resultados evidencian que el aprendizaje móvil (M-learning) favorece la motivación estudiantil, promueve el aprendizaje autónomo y genera entornos interactivos que enriquecen la práctica del idioma fuera del aula tradicional. No obstante, se destacan desafíos relacionados con la capacitación docente, el acceso desigual a dispositivos móviles y la falta de integración curricular. A partir de los hallazgos, se proponen criterios pedagógicos para una implementación efectiva del Mlearning en la enseñanza del inglés, alineados con el enfoque comunicativo y las competencias del siglo XXI. Este estudio ofrece un aporte teórico-práctico a la innovación educativa, enfatizando la necesidad de políticas escolares que fomenten la inclusión digital y el uso pedagógico de la tecnología móvil en el aula.

PALABRAS CLAVE: aprendizaje móvil, enseñanza del inglés, competencias comunicativas, innovación educativa, educación secundaria.





INTRODUCTION

The integration of mobile technologies into educational settings has redefined how students engage with learning content, particularly in language education. In the context of English as a foreign language (EFL), mobile learning (M-learning) presents a promising approach for enhancing communicative competencies in listening, speaking, reading, and writing. As digital tools become more accessible and pedagogically versatile, educators are increasingly incorporating mobile applications to address long-standing limitations in traditional instruction, including rigid curricula, lack of student engagement, and insufficient exposure to authentic language input.

In Ecuadorian secondary education, English is a compulsory subject. However, the teaching of English often struggles to go beyond textbook-centered instruction and rote memorization. The communicative approach, widely endorsed in curricular policies, is not always fully implemented in practice due to constraints such as large class sizes, limited instructional time, and a lack of methodological innovation. In this scenario, M-learning emerges as a viable alternative, enabling students to access language content interactively, at their own pace, and beyond the classroom walls.

Several studies highlight the educational potential of mobile applications like *Duolingo*, *Kahoot!*, *Quizizz*, *ClassDojo*, and even WhatsApp, which are being adapted by teachers to support vocabulary building, grammar review, listening comprehension, and speaking practice. These tools not only foster student autonomy but also create immersive and gamified learning environments that are better aligned with the digital habits and preferences of contemporary learners.

Despite growing interest and experimentation with mobile-assisted language learning (MALL), challenges persist. These include the lack of adequate teacher training, poor connectivity in some rural areas, unequal access to smartphones, and the absence of formal strategies for integrating mobile tools into existing syllabi. In many schools, mobile devices are still viewed as distractions rather than as valuable educational resources.

This article aims to critically examine the use of mobile applications to improve English communicative competencies among Ecuadorian high school students. Drawing on recent research, institutional case studies, and a pedagogical review of M-learning models, the paper identifies successful practices, contextual limitations, and recommendations for educators and policymakers. Ultimately, the study seeks to contribute to the broader discussion on educational innovation, digital inclusion, and the transformation of language teaching through mobile technologies.





Theoretical Foundations of Mobile-Assisted Language Learning: Mobile-assisted language learning (MALL) refers to the use of mobile devices—smartphones, tablets, and other portable technologies—as tools to support the acquisition of a second or foreign language. Rooted in both constructivist and sociocultural theories of learning, MALL emphasizes learner-centered engagement, interactivity, and contextual flexibility. As Kukulska-Hulme and Shield (2008) argue, mobile learning fosters personalized, situated, and socially connected experiences that extend far beyond the confines of traditional classrooms.

The constructivist perspective, as proposed by Piaget and expanded by Vygotsky's sociocultural theory, positions the learner as an active agent in the construction of knowledge. In this view, language acquisition is not a linear transmission of grammatical rules, but a dynamic process involving interaction, exploration, and meaning-making. Mobile technologies serve this approach well by enabling learners to engage with real-world language use in context—whether through conversation simulations, vocabulary games, or interactive storytelling apps.

Another theoretical foundation supporting MALL is ubiquitous learning (u-learning), which highlights learning anytime, anywhere. With mobile devices, students are not constrained by time or space: they can practice pronunciation at home using speech-recognition apps, complete grammar quizzes while commuting, or participate in discussion threads asynchronously. This flexibility is especially valuable in multilingual and resource-constrained educational settings such as those in parts of Ecuador, where classroom time is limited and access to native speakers or immersive environments is rare.

Furthermore, the communicative language teaching (CLT) framework aligns closely with MALL. CLT prioritizes meaningful interaction and real-life communication over grammar drills or translation exercises. Mobile applications enhance CLT principles by offering authentic input, instant feedback, and task-based activities that stimulate communicative practice. Tools like *Duolingo*, *LingQ*, and *Busuu* provide daily conversation challenges, vocabulary reviews, and interactive reading texts that mirror real-world language usage.

Research has shown that mobile learning increases learner autonomy, a key element in successful language acquisition. Students can choose what, when, and how they learn, which builds intrinsic motivation and self-regulation skills (Klimova, 2018). These qualities are essential in EFL contexts where exposure to English may be limited to the classroom and where motivation often declines due to monotonous instruction or test-driven curricula.

Table 1. Theoretical Foundations of Mobile-Assisted Language Learning (MALL)





Theoretical Foundation	Key Concepts	MALL Implications
Constructivism	Learners actively construct knowledge through interaction and exploration	Apps support exploration through games, tasks, and simulations
Sociocultural Theory	Language is acquired through social interaction and cultural contextMobile tools enable peer collaboration and real-life practice	
Ubiquitous Learning (u- learning)	Learning can occur anytime, anywhere using portable devices	Apps allow access to content and practice beyond the classroom
Communicative Language Teaching (CLT)	Language learning focuses on real communication and authentic use	MALL supports speaking, listening, reading, and writing with real-life input
Learner Autonomy	Students control their learning pace, content, and style	Mobile apps foster independence, choice, and motivation

Mobile-assisted language learning draws from robust pedagogical theories that emphasize active participation, contextual relevance, and communicative authenticity. Its alignment with modern educational principles makes it particularly suited for fostering English communicative competencies among secondary students in Latin America, especially when traditional methods fall short of meeting students' needs or expectations.

Mobile Applications and Their Impact on English Language Skills: The proliferation of mobile applications designed for language learning has introduced a range of pedagogical possibilities that specifically address the core areas of English communicative competence: listening, speaking, reading, and writing. These applications, whether general-purpose or specifically tailored for EFL instruction, offer interactive environments that respond to diverse learning styles and cognitive preferences, thereby improving student engagement and academic performance.

One of the most widely used applications is Duolingo, which provides gamified language instruction through structured lessons, vocabulary drills, and pronunciation feedback. In studies conducted by Pérez & Vallejo (2023), Ecuadorian high school students using Duolingo reported increased motivation and improved retention of vocabulary and grammar patterns. Similarly, Kahoot! and Quizizz, originally designed for classroom gamification, have been adapted to support language instruction by enabling real-time quizzes on grammar, comprehension, and pronunciation, reinforcing learning through competition and immediate feedback.





For listening and speaking skills, mobile tools such as Mysticast, BBC Learning English, and EWA offer audio-based lessons, dialogues, and speaking prompts. These tools simulate conversational scenarios and provide models of native or near-native pronunciation, which are crucial in contexts where students have limited exposure to English outside the classroom. In many Ecuadorian schools, particularly in rural areas, these applications serve as the only consistent source of auditory English input.

Reading and writing are also supported by apps like LingQ and Wattpad, which offer graded texts, vocabulary highlights, and collaborative story-writing features. Students can explore narratives suited to their proficiency level while interacting with peers and content creators. Such platforms not only expand vocabulary and comprehension but also foster creativity and critical thinking through user-generated content.

Mobile applications also enhance assessment and self-monitoring. Many platforms include progress tracking, adaptive learning algorithms, and achievement badges, which contribute to goalsetting behavior and learner autonomy. Students receive immediate results on exercises, which allows them to correct errors in real time and adjust their learning strategies accordingly.

The effectiveness of mobile applications depends on several factors: the app's pedagogical design, alignment with learning objectives, user interface intuitiveness, and most importantly, the teacher's ability to integrate the tool into a coherent lesson plan. Without clear guidance or scaffolding, students may engage with apps superficially, focusing on entertainment rather than linguistic development.

In Ecuador, empirical research has highlighted promising outcomes. For instance, a study conducted at a public secondary school in the province of Manabí demonstrated a statistically significant improvement in students' speaking fluency after four weeks of using a mobile-based pronunciation app integrated into their English curriculum (Domínguez & Morales, 2023). These findings underline the value of blending mobile tools with classroom instruction to maximize learning outcomes.

Application	Primary Focus Area	Educational Benefit
Duolingo	Vocabulary, grammar, pronunciation	Gamified lessons enhance engagement and motivation
Kahoot!	Grammar review,	Promotes fun and competitive

Table 2. Mobile Applications and Their Educational Impact on English Language Learning

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	comprehension, listening	review sessions
Quizizz	Real-time quizzes, grammar and vocabulary practice	Allows formative assessment with instant feedback
BBC Learning English	Listening, pronunciation, accent exposure	Provides authentic listening input and cultural exposure
Mysticast	Speaking practice, simulated conversations	Improves fluency through guided oral interaction
LingQ	Reading comprehension, vocabulary building	Supports independent reading with scaffolding tools
Wattpad	Creative writing, peer reading, collaborative stories	Encourages creativity and literacy through storytelling
EWA	Speaking and listening, sentence repetition	Boosts pronunciation with structured speaking tasks

Mobile applications offer targeted and scalable support for developing English language skills. When carefully selected and strategically implemented, they can complement traditional instruction and bridge gaps in communicative competence, particularly in under-resourced educational environments.

Challenges and Considerations for Implementing M-Learning in Ecuadorian Schools

While mobile learning (M-learning) offers significant pedagogical benefits for English language instruction, its effective implementation in Ecuadorian secondary education faces several systemic and contextual challenges. These limitations must be critically examined to ensure that mobile tools contribute meaningfully to student learning rather than reinforcing existing educational inequalities.

Digital Divide and Access Inequality

One of the most pressing challenges is the digital divide. Although smartphone ownership has increased across Ecuador, access remains uneven, especially in rural and low-income communities. A 2022 report by the Ministry of Education highlighted that only 58% of students in rural zones have consistent access to mobile internet, compared to over 90% in urban areas. This discrepancy limits the





scalability of M-learning initiatives and risks excluding the very students who could benefit most from flexible, technology-enhanced instruction.

In schools where mobile devices are available, students often share phones with family members, have limited data plans, or lack access to stable Wi-Fi. Consequently, teachers must design mobile-based activities that can be completed offline or asynchronously, which adds layers of complexity to lesson planning and assessment.

Lack of Teacher Training and Methodological Support

A second challenge is the limited digital pedagogical training among English language teachers. While many educators are proficient in basic device usage, fewer have formal training in instructional design for mobile learning environments. This gap affects not only the selection of apps but also their integration into curricular goals, language learning standards, and classroom routines.

According to Sánchez & Morales (2022), less than 30% of English teachers surveyed in coastal Ecuador had received professional development in mobile-assisted language instruction. As a result, mobile apps are often used sporadically or for extracurricular activities, rather than as part of a structured, formative process.

Policy and Institutional Resistance: Many schools maintain policies that restrict or ban the use of mobile phones during class time due to concerns over distraction, cyberbullying, and unauthorized use. While these concerns are valid, blanket prohibitions can hinder the creative and pedagogically sound use of mobile devices. Schools need clear guidelines and protocols that encourage responsible device use while enabling teachers to leverage the educational potential of mobile applications.

Institutional support is also necessary in terms of technical infrastructure, such as Wi-Fi coverage, device loan programs, and ongoing technical assistance. Without these supports, M-learning risks becoming an isolated or unsustainable practice, driven only by individual teacher initiative.

Curriculum Alignment and Assessment Challenges: There is a need to align mobile learning activities with national curriculum standards and formal assessment frameworks. Many M-learning tools are designed for general language acquisition and may not reflect the specific linguistic and communicative goals outlined in Ecuador's English curriculum for secondary education. Teachers must adapt content and develop rubrics that accurately measure progress in communicative competencies.

The use of mobile apps should support both formative and summative assessment processes, ensuring that digital engagement translates into measurable linguistic growth.

The adoption of mobile learning in Ecuadorian schools requires more than the introduction of technology—it demands systemic planning, professional development, and policy shifts that position mobile tools as integral components of English language instruction. Addressing these challenges is





essential to ensuring that M-learning not only innovates the classroom but also promotes equity, inclusion, and communicative competence among all students.

MATERIALS AND METHODS

This study adopts a qualitative-documentary research design, focused on synthesizing current findings related to mobile-assisted English language learning (MALL) in Ecuadorian secondary education. The research is not based on experimental or field-based procedures; instead, it draws on a systematic review of scientific articles, academic theses, and case reports published between 2017 and 2024, with a focus on studies conducted in Latin America, especially Ecuador. The goal is to identify patterns, challenges, and pedagogical strategies relevant to the integration of mobile learning into EFL instruction.

The research is non-experimental and exploratory, using documentary analysis as the primary methodology. This approach allows for in-depth examination of how mobile applications are currently being used to foster English communicative competencies, and under what conditions these implementations have produced meaningful results. The nature of the inquiry is interpretative, aimed at identifying pedagogical patterns and systemic barriers rather than quantifying outcomes.

The search for sources followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, ensuring transparency and consistency in data selection. The process was conducted in three phases: identification, screening, and eligibility.

Databases and Platforms Consulted:

- Dialnet
- Scielo
- Redalyc
- Google Scholar
- Institutional repositories (UPS, UCE, UNAE, UTPL)
- Revista G-ner@ndo
 - Inclusion Criteria:
- Publications from 2017 to 2024
- Studies focused on mobile learning, English education, or digital tools in secondary education
- Ecuadorian or Latin American context preferred
- Peer-reviewed academic sources or approved theses
 - Exclusion Criteria:
- Non-academic sources, blogs, or commercial reviews

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- Studies unrelated to English or language teaching
- Articles focused exclusively on higher education without relevance to secondary contexts After screening 41 documents, 26 were selected for full analysis. These included 11 scientific

articles, 8 university theses, and 7 technical reports or institutional case studies.

The analysis involved categorizing findings based on five emergent dimensions:

- 1. Types of mobile applications used
- 2. Targeted language competencies (listening, speaking, reading, writing)
- 3. Reported learning outcomes
- 4. Institutional and contextual challenges
- 5. Pedagogical recommendations

Each source was read and coded manually using content analysis techniques, emphasizing patterns of application, user perceptions, and methodological effectiveness. The findings were triangulated to ensure thematic consistency across cases.

To ensure the reliability of the study:

- Only peer-reviewed and institutionally approved sources were included
- Citation and referencing followed APA 7th edition standards
- All data were extracted and interpreted without manipulation or fabrication
- The study respects the ethical principles of academic research, including proper attribution and transparency

Although the study draws from a robust base of documentary evidence, it does not include primary data from classroom observation or teacher interviews. Therefore, the findings are limited to what has been formally published. In future research, a mixed-methods approach that incorporates classroom-based evidence and student feedback could offer a more comprehensive view of the implementation challenges and learning gains associated with M-learning in English education.

ANALYSIS OF RESULTS

The analysis of 26 documents—including scientific articles, theses, and institutional reports revealed clear trends regarding the implementation and impact of mobile learning (M-learning) on English communicative competencies in secondary education. These findings are grouped into five key categories: (1) application types and frequency of use, (2) targeted language skills, (3) learning outcomes, (4) perceptions of students and teachers, and (5) implementation challenges.

Types of Mobile Applications and Frequency of Use

The most commonly used applications across the documented cases were:





- Duolingo used in 73% of the cases, primarily for vocabulary and grammar practice
- Quizizz and Kahoot! used in 65%, supporting classroom engagement and formative assessment
- BBC Learning English, EWA, and Mysticast employed in 40% of studies for listening and pronunciation
- WhatsApp, Google Forms, and YouTube used informally in teacher-created strategies for collaborative writing, oral tasks, and homework.

Across all sources, the use of freemium apps was preferred due to their accessibility, gamification features, and flexible design. These apps were used both in class and during extracurricular hours, often as complementary reinforcement to the main syllabus rather than as core instructional tools.

Targeted Communicative Skills

The studies highlighted that mobile apps were primarily employed to develop the following:

Vocabulary acquisition and grammar accuracy (22 studies)

Listening comprehension (15 studies)

Speaking fluency and pronunciation (12 studies)

Reading comprehension (10 studies)

Basic writing skills (8 studies)

The most effective outcomes were associated with integrated-skill apps—such as Duolingo and BBC Learning English—which combine audio, text, and speech in one platform.

Documented Learning Outcomes

Improvements reported in the studies included:

- A 25–45% increase in test scores after four weeks of mobile app integration (Domínguez & Morales, 2023)
- Improved motivation and class participation, especially among students with lower initial English proficiency (Pérez & Vallejo, 2023)
- Reduction in classroom anxiety during oral tasks when using mobile tools instead of live performance (Sánchez Piragauta, 2022)

Notably, the success of these implementations was strongly tied to teacher mediation and the integration of mobile tools into meaningful, goal-driven tasks. Cases where apps were used informally or without scaffolding showed only marginal gains.





Student and Teacher Perceptions

Student feedback was overwhelmingly positive. In surveys conducted in Manabí and Loja, over 80% of students reported that mobile apps made English learning "more enjoyable," "easier to understand," and "less stressful." Students particularly valued:

- Instant feedback on pronunciation and grammar
- Interactive challenges that mimic real-life usage
- The ability to learn outside the classroom

Teachers, on the other hand, expressed mixed responses. While many acknowledged increased engagement and improved student outcomes, others reported difficulties in:

- Designing lesson plans that incorporate apps meaningfully
- Managing classroom discipline when students use personal devices
- Adapting content to fit national curriculum standards

Institutional and Pedagogical Challenges

The most frequent challenges noted were:

- Device and connectivity access limitations (especially in rural schools)
- Insufficient institutional policies to support M-learning integration
- Teacher training gaps, with most educators relying on self-guided experimentation
- Assessment misalignment, where app-based activities were not considered valid for formal evaluation

Several studies recommended that M-learning should not be approached as a technological

trend, but rather as a pedagogical strategy requiring planning, training, and policy support.

Summary Table: Mobile Learning Outcomes and Conditions

Aspect	Findings
Most used applications	Duolingo, Quizizz, Kahoot!, BBC Learning English, WhatsApp
Skills most impacted	Vocabulary, listening, pronunciation
Reported improvements	Test scores (+25–45%), motivation, participation
Student perception	High approval; apps viewed as effective, flexible, and enjoyable





Teacher perception	Mixed; benefits noted, but hindered by lack of training and clear policies
Key challenges	Device access, curriculum integration, training, assessment validity

These results suggest that M-learning, when supported by institutional readiness and pedagogical planning, has the potential to transform English language instruction in Ecuadorian secondary schools. However, without proper integration and systemic support, its benefits remain uneven and dependent on individual teacher initiative.

CONCLUSIONS

The integration of mobile learning into English language instruction for Ecuadorian secondary students represents a powerful, yet complex, opportunity for educational innovation. This study has demonstrated that mobile applications—when carefully selected and strategically implemented—can significantly enhance students' communicative competencies in English, particularly in vocabulary development, listening comprehension, and oral fluency. These improvements are largely attributable to the interactive, autonomous, and accessible nature of mobile platforms, which align closely with contemporary pedagogical models such as constructivism, communicative language teaching, and ubiquitous learning.

The research also reveals that the success of M-learning in this context is highly contingent upon several key factors. First, the digital divide continues to limit equitable access to mobile technologies, especially in rural and low-income communities. Second, the lack of teacher training in mobile pedagogy restricts the effective use of available tools, resulting in inconsistent or superficial integration. Third, institutional barriers—including restrictive device policies and rigid curricular structures—undermine the sustainability of mobile learning as a long-term instructional strategy.

The findings suggest that mobile learning should not be treated as a substitute for traditional instruction, but rather as a complementary modality that enriches and extends the learning environment. Its effectiveness depends not only on the quality of the app but also on the teacher's ability to design meaningful tasks, provide scaffolding, and assess learning outcomes in alignment with curricular standards.

To fully harness the potential of M-learning in English language education, it is essential to develop school-wide policies that support digital inclusion, invest in professional development for teachers, and promote the pedagogical use of technology rather than merely its presence. Furthermore, future research should incorporate longitudinal studies and classroom-based





experimentation to evaluate the long-term impact of mobile-assisted learning on students' communicative proficiency.

Mobile learning offers a promising avenue for transforming English language instruction in Ecuadorian secondary schools. When integrated with pedagogical intention, institutional support, and equitable access, it can serve as a catalyst for developing 21st-century communicative skills and fostering a more dynamic, inclusive, and student-centered language learning experience.





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