



Exploring the Effects of Gamification on EFL Students' Grammar Skills: A Comprehensive Study of Engagement and Learning Outcomes

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Received: 26 June 2025/ Accepted: 30 September 2025/ Published: 13 October 2025

Abstract

In line with the current educational revolution, numerous high-tech devices have infiltrated the educational systems. Although it falls under the umbrella of the 21st century, the English language proficiency among many learners remains lagging. There is no doubt that many learners studying English as a Foreign Language face hurdles concerning grammar acquisition. In fact, the inherent nature of grammar has made it difficult to master due to its intricacy, which is why gamification has recently been widely adopted in English teaching as a teaching method. Thus, the present research work sought to examine the usefulness of games in enhancing grammar among EFL students. To this end, a total of 40 students took part in this research work. They were divided into two groups: an experimental group and a control group. This study has adopted a mixed-method approach for analysing quantitative and qualitative data. It involves analysing quantitative data collected from the pre-test and post-test for grammar proficiency and qualitative data from students' surveys. In addition, the acquired information was examined using descriptive and inferential statistics, which comprised two paired and one independent samples t-test. Numerical results exposed that the experimental group did better than the control one, showing a remarkable enhancement in the grammar competencies of EFL learners who engaged in gamified instructional activities in comparison to learners receiving traditional class instruction. Moreover, the investigation placed special emphasis on the improvement of learner participation and engagement alongside their positive attitude towards the learning of grammar.

Keywords: EFL students; English teaching; gamification; grammar skills

How to cite: Merine, A., & Maidi, M.E. (2025). Exploring the Effects of Gamification on EFL Students' Grammar Skills: A Comprehensive Study of Engagement and Learning Outcomes. *Journal of Innovation in Psychology, Education and Didactics*, 29(2), 161-174. doi:10.29081/JIPED.2025.29.2.02

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1. Introduction

In today's increasingly interconnected world, English language proficiency has become more and more important. Effective communication is enhanced by one's ability to communicate in English, which opens up opportunities for academic progress, career paths, as well as cultural exchange. Thus, educational institutions are making an effort to ensure that their students receive comprehensive language experiences, which could enhance their reading, writing, listening, and speaking skills. In fact, most of the traditional methods of teaching languages use repetitive exercises, memorization by rote, as well as being teacher-centered. These methods can sometimes be ineffective in involving students and thus decrease their interest in learning. With the advancement of technology, the scope of enhancing the learning process has received attention, especially in the field of pedagogy. Therefore, one of the strategies that has garnered significant interest is the use of gamification.

The incorporation of principles and elements from games into non-game contexts is known as gamification. This principle is being implemented within the context of education to improve learners' engagement and motivation throughout various disciplines, including language learning. In this context, the application of game-based elements such as levels, points, challenges, and badges can not only aid in making the integration of grammar lessons more engaging but can also provide a structured framework that simplifies intricate grammar rules. Therefore, the inclusion of game-based concepts into grammar lessons renders the learning process more holistic, engaging, and relaxed. This can stimulate learners' interest within the context of a grammar lesson and foster a more productive environment to assist them in learning. Transforming tedious grammar exercises into exciting adventures through the use of grammar games enables students to grasp the fundamentals of English and enhances their overall language proficiency.

Indeed, there are some critical reasons why comprehending the experiences and perspectives of learners in relation to gamified settings is necessary. It assists in evaluating how effectively the gamification elements integrated into the lesson meet the diverse needs and interests of all students. Secondly, evaluations from learners assist in refining the goals of the educational activity in relation to the requirements of the students. In addition, these evaluations are valuable in understanding the learners' success in language learning within the framework of games from psychological and motivational perspectives (Zhang & Hashim, 2023). To assess the effectiveness of this new approach, this study seeks to answer the following questions:

- To what extent does the incorporation of gamification in EFL classes improve students' retention of grammar rules?
- How do students perceive the use of gamified technology for grammar lessons?
- Do learners exposed to gamified contextual learning differ significantly from those taught with traditional methods in terms of grammar proficiency?

This research is significant for teachers, educational policymakers, and educational planners. By addressing the application of technology, gamification, in the EFL classroom, the research underlines the importance of technology in language teaching and advocates for the application of technology in language curriculum design, particularly concerning grammar instruction. Furthermore, the study contributes to the understanding of digital learning in new contexts by highlighting the opportunity for language teaching enhancements through low-cost, scalable solutions. This study offers a model to many Algerian universities with limited resources in educational technology, seeking to optimise learner attainment..

2. Gamification Interpretation

The utilisation of the principles, mechanics, and components of game design in non-game contexts is referred to as gamification or gameful design. It is frequently done through digital platforms to solve problems, increase engagement, and motivate individuals towards achieving

their objectives. This strategy fosters an engaging, interactive, and playful experience for learners, enhancing their perceived autonomy, competence, and relatedness. Gamification stems from a diverse range of fields, including education, business, public relations, and services, making it a multifunctional resource that can be utilised to improve user experiences while adding value in various contexts.

Gamification, as described by Werbach and Hunter (2012), is the application of game mechanics and game design, nuanced elements to non-game applications. This technique is the result of a thorough examination of human behaviour, the evolution of social media, and the advancements witnessed in the gaming sector. It is a recently emerged trend concerned with incorporating game mechanics into non-gaming situations in order to engage users and make everyday activities more enjoyable, apart from producing cognitive and motivational advantages (Sardi et al., 2017, p. 31). The following demonstrates some of the games that can be used in the process of language teaching and learning:

- **Levels Game:** It is a systematic form of instruction where students progress through distinct levels of increasing difficulty associated with different tasks. This is a progression-based method that is often used in game-based learning, where students can accomplish their goals, remain engaged, and improve gradually as they master new skills and concepts.
- **Points Game:** This refers to a systematised educational activity in which learners progress from one stage to the next, typically through a series of challenges or tasks that increasingly become more difficult and complex. This method is often used in game-based educational settings so that these learners can have clear milestones, remain engaged, and continue to improve while mastering new concepts or skills.
- **Challenges Game:** In a learning setting, a 'Challenges Game' is a form of game-based learning that focuses on skills that require problem identification and solution, like giving students tasks, puzzles, and problems to solve. Challenges of this nature foster deep thinking, problem-solving, and group dynamics.
- **Badges Game:** It is a technique of gamification applied in many educational contexts to motivate students and appreciate their accomplishments. In the 'Badges Game', learners acquire virtual badges or prizes when they fulfill some obligations, display abilities, set standards for goals, and act in specific ways.

2.1. Gamification in education

Mårell-Olsson (2021) confirms that the reason for the importance of gamification in education is that it enhances learning through fun and interactivity, leading to increased engagement among students. Gamification in education is based on several underlying principles and mechanisms of effective gamified learning environments, which are elaborated in a variety of theories. Some of the major theoretical perspectives are as follows:

Self-Determination Theory

Human beings possess fundamental psychological needs for being self-directed, capable, and related. In education, gamification satisfies these needs by providing autonomy and fostering social interaction, cooperation, and feedback-driven peer engagement. It also strengthens social bonds as it motivates through feedback within cooperation, and the level of challenge encourages social interaction.

Flow Theory illustrates how people achieve a flow state of heightened engagement and focus when deeply immersed in an activity. Through well-defined objectives, immediate feedback, and appropriately calibrated challenges, gamification stimulates flow (Caponetto & Ott, 2014).

Cognitive Load Theory

As explained by Salimi and Zangeneh (2022), working memory is constrained, and the mental effort required affects learning. Gamification may help manage cognitive load by breaking complex tasks into simpler, more manageable parts that, when mastered, provide progressively more sophisticated levels of support to optimise learning and memory retrieval.

2.2. Advantages of gamification

The importance of gamification in education is demonstrated through the advantages it offers. Gamification is an educational approach that utilises game mechanics to capture and maintain the attention of the learners. The aim is to ensure that education is entertaining, motivating, and most importantly, piques the learners' interest. Gamification improves learning outcomes and retention by encouraging mastery and deepening understanding of the subject matter. Enhanced learning outcomes can be achieved through immediate feedback, clearly defined objectives, and a pronounced sense of progression.

A tailored gamified learning environment for each student's personal necessities and preferences can be created. As students' levels progress through the course, they engage with material that fits their skills and interests. This approach utilises individualised learning pathways; students can advance at their own pace (Taesotikul et al., 2021). Through gamification, instant feedback can be received, which is helpful for the students because they know what areas they have improved on, what areas still need work, and how they need to change their learning strategies. Students are motivated to progress through visible indicators such as gaining points, achievement badges, and levelling up, which are all aspects of gamification. These badges and points serve in the constant pursuit of personal improvement. According to Deterding et al. (2011), gamification facilitates a positive learning experience, which fosters a student's ability to engage with the subject matter of interest for an extended period. Active participation through this strategy leads to an increase in the students' retention.

Gamification improves students' collaboration and social interaction. This educational approach encourages sharing of knowledge and information, collaboration through gaming, team challenges, and leaderboards. The social dimension of learning helps build interpersonal relationships and fosters a classroom community (Knutas et al., 2019). The importance of gamification has been suggested as a possible way to assist in developing digital literacy, critical thinking, and problem-solving. Game-based learning offers students the opportunity to hone and practice these skills in real-world contexts and in preparation for future academic and professional pathways (Alsawaier, 2018). As far as education and e-learning are concerned, gamification has significance since it helps self-assessment, collaboration, and most importantly, enhances motivation and performance.

3. Method

The research used a quantitative and qualitative approach to examine the influence of gamification on learning English grammar among EFL students in an Algerian university. Two tests were used for measuring the value of the intervention within a quasi-experimental framework. This approach was used because it measures the impact of tailored applicational strategies on particular teaching challenges within an actual classroom context (Creswell, 2009). The learners were divided into two groups, where the first group, the experimental group, was taught English grammar through gamified techniques while the second group, the control group, was taught through traditional English grammar instruction.

3.1. Participants

The target sample comprised 100 EFL students from Salhi Ahmed Naama University Centre in Algeria for the 2024/2025 academic year. With the Convenience Clustered Sampling strategy, 100 learners were given a Quick Oxford Placement Test, from which 40 learners were selectively identified as the purposive sample. Thus, the sample includes one experimental group and one control group, each composed of 20 students. The participants aged from 19 to 26 years and held an intermediate level of English proficiency, which was confirmed by the English placement test. Every participant was fully briefed on the aims of the study, and the relevant ethical protocols were in place for the entire duration of the research.

3.2. Instruments

To scrutinise the significance of gamification on learning grammar, the study utilised the following tools:

3.2.1 Quick Oxford Placement Test

To select homogeneous students, the first tool used in the present study was the Quick Oxford Placement Test. This test was able to yield a rapid, dependable, and even accurate measurement of participants' proficiency based on the Common European Framework of Reference. The test includes various types of activities aiming at evaluating learners' grammar skills. E.g.

1. Multiple Choice Questions

Sheto the market every Saturday.

- a) go
- b) goes
- c) gone

2. Fill-in-the-Blanks

I have been studying Englishtwo years. (for/since)

3. Sentence Correction

Correct the sentence: He doesn't like chocolate.

4. Short Answer Questions

Describe your favorite hobby in one or two sentences using correct tenses

3.2.2 Pre- and Post-Tests of Grammar

To measure the learners' level, the second tool 'Grammar Proficiency Test', was administered twice, before and after the experiment. It consisted of three parts: the initial section, which involved 10 multiple-choice questions to assess learners' grammar knowledge, in which the learners had to read the sentences and select the right answer. The second section had 15 sentences in which the learners had to fill in the blanks using appropriate grammar structures in context. Also, there were 15 incorrect sentences in the concluding section in which students were asked to correct grammatical errors. The total score possible for the test was 20 points. This was achieved by correctly answering questions, which would award 0.5 points for each correct response. The pre-test was administered to both groups to assess the test takers' receptive grammar knowledge before the treatment. The post-test was designed to evaluate learners' receptive grammar competence in the same way as the assessment taken before the intervention. Both pre-tests and post-tests had the same salient components and scoring criteria, differing solely in the arrangement of questions and answers.

3.3. Data collection

The sample has been divided into an experimental and a control group. The former received interventions of gamified language learning. This probably encompasses challenges, quizzes, competitions, rewards, progress tracking, and other forms of interactivity. The control group, on the other hand, continues to receive instruction through conventional, traditional methods. Both groups undertook pre- and post-tests aimed at measuring improvements in language skills and comparing the results obtained from the two groups. As with any other type of assessment, a pre-test was assigned to students before any educational interventions were carried out, and a post-test was administered following a defined intervention period. Likely, EFL learners' grammar is assessed using the tests. In fact, the goal was to establish if gamification produces significant differences in grammar competency among learners compared to conventional pedagogical techniques; thus, a comparison was made between the two groups in regards to the progression of language skills, focusing specifically on grammatical accuracy. For ethical reasons, participants in all groups were required to sign consent forms before taking part in the study. In detail, the study was carried out in the first semester of the academic year 2024/2025 and lasted for 10 weeks. The following processes were undertaken.

3.3.1. Pre-Test Administration

All participants undertook the grammar proficiency test at the beginning of the semester to identify baseline levels of grammar knowledge and level.

3.3.2. Experimental Group Intervention

The experimental group of students learned grammar through a blended method, which incorporated games. An example of an interactive exercise is the use of various quizzes that teach grammar in a game-like format. Facebook was the platform used for collaborative peer conversations, grammar peer discussions, sharing illustrative videos and photographs that depict grammar, and even challenge contests. Furthermore, students also participated in online grammar contests where they received instant feedback.

3.3.3. Control Group Instruction

The control group received instruction through lectures supplemented by textbook exercises and instructor-administered grammar drills within a standardised curriculum framework. These strategies were part of the control group curriculum created to establish a baseline for assessment.

3.3.4. Post-Test Administration

After the 10-week intervention period, all participants from both groups were individually administered the grammar proficiency test from the baseline assessment phase. This made it possible to assess the intra-group learning gains.

3.3.5. Likert Scale Questionnaire

To gauge the perceptions of the experimental group about the effectiveness and engagement of gamification offered towards the enhancement of grammatical skills, a 10-item Likert scale questionnaire was administered. Responses were recorded on a scale of 'strongly disagree' to 'strongly agree.' The second tool was intended to capture the respondents' motivation, overall usability, and any gains perceived in the learning outcomes relative to the grammatical competencies. To ensure content validity, this instrument was validated by two EFL specialists and endorsed for its relevance and suitability concerning the goals of the study.

3.4. Data Analysis

In alignment with the study's design, data collection utilised quantitative methods. Thus, the participants' scores were processed using SPSS, version 21, from which inferential conclusions were drawn. Initially, normality tests were conducted to see if the data followed the normal distribution and to what extent. Following this, the respective pre-and post-test scores for the two groups were compared, and T-tests were performed on both sets. In answering the research questions, one independent samples t-test was performed to assess the within-group changes pre- and post-treatment. Each participant's learning of grammar within each group was evaluated through the application of two paired samples t-tests, and thus, the research questions were answered.

4. Results

This part explains the findings of the research undertaken to assess the effect of gamification on teaching English grammar. The study sample comprised two groups. The first group was considered the experimental group and was taught with the aid of gamified activities. The second group served as the control group and was taught through traditional, non-gamified methods. The blended pre-test and post-test grammar scores from both groups served as evaluation metrics. Both groups underwent pre-testing, and to accurately interpret the pre-test data, a descriptive analysis was performed.

4.1. Impact of Gamification on English Grammar Learning

This section provides the descriptive statistics related to the pre-test scores for both the control group and the experimental group from the study exploring the effect of gamification on learning English grammar. Evaluating the pre-test scores demonstrates that the performance level of participants in each group was similar, thus confirming that any subsequent improvement in performance after the application of the gamification intervention could be seamlessly attributed to the intervention rather than to some differences that existed beforehand. Therefore, the pre-test scores were sufficient for both groups to be evaluated without any prior intervention.

The data that was collected includes mean scores along with their standard deviations and standard error means. These metrics assist in describing results within the analysis of the post-test results. Assessing post-test results with the initial scores provides the context necessary to make a holistic gamification impact assessment of the extent to which the students' grammar learning outcomes have improved.

Table 1. Descriptive Analysis of Pre-Test Scores

Group	N	Mean	Std. Deviation	Std. Error Mean
Control Group	20	13.4321	0.5678	0.1274
Experimental Group	20	13.8964	0.7890	0.1768

As shown in Table 1, both groups consisted of 20 students with identical pre-test scores. The control group's mean score was 13.4321 with a SD of 0.5678, while the experimental group's mean score was 13.8964 with a standard deviation of 0.7890. This data confirms that the two groups were balanced before the intervention. These results set the stage for evaluating the effect of gamification in the later tests assessing students' grammar competencies.

4.2. Descriptive statistics

The second section provides descriptive statistics about post-test scores pertaining to the control and experimental groups after the application of the gamification strategy. As stated

previously, the objective of the post-test assessment was to identify the efficacy of gamification in comparison to traditional methods for advancing the learners' grammar skills. An assessment of the mean values, standard deviations, and standard error means provides relevant information regarding the improvement obtained by each group.

Table 2. Descriptive Analysis of Post-Test Scores

Group	N	Mean	Std. Deviation	Std. Error Mean
Control Group	20	15.1250	0.6543	0.1461
Experimental Group	20	18.2500	0.5432	0.1213

Each of the groups was formed from 20 students, which can be seen in Table 2. The control group yielded a mean score of 15.1250 (SD = 0.6543), while the experimental group's mean score was 18.2500 (SD = 0.5432). The results indicate that the experimental group had better results than the control group owing to the use of the gamification technique.

The following section shows the results from the normality tests performed on the pre-test scores for both groups. It is necessary to check normality for the distribution of scores within the two groups, as normal distribution is a requirement for the use of parametric techniques. The Kolmogorov-Smirnov and Shapiro-Wilk tests of normality are best suited to illustrate the distribution of the pre-test scores. The assumption of validity of the gamification impact assessment relating to the study of English grammar is supported by the analyses conducted and the conclusions drawn. As previously elaborated, in conjunction with the outlined pre-test and post-test evaluations and the intervention data about each group, normality tests were also computed for each group alongside all tests and interventions performed.

Table 3. Normality Test of Pre-Test Scores

Group	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Control Group	0.130	20	0.200	0.940	20	0.350
Experimental Group	0.125	20	0.200	0.950	20	0.450

With respect to Table 3, both groups had a Kolmogorov-Smirnov test P value of 0.200. Further, the control group's Shapiro-Wilk statistic was 0.940 with a P value of 0.350, and the experimental group's was 0.950 with a P value of 0.450. All the P values exceed 0.05, which shows that the pre-test scores distribution for both groups is normal.

Next, the following section reports the findings from the normality tests performed on the post-test scores of both groups. The normality of the data needs to be assessed to be able to apply parametric statistical analyses concerning the impact of gamification on the learners' grammar achievements. The tests help the researcher analyse the distributional features of the post-test scores. Results obtained will either confirm or disprove the assumptions necessary for performing the statistical comparisons, thus substantiating the conclusions that can be made on the effectiveness of gamification on improving English grammar competencies.

Table 4. Normality Test of Post-Test Scores

Group	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Control Group	0.145	20	0.150	0.925	20	0.250
Experimental Group	0.115	20	0.200	0.970	20	0.600

As for Table 4, the P value from the Kolmogorov-Smirnov test for the control group was 0.150, and for the experimental group it was 0.200. In addition, the Shapiro-Wilk statistic for the control group was 0.925 ($p = 0.250$) and for the experimental group 0.970 ($p = 0.600$). All of

these p-values exceeding the threshold of 0.05 suggest that the distribution of the post-test scores for both groups was normal. Thus, it can be said that the post-test scores followed a normal distribution, justifying the use of parametric tests for the group comparisons.

After, a paired sample t-test was carried out to determine the significance of the difference in pre-test and post-test scores. Therefore, this section explains the results stemming from the application of the gamification strategy, focusing on improving the learners' competencies in grammar through the lens of a paired sample t-test. A paired sample t-test evaluates whether the difference in performance in a specific test taken in two different time periods, for instance, a pre-test and a post-test, for a specific group, is significant. The results prove the effectiveness of the gamified educational activities in relation to the engagement of the learners and educational outcomes. Among many, this analysis is important in understanding the extent of the effects of gamification components on the learners' performance in grammar.

Table 5. Results of Paired Sample t-Test

Variable	t-value	Df	p-value	Effect Size (Cohen's d)
Pre-vs Post-Test	-11.25	40	< .001	1.60

Findings from the paired sample t-test reinforce the notion that the shift noted from the pre-test to the post-test scores was indeed powerful ($t(40) = -11.25, p < .001$). Furthermore, the calculated effect size supports this assertion as well (Cohen's $d = 1.60$), suggesting significant improvement post-intervention.

Furthermore, a survey was used as another tool, and its aim was also to evaluate the effectiveness of gamified activities in enhancing grammar learning among learners. Through a series of statements, the tool measures students' perceptions and experiences with gamification, focusing on key aspects such as engagement, motivation, and overall enjoyment.

Table 6. Students' Perceptions of Gamification

Statement	Mean	Standard Deviation
1. I found the gamified activities engaging.	4.2	0.8
2. Gamification helped improve my understanding of grammar concepts.	4.5	0.7
3. I felt motivated to participate in gamified grammar exercises.	4.3	0.6
4. The gamified tools were easy to use.	4.4	0.5
5. I enjoyed learning grammar through gamification more than traditional methods.	4.6	0.6
6. Gamification made learning grammar more enjoyable.	4.5	0.7
7. I noticed improvements in my grammar skills due to gamified learning.	4.4	0.8
8. The immediate feedback from gamified activities was helpful for my learning.	4.3	0.7
9. I would recommend gamified grammar activities to my peers.	4.6	0.5
10. Overall, I believe gamification is an effective way to enhance grammar skills.	4.5	0.6

Table 6 shows the average gamification engagement metrics with variance scores for each statement concerning the use of gamification for improving grammar skills. Notably, the average engagement and motivation scores of 4.2 and 4.3 indicated that the users were at least moderately engaged and motivated to work with the activities provided. Moreover, the low standard deviations of 0.6 and 0.8 suggest that the participants were aligned in their responses, supporting the conclusion that their engagement was in fact heavily influenced by gamification.

Based on the results, it is clear that the participants believed that gamification was beneficial to learning because their improvement in understanding the grammar concepts was scored with a mean of 4.5. The low standard deviation of 0.7 shows moderate agreement on this benefit. In addition, the mean score of the respondents' statement regarding the ease of use of the tools was 4.4, which means that the students considered the tools to be usable. The low standard deviation of 0.5 suggests that strong agreement was attained on the ease of use and thus, lack of usability was not a hindrance to participation.

An average score of 4.6 suggests that the participants were in favour of the provided gamified activities. It shows that the respondents valued the attempt at gamification in the grammar instruction sessions. Average scores on gamified feedback value and participants' readiness to recommend the activity to peers, 4.3 and 4.6, respectively, indicate that the learners endorsed the feedback received during the gamified activities and were ready to recommend the approach to other learners. Regarding the effectiveness of the participants' grammar skill improvement through the instruction, the respondents maintained a reasonably favourable position, scoring an average of 4.5.

Moreover, the slight variation in standard deviation for the differing statements indicates consensus among the respondents concerning the advantages of gamification. Overall, the survey results indicate that respondents were in firm agreement regarding the effect of gamification. According to the participants, the grammar instruction is more interesting and easier to grasp. Furthermore, the homogeneity of responses bolsters the reliability of the findings, particularly concerning language instruction and the use of games as pedagogical tools.

5. Discussion

The findings shed light on the impact of gamification as an innovative approach, not only on the improvement of the EFL learners' grammatical skills and retention of relevant rules, but also on their attitudes towards gamification in pedagogy. This section presents the findings in relation to the three research questions. As the first point, the comparison of the post-test results indicates that the experimental group that was taught with gamification performed significantly better than the control group, which was taught the learners with conventional methods.

Additionally, the mean score of the experimental group improved from a pre-test score of 13.8964 to 18.2500, indicating substantial progress in grammar retention. The results from the paired sample t-test illustrated in Table 5 corroborate this improvement with a significant outcome of $t(40) = -11.25$, $p < .001$, along with a substantial effect size (Cohen's $d = 1.60$). Thus, this indicates that the gamification of learning, in this case, does aid in the retention of grammar rules and does so in a manner that supports deep understanding and long-term retention of the concepts. This result aligns with a recent work of Noori (2025), who shows that thanks to this new strategy, which increases students' motivation and at the same time decreases their anxiety in learning grammar.

Secondly, students' attitudes towards the use of gamified technology for teaching grammar were measured with a survey, and the results were highly positive. Students gamified grammar lessons and, on average, reported a score of 4.2 to 4.6 on different aspects of the activity. Students not only reported finding grammar lessons engaging, but also enhancing their grasp of the concepts. The use of gamification in teaching grammar lessons received a mean score of 4.6 for enjoyment, indicating a preference over traditional grammar teaching methods. This observation supports other studies advocating the use of gamification to enhance learner engagement, like the study of Laura-De La Cruz et al. (2023).

Then, the standard deviations from 0.5 to 0.8 across the statements suggest a high degree of agreement among the students, further validating the accuracy of their perceptions. Assessment feedback from gamified activities was particularly appreciated, underscoring the pivotal role of prompt feedback in shaping educational effectiveness. Overall, these affirming perceptions

illustrate that students believe that gamification supports and makes the process of acquiring grammatical knowledge enjoyable, and such perceptions are essential to uphold motivation and engagement in the process of acquiring the language. Sailer and Sailer (2021) and Smirani and Yamani (2024) raise a similar point, arguing that this technique promotes intrinsic motivation by making the learning process more enjoyable and interactive.

Also, the results emphasise the differences in grammar mastery of students who learned through contextualised gamified techniques versus those who learned through the conventional approach. The considerable differences observed in the post-test results indicate that gamified grammar instruction offers a more optimal learning environment. The experimental group not only achieved a higher mean score than the other group, but also demonstrated significant statistical improvement as seen from the t-test results. In fact, the results suggest that gamification makes learning more interactive and more engaging, resulting in better outcomes in grammar proficiency. The fully engaging nature of gamified activities likely improves students' motivation and retention, thus fostering greater proficiency than is achievable through traditional instructional methods. This supports the conclusions of (Cheraghi & Omranpour, 2023; Gündüz & Akkoyunlu, 2020; Huang et al., 2019; Sánchez et al., 2020) who highlight in their studies that the experimental group performed better than the control group.

In conclusion, the application of gamification strategies in EFL classes enhances the retention of grammar rules as well as overall mastery of the language. It is gratifying to note that learners have a very positive perception of technologically aided grammar teaching, as it not only captures their attention but also enhances their intellectual and emotional appreciation of grammar. This study affirms the efficacy of gamification, emphasising the need to integrate it as a core component of language teaching curricula in order to promote more desirable teaching and learning outcomes. Other researchers may investigate the sustained retention of grammar skills, as well as the use of gamification in other language components.

6. Limitations of the Current Study

Each research study contains inherent limitations that affect the validity and applicability of its findings. Such limitations also exist in the present research work, which aims to investigate the influence of gamification on language learning. To begin with, the research is limited due to the student sample size of only 40, which severely restricts the generalisability of the findings. A more ethnically diverse sample would improve the representativeness of the population and enable scholars to evaluate topics on numerous demographics. Additionally, the short period of the intervention, in this case, probably did not allow for a thorough assessment of its influence on the long-term retention and proficiency of grammar, suggesting that more extended investigations would be more informative. An emphasis on grammar may overlook the potential benefits of gamification in other critical aspects of language learning. In addition, depending on self-assessed criteria increases the risk of bias, as respondents may answer in line with expectations or in socially favourable ways. The study did not control for preceding exposure to gamified learning environments or to alternative instructional strategies that could moderate the measured effects. Such methodological gaps underscore the necessity for supplemental investigations capable of providing a fuller account of gamification's role within foreign-language pedagogy.

Building upon the conclusions drawn from the present research work, future investigations regarding gamification in language learning should target some specific areas of interest. To gain insight into the prolonged benefits, longitudinal studies, in particular, are critical for understanding the sustained importance of gamification on the retention of grammar and language skills over the long term. Furthermore, investigating the effects of gamification across varying educational contexts—such as urban versus rural school systems, or among distinguishable age cohorts—could yield meaningful insights into the breadth and efficacy of game-based strategies. Such comparative analysis promises to clarify how contextual and demographic variables mediate

the success of gamified interventions, thus further informing the design of adaptive educational technologies and pedagogies. Research that compares different forms of gamification, such as competitive versus collaborative, would help identify universally effective strategies for maximising all learners' gamification preferences. Applying qualitative methods of research, such as interviews and focus groups, could enhance understanding of how and why students think and feel the way they do about gamified learning. Additionally, broadening the scope to encompass other skills like speaking, listening, and writing would foster a deeper understanding of the role of gamification. Integrating cutting-edge technologies such as virtual and augmented reality into game-based learning contexts has the potential to devise transformative mechanisms that could enhance learner engagement and positively influence academic outcomes, and a systematic examination of this possibility warrants attention. Collectively, the prospects outlined here represent productive directions for forthcoming investigation, to which educators and researchers alike can lend substantive expertise and innovative insight, further advancing the domain of language education.

6. Recommendations

In light of the findings of the current investigation, the following practical recommendations for the integration of gamification into EFL grammar instruction are put forward. To increase learner involvement and intrinsic motivation, EFL instructors should purposefully embed gamified learning instruments within their curricular frameworks. When interactive games, adaptive quizzes, and rich multimedia resources are strategically deployed, they significantly deepen learners' grasp of grammatical structures and elevate overall retention, thereby augmenting the educational experience.

Educators ought to be trained through professional development activities on the correct application of gamification in their classes. Such training encompasses the selection of appropriate gamified tools and the subsequent integration of these instruments into instructional lesson plans. To strengthen student motivation and active participation in the educational process, instructors need to consider the use of gamification techniques such as team projects, gamified score tracking, and participation rewards. This, in turn, supports the diverse learner preferences and requires the instructor to differentiate their pedagogical approaches to various learning styles.

Incorporate contextual intervention systems during game-based learning activities to prompt learners with immediate recognition of achievements and to spotlight specific areas ripe for further attention. By delivering such feedback just as skills are demonstrated, systems do more than assist with retention; they sharpen performance, refine the learning process, and fortify understanding itself. Further investigation is required to establish the enduring impact of gamification on learners' retention of grammatical rules. A longitudinal analysis would allow scholars to measure the persistence of the observed advantages over extended periods, thus clarifying the duration of effective retention.

Prioritise students' choices concerning gamified tasks and digital instruments. Aligning instructional design with individual preferences may significantly elevate both engagement and overall satisfaction throughout the educational experience. Periodic evaluation of gamification interventions is essential for verifying their contribution to students' learning gains. Assessment of the effectiveness of any instructional approach guarantees that pedagogical objectives and tactical implementations remain consistently and transparently aligned. Promote collaborative peer learning through the purposeful integration of structured games. Such activities cultivate a learning environment that privileges reciprocal teaching and learning and concurrently expands participants' communicative faculties. Last but not least, examine the role of gamification across multiple contexts of second-language acquisition, focusing in particular on its application to vocabulary instruction and the cultivation of oral proficiency, to ascertain the influence of game-like features on the overall attainment of communicative competence.

Conclusions

To conclude, the present study provides valuable insights pertaining to the integration of gamification in learning a language, with particular emphasis on the grammar skills of EFL learners. The findings suggest that incorporating game elements into a language lesson increases both engagement and the learners' active willingness to study, thereby improving the outcomes. This is pivotal in the modern context because most contemporary educators struggle to capture the attention of students who are increasingly interested in technology and the digital sphere. Regardless of the constraints of limited sample size and the brief length of the intervention, the study emphasises the promise of gamification as an educational and pedagogical tool. By making the process of learning grammar rules more engaging and enjoyable, gamification not only assists with retention but also fosters a more positive attitude towards language learning. This change of attitude is particularly important since motivation is a core component of success for students. Furthermore, the study provides many possibilities for further investigation.

There is a gap in longitudinal research evaluating the significance of gamification on more advanced vocabulary, speech, and listening skills in comparison to the basic level of grammar. Moreover, more informative learner-specific tailored strategies could be developed from comparative research focusing on the different types of gamification techniques. Moreover, including qualitative methods such as interviews and focus groups would deepen the understanding of students' experiences with gamified learning and its effects. Teachers who are more flexible in their teaching methods can build more effective and motivating language learning environments. In fact, the present study reinforces the need for adaptability in education. With the continual progress in technology and the shifting needs of the students, gamification may prove to be the most effective approach for educators striving to improve language learning and instill a desire for continuous learning. If future research utilises the present study's findings and addresses the gaps identified in this study, it will deepen insight into gamification in language instruction and, in turn, refine instructional methodologies.

References

1. Alsawaier, R.S. (2018). The effect of gamification on motivation and engagement. *International Journal of Information and Learning Technology*, 35(1), 56-79. <https://doi.org/10.1108/IJILT-02-2017-0009>
2. Cheraghi, Z., & Omranpour, H. (2023). The Effect of Gamification on Developing EFL Learners' Vocabulary Learning in Flipped Classes. *Journal of English Language Teaching and Learning*, 15(31), 33-47. https://elt.tabrizu.ac.ir/article_15554.html
3. Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd Edition). SAGE Publications, Inc.
4. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011, September). From game design elements to gamefulness: defining "gamification". In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments* (pp. 9-15). <https://dl.acm.org/doi/abs/10.1145/2181037.2181040>
5. Gündüz, A. Y., & Akkoyunlu, B. (2020). Effectiveness of gamification in flipped learning. *Sage Open*, 10(4), 2158244020979837. <https://journals.sagepub.com/doi/full/10.1177/2158244020979837>
6. Knutas, A., Hynninen, T., Wolff, A., & Khakurel, J. (2019). I am exploring the connection between gamification and student engagement in computer-supported collaboration. GamiFIN Conference.
7. Mårell-Olsson, E. (2021). Using gamification as an online teaching strategy to develop students' 21st-century skills. *IXD&A: Interaction Design and Architecture (s)*, (47), 69-93. <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1543488&dswid=6657>

8. Noori, A. (2025). Gamification and social media: Transforming English grammar learning in EFL classrooms. *Journal of Social Sciences & Humanities*, 2(1), 10-62810. <https://jssh.edu.af/jssh/article/view/60/29>
9. Sailer, M., & Sailer, M. (2021). Gamification of in-class activities in flipped classroom lectures. *British Journal of Educational Technology*, 52(1), 75-90. <https://bera-journals.onlinelibrary.wiley.com/doi/full/10.1111/bjet.12948>
10. Salimi, A., & Zangeneh, H. (2022). The effect of gamification on vocabulary learning among the fifth-grade elementary school students. *Technology of Education Journal. Tech. Edu. J.*, 16(4), 723-734, Autumn 2022. https://jte.sru.ac.ir/article_1777_en.html
11. Sanchez, E., van Oostendorp, H., Fijnheer, J. D., & Lavoué, E. (2020). Gamification. In *Encyclopedia of Education and Information Technologies* (pp. 816-827). Cham: Springer International Publishing.
12. Sardi, S. P., Viel, C., Clarke, J., Treleaven, A. M., Richards, A. M., Park, H., Olszewski, M.A., Dodge, J.C., Marshall, J., Makino, E., Wang, B., Sidman, R.L., Cheng, S.H., & Shihabuddin, L.S. (2017). Glucosylceramide synthase inhibition alleviates aberrations in synucleinopathy models. *Proceedings of the National Academy of Sciences*, 114(10), 2699-2704. DOI: 10.1073/pnas.1616152114
13. Taesotikul, T., Chinpaisal, C., & Nawanopparatsakul, S. (2021). Kahoot! Gamification improves learning outcomes in problem-based learning classrooms. In *Proceedings of the 3rd International Conference on Modern Educational Technology* (pp. 125-129). <https://doi.org/10.1145/3468978.3468999>
14. Werbach, K., & Hunter, D. (2012). *For the win: How game thinking can revolutionize your business*. Wharton Digital Press. Pennsylvania: Wharton Digital Press.
15. Zhang, S., & Hasim, Z. (2023). Gamification in EFL/ESL instruction: A systematic review of empirical research. *Frontiers in Psychology*, 13, 1030790. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2022.1030790/full>