

---

## ENHANCING GRAMMAR PROFICIENCY THROUGH A GAMIFIED SNAKE AND LADDER GAME FOR ELEVENTH-GRADE STUDENTS AT SMAN 1 BATIPUH, WEST SUMATRA

Nurlatifah Usman<sup>1</sup>, Sujito<sup>2</sup>

*Institution/affiliation;*

Jurusan Tadris Bahasa Inggris Pascasarjana UIN Raden Mas Said  
Surakarta

e-mail : \*1 [nurlatifahusman@gmail.com](mailto:nurlatifahusman@gmail.com) 2 [sujitodoktor@gmail.com](mailto:sujitodoktor@gmail.com)

### Abstrak

Penelitian ini bertujuan untuk menyelidiki kemahiran tata bahasa siswa kelas sebelas di SMAN 1 Batipuh, Sumatra Barat, menggunakan pendekatan gamifikasi. Desain eksperimen yang digunakan adalah pra-tes dan pasca-tes kelompok tunggal. Permainan Ular Tangga menggabungkan elemen gamifikasi seperti poin, papan peringkat, perkembangan berbasis tantangan, dan kolaborasi teman sebaya untuk meningkatkan keterlibatan dan hasil pembelajaran tata bahasa. Data dikumpulkan dari 33 siswa kelas XI F1 SMAN 1 Batipuh. Hasil penelitian menunjukkan peningkatan yang signifikan secara statistik; skor pra-tes dan pasca-tes berdistribusi normal, seperti yang ditunjukkan oleh hasil uji normalitas data, dengan nilai sig. pra-tes sebesar 0,390 dan nilai sig. pasca-tes sebesar 0,083, masing-masing melebihi  $\alpha$  (0,05). Dengan nilai negatif -21,082 di bawah dan -13,766 di atas, uji hipotesis pertama menunjukkan adanya pengaruh. Jika sig. Nilai (2-tailed) menunjukkan angka 0,001 yang berarti kurang dari 0,05, maka  $H_0$  ditolak dan  $H_a$  diterima. Hasil penelitian menunjukkan bahwa siswa kelas XI SMAN 1 Batipuh, Sumatera Barat, dapat meningkatkan keterampilan tata bahasa melalui permainan ular tangga berbasis gamifikasi. Penelitian ini menyoroti potensi gamifikasi sebagai alat pedagogis yang efektif dalam pengajaran bahasa Inggris, membuat pengajaran tata bahasa lebih interaktif dan menyenangkan. Temuan penelitian menunjukkan bahwa menggabungkan mekanisme permainan terstruktur ke dalam kegiatan pembelajaran dapat meningkatkan kinerja akademik dan keterlibatan siswa.

Kata Kunci: Gamifikasi, Penguasaan Tata Bahasa, Permainan Ular Tangga, Siswa Sekolah Menengah Atas EFL

### Abstract

*This study aims to investigate the grammar proficiency of eleventh-grade students at SMAN 1 Batipuh, West Sumatra, using a gamification approach. The experimental design used was a single-group pre-test and post-test. The Snakes and Ladders game combines gamification elements such as points, leaderboards, challenge-based progression, and peer collaboration to improve engagement and grammar learning outcomes. Data were collected from 33 students of grade XI F1 SMAN 1 Batipuh. The results showed a statistically significant increase; the pretest and posttest scores were normally distributed, as indicated by the results of the data normality test, with a sig. pretest value of 0.390 and a sig. posttest value of 0.083, each exceeding  $\alpha$  (0.05). With a negative value of -21.082 below and -13.766 above, the first hypothesis test showed an effect. If the sig. (2-tailed) value shows a figure of 0.001, which means less than 0.05, then  $H_0$  is rejected and  $H_a$  is accepted. The results show that grade XI students of SMAN 1 Batipuh, West Sumatra, can improve their grammar skills through gamification-based snakes and ladders games. This study highlights the potential of gamification as an*

---

*effective pedagogical tool in English language teaching, making grammar teaching more interactive and enjoyable. The findings suggest incorporating structured game mechanisms into learning activities can improve academic performance and student engagement.*

*Keywords: Gamification, Grammar Proficiency, Snake and Ladder Game, EFL High School Students*

## INTRODUCTION

Grammar proficiency is an important aspect in learning English, especially in the context of English as a Foreign Language (EFL), such as in Indonesia. Understanding grammar is very important because it plays an important role in language learning (Andriani et al., 2021). Grammar proficiency allows students to form correct sentences, understand texts accurately, and convey ideas effectively both orally and in writing. According to Richards and Schmidt (2011), grammar proficiency refers to the ability to use grammatical structures accurately and precisely in oral and written communication. A good grasp of grammar is essential for professional communication. This is important for English teachers to deliver lessons well and for students to achieve a high level of proficiency (Sujana et al., 2021).

However, the dominant grammar teaching methods in EFL classes in Indonesia are often deductive, such as practice questions, memorization, and textbook-based assignments. These methods usually follow a teacher-centered approach where the rules are explained explicitly before students put them into practice (Nunan, 2003). Such methods are often considered monotonous and less able to generate active student participation, which ultimately results in low learning motivation and long-term

retention (Ellis, 2006; Harmer, 2015). To address these challenges, educators and researchers have begun to explore alternative approaches that combine pedagogy with engaging learning strategies, one of which is gamification.

Gamification means incorporating game elements such as points, badges, levels, challenges, and leaderboards into non-game environments to increase engagement and motivation (AbuHammad & Hamtini, 2023). Gamification is a set of activities and processes used to solve specific problems by applying the characteristics of game elements. It is not a single activity, but rather a series of relevant and systematic actions. Gamification must have a clear purpose aimed at addressing a particular issue; therefore, game mechanics such as badges and points alone are not sufficient to be classified as gamification. Its implementation should be based on the fundamental characteristics of game elements (Kim, 2018).

Gamification first emerged in 2003 from the British developer consulting company Pell to promote consumer goods by presenting fun elements into devices but this idea did not work and the company closed. Around 2009 - 2010, the term gamification became famous and popular when The Quest to Learn Gamification School began accepting sixth grade

students in a game-based learning environment (Khaitova, 2021). The important point in using gamification strategies is to choose and adopt a universal game concept correctly (Elearning4id.com, 2024). In a narrow sense, "universal" refers to a game that is widely recognized and commonly known, featuring simple and familiar rules, and played by people of all ages.

In language education, gamification is believed to stimulate active participation and create a fun learning environment. Although many studies have adopted digital gamification tools, there is still potential in utilizing physical or non-digital games, such as Snakes and Ladders, to effectively teach grammar through direct and face-to-face interactions. Gamification through the giant Snakes and Ladders game has been shown to increase student engagement in language learning in primary schools (Mansor et al., 2024). Ariessanti et al. (2020) conducted a systematic literature review on gamification strategies through the Snakes and Ladders game in educational settings, analyzing 42 studies from 2014 to 2020. They found that the game's simple rules and flexible design make it suitable for various age groups, including adolescents. The review showed that this gamification approach mainly increased learners' comprehension (40.5%), interest (33.3%), and engagement (14.3%). Most implementations remained conventional and non-digital, with limited efforts to adapt the game for structured academic content such as grammar.

To address this gap, the current study developed a gamified grammar-based Snakes and Ladders game for eleventh graders, aiming to enhance engagement and measurable grammar proficiency through an experimental design. The experience of learning grammar, especially EFL, can be enhanced by gamification. However, its implementation requires careful planning and a deep understanding of students' needs. Educators are advised to strategically integrate gamification elements to maximize its benefits (Inton, 2024). Additionally, Koç, G., & Sütçü, S. S. (2023) found that gamification through online tools improved sixth-grade students' academic achievement in grammar lessons and increased their engagement in learning. Ardi and Rianita (2022) found that integrating Kahoot! into a university grammar class significantly increased students' behavioral, cognitive, and emotional engagement by encouraging goal setting, focus, enthusiasm, and a collaborative and competitive learning environment. However, their study did not assess students' actual grammar proficiency and was limited to a digital context in higher education. To address these limitations, the current study implemented a non-digital gamified Snakes and Ladders game in a secondary school setting, focusing on enhancing grammar achievement through a pre-test and post-test experimental design.

Several studies have shown that the snake and ladder game is a universal game that can be played and adapted within educational contexts. As a type of competitive board game,

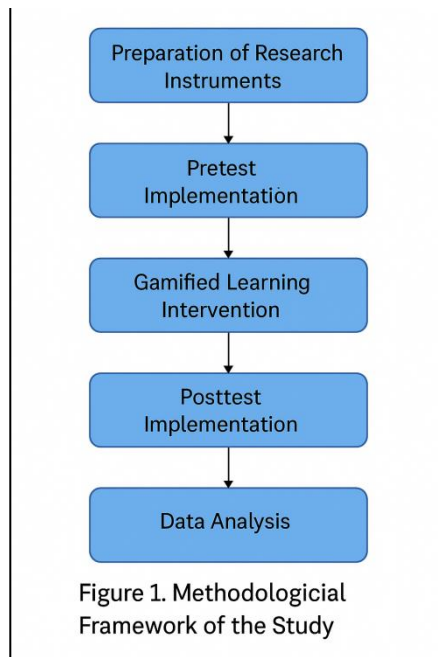
it supports students' cognitive learning of grammar by encouraging them to think critically about correct and incorrect sentence structures. This game is used to learn and repeat previously learned material, which will be tested through this game. Thus, students can enjoy learning grammar. In addition, the snake and ladder board game is a game that is familiar to students and is easy to play in class (Rinvolutri, 1984, as cited in Nisa et al., 2021, p. 30). Rather than depending solely on teacher instruction, students actively participate in language learning through games that stimulate their vocabulary, grammar, and communication abilities. Physical games like the Snakes and Ladders board integrate movement into the learning process, turning language acquisition into a multisensory experience. This systematic review highlights the benefits and challenges of using gamification in EFL/ESL teaching, as well as the elements of effective gamification (Zhang, S., & Hasim, Z., 2023).

Although many studies have explored the use of gamification in English language learning, most of them have focused on digital applications. Research evaluating the effectiveness of gamified physical games, such as Snakes and Ladders, in improving the grammar skills of high school students in Indonesia is still very limited. This study aims to show that the gamified physical game of Snakes and Ladders can be an effective learning strategy to improve the grammar proficiency of eleventh-grade students at SMAN 1 Batipuh, West Sumatra. This study used an experimental approach with a single-

group pre-test and post-test design to assess students' improvement in grammar skills after participating in a gamified learning session. Through this study, the authors provide empirical evidence supporting the use of non-digital gamification as an engaging and pedagogical method in EFL teaching. Although snakes and ladders games are often used in English classes, their implementation still lacks a structured gamification approach. This study proposes a more systematic gamification approach through a gamified snake and ladder game to improve students' grammar, including elements of points, leaderboard, challenges, and collaboration.

## METHOD

This study employed an experimental design with a one-group pre-test–post-test model to examine the impact of gamification through the physical Snake and Ladder game on students' grammar proficiency. The design of this research system is illustrated in Figure 1, which shows the stages from participant selection, instrument preparation, game-based intervention, to post-test analysis.



This study uses two variables. The Independent Variable is the Use of gamified Snake and Ladder games in grammar learning. The Dependent Variable is students' grammar proficiency as measured by pretest and posttest scores. Before the treatment is given, a pretest is carried out to determine the initial condition. After that, the researcher provides treatment by implementing a gamified snake and ladder game to improve grammar proficiency. Furthermore, a posttest is carried out to determine the final condition after the treatment is given. With the pretest and posttest, the results of the treatment can be known more accurately, because it can compare the initial condition (pretest) with the final condition (posttest) after the treatment is given.

In this study, the population was 33 students of class XI F1 SMAN 1 Batipuh, West Sumatra, in the 2024/2025 academic year. The class was selected using purposive sampling based on accessibility and

school approval to participate in the study.

Data were collected in three sessions, namely

1. Pre-test Session

Students completed a grammar test before introducing the game.

2. Intervention Session

Conducted two meetings of 30 minutes-40 minutes using the gamified snake and ladder game.

3. Post-test Session

The same grammar test was given after the intervention.

The data collection techniques in this study were observation and testing. Observation was conducted before the study was conducted. Observation was intended to determine the urgency of the problems in class XI of SMAN 1 Batipuh. After the observation was carried out, the researcher conducted a pretest to determine the condition of the students before being given treatment. The test was used to measure learning outcomes before (pretest) and after (posttest) the implementation of the gamified snake and ladder game. This study used a multiple-choice test consisting of 20 questions (pretest) and 20 questions (posttest) regarding the English subject in class XI semester 2, the material Daily Routine, Experiences, Plans. To determine the level of eligibility of the questions, the eligibility and ineligibility of the questions were validated by two English teaching experts as a source of data that would be processed to be used as the results of the study. Before being used, the questions were processed with validity tests, reliability tests, discrimination tests, and difficulty



level tests. Questions that had passed these tests were then given to students as a source of research data. After the data was obtained, analysis was carried out. Data analysis techniques were intended to answer or examine the truth of a hypothesis proposed in the study. Initial data analysis was carried out to determine the initial conditions of students before the study was carried out. The data analyzed were the results of the grammar proficiency test of class XI students of SMAN 1 Batipuh, West Sumatra. The results of the grammar proficiency test of class XI students of SMAN 1 Batipuh, West Sumatra, before (pretest) being given treatment. Data analysis used the Lilliefors normality test with the help of the SPSS program (version 27). Final data analysis was carried out on the data from the grammar proficiency test of class XI students of SMAN 1 Batipuh, West Sumatra, after being given treatment (posttest). Final data analysis was carried out using the normality test and the paired-sample t test. The results of the pretest and posttest before and after the treatment were compared with this test. In addition, the purpose of this study was to test the previously made hypothesis that grade XI students at SMAN 1 Batipuh, West Sumatra, can improve their grammar proficiency through a gamified Snake and Ladder game.

For the intervention session, the gamified Snake and ladder game was modified to include a grammar task. Each box on the board contains grammar questions. Students must answer each question correctly to

stay in the box or face penalties such as moving backward.

The game mechanism includes:

1. Creating a gamification-based Snake and Ladder game by including elements of points, scoreboards, challenges, and collaboration. dice and paper equipment that is created containing questions according to the snake and ladder box
2. 33 students are divided into six groups
3. Game flow with a duration of 30 minutes - 40 minutes
4. Each group is guided by 6 guides who are tasked with checking student answers, recording points, and scores
5. Rolling the dice to move the pawn
  - Correct answers get 10 points
  - Wrong answers get 0 points and move back one step
6. Each student is given 30 seconds to answer
7. The winning team is the first to reach the winner's box
8. Points and rankings are displayed on the board to build a sense of competition and motivation.

## Result and Discussion

### Result

The data from the research will be analyzed to interpret and answer the research hypothesis. Initial data analysis was conducted to determine the condition of students before the research was conducted. The data analyzed were enhancing grammar proficiency through a Gamified Snake and Ladder Game for Eleventh-Grade Students at SMAN 1 Batipuh, West Sumatra, before (pretest) being given treatment. Data analysis used the Lilliefors normality

test with SPSS. The Lilliefors test was conducted because the data was on a small group scale.

Table 1. SPSS Output Initial Data Normality

Tests of Normality			
	Kolmogorov-Smirnov <sup>a</sup>		
	Statistic	df	Sig.
Pretest Results	.126	33	
Posttest Results	.161	33	

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Referring to Table 1, the results of the Lilliefors test calculation can be seen in the Shapiro-Wilk column. The Shapiro-Wilk column shows a sig. value of 0.390. The provisions of pretest data in the normality test are if the sig. value  $> \alpha$ , then the pretest data on enhancing grammar proficiency through gamification-based snake and ladder games are declared normal. Conversely, if the sig. value  $< \alpha$ , then the pretest data results are declared abnormal. From the data above, the sig. value 0.390  $> \alpha$  0.05, it can be concluded that the pretest data on increasing grammar proficiency through gamification-based snake and ladder games are normally distributed. The final data was obtained from the posttest value carried out after treatment was given. The final data will be analyzed in the form of data normality tests and hypothesis tests.

Next, the final data analysis (posttest). The posttest data of grammar proficiency learning outcomes through gamification-based snake and ladder games are normally distributed. The next step is

to test the hypothesis in the form of a t-test (paired sample t-test) to determine the difference in students' abilities in solving problems between before and after being given treatment. This is evidenced by the difference between the enhancement in grammar proficiency through gamification-based snake and ladder games, pretest, and posttest. The t-test was carried out with the help of the SPSS program, the test criteria  $H_0$  (Snake and ladder games based on gamification are not effective in enhancing grammar proficiency of class XI students of SMAN 1 Batipuh, West Sumatra) is accepted if Lower has a negative value, Upper has a positive value and sig. (2-tailed)  $> \alpha$ .  $H_a$  (Gamified Snake and ladder games based on gamification are effective in enhancing the grammar proficiency of class XI students of SMAN 1 Batipuh, West Sumatra) is accepted if Lower has a negative value, Upper has a negative value, and sig. (2-tailed)  $< \alpha$ . The formulation of the hypothesis will be answered in the following SPSS data processing output:

Table 2. SPSS Output One Sample t test

Paired Samples Test				
		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
Pair 1	Pretest - Posttest	-17.42424	10.31695	1.79595
		95% Confidence Interval for Mean		
		Lower		
		-21.08247		

Table 2, the Lower column shows -21.082 and the Upper column -13.766, meaning that each shows a negative value. Then the value of sig.

(2-tailed): 0.000 < 0.05 ( $\alpha$ ). This means that  $H_0$  is rejected and  $H_a$  is accepted. The hypothesis formulation is answered, namely, the gamification-based snake and ladder game is effective in enhancing the grammar proficiency of class XI students of SMAN 1 Batipuh, West Sumatra. Based on the data that has been analyzed, the findings of the average initial test score (pretest) was 70.00. This shows that students' initial abilities are still quite sufficient and standard. In the initial test, students worked on questions according to their abilities, and some students still guessed the answers. After being given treatment in the form of learning English grammar material Daily Routine, Experiences, Plans, focusing on simple present, simple past, simple future, auxiliaries, time signal, by implementing the Snake and Ladder Game based on gamification, the final test (posttest) was carried out again with an average result of 87.42. This study uses two variables as the object of research, namely the independent variable in the form of the Snake and Ladder Game based on gamification. The dependent variable is in the form of enhancing students' grammar proficiency. Here is a complete explanation:

Snake and Ladder game based on gamification is effective in enhancing the grammar proficiency for eleventh-grade students of SMAN 1 Batipuh, West Sumatra. In the data analysis has been presented, the increase in grammar proficiency of class XI students of SMAN 1 Batipuh, West Sumatra, shows a difference between before and after being given treatment in the form of the Snake and Ladder game based on

gamification. It can be seen from the data analysis that the average pretest value is 70.00 and the average posttest value is 87.42. Hypothesis testing shows changes in enhancing students' grammar proficiency, as evidenced by the negative Lower and Upper values. It can be seen that Lower is -21.082 and Upper is -13.766. Sig. (2-tailed) is 0.001, which means < 0.05 ( $\alpha$ ). The test criteria state that if the Lower value is positive and the Upper value is positive or Sig. (2-tailed) >  $\alpha$  then  $H_0$  is accepted. Because the Lower and Upper values are negative and Sig. (2-tailed) <  $\alpha$  then  $H_a$  is accepted, meaning that the gamification-based snake and ladder game is effective in enhancing the grammar proficiency of class XI students at SMAN 1 Batipuh, West Sumatra.

### Discussion

In addition to making learning more enjoyable, the results of teacher instruction gamification can achieve student learning objectives (Kim, 2018). Gamification is not just the use of game elements outside of the game; it is a combination of ideas that convey information through a play approach while encouraging user engagement. In practice, gamification produces enjoyable experiences, increases motivation, improves problem-solving behavior, provides immediate feedback, and enhances cognitive development through integrated content. Gamification changes various game elements to attract attention and increase participation in areas such as economics and education, although it is not a completely new idea (All et al., 2016; Qian & Clark, 2016). Based on this, the gamified



snake and ladder game is not only a means of entertainment but also a pedagogical tool that supports the achievement of grammar learning outcomes effectively.

Gamification can overcome the boredom of learning grammar that is often felt by students by creating an active, communicative, and solution-oriented learning atmosphere. Gamification refers to the integration of game elements such as points, rules, badges, levels, or challenges into non-game contexts to increase user engagement and motivation. To maximize the benefits of gamification in education, it is recommended to design gamification that is tailored to the needs and preferences of each student (Oliveira et al., 2023).

Some of the gamification elements used include points, leaderboards, challenges, and collaboration. These game elements are an important part of a successful gamification system. In the application of gamification, points have two main roles, namely as an indicator of progress and as a tool to measure student performance. Points that reflect student progress or involvement in the material are called experience points (XP). In the context of games, XP is usually obtained through activities such as completing challenges or defeating opponents. However, in the context of education, obtaining XP is more directed at completing various learning tasks. The more points obtained, the greater the level of student involvement in exploring the learning material. On the other hand, points also function as a measure of performance, where each student's action or contribution in the learning

process can be converted into a certain score, which is then used to assess final achievement. Both game designers and educators can adjust the term point according to the context and characteristics of students. In games, points are often given creative names such as metal, coins, or lightning strikes. While in the world of education, the term can be adapted to be more relevant and interesting, for example, by using symbols or names that are familiar to the student's environment. In general, the accumulation of these points represents the quality of student performance in a gamification-based learning system, as well as being an additional motivation to achieve optimal learning outcomes (Alsawaier, 2018; Çubukçu et al., 2017).

Leaderboards are visual elements in gamification that are used to display the ranking of participants based on accumulated points and achievements. This feature is designed to highlight participant performance continuously, provide an opportunity to compare results between users, and show the position or status of each individual in the learning system. In general, there are two types of leaderboards, namely absolute and relative. Absolute leaderboards display all users and their scores in full, which can provide a strong motivational boost for participants in the top positions, but on the other hand, has the potential to reduce the motivation of students in the bottom positions. In contrast, relative leaderboards only show the position of students in a more limited context, namely, with several users who are slightly above and below them. With this approach,

the level of competition becomes more moderate and can reduce psychological stress that may arise from excessive competition (Çubukçu et al., 2017; Maiga & Emanuel, 2019; Ortiz-Rojas et al., 2019).

Students become better prepared for exams or tests that require a strong understanding of grammar because the challenges in the snake and ladder game teach them to think critically and quickly choose the right answer. This element increases the sense of competition and encourages students to try harder to understand the grammar rules. Meanwhile, working together with others allows students to gain different understandings of the grammar material. More effective learning occurs when teams work together to overcome challenges. In addition, students gain a better understanding from group discussions because they are asked to explain concepts that they may not have fully grasped.

The benefits of gamification in learning English as a Foreign Language (EFL) have been proven to reduce anxiety and improve grammar performance (Phuong, 2020). Furthermore, gamification improves students' attitudes, emotional responses, and overall language skills (Zhang & Hasim, 2023). Important educational skills such as communication, collaboration, and problem-solving are enhanced through gamification. These skills are essential for

effective language learning (Thurairasu, 2022).

In general, findings from various recent studies show that the implementation of gamification-based snake and ladder games can provide a significant positive impact on grammar learning outcomes. This approach not only increases student engagement but also encourages improved performance and overall language acquisition in the context of EFL learning. Through the integration of gamification elements into learning activities, educators can create a more interactive and engaging classroom atmosphere, thereby encouraging active student participation in the learning process. To encourage students to participate more actively in the learning process, teachers are advised to include game elements (Asiri, 2019). Gamification has become an interesting topic in educational research, especially in grammar learning, using game elements and design techniques. A study has been conducted on how effective gamification is in grammar learning across different age groups, educational levels, and cultural backgrounds. The results show that gamification has the potential to aid grammar learning and can be very beneficial in reducing students' affective filters and increasing their motivation (Idris et al., 2020).

In implementing pedagogical strategies, a noticeable gap often exists between theoretical frameworks and their practical application. This highlights the importance for teachers to continually update their knowledge and stay informed about the latest

educational methods and approaches (Sajinčič et al., 2022). Continuous professional development programs can help educators learn about good gamification and language teaching methods. Teachers should be careful when changing gamification approaches to suit students' preferences and needs (Yaşar et al., 2020). Students' perspectives and gamification adoption rates can help teachers adjust gamification strategies to meet different learning styles and student preferences. Further research is needed to understand the mechanisms and theories that explain how effective gamification is across different demographics (van Gaalen et al., 2021).

## CONCLUSION

Based on this study, we can conclude that Gamification bridges educational methods and students' needs, improving language skills and increasing students' confidence, motivation, and engagement in meaningful interactive tasks. Gamification is recognized as an innovative approach in learning and teaching due to its ability to improve

students' grammar proficiency. The problem of low student interest and participation during the learning process has long been a concern in the world of education. Various interventions, including motivational strategies, have been implemented by educators to address this issue. However, the results of interventions are usually temporary. Gamification, on the other hand, offers a more sustainable solution because it is fun and can create a more engaging learning experience, which can increase students' motivation and active class participation. In particular, the gamified Snakes and Ladders game has strong evidence in improving grammar learning in EFL/ESL contexts. The gamified Snake and Ladder game, by adding game components such as leaderboards/scores, points, challenges, and collaboration, has been shown to dramatically improve students' grammar comprehension, engagement, and learning outcomes. Gamification also improves creative, critical, and problem-solving skills, which are important for overall language learning.

## REFERENCES

- Abu-Hammad, R. M., & Hamtini, T. M. (2023). A Gamification Approach for Making Online Education as Effective as In-Person Education in Learning Programming Concepts. *International Journal of Emerging Technologies in Learning (iJET)*, 18(07), pp. 28–49. <https://doi.org/10.3991/ijet.v18i07.37175>
- All, A., Castellar, E. P. N., & Van Looy, J. (2016). Assessing the effectiveness of digital game-based learning: Best practices. *Computers & Education*, 92, 90-103.
- Alsawaier, R.S. (2018), "The effect of gamification on motivation and engagement", *International Journal of Information and Learning*

- Technology, Vol. 35 No. 1, pp. 56-79. <https://doi.org/10.1108/IJLT-02-2017-0009>
- Andriani, A., Yuniar, V. D., & Abdullah, F. (2021). Teaching English Grammar in an Indonesian Junior High School. AL ISHLAH: Jurnal Pendidikan, 13(2), 1046–1056. <https://doi.org/10.35445/alishlah.v13i2.956>
- Ardi, P., & Rianita, E. (2022). Leveraging gamification into EFL grammar class to boost student engagement. Teaching English with Technology, 22(2), 90–114. <http://www.tewtjournal.org>
- Ariessanti, H. D., Meyliaana, M., Hidayanto, A. N., & Prabowo, H. (2020). Gamification strategy through snake ladder game: Systematic literature review. Advances in Social Science, Education and Humanities Research, 508, 162–166.
- Asiri, M. J. (2019). Do teachers' attitudes, perception of usefulness, and perceived social influences predict their behavioral intentions to use gamification in EFL classrooms? Evidence from the middle east. International Journal of Education and Practice, 7(3), 112–122. <https://doi.org/10.18488/journal.61.2019.73.112.122>
- Chen, Y., Li, L., Wang, M., & Wang, R. (2022). Which Cognitive Factors Predict L2 Grammar Learning: Cognitive Control, Statistical Learning, Working Memory, or Attention? Frontiers in Psychology, 13.
- Çubukçu, Ç., et al. (2017). Gamification for teaching Java. Proceedings of the 10th EAI International Conference on Simulation Tools and Techniques. <https://doi.org/10.1145/3173519.3173538>
- Elearning4id.com. (2024). 6 Prinsip Gamifikasi yang Harus Diperhatikan dalam Pengembangan E Modul Interaktif Gamifikasi. Retrieved from <https://elearning4id.com/6-prinsip-gamifikasi-yang-harus-diperhatikan-dalam-pengembangan-e-modul-interaktif-gamifikasi/>
- Ellis, R. (2006). Current Issues in the Teaching of Grammar: An SLA Perspective. TESOL Quarterly, 40(1), 83–107.
- Harmer, J. (2015). The Practice of English Language Teaching (5th ed.). Pearson Education. <https://doi.org/10.3389/fpsyg.2022.943988>
- Idris, M. I., Mohd Said, N. E., & Tan, K. H. (2020). Game-based learning platform and its effects on present tense mastery: Evidence from an ESL classroom. International Journal of Learning, Teaching and Educational Research, 19(5), 13–26. <https://doi.org/10.26803/ijlter.19.5.2>
- Inton, L. N. L. M. (2024). Exploring Gamification Approaches in Grammar Learning. Foreign Language Instruction Probe, 3(1), 67-75.
- Khaitova, N. F. (2021). History of gamification and its role in the educational process. International Journal of Multicultural and Multireligious Understanding, 8(5), 212–216. <https://doi.org/10.18415/ijmmu.v8i5.2640>
- Kim, S., Song, K., Lockee, B., & Burton, J. (2018). Gamification in learning and education: Enjoy learning like gaming. Springer.
- Koç, G., & Sütçü, S. S. (2023). The Impact of Gamification on Secondary School Students' Grammar Proficiency. Educational Policy Analysis and Strategic Research, 18(1), 31-49. <https://doi.org/10.29329/epasr.2023.525.2>

- Maiga, J., & Emanuel, A. W. R. (2019). Gamification for teaching and learning Java programming for beginner students-A review. *Journal of Computer Science*, 14(9), 590–595. <https://doi.org/10.17706/jcp.14.9.590-595>
- Mansor, N. S., Primsuwan, P., Abu Hassan, A. S., Saad, S., Sabidi, F. N., & Ponamnuaysuk, K. (2024). Gamifying language learning: Enhancing primary school student engagement through the giant Snake and Ladder board game. *International Journal of Research and Innovation in Social Science*, 8(9), 3184–3195. <https://doi.org/10.47772/IJRISS.2024.8090265>
- Mokhtar, M. I., Khairul Anuar, N. A., Abdul Talib, N. S. I., Hariulnizam, W. Z., & Khairul Faizi, A. H. (2019). Students' perceptions of using board game to learn idiom: a study on Idioms Hunter-Journey Beyond Words. *ESTEEM Journal of Social Sciences and Humanities*, 3, 8-18.
- Nisa, N., Sale, F., & Nurnia, N. (2021). The effect of snake and ladder board game on students' grammar achievement: A case of SMPN 11 Kendari. *Journal of Teaching of English*, 6(1), 1–9.
- Nunan, D. (2003). *Practical English Language Teaching*. McGraw-Hill.
- Oliveira, W., Hamari, J., Shi, L., Toda, A. M., Rodrigues, L., Palomino, P. T., & Isotani, S. (2023). Tailored gamification in education: A literature review and future agenda. *Education and Information Technologies*, 28(1), 373–406. <https://doi.org/10.1007/s10639-022-11122-4>
- Ortiz-Rojas, M., Chiluiza, K., & Valcke, M. (2019). Gamification through leaderboards: An empirical study in engineering education. *Computer Applications in Engineering Education*, 27(4), 777–788. <https://doi.org/10.1002/cae.12116>
- Phuong, T. T. H. (2020). Gamified Learning: Are Vietnamese EFL Learners Ready Yet? *International Journal of Emerging Technologies in Learning*, 15(24), 242–251. <https://doi.org/10.3991/ijet.v15i24.16667>
- Qian, M., & Clark, K. R. (2016). Game-based learning and 21st century skills: A review of recent research. *Computers in Human Behavior*, 63, 50–58.
- Richards, J.C., & Schmidt, R.W. (2011). *Longman Dictionary of Language Teaching and Applied Linguistics* (4th ed.). Routledge. <https://doi.org/10.4324/9781315833835>
- Sajinčič, N., Sandak, A., & Istenič, A. (2022). Pre-service and in-service teachers' views on gamification. *International Journal of Emerging Technologies in Learning (IJET)*, 17(3), 83-103. <https://doi.org/10.3991/ijet.v17i03.26761>
- Sujana, I. M., Syahrial, E., Arifuddin, A., & Thohir, L. (2021). Designing Blended Learning for Teaching English Grammar at Higher Education. *Proceedings of the 2nd Annual Conference on Education and Social Science (ACCESS 2020)*, 556. <https://doi.org/10.2991/assehr.k.210525.125>
- Thurairasu, V. (2022). Gamification-Based Learning as The Future of Language Learning: An Overview. *European Journal of Humanities and Social Sciences*, 2(6), 62– 69. <https://doi.org/10.24018/ejsocial.2022.2.6.353>
- van Gaalen, A. E. J., Brouwer, J., SchönrockAdema, J., Bouwkamp-Timmer, T., Jaarsma, A. D. C., & Georgiadis, J. R. (2021). Gamification of health





- professions education: a systematic review. *Advances in Health Sciences Education*, 26(2), 683–711. <https://doi.org/10.1007/s10459-020-10000-3>
- Yaşar, H., Kıyıcı, M., & Karataş, A. (2020). The Views and Adoption Levels of Primary School Teachers about Gamification. *Participatory Educational Research*, 7(3), 263–280.
- Zhang, S., & Hasim, Z. (2023). Gamification in EFL/ESL instruction: A systematic review of empirical research. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1030790>