



The Effectiveness of Gamification in Enhancing English Language Learning Outcomes

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Abstract: This study investigates the effectiveness of gamification in enhancing English language learning outcomes among learners. Gamification, defined as the integration of game elements such as points, badges, leaderboards, and challenges into non-game settings, has gained widespread popularity as an innovative and motivating instructional approach in education. The primary goal of this research is to evaluate how gamified strategies impact learner engagement, motivation, and overall language proficiency in English classrooms. To achieve this, a quasi-experimental design was employed, involving two groups of learners: an experimental group exposed to gamified learning activities and a control group receiving traditional instructional methods. Data collection included pre- and post-assessments on language skills, as well as surveys measuring learners' motivation and engagement levels. Analysis of the collected data reveals that the group learning through gamification demonstrated significantly higher gains in language proficiency compared to the control group. Additionally, the gamified group reported enhanced motivation and participation, indicating that gamification positively influences learners' attitudes toward language learning. These findings suggest that incorporating game elements into English language teaching can create more dynamic, interactive, and enjoyable learning environments. Gamification not only fosters cognitive development but also satisfies psychological needs such as autonomy, competence, and relatedness, which are essential for sustaining motivation. Therefore, this study supports the use of gamified pedagogy as a promising tool to improve educational outcomes, particularly in language acquisition. Future research is encouraged to explore long-term effects and optimal design strategies for gamified learning applications.

Keywords: Gamification, English Language Learning, Learner Engagement, Motivation in Language Learning, Language Proficiency

1. INTRODUCTION

Learning English as a second or foreign language has become increasingly crucial in today's interconnected and globalized society. English holds a unique status as the lingua franca for international communication, business, academia, tourism, and digital interaction. Mastery of English language skills empowers individuals to access broader educational resources, pursue global career opportunities, and participate effectively in cross-cultural exchanges (H. Zhang, 2024). Accordingly, millions of learners worldwide invest significant time and effort in acquiring English proficiency. However, the path to successful language acquisition is often fraught with challenges stemming from traditional teaching methodologies that may be ill-suited to sustaining learner motivation and promoting meaningful engagement (Haryadi & Aminuddin, 2023).

Traditional language instruction has historically relied on rigid, teacher-centered approaches characterized by rote memorization, grammar-focused drills, repetitive vocabulary exercises, and standardized tests. While these methods establish foundational knowledge, they often neglect the affective and motivational dimensions of learning that critically influence learner success (Ariza, 2002). Many language learners report feelings of boredom, frustration,

and anxiety as a result of these conventional techniques, which can stifle creativity and limit opportunities for practical application or communicative competence (Yassin et al., 2023). As a result, learners may have difficulty transferring classroom learning to real-world contexts, reducing both the effectiveness and long-term retention of language skills.

In response to these challenges, modern education has increasingly turned to innovative pedagogical strategies that integrate insights from psychology, cognitive science, and technology to create learner-centered environments conducive to sustained motivation and active learning. One such approach that has garnered substantial attention is gamification — the application of game design elements and principles in non-game contexts to enhance user experience and engagement (Persada, 2023). Gamification exploits well-documented psychological drives such as competition, achievement, curiosity, and social interaction to motivate learners (Clarice et al., 2023; Yassin et al., 2023). By embedding features like points, badges, levels, leaderboards, challenges, and instant feedback into educational activities, gamification transforms mundane classroom tasks into engaging and interactive experiences.

State of the Art in Gamification for Language Learning

Over the last decade, the proliferation of digital learning technologies has catalyzed the adoption of gamification across various educational domains, including language learning. Research in this arena indicates that gamified environments can positively influence learners' motivation, engagement, and persistence—key factors closely linked to academic achievement. Unlike passive, traditional e-learning methods that often emphasize content consumption, gamified platforms actively involve learners by incorporating elements that satisfy intrinsic motivational needs identified in Self-Determination Theory (SDT). SDT posits three fundamental psychological needs that support optimal motivation: autonomy (sense of control over one's actions), competence (feeling effective and capable), and relatedness (social connection and belonging). Well-designed gamified systems strive to meet these needs by allowing learners to make choices, achieve incremental mastery, and engage socially with peers or instructors.

Specifically in English language learning, gamification signifies a shift away from monotonous rote memorization to a more dynamic, interactive methodology that embeds linguistic tasks within game-like contexts. Many cutting-edge educational technology platforms now utilize gamification to enhance learning efficacy. For instance, apps such as Duolingo, Babbel, and Memrise have attracted millions of users globally by offering language lessons structured through points accumulation, streaks for consecutive days of practice, friendly competition via leaderboards, and immediate corrective feedback. These gamified features have contributed to improved learner retention, higher motivation levels, and increased frequency of practice sessions.

Recent meta-analyses and empirical studies have documented gamification's benefits in language education, including enhanced vocabulary acquisition, improved grammar skills, and increased learner autonomy. Furthermore, gamified interventions can foster an immersive and stress-reduced learning atmosphere, which is particularly beneficial for second language acquisition where anxiety can impede progress. Technology-enabled gamification also facilitates personalized learning pathways, adaptive challenges based on learner proficiency, and real-time data analytics for educators to monitor progress and tailor instruction.

Novelty and Research Gaps

Despite these promising developments, several gaps and controversies persist in the current landscape of gamification research in English language learning. First, empirical evidence on the direct impact of gamification on measurable language proficiency outcomes remains mixed. While some studies report statistically significant improvements in test scores and communicative competence among gamified groups, others find negligible or short-lived effects, raising questions about the sustainability and depth of learning gains. The variability in results often relates to differences in gamification design quality, contextual factors, learner demographics, and study methodologies.

Moreover, there is concern that an overemphasis on extrinsic rewards such as points and badges might undermine intrinsic motivation, leading learners to focus more on superficial achievements than authentic language mastery. Additionally, competition-based gamification can have unintended negative effects on learners who are less confident or competitive, potentially exacerbating anxiety or disengagement.

Another important consideration is the role of learner perceptions and attitudes towards gamified learning. Understanding how students interpret and respond to game elements provides crucial insight into both motivation and learning effectiveness. This learner-centered perspective has received relatively limited examination to date.

Purpose and Research Questions

Given the state of the art and existing gaps, this study aims to advance understanding of gamification's pedagogical value in English language teaching by conducting a quasi-experimental investigation within real classroom settings. This approach allows for a controlled comparison between gamified instruction and traditional pedagogies, while capturing authentic learner experiences.

The study specifically addresses the following research questions:

1. Does gamification improve learner motivation in English language classes?
2. How does gamification impact learners' English language proficiency compared to traditional instructional methods?
3. What are learners' perceptions and attitudes toward gamified learning experiences in the language classroom?

By answering these questions, the research seeks to provide comprehensive evidence on the effectiveness, advantages, and potential pitfalls of gamification. The insights garnered will inform language educators on how best to integrate gamified strategies to enhance motivation and skill acquisition. Curriculum designers and educational technology developers will also benefit from understanding key design features that contribute to meaningful learning outcomes.

2. LITERATURE REVIEW

Definition of Gamification

Gamification refers to the application of game design elements, mechanics, and principles in non-game contexts to motivate and engage users toward specific goals (Buckley et al., 2018). Unlike games themselves, which are designed primarily for entertainment, gamification incorporates elements such as points, badges, leaderboards, challenges, and rewards into everyday activities or tasks, with the purpose of increasing participation, engagement, and motivation.

In the context of education, especially language learning, gamification transforms traditional learning environments into immersive, interactive experiences that simulate game-like scenarios. Through this transformation, learners experience a more dynamic and stimulating process that appeals to their intrinsic and extrinsic motivations (Thurairasu, 2022). For example, vocabulary exercises might be rendered as quizzes with points and badges for high scores, speaking practice may involve interactive challenges, and progress can be visualized on leaderboards to foster healthy competition among learners.

The key to effective gamification lies in its ability to leverage natural human desires for play, competition, achievement, social interaction, and recognition. It taps into psychological motivators that games typically exploit, thus making learning feel less like a chore and more like an engaging activity (de Arruda Pollice & Scarcelli, 2024; Vignarajah, 2025). For educators, this opens up new possibilities for addressing common challenges such as learner disengagement, low motivation, and passive participation.

Learning Theories Related to Gamification

Gamification in education is supported and explained by several core learning theories that elucidate how and why game elements can enhance learning (Ariza, 2002; Yassin et al., 2023).

Behaviorism

Rooted in the works of Skinner and Pavlov, behaviorism emphasizes learning as a change in observable behavior brought about by external stimuli and reinforcement (Miftahul Ulum & Ahmad Fauzi, 2023). Gamification aligns with behaviorism through the frequent use of rewards, feedback, and reinforcement schedules. Points, badges, and levels serve as immediate positive reinforcements that encourage repetition of desired behaviors, such as completing language exercises or actively participating in class activities. This reinforcement helps to strengthen learner habits and increase engagement through clear feedback loops.

Constructivism

In contrast to behaviorism's focus on external stimuli, constructivism stresses the learner's active role in constructing knowledge through experience and interaction with their environment (Giannoukos, 2024; Khadka, 2024). Gamification supports constructivism by creating active learning environments where learners engage with content in meaningful ways. Game elements such as challenges, quests, and problem-solving scenarios encourage learners to explore, experiment, and collaborate, which fosters deeper understanding and retention (Benjamin, 2025; Katual et al., 2023). For language learners, constructivist

gamification might involve role-playing dialogues, interactive storytelling, or collaborative missions that simulate real-life communication.

Self-Determination Theory

One of the most influential frameworks for understanding motivation in gamified learning is Self-Determination Theory (SDT) (Li et al., 2025; Xia et al., 2022). SDT highlights three basic psychological needs: competence, autonomy, and relatedness. Gamification can satisfy these needs by providing learners opportunities to:

- Feel competent through achievable challenges and constructive feedback,
- Experience autonomy by choosing tasks or customizing their learning path,
- Foster relatedness through social interactions, collaboration, or competition within gamified environments.

By fulfilling these psychological needs, gamification enhances intrinsic motivation, which is more sustainable and effective for long-term learning than external motivators alone.

Flow Theory

Another theoretical underpinning is Flow Theory (Stidham, 2022; Yli-Olli, 2024), which describes a state of optimal experience where individuals are fully immersed and focused on an activity that balances challenge and skill level. Gamification strives to facilitate flow states during learning by adapting difficulty, providing immediate feedback, and maintaining engagement through progressive challenges. Flow enhances enjoyment and concentration, which are critical to language acquisition and skill development.

Previous Studies on Gamification in Language Learning

Recent empirical research has extensively explored the impact of gamification in the specific domain of language learning, revealing generally positive outcomes but also highlighting conditions for success (Dehghanzadeh et al., 2021).

Motivation and Engagement

Multiple studies have found that gamified language learning environments significantly increase learner motivation and engagement, two factors crucial for sustained learning. (Q. Zhang, 2025) demonstrated that implementation of points, badges, and leaderboards raised participation rates and learner enthusiasm in English vocabulary acquisition. Similarly, (Aminah et al., 2024; Q. Zhang, 2025) showed that gamification led to greater learner persistence, reduced dropout rates, and higher satisfaction in an ESL (English as a Second Language) course.

Vocabulary Acquisition

The use of gamification has been linked to improvements in vocabulary learning. Through repetitive, game-based exercises such as flashcard games, timed quizzes, and matching challenges, learners experience more frequent exposure and active recall, boosting retention. For instance, researchers observed that learners using digital language apps with gamified features outperformed peers in vocabulary tests (Liu et al., 2024).

Speaking and Communication Skills

Gamification also positively affects speaking skills. Interactive speaking tasks embedded in games—such as role-plays, simulations, and dialogue challenges—provide contextualized opportunities for practicing pronunciation, fluency, and conversational skills in a low-pressure environment (Ho-Minh & Suppasetserree, 2025). By making speaking tasks fun and rewarding, learners become more willing to take risks and communicate.

Social Interaction and Collaboration

Several studies underline the role of social gamification elements (e.g., multiplayer games, team challenges, leaderboards) in promoting meaningful communication and collaboration among language learners. Group-based gamified activities encourage peer learning, discussion, and mutual support, which are important in language acquisition (Tinkle-Williams, 2022).

Caution and Design Considerations

Despite the benefits, some studies warn about potential pitfalls. Poorly designed gamification can backfire by undermining intrinsic motivation if learners feel manipulated or extrinsically pressured (Mogavi, 2023). Overemphasis on competition can induce stress or disengagement in less confident learners. Additionally, if game elements distract from core learning objectives or are not aligned with pedagogy, they may reduce educational effectiveness. Consequently, thoughtful, learner-centered design and alignment with educational goals are critical for success.

3. METHODOLOGY

Research Design

This study uses a **quasi-experimental design** to examine the effectiveness of gamification in enhancing English language learning outcomes. Two groups of learners were involved: the experimental group receiving gamified instruction and the control group relying on traditional teaching methods. This design allows for comparing pre- and post-test results within and between groups to determine whether gamification has a significant positive impact on learning outcomes (Warsah et al., 2021).

Participants

The participants were 60 English language learners aged 16-22, recruited from a local language school. They were divided into two groups of 30 each, matched for initial English proficiency based on a standardized placement test. Both groups had similar backgrounds in terms of age, gender, and prior English learning experience, ensuring comparability.

Research Instruments

Data collection instruments included:

- **English proficiency tests (pre-test and post-test):** These measured learners' vocabulary, grammar, reading, and listening skills to assess learning gains.

- **Motivation questionnaire:** Adapted from the Language Learning Motivation Scale, it assessed learners' intrinsic and extrinsic motivation before and after the intervention.
- **Observation checklist:** Used by the instructor to monitor learners' engagement, participation, and behaviors during the learning activities.
- **Learners' feedback form:** Collected qualitative data on learners' perceptions and attitudes toward the gamified learning experience.

Procedure

The study was conducted over an 8-week period. Both groups followed the same curriculum content, but the experimental group experienced gamification elements integrated into lessons, such as earning points for completing activities, badges for milestones, challenges, and leaderboard rankings. The control group received conventional instruction without these game elements.

1. **Week 1:** Pre-test and motivation questionnaire administered to both groups.
2. **Week 2-7:** Instruction period with respective teaching methods. Observations recorded by the instructor.
3. **Week 8:** Post-test and motivation questionnaire administered; learners' feedback collected from the experimental group.

Data was analyzed quantitatively using statistical tests (e.g., paired t-tests, ANCOVA) to compare pre- and post-intervention differences and qualitatively through thematic analysis of feedback.

4. RESULTS AND DISCUSSION

Results

Data Description

The present study was conducted with a total sample of 60 participants, all of whom were English language learners. These participants were randomly assigned to two groups to ensure balanced characteristics: an experimental group ($n = 30$) that engaged with the gamified learning environment, and a control group ($n = 30$) that experienced traditional, non-gamified instructional methods. Prior to the intervention, a pre-test was administered to all participants to assess their English proficiency levels. The statistical analysis of the pre-test scores confirmed that there was no significant difference between the two groups in terms of their initial English language ability ($p > 0.05$), establishing a comparable baseline for subsequent comparisons.

Following the intervention period, which spanned several weeks, a post-test was conducted using the same standardized English proficiency assessment tools. The post-test scores revealed an overall improvement in English proficiency across both groups. However, the increase in the experimental group was substantially higher than that observed in the control group. Specifically, the mean score improvement in the experimental group was approximately

double that of the control group, indicating a more pronounced learning gain attributed to the gamification strategies employed.

In addition to proficiency testing, learner motivation was measured through a validated motivation scale administered before and after the intervention. Motivation scores among participants in the experimental group exhibited a marked increase post-intervention, whereas changes in the control group's motivation were minimal and statistically insignificant. This data suggests that the gamified approach not only influenced language competence but also positively affected learners' motivational states.

Qualitative data were gathered through observational records and participant feedback to complement the quantitative findings. Classroom observations during the gamified learning sessions noted heightened levels of engagement, increased frequency of active participation, and sustained attention among learners. Participants in the experimental group frequently displayed enthusiasm and initiative when interacting with gamified elements such as points, badges, and challenges. In contrast, observational notes from the control group sessions described more passive participation and lower observable motivation.

Furthermore, feedback collected via questionnaires and informal interviews revealed positive learner attitudes toward the gamification components. Many participants highlighted that the competitive yet collaborative nature of the gamified tasks fostered a fun and stimulating learning environment. They expressed appreciation for the immediate feedback mechanisms embedded within the system, as well as the sense of achievement derived from earning rewards and progressing through challenges.

Results Analysis

Quantitative analysis using paired t-tests revealed a statistically significant improvement in English proficiency scores from pre-test to post-test in the experimental group ($p < 0.01$). In contrast, the control group's progress, although positive, was less pronounced and not statistically significant ($p > 0.05$). Additionally, an ANCOVA test controlling for pre-test scores confirmed that the difference in post-test results between the groups was significant, demonstrating the effectiveness of gamification.

Motivation scores in the experimental group increased significantly ($p < 0.01$), indicating enhanced intrinsic motivation attributable to gamified learning, while the control group showed minimal change. Observational data supported these findings, as learners in the gamified environment exhibited more active participation and sustained attention.

Qualitative analysis of observational data highlighted behavioral indicators of increased engagement. Learners in the gamified setting were consistently observed initiating interactions, maintaining focus for longer periods, and actively seeking out challenges embedded in the learning activities. This contrasted with the control group, where learners displayed more passive behaviors, including less initiative and more frequent disengagement.

A thorough thematic analysis of qualitative feedback revealed several key themes regarding learners' experiences with gamification. First, participants frequently cited the "fun factor" as a primary motivator, emphasizing that gamified features transformed routine language practice into an enjoyable experience. Second, competitive elements such as leaderboards and scoring systems were perceived as drivers of effort and persistence,

encouraging learners to push their limits and visibly track their progress. Third, instant feedback provided through gamification mechanics was highly valued, as it enabled learners to promptly assess their performance and correct errors in real time.

Moreover, the recognition of achievements through badges and status symbols satisfied psychological needs, fostering a sense of accomplishment and boosting learners' confidence. This aligns with motivational theories suggesting that visible achievements reinforce positive learning behaviors.

However, some participants raised concerns about potential drawbacks. Excessive competition was noted to induce stress in certain individuals, highlighting the importance of balancing competitive and collaborative aspects to maintain a supportive learning environment. Additionally, a few learners expressed that game elements could sometimes distract from deeper cognitive engagement if the primary focus shifted toward earning rewards rather than mastering the content.

Discussion

Interpretation of Results

The results clearly demonstrate that *gamification is a powerful pedagogical tool* in language learning. The experimental group, which experienced gamified learning, had markedly higher post-test scores than the control group, indicating a substantial improvement in English language proficiency. This strongly suggests that gamification not only facilitates cognitive gains (improved language skills) but also positively influences affective factors like motivation.

The elevated motivation levels measured among the experimental group highlight gamification's role in fostering **intrinsic motivation**, which is often challenging to cultivate in traditional language education. Intrinsic motivation is crucial to learning, as it encourages learners to engage voluntarily and persistently with the material (Topushipambao, 2022).

The gamified learning environment incorporated specific elements such as *points, badges, and challenges*. These elements serve as external motivators that **capture learners' attention and provide a continuous sense of achievement and progression**. Points act as immediate feedback, allowing learners to recognize incremental progress. Badges serve as tokens of success, increasing learners' sense of accomplishment and status. Challenges stimulate the learners' problem-solving and critical thinking skills, adding an element of fun and competition (Schöbel et al., 2022).

These gamified components satisfy several key psychological needs described by self-determination theory: *competence* (feeling effective in one's actions), *autonomy* (having control over one's learning), and *relatedness* (feeling connected to others). When these needs are fulfilled, learners are more likely to exhibit sustained engagement and enhanced learning performance.

The findings align closely with psychological theories of motivation and learning. Self-determination theory posits that satisfying the needs for competence, autonomy, and relatedness enhances intrinsic motivation, which leads to better learning outcomes. Gamification directly supports these needs through interactive and rewarding experiences.

Additionally, *constructivist learning theory* suggests that learners learn best when actively engaged in meaningful tasks. Gamified learning encourages active participation and collaborative problem solving, thus promoting deeper cognitive processing and retention.

The significant improvements in both proficiency and motivation for the experimental group suggest that integrating gamification into language curricula can be a practical and effective strategy. Teachers and curriculum designers should consider embedding gamified elements that provide immediate feedback, visibly recognize progress, and foster friendly competition or collaboration among learners (Nhan, 2024).

Moreover, gamification can help address common challenges in language education, such as learner disengagement and lack of motivation. By fostering an enjoyable and interactive learning environment, gamification can contribute to more personalized and adaptive learning experiences that keep learners motivated over time.

While the results are promising, several limitations must be acknowledged. Factors such as the novelty effect of gamification, sample size, and duration of the intervention may influence outcomes. Future studies could explore long-term impacts of gamification and its effectiveness across diverse learner populations and language proficiency levels. Additionally, research could examine which specific gamified elements have the greatest effect on different aspects of language learning, such as speaking, listening, reading, and writing.

In summary, the discussion underscores that gamification **significantly enhances English language learning outcomes** by boosting both proficiency and intrinsic motivation. By actively engaging learners and satisfying key psychological needs, gamified learning creates a more effective and motivating educational experience. This supports a growing body of research advocating for gamification as a valuable approach in language education.

Implications for English Language Learning

The **implications of gamification in English language learning are expansive and transformative**, repositioning traditional learning into a highly motivating, interactive, and enjoyable experience. Thoughtful integration of game design elements enables educators to enhance student engagement significantly, fostering a dynamic classroom atmosphere that balances both competition and collaboration. This approach is especially beneficial in contexts where students face motivational difficulties or lack immersive language opportunities, though it requires skillful alignment of gamification mechanics with learning objectives to maintain educational effectiveness and avoid distractions.

Integrating gamification in English language teaching *redefines conventional classroom dynamics*. It shifts a traditionally passive learning environment into one that is vibrant and engaging. The incorporation of features like scores, leaderboards, badges, and defined challenges turns learning into an interactive experience, encouraging students to become active participants rather than passive recipients of knowledge. This shift fosters a deeper connection with the content and invigorates their enthusiasm for language acquisition (Sharifuddin & Abdullah, 2023).

Gamification works by triggering learners' intrinsic and extrinsic motivation in tandem. The use of game elements instills a sense of progress and achievement, which can motivate

learners to continue persevering even when confronted with challenges. The balance between competitive elements (like leaderboards) and collaborative tasks creates an inclusive environment where students are motivated to outperform themselves and also support peers, promoting peer learning and camaraderie.

Teachers and curriculum designers play a crucial role in the success of gamified English learning environments. It requires deliberate **selection and design of gamification mechanics** that align tightly with learning objectives—for instance, quizzes that award points for accuracy and speed, or team-based challenges that encourage communication skills. The design must ensure that gamification complements rather than distracts from language skills development, balancing fun with rigor and pedagogical intention.

In many educational contexts, particularly where students have low motivation or lack immersive language environments (such as limited exposure to native English speakers), gamification serves as a valuable tool to recreate engaging experiences within the classroom or online settings. This can be pivotal in boosting learners' motivation, sustaining their interest, and providing a richer contextual experience for practicing English(Hardianti, 2024).

While gamification is promising, it is not without risks. Poorly designed game elements might lead to distractions or superficial engagement focused more on rewards than actual learning. Educators must take care to ensure that gamification supports meaningful language practice and reinforces learning outcomes. Strategic planning and ongoing evaluation of gamified interventions are essential to maximize benefits.

The insights from this study strongly encourage broader adoption of gamification in language education. Future practice should explore customizing gamified experiences to suit diverse learner needs and varying proficiency levels. Furthermore, integrating technology-enhanced gamified platforms could support personalized learning paths, adaptive challenges, and real-time feedback, making English learning even more effective and accessible(Khosiyat, 2023).

In conclusion, **gamification holds great potential to revitalize English language learning by creating motivating, interactive, and learner-centered experiences.** Its thoughtful application can overcome engagement barriers, contributing significantly to improved learning outcomes and sustained language practice motivation.

Limitations of the Study

While the study yielded highly promising results concerning the positive impact of gamification on English language learning, it is essential to acknowledge **several limitations** that could influence the interpretation and generalization of the findings. Recognizing these limitations not only provides transparency regarding the scope and validity of the study but also highlights areas for improvement and avenues for future research. The following sections present a comprehensive discussion of the primary limitations identified.

The study employed a **quasi-experimental research design**, which, although pragmatic and suitable for educational settings, intrinsically limits the strength of causal inferences that can be drawn. Unlike a fully randomized controlled trial (RCT), this design does not guarantee random assignment of participants to experimental and control groups. As a result, **selection biases** or pre-existing differences between the groups might have influenced

the outcomes, potentially confounding the effects attributed solely to gamification. Thus, while the association between gamification and improved language learning outcomes is clear, **definitive claims about causality remain cautious**. Future studies adopting randomized controlled trials would offer stronger validation of causal relationships by systematically controlling for confounding variables.

The study involved a relatively **small sample size of 60 participants**, all recruited from a **single language school**. While this sample was sufficient to detect statistically significant differences between the experimental and control groups within this setting, it poses limitations regarding the **generalizability** of the findings. Participants from one institution may share unique characteristics—such as socioeconomic background, motivation levels, cultural context, and English proficiency—that do not represent wider populations in other geographic or educational contexts. The **homogeneity of the sample** restricts the ability to confidently extrapolate results across diverse learner populations, including those from different age groups, proficiency levels, or learning environments (e.g., online vs. in-person). Therefore, expanding future research to involve larger, more diverse samples spanning multiple institutions and regions would strengthen the external validity and applicability of gamification approaches in varied educational contexts.

The intervention period of this study was limited to **eight weeks**, a relatively short timeframe for assessing language acquisition dynamics and motivational changes comprehensively. Language learning is a cumulative and gradual process, typically requiring sustained effort and exposure over extended periods. Consequently, an eight-week intervention may capture immediate effects but could fall short in assessing **long-term retention** of language skills, durability of motivation, or sustained engagement with gamified learning practices. It remains unclear whether the observed improvements would persist beyond the study period without continual gamified reinforcement. Future longitudinal studies tracking learners across multiple months or academic terms could provide deeper insights into how gamification impacts **long-term language retention, transfer effects, and motivational trajectories**, as well as potential diminishing returns or adaptation effects over time.

A notable limitation stems from the study's reliance on **self-reported motivation measures and observational data** to evaluate learners' psychological engagement and behavioral participation. Self-report instruments, while valuable for capturing participants' subjective experiences and perceptions, are vulnerable to various biases, including **social desirability bias**, recall inaccuracies, and response distortions. Participants might overreport motivation improvements or game enjoyment due to perceived expectations or a desire to please researchers. Similarly, observational data, though helpful in noting engagement patterns, can be influenced by observer bias or inconsistencies in coding behaviors. These factors might result in **inflated or skewed assessments of motivation and participation**, thus limiting the precision of conclusions regarding psychological impacts. Incorporating more **objective and automated data collection methods**—such as digital analytics from gamified platforms measuring real-time activity logs, time-on-task, response accuracy, or physiological indicators of engagement—would substantially enhance the robustness and reliability of outcome measurement in future studies.

The study primarily focused on a particular set of gamified elements—namely points, badges, and challenges—which are effective and widely used. However, gamification

encompasses a broad array of mechanics and game design features, including narratives, avatars, social interactions, levels, feedback systems, and reward schedules. By concentrating on a limited selection, the study may have overlooked other gamification strategies that could differently affect learning outcomes or motivation. Future research might explore varied or **hybrid gamification models**, adapt elements to learner preferences, and investigate which specific components or combinations optimize language acquisition and learner engagement.

While the study highlights the positive role of gamification, it also implicitly acknowledges that the **alignment between game mechanics and educational objectives is critical**. Poorly designed gamification can lead to distraction, superficial engagement, or reward-seeking behavior detached from meaningful learning. The study's integration approach, though carefully implemented, did not extensively analyze the **quality of alignment** or conduct detailed process evaluations to understand how specific game features supported particular language skills (e.g., vocabulary, grammar, speaking fluency). Future studies could incorporate **qualitative methods** like learner interviews, focus groups, and teacher feedback to explore how gamification meshes with pedagogical goals and how learners perceive its relevance to their language progress.

The study settings assumed access to certain technological resources and a classroom environment conducive to gamified instruction. However, in many real-world contexts—especially resource-constrained or rural settings—technical infrastructure shortages, limited internet access, or lack of teacher training in gamified pedagogy could hinder replication and effectiveness. The study did not extensively address these **contextual and infrastructural barriers**, which are crucial for scaling gamification implementation. Future research must consider **equity issues and contextual adaptability**, exploring how gamification can be optimized or modified to suit different technological availabilities and educational cultures.

Addressing these limitations opens fertile ground for future investigation. Expanded studies should include:

- **Randomized controlled trials** with larger, more diverse samples across multiple sites for rigorous causal inference and better generalizability.
- **Longitudinal designs** tracking language proficiency and learner motivation over extended periods.
- Use of **objective behavioral and digital analytics data** for precise measurement of engagement and learning progress.
- Inclusion of **varied gamification elements** and customization based on learner profiles.
- Mixed methods approaches combining quantitative and qualitative data for enriched insights into learner experiences, motivation, and curriculum alignment.
- Examination of scalability in **diverse educational contexts**, including low-resource settings.

In summary, while this study provides valuable initial evidence supporting the effectiveness of gamification in English language learning, its contributions must be interpreted within the context of its methodological and contextual limitations. Addressing these in future research

will help establish more definitive conclusions and practical guidelines for implementing gamified learning successfully across different learner populations and settings.

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

This study demonstrated that **gamification is effective in enhancing English language learning outcomes**, as evidenced by the significant improvement in language proficiency and motivation levels in the experimental group compared to the control group. Gamified learning increased learner engagement, participation, and enjoyment, supporting the notion that well-designed game elements can satisfy psychological needs and promote active learning. These results suggest that gamification is a promising pedagogical approach for English language education, capable of transforming traditional classrooms into dynamic and motivating environments.

Recommendations

Based on the findings, the following recommendations are proposed:

- **For educators:** Integrate gamification elements such as points, badges, and challenges in lesson plans to boost learner motivation and engagement. Ensure that game mechanics align with learning objectives to maintain a focus on educational outcomes.
- **For curriculum developers:** Design flexible and scalable gamified materials that can be adapted to different learner levels and contexts, making language learning more accessible and enjoyable.
- **For researchers:** Conduct longitudinal and large-scale studies to explore the long-term effects of gamification on language retention and proficiency. Employ randomized control trials and diverse participant samples to strengthen the generalizability of findings.
- **For technology developers:** Create user-friendly, interactive gamified platforms tailored for language learners that incorporate real-time feedback, adaptive challenges, and social features to foster competitive and collaborative learning.

In conclusion, gamification holds great potential to innovate English language teaching and learning. With continued research and thoughtful implementation, it can contribute significantly to improving learner outcomes and motivation in diverse educational settings.

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