

THE USE OF GAMIFICATION METHOD TO IMPROVE NINTH GRADE STUDENTS' READING COMPREHENSION IN DESCRIPTIVE TEXT AT SMP NEGERI 7 PEMATANGSIANTAR

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Abstract

Reading comprehension plays a crucial role in English language learning, as it enables students to understand written texts and construct meaning effectively. However, many EFL students still experience difficulties in comprehending descriptive texts due to low motivation and the continued use of teacher-centered instructional practices. Although previous studies have reported positive outcomes of gamification in language learning, limited research has specifically examined its effectiveness in improving students' reading comprehension of descriptive texts in junior high school contexts. Therefore, this study aims to investigate the effectiveness of the Gamification Method in enhancing ninth-grade students' reading comprehension at SMP Negeri 7 Pematangsiantar. A quasi-experimental design was employed, involving an experimental group taught using gamified activities through Quizizz and Kahoot, and a control group taught using conventional methods. Each group consisted of 30 students, and data were collected through pre-tests and post-tests. The findings revealed that both groups showed improvement after the treatment; however, the experimental group achieved a higher post-test mean score (85.17) than the control group (83.17). The Independent Samples t-test result indicated a statistically significant difference between the two groups ($p < 0.05$). In conclusion, the study confirms that the Gamification Method is effective in improving students' reading comprehension of descriptive texts by increasing their motivation, engagement, and learning achievement..

Keyword : Reading Comprehension, Descriptive Text, Gamification Method, EFL Students, Junior High School

INTRODUCTION

Reading comprehension is one of the most essential skills in English language learning because it enables learners to understand, interpret, and respond to written texts effectively. According to Grabe and Stoller (2013), reading comprehension is a complex cognitive process involving the interaction between the reader's background knowledge and the information presented in a text. Snow (2002) defines reading comprehension as the process of extracting and constructing meaning through the dynamic interaction between the reader and the text. Meanwhile, Alderson (2000) emphasizes that comprehension requires both linguistic knowledge and the ability to integrate information from the text with the reader's prior understanding. These perspectives indicate that reading comprehension is not merely about decoding words, but about actively constructing meaning.

Despite its importance, many junior high school students in Indonesia still encounter difficulties in understanding reading texts, especially *descriptive texts*. Based on preliminary observation at *Smp Negeri 7 Pematangsiantar*, ninth-grade students often struggle to identify the main ideas, supporting details, and language features of descriptive texts. They tend to rely on word-by-word translation and fail to comprehend the overall meaning of the text. This difficulty is partly caused by conventional teaching methods, where teachers dominate the classroom and students act as passive recipients. Such methods make learning monotonous and reduce students' motivation to read and comprehend texts effectively.

To overcome these challenges, innovative and engaging teaching methods are needed to make reading activities more interactive and enjoyable. One promising approach is the *gamification method*.

Deterding et al. (2011) define gamification as the use of game design elements and principles in non-game contexts to enhance motivation and engagement. In education, gamification can transform traditional learning environments into more interactive and motivating experiences by incorporating points, badges, leaderboards, and challenges. Kapp (2012) further explains that gamification promotes meaningful learning by combining competition, collaboration, and feedback to encourage learners' participation. Similarly, Hamari et al. (2014) found that gamification positively affects students' engagement and intrinsic motivation, which can lead to better academic outcomes.

Previous studies have also shown that gamification can improve students' reading comprehension. Sari et al. (2022) found that students who learned through gamified activities showed significantly higher reading comprehension scores compared to those taught conventionally. Utami et al. (2023) developed a gamified e-module that enhanced students' motivation and reading comprehension in senior high schools. Likewise, Salim et al. (2025) demonstrated that gamified quizzes substantially increased junior high school students' reading comprehension scores compared to traditional methods. These findings prove that gamification has great potential in improving students' learning outcomes.

However, many previous studies have only measured the results of gamification (such as post-test scores) without analyzing students' engagement processes or exploring how gamification can be optimized for specific text types (such as descriptive text) and local learning contexts. This research gap suggests that there is limited understanding of how gamification can be effectively adapted to the unique characteristics of descriptive texts and to the local classroom context of Indonesian junior high schools.

Therefore, the present study aims to examine the effectiveness of the

gamification method in improving ninth-grade students' reading comprehension in descriptive texts at SMP Negeri 7 Pematangsiantar. This research employs a quasi-experimental design, involving an experimental group taught using the gamification method and a control group taught through conventional instruction. Pre-tests and post-tests are administered to both groups to measure the students' improvement, and the data are analyzed statistically to determine the effectiveness of the method.

The findings of this study are expected to contribute to a better understanding of how gamification can be effectively implemented to enhance students' reading comprehension skills and engagement in learning descriptive texts. Moreover, it is anticipated that this study will provide practical insights for English teachers in Indonesia to adopt gamification as an innovative strategy in reading instruction.

RESEARCH METHOD

This study employed a quantitative approach using a quasi-experimental design, specifically the pre-test and post-test control group design. This design was selected to examine the effectiveness of the Gamification Method in improving students' reading comprehension of descriptive texts in a real classroom context where random assignment was not feasible.

Research Design

This study employed a quantitative research approach to examine the effect of the Gamification Method on students' reading comprehension of descriptive texts. A quantitative approach was chosen because the study aimed to measure the effectiveness of a teaching method through numerical data and statistical analysis.

Specifically, the research used a quasi-experimental design, namely the pre-test and post-test control group design. This design was selected because random

assignment of students to groups was not possible, as the classes had been previously established by the school administration. Nevertheless, the design allowed for meaningful comparison between groups to identify the causal effect of the instructional treatment.

The research involved two groups: an experimental group and a control group. The experimental group received instruction using the Gamification Method through game-based learning platforms such as Quizizz and Kahoot, while the control group was taught using conventional reading instruction. Both groups were administered a pre-test before the treatment to measure their initial reading comprehension levels and a post-test after the treatment to assess learning outcomes.

The variables of the study consisted of an independent variable and a dependent variable. The independent variable was the Gamification Method, which was implemented in the teaching of reading comprehension using interactive game elements. The dependent variable was students' reading comprehension of descriptive texts, which was measured through the results of the reading comprehension tests.

Through this research design, the study sought to determine whether the application of the Gamification Method resulted in a significant improvement in students' reading comprehension compared to conventional instructional practices.

Research Participants or Population and Sample

The population of this study consisted of all ninth-grade students of SMP Negeri 7 Pematangsiantar in the academic year 2025/2026. The total population included all classes at the ninth-grade level who were receiving English instruction as part of the school curriculum.

The sample was selected using **purposive sampling**, based on the similarity of students' English proficiency levels and academic background. Two intact classes were chosen as the research sample to ensure comparability between groups. Class IX-7 was assigned as the **experimental group**, while Class IX-9 served as the **control group**. Each class consisted of 30 students, resulting in a total sample of 60 participants.

The allocation of the groups was determined by the existing class structure set by the school administration; therefore, random assignment was not applied. However, both groups were assumed to have relatively similar English proficiency levels based on their previous semester scores and teachers' recommendations. This condition supported the use of a quasi-experimental design in examining the effect of the Gamification Method on students' reading comprehension.

The experimental group received instruction through the Gamification Method, while the control group was taught using conventional reading instruction. This grouping allowed the researcher to compare the learning outcomes of students taught with gamified learning activities and those taught through traditional methods.

Instrument

The instrument used in this study was a **reading comprehension test** designed to measure students' ability in understanding descriptive texts. The test functioned as both the pre-test and post-test in order to identify students' reading comprehension performance before and after the implementation of the Gamification Method.

The reading comprehension test consisted of **25 multiple-choice items** with four answer options. The items assessed several aspects of reading comprehension, including identifying main ideas,

understanding specific information, interpreting vocabulary in context, and recognizing the structure of descriptive texts. The test items were developed by the researcher based on the ninth-grade English curriculum and the learning objectives applied at SMP Negeri 7 Pematangsiantar.

To ensure **content validity**, the test was reviewed by **two English teachers** at SMP Negeri 7 Pematangsiantar and **one university lecturer** in English education. Their suggestions were used to revise unclear instructions, improve item clarity, and adjust the level of difficulty to match students' proficiency.

Prior to its use in the main study, the instrument was examined for reliability. The reliability of the test was calculated using the **Kuder–Richardson Formula 21 (KR-21)**, which indicated that the instrument had a satisfactory reliability level and was appropriate for measuring students' reading comprehension consistently.

In addition to the test, **observation checklists** and **student questionnaires** were used as supporting instruments to collect additional data on students' engagement and motivation during the learning process using the Gamification Method. The observation checklist was completed by the researcher during classroom activities, while the questionnaire was administered after the treatment.

Data Analysis

The data obtained from the pre-test and post-test were analyzed using **quantitative statistical techniques** to determine the effectiveness of the Gamification Method on students' reading comprehension of descriptive texts. The analysis process was conducted systematically using **SPSS version 25**.

First, the students' test scores were tabulated and screened to ensure completeness. No missing data were found, as all participants from both the

experimental and control groups completed the pre-test and post-test. Outlying values were examined by comparing individual scores with the overall score distribution. Since all scores fell within the acceptable range of students' achievement levels, no data were excluded from the analysis.

Second, **descriptive statistics** were calculated to summarize students' reading comprehension performance. These included the **mean scores** and **standard deviations** of the pre-test and post-test results for both groups. The gain scores (post-test minus pre-test) were also computed to identify the level of improvement after the treatment.

Third, to test the research hypothesis, an **Independent Samples t-test** was employed to compare the post-test mean scores of the experimental group and the control group. This statistical test was selected because the study involved two independent groups and aimed to examine whether a significant difference existed between their learning outcomes. The level of significance was set at **0.05**.

The results of the t-test showed that the **p-value was less than 0.05**, indicating a statistically significant difference between the two groups. This result confirmed that the Gamification Method had a significant effect on improving students' reading comprehension of descriptive texts compared to conventional instruction.

In addition, qualitative data obtained from observation checklists and student questionnaires were analyzed descriptively

to support the quantitative findings, particularly in explaining students' engagement and motivation during the learning process.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

This study aimed to examine the effectiveness of the Gamification Method in enhancing ninth-grade students' reading comprehension of descriptive texts at SMP Negeri 7 Pematangsiantar. The research involved two classes: Class IX-7 as the experimental group, which was taught using the Gamification Method, and Class IX-9 as the control group, which was taught using conventional instruction. Each class consisted of 30 students.

The descriptive statistical analysis revealed that the experimental group (Class IX-7) obtained a total pre-test score of 1840 with a mean score of 61.33, which increased to a total post-test score of 2555 with a mean score of 85.17. Meanwhile, the control group (Class IX-9) recorded a total pre-test score of 1625 with a mean score of 54.17 and a total post-test score of 2495 with a mean score of 83.17. These findings indicate that both groups experienced improvement in reading comprehension after the instructional treatments. However, the experimental group achieved a higher post-test mean score than the control group, suggesting that the Gamification Method contributed more effectively to students' reading comprehension improvement.

Table 1. Descriptive Statistics of Pre-test and Post-test Scores

Group	N	Pre-test Mean	Post-test Mean	Mean Gain
Experimental (Class IX-7)	30	61.33	85.17	23.84
Control (Class IX-9)	30	54.17	83.17	29.00

Table 1. Mean Scores of Pre-test and Post-test in Experimental and Control Groups

To provide a clearer description of students' achievement levels after the treatment, the post-test scores of students from both Class IX-7 and Class IX-9 were

further classified into score intervals and presented in the form of a frequency distribution, as shown in Table 2

Table 2. Frequency Distribution of Students' Post-test Scores

No	Score Interval	Frequency	Percentage (%)	Category
1	85–100	59	28.36	Very Good
2	75–84	93	44.71	Good
3	65–74	37	17.78	Fair
4	55–65	19	9.15	Bad
	Total	208	100.00	—

Table 2. Frequency Distribution of Students' Post-test Scores

The data in Table 2 show that the majority of students (73.07%) achieved scores in the good and very good categories. This result indicates that students generally demonstrated strong reading comprehension performance after the learning process. Notably, students in Class IX-7, who were taught using the Gamification Method, showed a higher tendency to achieve upper score categories compared to those in the control group.

Furthermore, an Independent Samples t-test was conducted to determine whether the difference in post-test scores between the experimental and control groups was statistically significant. The result revealed that the obtained p-value was less than 0.05,

indicating a statistically significant difference between the post-test scores of Class IX-7 and Class IX-9. Therefore, the alternative hypothesis (H_a), which states that the Gamification Method significantly enhances students' reading comprehension of descriptive texts, was accepted.

The detailed individual students' pre-test and post-test scores are presented in Appendix A.

To further illustrate the distribution of students' post-test scores, a bar chart is presented in Figure 1

Figure 1. Distribution of Students' Post-test Scores

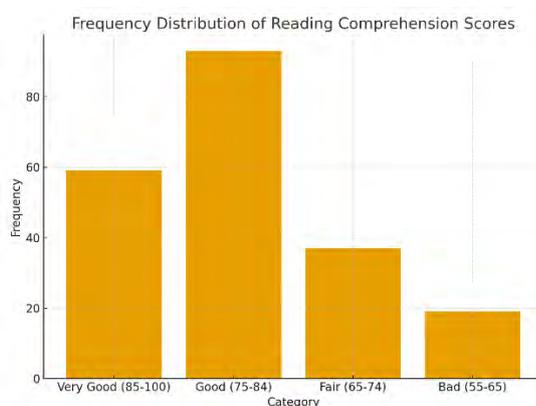


Figure 1. Distribution of Students' Post-test Scores

As shown in Figure 1, the largest proportion of students falls within the good and very good categories, indicating that most students achieved satisfactory to excellent reading comprehension performance after the learning process. This visual representation supports the data presented in Table 2 and highlights the positive learning outcomes, particularly among students in Class IX-7 who were taught using the Gamification Method.

Furthermore, an Independent Samples t-test was conducted to determine whether the difference in post-test scores between the experimental and control groups was statistically significant. The result revealed that the obtained p-value was less than 0.05, indicating a statistically significant difference between the post-test scores of Class IX-7 and Class IX-9. Therefore, the alternative hypothesis (H_a), which states that the Gamification Method significantly enhances students' reading comprehension of descriptive texts, was accepted.

The detailed individual students' pre-test and post-test scores are presented in Appendix A

Discussion

This study investigated the effectiveness of the Gamification Method in improving ninth-grade students' reading comprehension of descriptive texts at SMP Negeri 7 Pematangsiantar. The findings demonstrated that students in Class IX-7, who were taught using gamified learning activities, achieved higher reading comprehension outcomes than those in Class IX-9, who received conventional instruction. This result confirms that the Gamification Method provides a positive contribution to students' reading comprehension development.

The improvement in the experimental group can be attributed to the interactive and engaging nature of gamification. The

use of game elements such as points, competition, and immediate feedback encouraged students to actively participate in reading activities rather than passively receiving information. This active involvement is consistent with the theory proposed by Deterding et al. (2011), who argue that gamification enhances learners' motivation and engagement by integrating game design elements into non-game contexts. When students are motivated and engaged, they are more likely to focus on the reading tasks and comprehend the text more effectively.

The findings of this study also support Kapp's (2012) assertion that gamification promotes meaningful learning by combining challenge, feedback, and learner interaction. Through platforms such as Quizizz and Kahoot, students were able to receive immediate feedback on their responses, which helped them identify mistakes and improve their comprehension strategies. This mechanism aligns with Hamari et al. (2014), who found that gamification positively influences students' engagement and learning performance.

Moreover, the results of this study are consistent with previous empirical research. Studies conducted by Sari et al. (2024) and Salim et al. (2025) reported that students exposed to gamified reading activities achieved significantly better reading comprehension scores than those taught using traditional methods. Similarly, Nazmi (2024) and Anggraini et al. (2023) found that the use of Kahoot-based gamification significantly enhanced EFL students' reading achievement. These similarities indicate that gamification is an effective instructional strategy across different educational contexts.

In the context of descriptive texts, gamification helped students better identify main ideas, supporting details, and vocabulary by transforming reading tasks into enjoyable challenges. This finding is particularly relevant to junior high school learners, who often experience low

motivation in reading activities. By creating a positive learning atmosphere, the Gamification Method reduced students' anxiety and increased their confidence in understanding English texts.

Overall, the discussion confirms that the Gamification Method is not only effective in improving students' reading comprehension outcomes but also beneficial in fostering students' motivation and engagement in reading lessons. Therefore, the integration of gamification into English reading instruction is strongly recommended, particularly for teaching descriptive texts in EFL classroom contexts.

CONCLUSION

This study concludes that the **Gamification Method** has a significant positive effect on ninth-grade students' reading comprehension of descriptive texts at SMP Negeri 7 Pematangsiantar. The findings indicate that students who were taught using gamified learning activities achieved higher reading comprehension performance than those who received conventional instruction. This result confirms that integrating game-based elements into reading instruction can enhance students' learning outcomes.

The study also implies that the Gamification Method contributes to increased student motivation and engagement in reading activities. By creating an interactive and enjoyable learning environment, gamification encourages students to participate actively and focus more effectively on understanding reading texts. These conditions support better comprehension achievement, particularly in learning descriptive texts.

Therefore, the application of the Gamification Method is recommended as an effective instructional strategy for English teachers, especially in EFL classroom contexts at the junior high school level. The findings of this study provide

pedagogical implications for improving reading instruction through innovative and engaging learning approaches.

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APPENDIX A

Students' Pre-test and Post-test Scores

This appendix presents the individual pre-test and post-test scores of ninth-grade students from Class IX-7 (Experimental Group) and Class IX-9 (Control Group) at SMP Negeri 7 Pematangsiantar. The data are provided to support the statistical analyses reported in the Research Findings section.



Table A1. Individual Students' Pre-test and Post-test Scores

No	Class 9.7	Pre-Test	Post Test	Class 9.9	Pre-test	Post Test
1	AF	55	80	AU	50	80
2	AS	40	75	ASAC	45	85
3	AH	60	90	AK	60	80
4	CL	35	80	EL	55	85
5	CS	65	90	FU	65	85
6	CA	65	95	JK	50	75
7	EM	70	95	MN	20	60
8	RA	75	100	HJ	40	75
9	FN	45	85	UI	55	80
10	GJ	55	85	OL	45	85
11	IH	75	100	SD	35	65
12	JF	60	90	TE	30	75
13	JA	65	90	KJ	65	90
14	KS	80	100	JL	70	90
15	LR	65	85	OP	40	70
16	LM	85	100	YH	55	75
17	LQ	70	100	MA	50	85
18	MK	75	95	OL	40	75
19	ML	65	80	IY	35	75
20	NM	55	75	UG	65	85
21	NS	45	75	LR	70	100
22	OS	70	75	FH	70	100
23	PP	75	85	HU	75	100
24	RS	60	85	SR	70	95
25	SO	75	100	ST	55	80
26	TB	75	90	SM	65	90
27	TS	45	50	SY	70	100
28	VT	40	60	YM	60	85
29	YS	35	65	VO	55	80
30	YT	60	80	GH	65	90
		1840	2555		1625	2495

Table A1. Individual Students' Pre-test and Post-test Score