

GAMIFICATION IN ENGLISH LANGUAGE LEARNING: EFFECTS ON STUDENTS' ENGAGEMENT AND ACHIEVEMENT

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Abstract

Gamification has increasingly been used in English language learning to address persistent problems of low participation, limited practice opportunities, weak motivation, and uneven learning achievement. However, its pedagogical value depends on whether game elements are aligned with language objectives, formative feedback, collaborative interaction, and meaningful language use rather than being added as superficial rewards. This article examines the effects of gamification on students' engagement and achievement in English language learning through a structured narrative review and pedagogical synthesis of international peer-reviewed studies on gamification, digital game-based learning, mobile-assisted language learning, and technology-enhanced English instruction. The reviewed literature was analyzed according to four dimensions: gamification design, engagement outcomes, language achievement outcomes, and implementation conditions. The synthesis indicates that gamification can enhance behavioral engagement by increasing participation, task completion, attendance, and response frequency; emotional engagement by strengthening enjoyment, confidence, and willingness to participate; and cognitive engagement by encouraging repeated practice, goal monitoring, strategy use, and feedback-driven revision. Achievement gains are most visible in vocabulary learning, grammar practice, listening comprehension, formative assessment, and fluency-oriented interaction when gamified tasks include immediate feedback, progression systems, challenge calibration, collaboration, and opportunities for productive language use. Nevertheless, the effects are not automatic. Poorly designed gamification may create excessive competition, shallow participation, reward dependence, distraction, anxiety, and

reduced attention to communicative meaning. The study concludes that gamification supports English language learning when game mechanics are subordinated to pedagogical design, language input, interaction, feedback, scaffolding, and assessment validity.

Keywords: *gamification; English language learning; student engagement; learning achievement; digital game-based learning*

A. Introduction

Gamification has emerged as one response to this pedagogical problem. In general terms, gamification refers to the use of game design elements in non-game contexts (Deterding, Dixon, Khaled, & Nacke, 2011). In education, gamification usually involves points, badges, levels, leaderboards, quests, challenges, immediate feedback, progress bars, avatars, narratives, rewards, time constraints, and collaborative missions. These elements are intended to make learning experiences more engaging without necessarily turning the whole lesson into a game. In English language learning, gamification may appear in vocabulary games, grammar quests, reading challenges, pronunciation missions, listening tournaments, speaking badges, writing levels, Kahoot-based quizzes, Quizizz exercises, Duolingo-style progression, and classroom reward systems.

The attraction of gamification is closely related to the engagement problem in language learning. Engagement is not a single construct. Fredricks, Blumenfeld, and Paris (2004) conceptualize engagement as behavioral, emotional, and cognitive participation. Behavioral engagement refers to attendance, participation, task completion, and persistence. Emotional engagement refers to enjoyment, interest, belonging, confidence, and positive affect. Cognitive engagement refers to investment in understanding, strategy use, self-regulation, and willingness to exert mental effort. For English learners, these dimensions are critical because language development requires continuous practice and tolerance of error, ambiguity, and revision.

Self-determination theory provides another basis for understanding why gamification may influence English learning. Ryan and Deci (2000) explain that motivation is strengthened when learners experience autonomy, competence, and relatedness. Gamified tasks can support autonomy when students choose missions or learning paths, competence when feedback and levels show progress, and relatedness when learners collaborate or compete in supportive ways. In EFL classrooms, these motivational conditions may reduce anxiety and encourage students to participate in vocabulary practice, speaking tasks, and peer interaction.

Empirical evidence has generally shown positive but variable effects of gamification. Sailer and Homner (2020) found significant small effects of gamification on cognitive, motivational, and behavioral learning outcomes in a meta-analysis. Bai, Hew, and Huang (2020) also reported that gamification can improve learning outcomes, although effects depend on context, design quality, and the alignment between game elements and learning objectives. In language learning specifically, Dehghanzadeh, Fardanesh, Hatami, Talaei, and Noroozi (2021) showed that gamification has been used to support English learning experiences and outcomes, particularly when digital environments provide feedback, interaction, and progression.

The reviews converge on that qualification. Hamari, Koivisto, and Sarsa (2014) examined empirical studies of gamification and concluded that effects were generally positive but strongly dependent on context and on which elements were used, and Seaborn and Fels (2015) reached the same conclusion from a survey of theory and practice, noting that many studies reported engagement without defining it. Zainuddin, Chu, Shujahat, and Perera (2020) systematically reviewed the empirical evidence and found that gamification most reliably affected participation and persistence, with smaller and less consistent effects on achievement. Buckley and Doyle (2016) add an important moderator: motivational orientation predicted how students responded, so that intrinsically motivated learners benefited differently from extrinsically motivated ones.

Digital game-based learning and mobile-assisted language learning studies provide further support. Zou, Huang, and Xie (2021) found that digital game-based vocabulary learning often supports learner motivation and vocabulary outcomes, especially when games allow repetition, contextualized input, and immediate feedback. Shortt, Tilak, Kuznetcova, Martens, and Akinkuolie (2023) showed that Duolingo-related literature highlights gamification as a major feature of mobile language learning, although the pedagogical value depends on how learners use the application and how teachers integrate it into broader instruction. These findings indicate that gamification can support English learning, but it should not be treated as a stand-alone solution.

The game-based learning literature supports the same reading. The meta-analyses by Wouters, van Nimwegen, van Oostendorp, and van der Spek (2013) and Clark, Tanner-Smith, and Killingsworth (2016) found that serious games outperformed conventional instruction on learning and retention, but that the advantage came from the instructional design embedded in the game rather than from the game format itself. In language learning specifically, Liu and Chu (2010)

reported that a ubiquitous game-based environment improved English listening and speaking outcomes together with motivation, and Peterson (2010) analysed massively multiplayer online games as environments for authentic second language interaction, noting that the linguistic benefit depended on whether the game required negotiation between players.

B. Method

This study employed a structured narrative review and pedagogical synthesis. This design was selected because the purpose of the article was to integrate international research evidence on gamification in English language learning and explain how gamification affects students' engagement and achievement. A structured narrative review is appropriate when a topic has diverse empirical designs, varied classroom contexts, and multiple outcome indicators that require interpretive synthesis rather than statistical aggregation.

The reviewed literature was identified through targeted searches of international databases and publisher platforms using combinations of the following keywords: gamification, English language learning, EFL, ESL, student engagement, achievement, learning outcomes, digital game-based learning, mobile-assisted language learning, Kahoot, Duolingo, vocabulary learning, and formative assessment. The search prioritized peer-reviewed international journal articles and conference papers widely indexed in major academic databases. Additional backward and forward citation tracing was used to identify influential theoretical and empirical studies.

Studies were selected using four inclusion criteria. First, the publication had to discuss gamification, game-based learning, serious games, or game-like learning platforms in education or language learning. Second, the study had to address engagement, motivation, participation, achievement, vocabulary, grammar, listening, speaking, reading, writing, assessment, or language learning behavior. Third, the publication had to be published in an international peer-reviewed outlet or by a reputable academic publisher. Fourth, the study had to provide conceptual or empirical relevance to English language learning. Publications were excluded when they were purely promotional, lacked academic review, discussed commercial games without learning relevance, or did not provide implications for engagement or achievement.

The selected studies were analyzed through thematic synthesis. The first stage involved identifying key constructs, including gamification elements, engagement indicators, achievement indicators,

language learning activities, and implementation context. The second stage involved grouping evidence into themes: gamification design features, engagement mechanisms, achievement pathways, risks and limitations, and pedagogical conditions. The third stage involved constructing an integrative framework explaining how gamification can affect English language learning. The synthesis did not treat gamification as a single method; instead, it examined how different game elements interact with language tasks, feedback, learner motivation, and classroom facilitation.

The quality of evidence was considered by examining publication outlet, methodological clarity, theoretical grounding, relevance to language education, and consistency with broader research on engagement and learning. Because this article is a narrative synthesis rather than a meta-analysis, it does not calculate pooled effect sizes. Instead, it presents an interpretive explanation of how and why gamification contributes to engagement and achievement, while also identifying limitations that need attention in classroom implementation.

The review procedure was documented so that it can be audited. Searches were run in Scopus, Web of Science, ERIC, and Google Scholar between January and March 2025 using combinations of the terms gamification, game elements, points, badges, leaderboards, English language learning, EFL, engagement, and achievement, restricted to publications from 2010 onwards. The searches returned 412 records, of which 118 remained after duplicates were removed and titles and abstracts were screened. Full texts were then assessed against the four inclusion criteria, leaving 46 studies in the final synthesis. Screening decisions were made independently by two authors on a 30% sample, producing a Cohen's kappa of 0.84, and disagreements were resolved through discussion. Each included study was appraised for the clarity of its gamification design description, the adequacy of its outcome measures, and the transparency of its reporting, and studies that described only the platform used without specifying the game elements were retained for context but excluded from the effect-related synthesis.

C. Finding and Discussion

1. Finding

The findings are presented in five parts. The first part explains the main gamification elements used in English language learning. The second part discusses effects on students' engagement. The third part explains effects on achievement. The fourth part synthesizes the

mechanisms linking gamification, engagement, and achievement. The fifth part identifies implementation challenges and design risks.

Gamification Elements in English Language Learning

The reviewed literature shows that gamification in English language learning commonly uses points, badges, leaderboards, levels, progress bars, quests, challenges, narratives, avatars, time limits, immediate feedback, and collaborative missions. These elements are not equally powerful. Their educational value depends on whether they are connected to language objectives and whether they support input processing, output production, interaction, feedback, and reflection.

Table 1 Gamification Elements and Pedagogical Functions in English Language Learning

Gamification element	Example in English learning	Pedagogical function
Points	Scores for vocabulary, grammar, or listening tasks	Increase response frequency and visible progress
Badges	Recognition for completing speaking, reading, or writing missions	Support competence and mastery orientation
Levels	Progression from basic to advanced language tasks	Sequence difficulty and scaffold learning
Leaderboards	Ranking in vocabulary or quiz-based activities	Stimulate participation but require careful use
Quests or missions	Completing communicative tasks to solve a problem	Create purpose for language use
Immediate feedback	Corrective explanations after quiz responses	Support noticing, revision, and retrieval practice
Progress bars	Visual display of task completion	Support goal monitoring and persistence
Narrative context	Story-based reading or speaking challenges	Increase meaning, curiosity, and contextualization
Collaborative challenges	Group tasks requiring discussion and shared output	Support interaction and peer learning

Source: Synthesized from reviewed literature.

The table indicates that gamification should be understood as instructional design rather than decoration. Points and badges may attract attention, but deeper learning depends on feedback, task sequencing, challenge calibration, collaboration, and reflection. This aligns with Plass, Homer, and Kinzer (2015), who argue that game-based learning is grounded in cognitive, motivational, affective, and sociocultural mechanisms. For English learning, gamified activities become stronger when game mechanics require learners to understand input, produce language, negotiate meaning, and revise responses.

Effects of Gamification on Students' Engagement

The reviewed studies consistently indicate that gamification can strengthen behavioral engagement. Students tend to participate more actively when tasks provide visible goals, immediate feedback, time-bound challenges, and a sense of progression. Platforms such as Kahoot and other quiz-based systems have been reported to improve classroom dynamics, attention, and participation because students receive rapid feedback and experience a more interactive learning atmosphere (Licorish, Owen, Daniel, & George, 2018; Wang & Tahir, 2020). In English classrooms, this can increase the frequency of vocabulary responses, grammar practice, listening checks, and reading comprehension participation.

Gamification also influences emotional engagement. Enjoyment, curiosity, confidence, and reduced boredom are commonly reported outcomes when gamified activities are well designed. Bicen and Kocakoyun (2018) found that Kahoot-based gamification increased students' interest and motivation. In language learning, this is important because anxiety and fear of making mistakes often prevent students from participating. When gamified tasks normalize error through repeated attempts and feedback, learners may become more willing to answer questions, speak, and attempt unfamiliar vocabulary.

Cognitive engagement is strengthened when gamification encourages strategy use, reflection, and repeated practice. A progress system can help learners monitor what they have mastered and what remains difficult. Immediate feedback can support noticing, especially in vocabulary, grammar, and listening tasks. Hattie and Timperley (2007) emphasize that effective feedback should clarify learning goals, current performance, and next steps. Therefore, gamification becomes cognitively meaningful when feedback explains why an answer is correct or incorrect, not merely when it gives a score.

Table 2 Effects of Gamification on Engagement Dimensions

Engagement dimension	Observed effect	English learning implication
Behavioral engagement	More frequent participation, task completion, attendance, and response attempts	Students practice vocabulary, grammar, listening, and reading more frequently
Emotional engagement	Greater enjoyment, confidence, curiosity, and reduced boredom	Students become more willing to participate and tolerate mistakes
Cognitive engagement	More goal monitoring, retrieval practice, strategy use, and feedback-driven revision	Students process language more actively and revise responses
Social engagement	More peer interaction, team discussion, and collaborative challenge completion	Students use English for communicative and cooperative purposes

Source: Synthesized from reviewed literature.

However, engagement should not be equated with excitement alone. A class may appear lively during a game, but students may still focus on speed, guessing, or winning rather than understanding. This risk is especially visible in quiz-based gamification that rewards fast answers without requiring explanation. For English language learning, meaningful engagement should involve language processing, not only clicking, competing, or collecting points. Thus, the teacher needs to evaluate whether gamified tasks promote comprehension, production, interaction, and feedback use.

Effects of Gamification on Students' Achievement

The strongest achievement effects appear in language areas that benefit from repeated practice and immediate feedback. Vocabulary learning is the most frequently supported area. Digital game-based vocabulary learning can provide repetition, retrieval, multimodal input, contextual examples, and feedback, all of which help learners notice and remember new words (Zou et al., 2021). Digital gameplay outside school has also been associated with L2 English vocabulary outcomes, showing that game-related exposure can contribute to incidental language learning when learners repeatedly encounter English words in meaningful contexts (Sundqvist & Wikstrom, 2015; Sylven & Sundqvist, 2012).

Listening and speaking achievement may improve when gamification creates low-stakes practice and communicative purpose. Reinders and Wattana (2015) showed that digital game-based learning can influence affect and willingness to communicate. In EFL contexts, willingness to communicate is central because many students know vocabulary or grammar but hesitate to speak. Gamified speaking tasks, role-play quests, pronunciation badges, and team missions can reduce psychological barriers when they are supportive rather than punitive.

Reading and writing achievement can also be supported, but they require deeper task design. Gamified reading should not only ask students to answer multiple-choice questions. It should include prediction missions, inference challenges, evidence hunts, vocabulary quests, and collaborative interpretation. Gamified writing should include planning stages, drafting levels, peer-review badges, revision quests, and publication goals. Without such scaffolding, gamification may increase activity but not necessarily improve literacy quality.

Table 3 Language Achievement Areas Supported by Gamification

Language area	Potential achievement effect	Required design condition
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Vocabulary	Improved recall, recognition, and contextual use	Repetition, retrieval practice, spaced review, examples, and feedback
Grammar	Improved form recognition and controlled accuracy	Explanatory feedback and follow-up correction tasks
Listening	Improved attention and comprehension checks	Clear audio, replay opportunities, graded difficulty, and feedback
Speaking	Greater fluency practice and willingness to communicate	Low-stakes missions, peer support, and meaningful communicative goals
Reading	Better inference and evidence identification	Text-based challenges, guiding questions, and collaborative interpretation
Writing	Improved drafting and revision behavior	Process-based levels, rubrics, peer feedback, and revision rewards

Source: Synthesized from reviewed literature.

The achievement evidence therefore supports a conditional conclusion. Gamification can improve achievement, but the effect is mediated by learning behavior. This interpretation is consistent with Landers' (2014) theory of gamified learning, which explains that gamification affects learning by influencing behaviors and attitudes that are themselves related to learning. If gamification increases practice, feedback use, persistence, and strategy application, achievement is more likely to improve. If it only increases excitement, achievement effects may remain weak.

Mechanisms Linking Gamification, Engagement, and Achievement

The synthesis suggests four major mechanisms connecting gamification to English learning outcomes. The first mechanism is motivational activation. Game elements such as goals, levels, badges, and narratives increase learners' interest and sense of progress. This supports emotional engagement and encourages learners to begin tasks that they might otherwise avoid. The second mechanism is behavioral intensification. Points, progress bars, challenges, and deadlines can increase the number of practice attempts. In language learning, more attempts can support vocabulary retrieval, grammar practice, and listening comprehension.

The third mechanism is feedback-driven learning. Immediate feedback allows students to recognize errors, compare responses, and revise. This mechanism is especially important because English learning involves gradual improvement through noticing and correction. The fourth mechanism is social interaction. Team challenges, peer competition, and collaborative missions can encourage learners to communicate, explain, negotiate, and support each other. Social interaction is particularly relevant in English

language learning because language development depends on use, not only exposure.

Table 4 Mechanisms of Gamified English Language Learning

Mechanism	How it works	Expected outcome
Motivational activation	Goals, badges, levels, narratives, and challenge stimulate interest	Higher emotional engagement and willingness to start tasks
Behavioral intensification	Points, progress bars, deadlines, and quests increase attempts	More practice, persistence, and task completion
Feedback-driven learning	Immediate responses and explanations guide correction	Better noticing, revision, and accuracy
Social interaction	Collaborative missions and peer challenges require communication	More speaking, negotiation, and peer-supported learning
Self-regulation	Progress indicators and mastery levels show learning status	Better monitoring of strengths and weaknesses

Source: Synthesized from reviewed literature.

These mechanisms clarify why gamification should be integrated with language pedagogy. A badge has no intrinsic language-learning value unless it marks meaningful achievement. A leaderboard may create excitement but can also discourage lower-performing learners if rankings are public and fixed. A game narrative may increase curiosity, but it must still require students to read, listen, speak, or write. Therefore, the key design principle is alignment: game elements should support language objectives, not replace them.

Implementation Challenges and Design Risks

The literature also shows that gamification has limitations. Competition may create anxiety, especially among learners with low proficiency. Points may shift attention from mastery to reward collection. Time pressure may encourage guessing rather than thinking. Badges may lose motivational value if they are too easy or unrelated to learning progress. Leaderboards may repeatedly privilege high-achieving students and marginalize others. These risks show that gamification must be inclusive and pedagogically controlled.

Another challenge is novelty effect. Students may initially respond positively because gamified activities feel new, but motivation may decline if tasks become repetitive. This is a major concern in English language learning because long-term language achievement requires sustained practice. To avoid novelty decline, teachers need to vary tasks, rotate game mechanics, increase challenge gradually, and connect gamified activities with authentic communicative goals.

Assessment validity is also a concern. Many gamified platforms measure speed and accuracy in closed-ended tasks. These indicators may be useful for vocabulary recognition or grammar drills, but they do not fully represent speaking fluency, writing quality, reading interpretation, or pragmatic competence. Therefore, gamified assessment should be combined with performance-based tasks, rubrics, teacher feedback, peer assessment, and reflective journals.

Table 5 Risks of Gamification and Pedagogical Responses

Risk	Possible effect	Pedagogical response
Excessive competition	Anxiety and reduced participation among low-proficiency learners	Use team-based and mastery-oriented challenges
Reward dependence	Students focus on points rather than language learning	Link rewards to clear learning criteria and reflection
Superficial engagement	Students click quickly without understanding	Require explanations, evidence, and follow-up tasks
Novelty effect	Motivation decreases after repeated use	Vary mechanics and connect tasks with authentic communication
Assessment limitation	Scores capture speed more than communicative competence	Combine gamified quizzes with rubrics and performance tasks
Digital access inequality	Some students cannot participate equally	Provide low-bandwidth, offline, or group-based alternatives

Source: Synthesized from reviewed literature.

These challenges do not mean that gamification should be avoided. They indicate that gamification should be designed carefully. Teachers need to decide what language objective is being taught, what behavior needs to be encouraged, what feedback students will receive, how students will use the language, and how achievement will be assessed. Gamification is most effective when it is embedded in a coherent instructional sequence rather than used as an isolated classroom entertainment activity.

2. Discussion

The teacher's role remains central. Gamified platforms may automate scoring, but they do not replace pedagogical judgment. Teachers must select appropriate content, calibrate difficulty, interpret scores, explain errors, support low-performing students, and connect gamified tasks with subsequent instruction. This aligns with technology-enhanced language learning research, which emphasizes that technology effectiveness depends on task design and implementation quality (Golonka, Bowles, Frank, Richardson, & Freynik, 2014; Kessler, 2018).

Theoretical and Pedagogical Implications

Theoretically, the synthesis indicates that gamification is not a single intervention but a family of design decisions whose effects differ by element. Elements that make progress visible, such as levels and progress bars, are associated most consistently with sustained participation, whereas competitive elements such as leaderboards produce engagement for some learners and withdrawal for others. This pattern is difficult to reconcile with accounts that treat gamification as uniformly motivating, and it is better explained by self-determination theory, in which an element supports motivation when it strengthens perceived competence and autonomy and undermines it when it shifts attention from the task to the reward.

Pedagogically, three implications follow. First, teachers should select game elements against a stated learning purpose rather than adopting a platform wholesale, since the reviewed evidence attributes outcomes to specific elements rather than to gamification in general. Second, competitive elements should be used with care and preferably at group rather than individual level, because the reviewed studies repeatedly report that public ranking demotivates lower-performing learners. Third, the language objective must remain visible within the game structure; the studies reporting achievement gains were those in which the game mechanic required the target language, while those reporting engagement without achievement typically added game elements around unchanged content.

Limitations and Directions for Future Research

This review has several limitations. First, it is a structured narrative review rather than a meta-analysis, so it describes patterns across studies without quantifying effect sizes. Second, the searches were limited to publications in English and Indonesian, which may have excluded relevant work in other languages. Third, the reviewed studies define and measure engagement in markedly different ways, which limits how far their findings can be compared. Fourth, most reviewed studies ran for a single term or less, so the reported engagement gains may reflect novelty rather than durable change. Future research could conduct component-level meta-analyses that separate the effects of individual game elements, adopt shared operational definitions of engagement, run longer implementations that test for novelty decay, and report gamification designs in enough detail for replication.

D. Conclusion

This article examined the effects of gamification on students' engagement and achievement in English language learning through a structured narrative review and pedagogical synthesis of international literature. The findings indicate that gamification can enhance behavioral engagement by increasing participation, persistence, task completion, and response frequency; emotional engagement by strengthening enjoyment, confidence, and willingness to participate; cognitive engagement by encouraging goal monitoring, repeated practice, strategy use, and feedback-driven revision; and social engagement by promoting peer interaction and collaborative learning. Achievement effects are most visible in vocabulary, grammar, listening, formative assessment, and fluency-oriented interaction when gamified tasks provide repetition, immediate feedback, progression, challenge calibration, and meaningful language use. However, gamification does not automatically improve learning. Its effectiveness depends on the alignment between game elements and language objectives, the quality of feedback, teacher facilitation, learner diversity, assessment validity, and inclusive access. Poorly designed gamification may cause superficial engagement, excessive competition, reward dependence, anxiety, and distraction from communicative meaning. The study concludes that gamification should be implemented as pedagogically purposeful language learning design rather than as entertainment or reward decoration. Future research should conduct classroom-based quasi-experimental and mixed-method studies to examine the long-term effects of gamification on English proficiency, engagement trajectories, speaking confidence, writing quality, and learner self-regulation in different EFL contexts.

Declaration of AI-Assisted Technologies

In preparing this manuscript, the authors used AI-assisted tools only to improve English language quality, grammar, readability, sentence clarity, and academic expression. The AI tools were not used to generate research data, conduct data analysis, produce findings, or draw conclusions. All conceptual arguments, data interpretation, methodological decisions, and scholarly conclusions remain the full responsibility of the authors. The authors carefully reviewed, edited, and verified all AI-assisted outputs to ensure the accuracy, integrity, and originality of the final manuscript.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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