

Incorporation of Gamification in ESL Classrooms: Applications, Challenges And Future Implications

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Abstract. The integration of game design elements in teaching English to English as Second Language (ESL) learners has gained tremendous attention as pedagogical research increasingly demonstrates that gamification enhances learners' motivation, engagement and proficiency level. However, despite growing empirical evidence supporting gamification's effectiveness for vocabulary and grammar acquisition, substantial gaps persist regarding implementation sustainability and long-term effectiveness. To shed some light on this gap, this paper investigates the multifaceted incorporation of gamification in ESL instruction by exploring: (1) practical applications and pedagogical implementation of gamification in ESL classrooms; (2) pedagogical and psychological challenges that constrain effective gamification integration; and (3) recommendations for sustainable gamification design that optimizes long-term language proficiency development. The researcher discovers common pedagogical approaches in English classes that are highly incorporated by English instructors which are expected to enhance English language learning and how the approaches pose critical challenges to instructors and ESL learners, especially towards their linguistic authenticity, vocabulary acquisition, and intrinsic motivation. This paper also discusses future implications of incorporating gamification in ESL classrooms, by highlighting the presence of artificial intelligence (AI), immersive technology like augmented and virtual reality, and adoption of multimodal approach to enhance students' engagement in the learning process. This serves as a guide to turn gamification as an effective pedagogical tool in improving ESL learners' English proficiency level.

Keywords: *gamification; English instructors; ESL learners; proficiency level; vocabulary*

Abbreviations. 1) ESL: English as Second Language, 2) AI: Artificial intelligence

INTRODUCTION

Driven by the growth of technology, gamification has emerged as an innovative approach to enhance English language learning among English as Second Language (ESL) learners. Gamification is a strategy that integrates game features such as points, leaderboards, badges, and narratives into a conventional classroom setting to boost students' understanding, engagement and motivation.

In the language education ecosystem, gamification signifies a shift from traditional one-way learning towards interactive, learner-centered experience [1]. This shift is mainly driven by the need to boost learner engagement, motivation, and self-reliance, which are recognised as some of the major hindrances in foreign language acquisition [2].

The application of gamification in ESL is not merely about 'playing games' but includes the use of game elements, such as points, levels, characters, leaderboards and badges, as well as game dynamics like competition, collaboration and achievement, to achieve the lesson's objectives. These elements are designed to trigger both intrinsic and extrinsic rewards, encouraging learners to be more active in the learning process [3].

This paper discusses three main facets of gamification in ESL: 1) its application in ESL classrooms, 2) the challenges faced by language instructors, and 3) the future implications recommended by current trends. By comparing and synthesizing evidence from past studies, this paper aims to provide a clearer path for instructors and institutions seeking to leverage gamification effectively.

LITERATURE REVIEW

Recent work has also examined gamification in English learning in higher-education settings and across learner proficiency levels [4], [5].

Methods and Approaches

The increasing interest in gamification as an engaging tool to enhance classroom teaching and learning activities has led to a surge of scholarly attention in recent studies. The literature on gamification in ESL utilises a variety of research methodologies to assess its implementation and effectiveness. A huge portion of the literature conducted systematic reviews that provides overviews of gamification trends, especially in the past decade [6], [7], [8], [9]. These reviews categorize studies by educational level, targeted skills, and the gaming elements implemented.

Experimental and quasi-experimental designs are also popular, where researchers adopted pre- and post-tests to measure linguistic improvement. For instance, recent studies have compared gamified instruction against traditional methods to assess its impact on idiomatic knowledge [10], vocabulary acquisition [11], and speaking fluency [12].

While quantitative metrics track measurable linguistic gains, qualitative approaches provide essential context regarding the implementation. These approaches illuminate the complex "how" and "why" behind student responses, shedding light on peer interactions, shifts in classroom culture, and individual student attitudes toward gamified tasks. Furthermore, capturing teacher perspectives reveals the realities of adopting these tools, including technical friction, preparation workload, and pedagogical adaptations [13]. Understanding these subjective dynamics ensures that game mechanics are evaluated not just as isolated instructional tools, but as active components within a living, interactive classroom ecosystem.

The design and evaluation of gamified language interventions rely heavily on established psychological and pedagogical frameworks that explain how mechanics translate into cognitive and motivational outcomes:

Self-Determination Theory (SDT): Centered on fulfilling the core human psychological needs for autonomy, competence, and relatedness. In gamified ESL contexts, autonomy is fostered by allowing learners agency over their learning paths or avatar choices; competence is built through clear, incremental feedback loops like badges or progress bars; and relatedness is cultivated through collaborative team quests or peer challenges, altogether driving intrinsic motivation to use the target language [14].

Flow Theory: Emphasizes striking a delicate balance between the difficulty of a language task and the learner's current skill level. If a gamified challenge is too demanding, it induces anxiety; if it is too simple, it leads to boredom. Maintaining this equilibrium keeps students in a state of optimal cognitive engagement ("flow"), where they become deeply immersed in language practice without experiencing cognitive overload [15].

ARCS Model: Focuses systematically on four pillars of motivational design; Attention, Relevance, Confidence, and Satisfaction. Gamification captures Attention through novel, interactive media; establishes Relevance by simulating real-world communicative tasks; builds Confidence via low-stakes, repeatable trials; and delivers Satisfaction through immediate recognition of effort and mastery [14].

Zone of Proximal Development (ZPD): Grounded in Vygotskian learning theory, game-based systems leverage dynamic scaffolding, such as automated hints, adaptive difficulty levels, and progressive peer collaboration to bridge the gap between what a language learner can accomplish independently and what they can achieve with targeted support [11].

Despite the growing body of literature supporting gamification in language education, several prevailing methodological constraints limit the generalizability of current findings. A significant portion of existing research relies on short-term intervention periods, making it difficult to determine whether positive outcomes reflect genuine acquisition or merely temporary excitement caused by novel software. Additionally, many studies are constrained by small sample sizes, reducing statistical power and limiting cross-cohort comparisons. Finally, the research base exhibits a marked geographical concentration, predominantly situated in specific Asian contexts which leaves a gap in understanding how gamified methodologies translate across differing socio-cultural traditions, institutional structures, and resource levels globally.

APPLICATION OF GAMIFICATION IN ESL CLASSROOMS

The applications of gamification in ESL classrooms are extensive, ranging from simple classroom activities to sophisticated digital ecosystems. These applications are generally categorized by the tools utilized, the linguistic skills targeted, and the educational level of the learners. A wide array of digital tools has been adopted to facilitate gamified learning. These can be broadly divided into three categories: 1) language learning applications, 2) gamified classroom response system, and 3) comprehensive gamification platform.

The first category highlights the use of applications that focus solely on language learning. Platforms like Duolingo, Babbel, Busuu, and Memrise are frequently cited for their ability to provide bite-sized, gamified

lessons that incorporate immediate feedback and progress tracking [14], [16]. These applications often use a "level-up" structure to keep learners engaged over long periods. In addition, specialized tools like Baicizhan and Shanbay focus on vocabulary, while FluentU and HelloTalk emphasize authentic content and communication [17].

The second category, gamified classroom response system, differs from the first category where it could be personalized with non-language lessons. Two of the most utilised tools in ESL classrooms are Kahoot! And Quizziz [11]. According to Zhang & Hasim [9], these platforms allow teachers to create competitive quizzes that students join via mobile devices, leveraging real-time leaderboards to create a lively environment. Other similar tools include Wordwall, Genially, and Book Widgets.

Sharifuddin & Abdullah [18] identified the third category, comprehensive gamification platforms, as a type of more complex platform where it allows instructors to gamify the entire classroom experience, turning behavior management and academic tasks into an ongoing role-playing game. Some popular platforms include Classcraft and Class Dojo. In addition, researchers have developed tools that can be personalised, like 'VocScape', which uses an "Escape Room" concept for vocabulary learning [11], and 'Chatmate' (Arcanetales 2.0), a warrior-themed RPG for teaching basic communication [19]. Traditional analog elements, such as card games, bingo, and newspaper terminology sheets, also remain effective, particularly when integrated into models like the CSLS (Card-Slide-Learning Sheet) model [20].

CHALLENGES IN INCORPORATING GAMIFICATION

Despite the documented benefits, the incorporation of gamification in ESL faces a multifaceted set of challenges that can hinder its effectiveness.

Technical and Infrastructural Constraints

A primary obstacle is the digital divide. In many regions, such as rural Sarawak or developing contexts in Asia, limited digital portability, poor internet connectivity, and lack of adequate facilities prevent the consistent use of online gamified tools [14]. Furthermore, even in technologically advanced settings, technical glitches and the need for constant updates can distract the flow of a lesson [13].

Pedagogical and Design Risks

The "meaningless gamification" trap is a significant concern. This occurs when game elements (like points or badges) are added to a curriculum without careful alignment with pedagogical objectives, leading to a superficial experience that fails to support deep learning [15]. Additionally, an over-reliance on extrinsic rewards where students only participate for the sake of the game can potentially undermine intrinsic motivation in the long term [3].

Designers also face the "One Size Does Not Fit All" problem; game mechanics that motivate one student might frustrate another. For instance, timed games or high-pressure leaderboards can cause anxiety and intimidation, particularly for lower-achieving students or those with a less competitive personality [21], [22].

Human Factors: Teacher and Student Barriers

Teachers are often the most stressed by gamification. The literature highlights a pervasive lack of training and expertise in digital game-based learning [23]. Designing relevant, engaging scenarios and managing the technical aspects requires significant preparation time that many educators simply do not have [20]. Furthermore, gamified activities can lead to classroom management issues, including "chaos" in overcrowded rooms, competitive tensions among students, and noise levels that may disturb other classes.

On the student side, some learners may simply prefer traditional, structured methods and view gamification as a distraction or "not serious" learning [16]. There are also concerns regarding excessive screen time and the potential for gamification to create an environment where high-achievers face setbacks due to the luck-based elements often found in games [13].

FUTURE IMPLICATIONS

The evolution of gamification in ESL is moving toward more sophisticated integrations of technology and a deeper understanding of learner psychology.

Emerging Technologies and Innovations

Developments in gamification in the field of English as a second language are witnessing a transition from basic point systems and leaderboards to complex mechanisms in which technology plays a deciding role. Three key developments in particular will define the future of gamified language learning in that they will contribute to making such platforms more adaptive, contextual, and immersive.

Artificial intelligence (AI) has the potential to fundamentally change the way gamified language learning takes place by making it more personalized. Gamification, in many ways, relies on generic systems and functions. While these can provide language students with a much-needed break from traditional pedagogy, they rarely account for their varying degrees of proficiency and specific needs in learning the language. However, AI-driven programs can overcome this limitation by constantly analyzing the performance of the student and responding accordingly in terms of difficulty level, particular areas of focus, and type of challenges introduced. This approach will ultimately keep students engaged by preventing the overuse of simple constructions at lower levels of proficiency and ensuring adequate levels of complexity at higher levels of proficiency [1].

Immersive technologies such as augmented and virtual reality are set to redefine the boundaries of language practice by contextualizing it within engaging environments. In short, such platforms allow students to put their language skills to the test in realistic settings in which they would actually have to communicate with others. Language practice can become much more practical and less reliant on generic textbook materials [1]. Moreover, such technology makes language learning less intimidating and more accessible to those whose apprehension may prevent them from practicing outside the classroom.

Beyond the use of immersive settings, future developments in gamification will also see designers adopting a more multimodal approach to support the learning process. In other words, games will rely on a combination of visual, aural, tactile, and spatial cues to facilitate retention in a manner that goes beyond visual and auditory displays characteristic of computer screens. This approach has been found to be particularly useful for students who benefit from multisensory experiences, which ultimately supports language retention and prevents the perception of language learning as a chore [8].

Directions for Future Research

While the current body of literature highlights the immediate promise of gamification in ESL settings, moving the field forward requires addressing several structural and methodological gaps. To build a more robust, scalable foundation for gamified language teaching, future scholarship must prioritize the following avenues.

The existing literature examines short-term interventions, often capturing initial spikes in learner engagement that may simply stem from the novelty of the platform. Hence, longitudinal research is essential to observe whether the positive impacts of gamification in motivation, vocabulary retention, and grammatical proficiency are sustainable in the long run. Tracking cohort development over extended timelines will help clarify whether gamification acts as a reliable driver of long-term language acquisition or merely a temporary booster.

Much of the current data originates from resource-rich environments, leaving a significant gap in our understanding of how gamified methodologies perform under different socioeconomic and cultural conditions. Future studies must expand into rural or underserved regions. Investigating these varied educational environments will determine whether current gamification frameworks are universally adaptable or if they require distinct localization to suit differing levels of language proficiency.

The success of any classroom technology depends heavily on the educators tasked with its day-to-day execution. However, current research rarely accounts for the operational challenges, emotional labor, and digital literacy demands placed on teachers managing gamified systems [17]. Future work must explore how institutional constraints, professional development access, and teacher attitudes impact the incorporation of gamification. Examining these pedagogical and systemic realities will ensure that proposed digital strategies are not just effective in theory, but sustainable and practical in real-world classrooms.

CONCLUSION

The incorporation of gamification in ESL instruction represents a powerful response to the ongoing challenge of engaging 21st-century learners. By leveraging tools like Kahoot!, Duolingo, and immersive RPGs, instructors can transform vocabulary drills and grammar exercises into motivating, interactive experiences that span all educational levels. The applications are as varied as the learners themselves, targeting everything from basic pronunciation to complex critical thinking.

However, the path to effective gamification is fraught with challenges. Technical disparities, the risk of design-to-curriculum misalignment, and the significant burden on teachers require careful consideration. Gamification is not a "magic tool" but a complex pedagogical tool that demands strategic integration, adequate resources, and professional development.

As we look to the future, the integration of AI and immersive technologies promises to further personalize and enhance the ESL learning experience. By addressing current research gaps, particularly the need for longitudinal evidence and better teacher support, the educational community can move toward a future where

gamified language learning is not just an innovative trend, but a robust and inclusive standard of ESL education.

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