

GAME-BASED LEARNING (GBL) AND TRADITIONAL TEACHING METHODS IN ENHANCING ENGLISH GRAMMAR RETENTION

Andi Suci Ramadhani¹, Chairil Anwar Korompot², Ryan Rayhana Sofyan³

¹²³English Education Program, Faculty of Languages and Literature,
Universitas Negeri Makassar

¹a.suciiramadhanii@gmail.com, ²cakorompot@unm.ac.id ³ryan.sofyan@unm.ac.id

ABSTRACT

This study aimed to compare the effectiveness of Game-Based Learning (GBL) and Traditional Teaching Methods (TTM) in enhancing English grammar retention among eighth-grade students at SMP Negeri 1 Makassar. A quantitative approach with a quasi-experimental design was employed, specifically the Non-equivalent Control Group Design. The sample consisted of 79 students selected through random cluster sampling: 42 students in the experimental group (VIII.5) and 37 students in the control group (VIII.6). Data were collected through pre-tests and delayed post-tests administered two weeks after the intervention and analyzed using descriptive statistics and independent-samples t-tests. The findings revealed that both methods contributed positively to students' grammar retention; however, Game-Based Learning produced significantly greater improvement. The experimental group's mean score increased from 37.26 to 74.17, compared to the control group's increase from 34.32 to 60.68. The independent-samples t-test yielded a significant difference ($t = 3.280$, $p = 0.002 < 0.05$), indicating that Game-Based Learning produced significantly greater improvement than Traditional Teaching Methods in enhancing grammar retention. The superior outcomes of the GBL group were attributed to the interactive, student-centered, and engaging nature of game-based activities implemented through the Baamboozle platform, which fostered motivation, active participation, and repeated contextual grammar practice. It is concluded that Game-Based Learning is more effective than Traditional Teaching Methods in enhancing English grammar retention among junior high school students.

Keywords: Baamboozle, EFL, English Grammar Retention, Game-Based Learning, Traditional Teaching Methods

ABSTRAK

Penelitian ini bertujuan untuk membandingkan efektivitas Pembelajaran Berbasis Permainan (Game-Based Learning/GBL) dan Metode Pengajaran Tradisional (Traditional Teaching Methods/TTM) dalam meningkatkan retensi tata bahasa Inggris di kalangan siswa kelas delapan SMP Negeri 1 Makassar. Pendekatan kuantitatif dengan desain kuasi-eksperimental digunakan, khususnya Desain Kelompok Kontrol Non-ekuivalen. Sampel terdiri dari 79 siswa yang dipilih melalui pengambilan sampel kluster acak: 42 siswa dalam kelompok eksperimen (kelas VIII.5) dan 37 siswa dalam kelompok kontrol (kelas VIII.6). Data dikumpulkan melalui pre-test dan post-test tertunda yang diberikan dua minggu setelah intervensi dan dianalisis menggunakan statistik deskriptif dan uji-t sampel independen. Hasil

penelitian menunjukkan bahwa kedua metode tersebut berkontribusi positif terhadap retensi tata bahasa siswa; namun, Pembelajaran Berbasis Permainan menghasilkan peningkatan yang signifikan. Skor rata-rata kelompok eksperimen meningkat dari 37,26 menjadi 74,17, dibandingkan dengan peningkatan kelompok kontrol dari 34,32 menjadi 60,68. Uji t sampel independen menghasilkan perbedaan yang signifikan ($t = 3,280$, $p = 0,002 < 0,05$), menunjukkan bahwa Pembelajaran Berbasis Game menghasilkan peningkatan yang jauh lebih besar daripada Metode Pengajaran Tradisional dalam meningkatkan retensi tata bahasa. Hasil yang lebih unggul dari kelompok GBL dikaitkan dengan sifat interaktif, berpusat pada siswa, dan menarik dari aktivitas berbasis game yang diimplementasikan melalui platform Baamboozle, yang mendorong motivasi, partisipasi aktif, dan latihan tata bahasa kontekstual berulang. Disimpulkan bahwa Pembelajaran Berbasis Game lebih efektif daripada Metode Pengajaran Tradisional dalam meningkatkan retensi tata bahasa Inggris di kalangan siswa sekolah menengah pertama.

Kata kunci: Baamboozle, EFL, Retensi Tata Bahasa Inggris, Pembelajaran Berbasis Game, Metode Pengajaran Tradisional

A. INTRODUCTION

Grammar plays an essential role in English language learning because it helps students communicate accurately and effectively in both spoken and written forms. Linguistically, grammar can be understood as the system of rules that governs the use, classification, and arrangement of words to form coherent spoken or written expressions (Herring, 2016), and it constitutes a fundamental component of language that determines the structure and formation of sentences (Rankin & Whong, 2020). In junior high school education, grammar learning supports the development of communication skills, academic performance, and language comprehension. However, grammar instruction is often considered difficult and monotonous due to the use of conventional teaching methods, such as lectures and mechanical exercises, which may reduce

students' motivation and engagement during the learning process (Alem, 2021).

The development of digital technology has created new opportunities to transform traditional teaching methods, including grammar instruction. One innovation that has emerged is Game-Based Learning (GBL), defined as the application of game mechanics-such as rules, challenges, feedback, competition, and collaboration-to improve learning efficacy and generate enjoyable learning experiences (Ahmad, 2020). GBL can take various forms, including strategic games, simulation games, drill-and-practice games, quiz-based games, puzzle games, and role-playing games, each offering different cognitive engagement mechanisms (Dimitra et al., 2020); the present study specifically employed a quiz-based game platform, Baamboozle, which uses competitive question-and-answer

formats supported by score systems and immediate feedback. Lasekan et al. (2023) found that game-based learning and gamification in education increase student motivation, attraction to learning, and significantly higher learning outcomes than a control group. Similarly, Schurz and Coumel (2023) stated that game-based learning allows students to learn independently and actively, which in turn can improve their learning outcomes.

Although GBL offers various advantages, Traditional Teaching Methods (TTM) still hold an important place in grammar instruction. Lin et al. (2020) found that traditional methods remain effective in helping students understand more complex and structural grammar rules, since the direct instruction-based approach allows teachers to provide structured explanations that build a solid foundation before students move on to more practical usage. Andriani et al. (2021) similarly reported that explicit, teacher-centered grammar instruction remains common practice in Indonesian junior high schools. Handayani and Wardana (2025) further showed that technology integration, including games, can help students learn more effectively by making them feel more engaged; however, the effectiveness of GBL highly depends on how the game is designed and implemented within the curriculum.

An important yet often overlooked distinction in grammar research is the difference between short-term learning and

long-term grammar retention. Short-term learning refers to learners' immediate performance following instruction, which may result from temporary cognitive processes such as rehearsal or test familiarity rather than durable knowledge (Nakata & Suzuki, 2019). In contrast, long-term retention concerns learners' ability to retrieve grammatical knowledge after a period of time without further instructional support, and it is best measured through delayed post-tests rather than immediate ones (Abdulbaki et al., 2025). Zhou (2017) similarly emphasizes that teaching methods allowing learners to apply grammar rules in meaningful contexts-rather than merely presenting them in isolation-are more effective in supporting long-term retention, while Wazeer (2023) argues that grammar instruction should deliberately incorporate retention strategies such as spaced review and varied, game-based practice. Building on Cognitive Learning Theory (Plass et al., 2015), grammar retention can be understood through three interrelated cognitive processes: encoding, in which learners actively process and organize grammatical information into meaningful mental representations; storage, in which repeated practice and immediate feedback consolidate knowledge into long-term memory; and retrieval, in which learners recall and apply previously learned grammar rules in new situations. GBL activities, through repeated rounds of interactive quizzes and instant feedback, are theorized to strengthen all three processes more effectively than passive,

lecture-based instruction (Auvinen et al., 2015).

The effectiveness of grammar teaching in junior high relies not only on the grammatical material provided but also on the manner in which students interact with that material. Alem (2021) elucidates that traditional grammar teaching typically prioritizes explicit explanations and rule-oriented tasks. These types of instruction can furnish learners with a methodical comprehension of grammatical structures and sentence configurations. Van Rijt et al. (2019) likewise underscore the persistent impact of conventional grammar in educational settings, especially when educators present formal linguistic frameworks. Andriani et al. (2021) discovered that grammar teaching in Indonesian junior high schools is primarily explicit and centered around the teacher. This approach might offer limited chances for students to engage in discussions on grammatical selections, implement rules across diverse contexts, and actively partake in the educational experience.

Game-Based Learning could mitigate these constraints by integrating grammar exercises with obstacles, engagement, repetition, and prompt feedback. Ahmad (2020) characterizes GBL as the application of game dynamics to enhance educational efficacy and foster an immersive learning environment. As per Dimitra et al. (2020), game-based learning (GBL) can manifest in various formats, such as quiz-oriented, simulation, puzzle, and drill-and-practice games. In the

current research, Baamboozle served as a quiz-oriented platform enabling students to recognize parts of speech, choose suitable verb forms, differentiate tense structures, and rectify grammatical mistakes. Kian et al. (2022) discovered that collaborative challenges and time constraints can enhance student engagement in gamified educational settings. Furthermore, Lin et al. (2020) indicated that contextual game-oriented tasks enhanced the grammatical proficiency and learning attitudes of EFL students.

Nonetheless, digital games do not inherently facilitate efficient learning. Handayani and Wardana (2025) assert that the efficacy of technology-enhanced grammar teaching is contingent upon the design and integration of the activities within the curriculum. Fithriani (2022) posits that game-oriented tasks ought to be aligned with explicit communicative and grammatical goals. Consequently, competition, points, and awards ought to facilitate learning instead of serving as the main objective of the session. This juxtaposition is especially pertinent since, as Nakata and Suzuki (2019) suggest, instantaneous performance does not consistently reflect lasting grammatical comprehension. The current research investigates whether Game-Based Learning offers superior assistance for grammar retention compared to Conventional Teaching Approaches.

Empirically, GBL has been associated with stronger motivation, engagement, and

retention outcomes than conventional instruction. Da-Oh et al. (2023) found that the use of Baamboozle in grammar lessons significantly improved grammatical accuracy and retention among EFL secondary school students through immediate feedback and collaborative interaction. Awing and Nasri (2023) likewise reported that students who learned grammar through GBL demonstrated stronger motivation and longer retention than those taught conventionally. Conversely, Kiran (2021) and Alqahtani (2022) noted that traditional methods, particularly the Grammar-Translation Method, remain valuable for building grammatical accuracy but tend to restrict student engagement and communicative competence, often producing surface-level learning rather than durable retention. Despite this growing body of evidence, Previous studies have mainly examined students' grammar achievement immediately after instruction, while evidence regarding whether GBL contributes to delayed grammar retention compared with conventional teaching remains limited, particularly among Indonesian junior high school EFL learners.

Building on the gap identified above, this study aims to compare the effectiveness of Game-Based Learning and Traditional Teaching Methods in enhancing English grammar retention among junior high school students, guided by the research question: Does Game-Based Learning more effectively enhance students'

grammar retention than Traditional Teaching Methods? The hypotheses tested were H_0 (Game-Based Learning does not more effectively enhance grammar retention than Traditional Teaching Methods) and H_1 (Game-Based Learning more effectively enhances grammar retention than Traditional Teaching Methods). This study is expected to provide both theoretical insight into the role of teaching methodology in grammar retention and practical recommendations for teachers in choosing or combining the most suitable methods to help students develop their grammar skills in the digital era.

B. RESEARCH METHOD

This study employed a quantitative approach (Stockemer & Glaeser, 2019) with a quasi-experimental design, specifically the Non-equivalent Control Group Design (Creswell, 2017; Reichardt, 2019), involving a pre-test and a delayed post-test administered to two existing, intact groups without random assignment of individual participants. The research was conducted at SMP Negeri 1 Makassar, Kota Makassar, over a period of approximately 1-2 months beginning in March 2026. The population comprised 450 eighth-grade students from 11 classes during the 2025/2026 academic year. Two classes were selected as the sample through random cluster sampling (Sedgwick, 2014):

The independent variables were Game-Based Learning and Traditional Teaching Methods,

while the dependent variable was English grammar retention, operationally defined as students' ability to retain and apply knowledge of English grammar rules in constructing correct, contextually appropriate sentences over time. The experimental group received instruction through GBL across eight meetings using the Baamboozle platform. The meetings covered the eight parts of speech through classification games, sentence-construction tasks, and peer-correction activities; the following eight meetings introduced the twelve English tenses progressively (Simple Present, Present Continuous, Present Perfect and Present Perfect Continuous, Simple Past and Past Continuous, and Past Perfect and Past Perfect Continuous) through Baamboozle quizzes involving verb-form selection, tense identification, and error correction; and the eighth meeting concluded with a comprehensive Baamboozle Tournament covering all materials, followed by the post-test. The control group received the same grammar materials across the same eight meetings but through conventional teacher-centered instruction consisting of board explanations, individual written exercises, and whole-class review, without any game-based or interactive digital tool.

The research instrument was a 20-item multiple-choice grammar test adapted from the "Bahasa Inggris: English for Nusantara" Grade VIII textbook

published by the Ministry of Education, Culture, Research, and Technology, aligned with the Merdeka Curriculum. The test comprised 10 items on parts of speech and 10 items on tenses, each with four answer options. The same instrument was used as both the pre-test (administered before treatment) and the delayed post-test. Each correct answer was scored 1 and each incorrect or unanswered item was scored 0, following a rubric adapted from Famela (2023); total scores were then converted into percentages and classified into four categories adapted from the Ministry of Education's grading criteria (2022): Very Good (81-100), Good (71-80), Fair (61-70), and Requiring Guidance (0-60).

Data were analyzed using descriptive statistics (mean, minimum, maximum, and standard deviation), paired-sample statistics to compare each group's own pre-test and post-test scores, and an independent-samples t-test computed with SPSS to determine whether a statistically significant difference existed between the experimental and control groups both before and after treatment. In addition, the N-Gain score was calculated using the formula $N\text{-Gain} = (\text{post-test score} - \text{pre-test score}) / (\text{maximum score} - \text{pre-test score})$, with results classified as low (< 0.30), average ($0.30\text{-}0.70$), or high (> 0.70) following Hake's (1998) criteria, in order to determine the extent of improvement contributed by each teaching method.

C. RESULTS AND DISCUSSION

1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
EXP PRE-TEST	42	15	80	37.26	16.755
EXP POST-TEST	42	50	100	74.17	16.488
CTRL PRE-TEST	37	15	55	34.32	12.592
CTRL POST-TEST	37	5	95	60.68	21.736
Valid N (listwise)	79				

The experimental group's mean score increased substantially from 37.26 in the pre-test to 74.17 in the post-test, an improvement of 36.91 points, with a slight decrease in standard deviation indicating more consistent scores after treatment. The control group also improved, from a mean of 34.32 to 60.68, an increase of 26.36 points; however, its standard deviation increased

from 12.592 to 21.736, indicating greater variability in student achievement after the learning process. These results suggest that both methods contributed positively to grammar retention, but the improvement in the experimental group was considerably larger and more consistent than in the control group.

Percentage Distribution of Students' Scores - Experimental Group

Description	Percentage			
	Pre-Test		Post-Test	
	P	F	P	F
Requiring Guidance	93%	39	29%	12
Fair	2%	1	19%	8
Good	5%	2	14%	6
Very Good	0%	0	38%	16

Prior to treatment, 93% of students in the experimental group (39 of 42) were categorized as requiring guidance, with none reaching the very good category. After the implementation of GBL, this proportion dropped sharply to 29%, while 38% of students (16 of 42) reached the very good

category—a level unattained by any student in the pre-test. This considerable shift toward the higher achievement categories indicates that GBL was effective in helping students move from limited to strong grammar retention.

Percentage Distribution of Students' Scores - Control Group

Description	Percentage			
	Pre-Test		Post-Test	
	P	F	P	F
Requiring Guidance	100%	37	59%	22
Fair	0%	0	11%	4
Good	0%	0	5%	2
Very Good	0%	0	24%	9

All students in the control group (100%) were initially categorized as requiring guidance. After instruction through TTM, this proportion decreased to 59%, while 24% of students reached the very good category. Although this represents genuine

improvement, more than half of the control group remained in the requiring guidance category after treatment, a considerably less progressive shift than that observed in the experimental group.

Paired-Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	EXP PRE-TEST	37.26	42	16.755	2.585
	EXP POST-TEST	74.17	42	16.488	2.544
Pair 2	CTRL PRE-TEST	34.32	37	12.592	2.070
	CTRL POST-TEST	60.68	37	21.736	3.573

Both groups improved from pre-test to post-test, but the experimental group's standard error mean slightly decreased (2.585 to 2.544), reflecting a more stable distribution of scores after

treatment, whereas the control group's standard error mean increased (2.070 to 3.573), reflecting a wider dispersion of achievement among students taught through TTM.

Independent-Samples T-Test Results

		Levene's Test for Equality of Variances		T-test for Equality of Means					95% Confidence Interval of the Difference	
		f	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Result of Pre-Test	Equal Variances assumed	3.573	.063	.871	77	.386	2.938	3.372	-3.776	9.651
	Equal Variances not assumed			.887	75.215	.378	2.938	3.312	-3.660	9.535

		Levene's Test for Equality of Variances		T-test for Equality of Means					95% Confidence Interval of the Difference	
		f	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Result of Post-Test	Equal Variances assumed	.813	.370	3.129	77	.002	13.491	4.311	4.906	22.076
	Equal Variances not assumed			3.076	66.699	.003	13.491	4.387	4.735	22.247

There was no statistically significant difference between the two groups at pre-test ($p = 0.386 > 0.05$, mean difference = 2.938), showing that both groups had similar initial grammar retention prior to therapy and were thus comparable at baseline. The post-test findings showed a significant difference between the experimental and control groups ($p = 0.002 < 0.05$), with a higher mean difference of 13.491 in favor of the experimental group. Because the significance value was less than 0.05, H_0 was rejected and H_1 was accepted, showing that GBL implementation was more effective than TTM in increasing students' grammatical retention.

2. N-gain Score

The N-gain score was used to assess the level of improvement achieved by the two instructional approaches used in the English grammar teaching and learning process. The calculation compared the students' pre-test and post-test scores to determine the proportion of improvement in the experimental and control groups. The experimental group consisted of 42 students, while the control group included 37 students.

a) N-gain of the Students in Experimental Group

The N-gain score was calculated and interpreted as follows:

$$N - \text{Gain} = \frac{\text{posttest score} - \text{pretest score}}{\text{maximum score} - \text{pretest score}}$$

$$N - \text{Gain} = \frac{3115 - 1565}{4200 - 1565} = \frac{1550}{2635} = 0.58$$

A value of 0.58 was obtained by the experimental group for the N-Gain score. Based on the N-Gain interpretation criteria, this result was categorized as average improvement, where:

$N\text{-Gain} < 0.3 = \text{Low}$

$0.3 \leq N\text{-Gain} \leq 0.7 = \text{Average}$

$N\text{-Gain} > 0.7 = \text{High}$

b) N-gain of the Students in Control Group

The N-gain score was calculated and interpreted as follows:

$$N - \text{Gain} = \frac{\text{posttest score} - \text{pretest score}}{\text{maximum score} - \text{pretest score}}$$

$$N - \text{Gain} = \frac{2245 - 1270}{3800 - 1270} = \frac{975}{2530} = 0.38$$

A score of 0.38 was obtained by the control group for the N-Gain, which, based on the N-Gain interpretation criteria, was categorized as average improvement. This result indicated that, following participation in the learning process through conventional teaching methods, students in the control group also experienced improvement in grammar retention. Although both groups obtained moderate N-Gain scores, the experimental group demonstrated a higher gain, suggesting greater instructional effectiveness.

3. Discussions

The findings demonstrate that although both instructional methods contributed to improving students' grammar retention, GBL produced substantially greater and more consistent improvement than TTM among junior high school students. This greater improvement can be attributed to the interactive, enjoyable, and

student-centered learning environment created through GBL. During treatment, students actively participated in grammar-learning activities through games, group discussions, and competitive tasks conducted via the Baamboozle platform across eight structured meetings, which encouraged active involvement and provided repeated opportunities to practice grammatical concepts-first the eight parts of speech, then progressively more complex tense forms-in meaningful contexts. This finding is consistent with Plass et al. (2015), who argued that GBL promotes active participation and meaningful interaction that contribute positively to learning retention.

Examined through the lens of Cognitive Learning Theory, the superior outcomes of the experimental group can be explained through three interrelated cognitive processes. First, encoding was likely strengthened as students repeatedly processed grammatical rules through interactive Baamboozle rounds rather than passively receiving explanations, allowing them to select, organize, and integrate grammatical information into meaningful mental representations. Second, storage was supported through repeated practice across multiple game rounds combined with immediate feedback, which allowed misconceptions to be corrected as soon as they occurred, consistent with Auvinen et al. (2015), who found that timely feedback in game-based environments strengthens long-term memory

retention. Third, retrieval was reinforced as students recalled and applied grammar rules repeatedly across quizzes, collaborative tasks, and the culminating Baamboozle Tournament, in line with the view that frequent retrieval practice strengthens long-term retention more than a single exposure to content (Nakata & Suzuki, 2019).

The incorporation of game elements such as points, competition, and rewards likely increased students' motivation and reduced anxiety toward grammar instruction, which is often perceived as challenging. This is in line with Lai (2022), who reported that GBL improves student engagement, academic achievement, and information retention, as well as Kutty and Joy (2022), who emphasized that emotionally engaging learning environments positively influence learners' motivation and facilitate long-term retention. These mechanisms also help explain why the experimental group's post-test scores were not only higher but also more consistent (as reflected in the decreasing standard deviation and standard error mean in Table 4), since repeated, low-anxiety practice tends to narrow the gap between higher- and lower-achieving students.

In contrast, although the control group also improved after TTM instruction, the gain was comparatively smaller and less consistent, since teacher-centered explanation and individual written exercises provided fewer opportunities for interaction, collaboration, and active participation. This corresponds

with Kiran (2021) and Alqahtani (2022), who argued that traditional methods tend to emphasize memorization and grammatical accuracy rather than meaningful, contextualized language use, and with Andriani et al. (2021), who observed that explicit, teacher-centered instruction remains common in Indonesian junior high schools despite its limited capacity to sustain long-term engagement. These findings align with Da-Oh et al. (2023) and Awing and Nasri (2023), who similarly found that Baamboozle and other game-based platforms significantly improve students' grammar understanding, retention, and motivation compared to conventional instruction.

Theoretically, these results support and extend Cognitive Learning Theory (Plass et al., 2015) by demonstrating that the interactive and repetitive nature of GBL activities facilitated deeper encoding and more effective long-term storage of grammatical knowledge compared to teacher-centered instruction, as evidenced by the delayed post-test used in this study rather than an immediate assessment alone (Abdulkaki et al., 2025). Practically, the findings suggest that English teachers at the junior high school level should consider integrating GBL platforms such as Baamboozle as a complementary strategy alongside conventional grammar instruction, combining the structural clarity of TTM with the motivational, interactive, and feedback-rich strengths of GBL to support long-term grammar retention in EFL classrooms.

D. CONCLUSSION

This study compared the effectiveness of Game-Based Learning and Traditional Teaching Methods in enhancing English grammar retention among eighth-grade students at SMP Negeri 1 Makassar during the 2025/2026 academic year. The results demonstrated that both methods contributed positively to students' grammar retention; however, GBL produced significantly greater and more consistent improvement, as reflected in the experimental group's mean score increase from 37.26 to 74.17 (N-Gain = 0.58) compared to the control group's increase from 34.32 to 60.68 (N-Gain = 0.38), and confirmed by a statistically significant post-test difference ($t = 3.129$, $p = 0.002$) despite no significant difference at pre-test ($p = 0.386$). This superior outcome is attributed to the interactive, student-centered, and engaging characteristics of GBL delivered through the Baamboozle platform, which fostered motivation, active participation, immediate feedback, and repeated contextual grammar practice, thereby supporting deeper cognitive encoding, storage, and retrieval of grammatical knowledge. It is therefore concluded that Game-Based Learning is more effective than Traditional Teaching Methods in enhancing English grammar retention among junior high school students.

Nevertheless, this study is subject to several limitations that should be considered when interpreting its results. First, the delayed post-test was administered only two weeks after

treatment, reflecting short-term rather than long-term retention; a longer interval would provide stronger evidence of durable learning. Second, the study was conducted at a single school with a relatively small sample size, which may limit the generalizability of the findings to other educational contexts. Third, as a quasi-experimental design, complete control over external variables-such as students' independent review of materials during the retention interval-was not possible, and the possibility of a Hawthorne effect, in which the experimental group performed better simply due to awareness of a novel instructional approach, cannot be entirely ruled out. Fourth, this study employed a purely quantitative approach and therefore did not capture qualitative dimensions of students' experiences, attitudes, or perceptions toward GBL.

Based on these findings and limitations, several recommendations are proposed. Students are encouraged to participate actively in game-based grammar activities such as Baamboozle and to pursue additional self-directed digital grammar practice to consolidate their knowledge. English teachers are recommended to integrate quiz-based game platforms as a regular component of grammar lessons-particularly for practice and review-while ensuring that game activities remain aligned with instructional objectives, and to periodically administer delayed assessments to monitor the durability of students' retention. Future researchers are encouraged to employ longer

delayed post-test intervals, larger and more diverse samples across multiple schools, mixed-methods designs that incorporate interviews or classroom observations, and investigations of GBL's impact on other language skills such as writing, reading, and speaking, in order to build a more comprehensive understanding of its contribution to EFL instruction.

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