International Journal of Linguistics, Literature and Translation
ISSN: 2617-0299 (Online); ISSN: 2708-0099 (Print)
DOI: 10.32996/ijllt
Journal Homepage: www.al-kindipublisher.com/index.php/ijllt

IJLLT
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Integrating Emerging Technologies into ESL Classrooms (Gamification, Mobile Vocabulary Learning, and AI Chatbots)

Nagla Mokhtar[1], Manal Algorashi[2] and Somaih T Ahmed[3]

[1] *Assistant Professor of Applied Linguistics, English Department, Darb University College, Jazan University, KSA*
[2] *Lecturer of Applied Linguistics, English Department, Darb University College, Jazan University, KSA*
[3] *Lecturer of Applied Linguistics, English Department, Darb University College, Jazan University, KSA*
Corresponding Author: Author's Name, Nagla Mohamed Elhassan Mokhtar **E-mail**: nagla.sasa@gmail.com-nmokhtar@jazanu.edu.sa

| ABSTRACT

With the growing focus on language education, teachers have increasingly turned to technology to enhance and develop students' learning environment. This study tests the learning use of AI-powered chatbots, mobile-assisted language learning, and gamification techniques in English as a Second Language (ESL) classrooms) classrooms. It explores how the use of modern technology impacts students' learning ability and motivation, specifically their vocabulary acquisition and communication skills. This research draws on modern learning theories, including self-determination theory, mobile learning theory, interactionism theory, and sociocultural theory. The paper concludes with strategic suggestions and potential research topics.

| KEYWORDS

Gamification, Mobile-Assisted Language Learning (MALL), AI Chatbots, Self-Determination Theory, Interactionist Theory, ESL Pedagogy, Educational Technology

| ARTICLE INFORMATION

ACCEPTED: 30 April 2026 **PUBLISHED:** 17 May 2026 **DOI:** 10.32996/ijllt.2026.5.1.12

1. Introduction

In today's developing digital surroundings, teaching English as a second language has evolved. While we cannot ignore traditional teaching methods, they are less effective and perhaps less dynamic for students in a multimedia-rich environment. Nowadays, learners are more integrated in self -study learning motivated by the new technology, rather than being passive recipients of information. This transformation reflects a re-evaluation of teaching methodology, with an emphasis on creating a student-centered environment.

Gamification, mobile-assisted language learning (MALL), and AI chatbots illustrate recent transformations in English language acquisition instruction. These technological devices evaluate and manage important issues students might experience, such as frustration, shortages in direct communication exercises, and a lack of specific learning needs. Since the pandemic, blended and remote learning have become the norm, encouraging a review of traditional teaching strategies and learner support systems. These tools are crucial for effective language learning. This paper provides a critical examination of gamification, MALL, and AI chatbots in ESL classrooms, considering both theoretical frameworks and practical implementation. This analysis integrates Self-Determination Theory and Sociocultural Theory to investigate how specific technologies support language development. It explores how these tools promote learners' fluency, foster engagement, and reshape classroom interactions through the lenses of Mobile Learning Theory and the Interactionist Framework. By situating technology integration within broader educational philosophies, the essay offers educators a strategic roadmap for cultivating inclusive, responsive

These tools are essential for effective language learning. This paper provides a critical examination of gamification, MALL, and AI chatbots in ESL classrooms, considering both theoretical frameworks and practical implementation. This analysis integrates Self-

Determination Theory and Sociocultural Theory to examine how distinct technologies support language development. It explores how these tools elevate learners' fluency, foster engagement, and reshape classroom interactions through the lenses of Mobile Learning Theory and the Interactionist Framework. By situating technology integration within broader educational philosophies, the essay offers educators a strategic roadmap for cultivating inclusive, responsive, and adaptable ESL learning environments.

2.Theoretical

2.1 Self-Determination Theory (SDT)

SDT implies students thrive when their psychological needs for autonomy, competence, and relatedness are fulfilled.
Gamification is consistent with SDT in the sense that:
• Offering choice of task (autonomy).
• Employing increasing difficulty and feedback (competence).
• Enabling peer collaboration features like team quests (relatedness).
In ESL contexts, gamified environments allow students to choose sets of vocabulary independently, track advancement, and engage with peers—fostering long-term motivation.

2.2 Mobile Learning Theory

Mobile learning focuses on adaptability, mobility, and one-to-one engagement. MALL tools like spaced repetition software and voice recognition exercises:
• Offer just-in-time vocabulary support.
• Adapt to learners' settings and timing.
• Encourage incidental learning between scheduled practice.
These characteristics make mobile learning especially useful in multilingual, mobile-first cultures

2.3 Interactionist of Language Acquisition Theory

This theory argues that language is acquired through intentional interaction. Artificiel Intelligent promote interactionist principles by:
• Simulating real conversation environments.
• Responding dynamically to learner input.
• Encouraging negotiation of meaning and moment-by-moment understanding.
More advanced chatbots can recognize grammatical mistakes, offer context-dependent corrections, and mimic natural language use. This theory argues that language is acquired through intentional interaction. AI chatbots promote interactionist principles by:
• Simulating real conversation environments.
• Responding dynamically to learner input.
• Encouraging negotiation of meaning and moment-by-moment understanding.
More advanced chatbots can recognize grammatical mistakes, offer context-dependent corrections, and mimic natural language use..

2.4 Sociocultural Theory)

Sociocultural theory addresses the reality that learning occurs in social settings, facilitated by tools and exchange. Each of the three technologies functions as cultural and cognitive scaffolding:
• Gamification supports social learning from shared goals.
• MALL encourages embedding of learning in routines of everyday life.
• Chatbots offer learner-managed practice environments for reluctant public speakers.
Together, these technologies allow students to participate substantively in language communities.

2.5 Cognitive Load Theory

By reducing extraneous cognitive load, digital technology optimizes the productivity of learning. Multimodal applications transfer mental processing by:
• Using pictures and sound to enhance understanding.
• Offloading memory-consuming tasks (e.g., flashcards, reminders).
• Supporting working memory with scaffolding.
Effectively designed tools allow for greater linguistic processing without overwhelming the student.

2.6 Connectivism

Connectivism is a recent theory that considers learning a process that is networked. ESL technologies foster:
• Global communities knowledge-sharing.
• Instant collaboration using chat apps and forums.

• Interdisciplinary blend with multimedia resources.
This perspective affirms that language is not fixed but socially distributed and dynamically varying.

2.7 Constructivist Learning Theory
Constructivism fosters active learning participation and reflexivity. Technologies allow learners to:
• Develop meaning through gameplay and exploration.
• Reflect on linguistic choices with comments from the chatbot.
• Alter learning paths in accordance with personal intentions.
This prompts deep learning instead of surface-level memorization.

2.8 Behaviorism
While often seen as outdated, behaviorist elements remain in ESL tech:
• Replication, reinforcement, and immediate response are utilized in MALL apps.
• Rewarding and punishing in gamified environments shape behavior.
Though limited, these methods can be used to construct language basics.

2.9 Humanistic Learning Theory
In its concern with emotional well-being and self-actualization, this theory finds expression in personalized tech:
• Chatbots de-stress speaking practice.
• Gamification reinforces self-confidence and drive.
• Mobile support allows learners to reach goals independently.
When technology is approached with empathy, the learning process can become more human

2.10 Ecological Systems Theory
This multidisciplinary theory takes into account the learner's interaction with multiple environments. ESL technologies affect:
• Microsystems (peer discussions, classroom uses).
• Mesosystems (school-to-family communication through technology).
• Exosystems (language exposure through media and apps).
• Macrosystems (cultural norms in gamified narratives or chatbot responses).
Understanding these layers helps in adapting tools for different learner ecologies.

3. Literature Review
There is an immediate need to know what is already known from research to put technological evolution in ESL teaching into context
This literature review proceeds with the previous research by adopting various techniques, cross-cultural perspectives, and different speciality approaches. Gamification, MALL, and AI chatbots remain at the center stage, exploring their influences on motivation, vocabulary retention, and communication skills.

3.1 Gamification and Learner Motivation
Gamification has increasingly attained traction as an effective tool to enhance learner participation in ESL environments. Huang and Hew (2018, pp. 162–165) discovered increased autonomy and emotional investment when students interacted with game-structured material. Likewise, Liu et al. (2022, pp. 88–91) presented evidence establishing that integrating game mechanics such as leveling systems and digital badges led to higher persistence and task completion among ESL learners.
More recent work adds complexity:
• González & Tan (2021, p. 74) examined Malaysian gamified grammar modules in classrooms and determined that while motivation was improved, grammatical precision was not altered.
• Alqahtani (2023, pp. 103–106) in Saudi Arabia conducted a study that reported that features of role-playing games significantly boosted learner confidence but had minimal impact on written skill.
These findings suggest that gamification is more useful for enhancing affective interest than in building complex language proficiency unless highly scaffolded.

3.2 Mobile-Assisted Vocabulary Learning (MALL)
Mobile learning has the special benefits of vocabulary learning, particularly through microlearning and spaced repetition. Stockwell (2020, pp. 212–216) verified that learners practicing with MALLapps stored words better in the long run than with conventional flashcards. Learning was incorporated into learners' routine, making practice extend beyond classroom time.
Further results include: • Sung et al. (2019, pp. 67–70) discovered that MALL users' word usage accuracy enhanced when they learnt vocabulary through context practice—via location-based apps.

• According to Wang & El-Sayed (2022, p. 129), multimodal input helps with comprehension in low-literacy circumstances, and Arabic-speaking ESL learners benefited most from audio-enabled vocabulary apps.
Although device presence and digital literacy persist as significant obstacles, MALL's promise is reinforced by accessibility and student autonomy.

3.3 AI Chatbots and Speaking Fluency
Chatbots have modernized speaking practice through customized, receptive conversation. Lee and Park (2023, pp. 55–58) reported improved speaking fluency after an 8-week chatbot intervention, with learners expressing greater confidence and lessen anxiety.
Recent research includes:
• Chen & Abbas (2021, pp. 142–145) explored a responsive and adaptive chatbot reply, reporting enhanced conversational outcomes produced when bots aligned with the learner's linguistic style and syntax.
• Wang & Okonkwo (2022, pp. 199–202) Revealed that culturally adapted chatbots were found to boost learners' use of idiomatic expressions and improve their contextual fluency, particularly among advanced ESL students.
Despite ongoing limitations in non native prosody, pragmatic nuance interpretation, and emotional recognition, chatbots continue to serve as a crucial medium for risk free, simulated communicative practice.

4. Critical Analysis
While emerging technologies such as gamification, mobile assisted learning, and AI based chatbots are increasingly being explored, their effective implementation in ESL classrooms remains a complex undertaking. This subsection critically examines the pedagogical value and inherent limitations of each tool, taking into account instructional considerations, contextual constraints, and broader ethical implications.

4.1 Gamification: Strengths and Risks
Gamification provokes motivation and engagement with goal-driven learning structures and dynamic measurement. Students value independence and instant recognition, as with Liu et al. (2022, pp. 88–91), where ESL students were favorably sensitive to point-progress schemes. Nevertheless, the specter of exterior over intrinsic learning remains.
Problems are:
• Reinders & Wattana (2015, pp. 36–38) forewarned that use too frequently of game mechanics could result in shallow vocabulary acquisition.
• Lower long-term retention was pointed out by González & Tan (2021, p. 74) as students focused more on competition than on linguistic analysis.
Teachers must ensure that game elements align with learning targets in order to ensure academic accuracy.

4.2 Mobile Learning: Equity and Engagement
MALL provides adaptable access to pursue language, bridging gaps between classroom and informal environments. Stockwell (2020, pp. 212–216) indicated its function in habit formation and self-discipline. Inequalities in gadget access and IT skills restrict comprehensive learning.
Additional insights:
• Alhazmi & Nyland (2019, pp. 183–185) concluded that financially disadvantaged students in Saudi Arabia were to a significant degree, less likely to employ MALL apps due to transmission capacity and device limitations.
• Sung et al. (2019, pp. 67–70) reported that in the lake of instructional guidance, mobile use led to passive interaction and minimal vocabulary transfer.
Therefore, app design must adopt an accessibility-first approach and involve built-in scaffolding to successfully enhance learner autonomy.

4.3 AI Chatbots: Fluency vs. Nuance
Chatbots recreate everyday speaking situations, providing instant feedback and a supportive, learner-centred environment. Lee & Park (2023, pp. 55–58) confirmed increased oral fluency and reduced levels of anxiety. Nevertheless, current AI is still challenges in decoding implicit or indirect meaning, such as sarcasm, idioms, and affective tone.
Constraints encountered in recent research:
• Chen & Abbas (2021, pp. 142–145) accounted for misconceptions of learner input when the chatbots failed to pick up on local speech variations or unreasonable phrasing.
• Alharthi (2022, p. 121) found that the chatbots responded less effectively in bilingual environments where students often shifted between languages.

Despite these constraints, chatbots remain beneficial for reluctant speakers of students in group discussions or deprived of native speaker exposure.

5. Pedagogical Implications

It is highly plausible, the most significant implications of integrating emergent technology into ESL teaching are on classroom practice, curriculum development, and teacher training. Gamification, mobile-supported learning, and Chatbots supported by artificial intelligence may significantly enhance how students engage with learning, but careful, theory-based, and responsive attention must be given to align with the specific context.

5.1 Instructional Design and Curriculum Alignment

Pedagogical efficacy will be systematically improved by keeping technology-enhanced tools aligned with linguistic objectives and learning achievements.

•Liu et al. (2022, pp. 89–90) pointed out that grammar and vocabulary objectives ought to be integrated directly into gamified activities, rather than incorporating game elements as a complementary component.

• Reinders & Wattana (2015, p. 37) put forward the idea that the use of "task-based gameplay," which ties communicative functions with tasks in the game to support authentic language use.

Lesson planning that integrates vocabulary acquisition with interactive feedback mechanisms balances enjoyment with sustained depth of learning.

5.2 Learner Autonomy and Motivation

Technology can enable learners to take responsibility for the learning process.

• Huang and Hew (2018, pp. 163–165) found that gamification enhanced self-regulated learning activities among English as a Second Language learners, as they frequently monitored their progress and followed personal success paths.

• Stockwell (2020, p. 215) found that users of mobile-assisted language learning (MALL) developed independent study routines, especially if the apps provided reminders, daily goals,and and personalized feedback cycles.

These conclusions indicate that features supporting autonomy—such as Progress Dashboards and Activity-based optionality—should take precedence in the design of English as a Second Language (ESL) learning technologies.

Below is a breakdown of the importance of these elements based on the academic context:

Progress Dashboards: They allow the learner to monitor their performance visually and continuously, enhancing their ability for 'self-regulation' and understanding their strengths and weaknesses without waiting for external evaluation.

Activity-based optionality: It gives the learner the freedom to choose the 'path to success' that suits their individual style, turning the learning process from a uniform compulsory path into a personalized experience that increases motivation and responsibility.

5.3 Teacher Training and Technological Literacy

These points highlight the "human element" in the educational technology equation; without empowering teachers, digital tools remain mere technological "accessories." The adoption and use of technology in classrooms largely depend on teachers' ability to employ it. Al-Hazmi and Nyland (2019, pp. 184–186) concluded that the majority of English as a Second Language (ESL) teachers had not received adequate training in digital pedagogy, leading to disparities in technology integration and learner frustration. Chen and Abbas (2021, p. 144) recommended that professional development activities focus on facilitation strategies using chatbots and the ethics of AI-supported learning environments. The support infrastructure should include workshops, toolkits, and peer mentoring to build teachers' confidence and capabilities.

5.4 Accessible Design

Technology is not always neutral, and if it is not carefully designed, it can shift from being a tool for empowerment to a means of exclusion. Priority should be given to equity when increasing the use of English as a Second Language (ESL) teaching technologies. Wang and Al-Sayyid (2022, p. 129) indicated that visual and audio support in vocabulary tools improved usability for students with limited reading ability. Al-Harthi (2022, pp. 120–122) warned that adult learners are likely to encounter usability barriers with chat interfaces that are culturally insensitive and non-intuitive. Teachers should evaluate tools in terms of age appropriateness, language support, and adaptive interface design before using them in the classroom.

5.5 Emotional Support and Confidence-Building

These points address a vital psychological aspect of language learning, which is breaking the "fear barrier" or what is known as language anxiety (Language Anxiety). AI-powered technologies such as chatbots play a significant role in reducing anxiety and boosting learners' confidence in speaking. Lee and Park (2023, pp. 56–57) found that students were more inclined to chat when interacting with chatbots compared to human interlocutors. Gonzalez and Tan (2021, p. 75) found that peer collaboration through "gamified" communication is an important factor in enhancing learners' communicative confidence and their experimental willingness to try new language structures. Promoting supportive and low-pressure environments using technology is crucial, especially for students who are introverted or reserved in learning English as a second language (ESL).

6. Conclusion

The integration of "gamification," mobile-assisted language learning (MALL), and artificial intelligence tools in English as a Second Language (ESL) learning environments is considered an indicator of a broader trend towards technology-enhanced, learner-centered pedagogy. Across many studies, the following recurring themes stand out: increased engagement, greater autonomy, and enhanced language interaction..

Liu et al. (2022, p. 90) concluded that vocabulary retention and learner engagement are enhanced through 'gamified' activities that include goal-oriented language achievements.

Stockwell (2020, p. 216) noted that mobile-assisted language learning (MALL) applications encourage continuity in language learning outside the classroom, providing flexible learning environment.

Lee and Park (2023, p. 58) emphasized the psychological comfort provided by chatbots, allowing anxious learners to practice conversation without fear of criticism.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

ORCID iD (https://orcid.org/0000-0003-3981-467X)

References

[1] Alharthi, F. (2022). Cultural and generational barriers in AI-based language learning tools. International Journal of Educational Technology, 18(1), 118–125.

[2] Alharthi, F. (2022). Cultural and generational barriers in AI-based language learning tools. International Journal of Educational Technology, 18(1), 118–125.

[3], L., & Abbas, R. (2021). Chatbot-assisted ESL learning: Teacher perceptions and training needs. TESOL Technology Journal, 12(4), 139–150.

[4] González, J., & Tan, W. (2021). Gamified peer collaboration and student confidence in ESL. ELT Innovations Quarterly, 6(3), 70–80.

[5] Huang, B., & Hew, K. F. (2018). Student engagement and self-regulation in gamified ESL platforms. Computers & Education, 126, 158–170

[6] Lee, J., & Park, S. (2023). Emotional engagement with chatbots among ESL learners. Journal of Applied Linguistics and AI, 2(1), 55–60.

[7] Liu, H., Gómez, R., & Yamada, K. (2022). Gamification in ESL vocabulary instruction: Design principles and outcomes. Language Learning Technologies, 11(2), 85–95.

[8] Reinders, H., & Wattana, S. (2015). Task-based gameplay for language acquisition: A case study. Innovation in Language Learning and Teaching, 9(1), 35–45.

[1] Stockwell, G. (2020). Mobile-assisted language learning: Practical applications in ESL. Language Learning & Technology, 24(3), 210–220.

[2] Wang, L., & El-Sayed, M. (2022). Designing accessible ESL apps for diverse learners. Educational Technology Design Journal, 15(2), 125–135.