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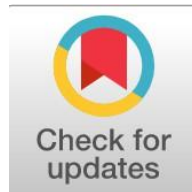
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Interactive Quizalize Application Advances Descriptive Text Comprehension Among Tenth Grade Students

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Abstract

General Background: Reading mastery represents a complex cognitive process requiring both vocabulary acquisition and background knowledge integration within foreign language learning. **Specific Background:** Many high school learners struggle to interpret contextual clues, deduce implicit meanings, and identify main ideas when processing descriptive materials. **Knowledge Gap:** Although digital platforms exist, the specific application of adaptive game-based systems for targeted reading mechanics remains underexplored in senior secondary settings. **Aims:** This pre-experimental study investigates the application of game-based reading tools on literary mastery among 35 learners at a public school in Sidoarjo. **Results:** Utilizing a one-group pre-test and post-test design evaluated via the Wilcoxon Signed Rank Test, the analysis demonstrated a significant progression in assessment scores. Learners showed substantial development in vocabulary retention, detailed information retrieval, and inferential reasoning, while digital leaderboards and immediate feedback stimulated active classroom participation. **Novelty:** The intervention distinctly utilizes an adaptive online framework to transform passive reading tasks into dynamic, data-driven cognitive exercises. **Implications:** Deploying this engaging pedagogical model provides language educators with a technological strategy to fulfill foundational literacy requirements and modernize instructional delivery.

Highlights:

- ♦ Game-based platforms significantly raise assessment scores by providing immediate feedback and adaptive quizzes.
- ♦ Digital pedagogical interventions successfully develop vocabulary mastery and inferential reasoning capabilities.
- ♦ Leaderboards and gamified elements actively stimulate learner engagement during complex literary analysis tasks.

Keywords: Game Based Learning, Reading Proficiency, Digital Pedagogy, Foreign Language Education, Wilcoxon Signed Rank Test

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I. Introduction

Reading comprehension in English as a foreign language is not only about knowing word meanings. It is also about how students understand ideas by connecting vocabulary, sentences, and context in a text. Satria explains that students need enough vocabulary and the ability to understand meaning at sentence and text level using context [1]. This shows that reading comprehension is a process of understanding meaning, not simply translating words. Although vocabulary is important, it is not enough by itself to help students understand a text. A previous study conducted by Pratiwi et al. show that understanding idioms, figurative language, and cultural references is closely related to students' background knowledge and awareness of context [2]. Similarly, Wisudawati et al. explained that activating background knowledge before reading can help EFL students understand texts more effectively because it allows them to connect new information with what they already know [3]. Recent studies by Samudera and Lolita also reported that schema activation strategies, such as KWL charts, pre-teaching vocabulary, and the use of visual aids, can improve students' understanding of texts at both basic and deeper levels [4]. In addition, Ramadhianti and Somba stated that reading comprehension in a foreign language requires vocabulary knowledge, language comprehension, and sufficient background knowledge to interpret information accurately [5].

Recent research by Rachmatia et al. also explained that schema activation strategies help EFL students connect prior knowledge with new information, which improves reading comprehension performance [6]. Biboussi also stated that activating students' background knowledge before reading activities can help learners understand texts more effectively and improve comprehension outcomes [7]. These findings show that reading comprehension is influenced not only by vocabulary mastery but also by students' ability to connect the text with their experiences and prior knowledge.

These factors are important because reading comprehension depends on how well students understand language and use contextual clues from the text while reading. Students who can understand meaning at the sentence and text level usually read more smoothly and correctly. In contrast, students who do not have good language understanding often face problems, such as misunderstanding the content, losing track of ideas, or not being able to find the main idea of the text. This condition is supported by previous research conducted by Patty and Hattu, showing that many EFL learners struggle with reading comprehension due to limitations in language comprehension and contextual understanding [8]. Similarly, recent research by Koda explained that EFL learners often experience reading difficulties because of limited exposure to English texts and insufficient language comprehension skills [9].

In real classroom situations, many students still face reading comprehension difficulties, even though vocabulary mastery and background knowledge are essential for reading. These difficulties are often caused by limited vocabulary, weak reading habits, and a lack of effective feedback during the learning process, as explained by Rahmawati [10]. Students who have difficulty understanding language and using contextual clues often struggle to interpret text correctly and identify important information. Ramadhan et al. also stated that insufficient language understanding may cause students to misunderstand texts, lose important ideas, and fail to identify the main point of a passage [11]. Therefore, learning strategies used in reading classes should be engaging, interactive, and suited to students' learning needs. For this reason, Quizalize is selected in this study as a web-based quiz platform that applies a game-based learning approach.

Quizalize gives interactive quizzes, different types of questions and quick feedback to help students learn reading, especially vocabulary and understanding language. Through quiz activities, scores, and fast responses, Quizalize makes students more active and helps them feel more motivated to learn. In addition, Quizalize allows teachers to monitor students' progress individually and collectively. Ayuningtyas explains that Quizalize as a digital quiz-based learning tool enhances students' engagement and digital literacy in learning activities [12]. The study highlights that interactive quiz platforms support formative assessment by providing immediate feedback and helping students better understand learning materials through active participation. Recent research by Widiyanto et al. [13] showed that the use of Quizalize as a game-based quiz platform can improve students' reading skills. This finding indicates that Quizalize can support students in developing better reading comprehension through interactive learning activities. In addition, Salim and Sukarno stated that gamified learning platforms that emphasize adaptive feedback are more effective than traditional teaching methods because they provide immediate responses that help students understand learning materials more efficiently.[14].

Recent studies also support the effectiveness of game-based learning (GBL) in English classrooms. Matyakhan explained that digital quiz platforms with interactive feedback can improve students' reading engagement and comprehension achievement in EFL classrooms [15]. Panmei and Waluyo found that game-based learning activities encourage students to participate more actively and help improve vocabulary understanding during reading lessons in EFL classroom [16]. Nasir et al. reported that game-based vocabulary learning activities significantly improved EFL students' vocabulary mastery and increased classroom participation [17]. Similarly, Quita et al. found that game-based learning significantly improved students' reading proficiency and reading comprehension while increasing their motivation, active participation, and enthusiasm during reading activities [18]. Furthermore, Qomariyah and Taufiq found that the implementation of game-based learning activities supported students' reading comprehension by creating an engaging and interactive learning environment [19]. Hudaya et al. concluded that game-based learning effectively increased students' motivation, vocabulary development, and learning outcomes in EFL classrooms [20].

However, most previous studies only discussed the general use of Quizalize and did not specifically focus on its implementation in teaching descriptive texts at the senior high school level. Some studies also did not clearly explain how Quizalize's adaptive features support students' language comprehension during reading activities. According to Sari [21], adaptive quiz platforms are still rarely used to improve reading comprehension, especially in vocabulary, language understanding, and using background knowledge. Based on early observations at a public senior high school, many tenth-grade students had difficulties in reading descriptive text. These problems included limited vocabulary, weak understanding,

and difficulty connecting the text with what they already know. As a result, many students found it difficult to identify the main ideas and understand detailed information in the text.

Although the school had used several digital learning tools, Quizalize had not been used specifically to solve reading comprehension problem in descriptive text. This was confirmed through an interview with an English teacher, who said many students still had difficulties with vocabulary, understanding language and connecting the text to their own experiences. Based on this condition, this study was conducted at a public senior high with tenth-grade students. The aim of this study is to introduce Quizalize as a teaching strategy in English Language Teaching (ELT), especially for descriptive text. The novelty of this study is to examine how Quizalize, when used in a focused and structured way as a game-based platform, can help students improve their reading and language comprehension through adaptive digital learning.

This study applies a quantitative research design and uses the Simple View of Reading (SVR) as its theoretical framework. According to SVR theory, reading comprehension is the result of decoding and language comprehension (Gough & Tunmer, 1986; Hunt & Beglar, 2005). language comprehension is reflected through students' vocabulary understanding and their ability to interpret meaning from the text. Reading comprehension is measured through reading tests administered before and after the implementation of Quizalize activities. The improvement in students' reading comprehension is then analyzed quantitatively to determine the effectiveness of Quizalize in teaching descriptive texts.

In line with this framework, Quizalize helps students understand develop language understanding through adaptive and vocabulary-based quizzes in a game-based learning environment. In addition, based on the cognitive-sociocultural perspective, reading in a foreign language involves not only cognitive skills but also students' experiences and background knowledge, as explained by Utami et al. [22]. By using relevant text in interactive quizzes, Quizalize helps increase student's motivation and improves their reading comprehension.

Based on this explanation, this research focuses on the following research questions:

1. Is there any effect of Quizalize towards students reading comprehensions?

II. Method

A. Research Design

This study used a quantitative method with one-group pre-test and post-test design. It aimed to find out whether Quizalize could help improve students' reading comprehension of descriptive text. In this study, one only class was used as the sample, and there was no control group.

Students' reading comprehension was measured twice, before and after the treatment. The pre-test was used to see students' initial ability, while the post-test was administered after using Quizalize to see their improvement. The result from both tests were compared to find out how far Quizalize can improve students' trading comprehension of descriptive text. In this study, the independent variable was the use of Quizalize in teaching descriptive text, and the dependent variable was students' reading comprehension ability. Reading comprehension was assessed in several ways, including:

- 1) Vocabulary understanding,
- 2) Language comprehension at the sentence and text levels,
- 3) Ability to identify main ideas and detailed information,
- 4) Inference making, and
- 5) Contextual understanding of the text.

Tabel 1. Design Of Pre-Test and Post-Test Group

Class	Pre-Test	Intervention	Post-Test
A	O1	X	O2

Information:

A: The class that will receive the treatment using Quizalize (Game-Based Learning).

O1: Pre-test to measure students' initial reading comprehension

X: Treatment using Quizalize in teaching descriptive texts

O2: Post-test to measure students' reading comprehension after the treatment

B. Population and Sample

The population of this study is all tenth-grade students at a public senior high school in Sidoarjo in the 2025/2026 academic year. There were 12 tenth-grade classes with approximately 420 students in total. The students were around 15 to 16 years

old. Descriptive text were taught in English classes, but many students still had difficulties in reading comprehension, especially understanding vocabulary, understanding the meaning of the text, and identifying the main idea and detailed information.

The sample of this study was selected using purposive sampling. One full class of tenth-grade students was chosen as the sample. All students in the selected class were included in the study. The selected class consisted of 35 students. This number was considered sufficient for quantitative data analysis. If any student did not take the pre-test, treatment one, treatment two and post-test, the missed activity or test was given at another time so that all data from the pre-test to the post-test could be compared.

1) Data Collection

The data in this study were collected in several steps, a pre-test, two treatment sessions, and a post-test, all activities were conducted in English class focusing on descriptive texts, with tenth-grade students at a public senior high school. Quizalize was used as a game-based learning platform to support the learning process and to help collect the data.

a) Pre-Test

The pre-test was conducted before the use of Quizalize to measure students' reading comprehension of descriptive texts. The test was paper-based and was given to 35 students in the selected class. It consisted of 20 multiple-choice questions based on descriptive text. The questions measured several reading skills, including:

- Vocabulary meaning (4 questions)
- Identifying specific information (7 questions)
- Understanding sentences and text function (1 question)
- Determining main ideas (2 questions)
- Making inferences (2 questions)
- Identifying references (1 question)
- Understanding text organization (2 questions)
- Identifying the general description of the text (1 question)

Before the test began, the researcher explained the instructions and asked the students to write their names and attendance numbers on the answer sheets. The students were divided into two groups based on their attendance numbers: odd and even. Students with odd attendance numbers entered the classroom first and completed the test individually. The researcher supervised the students during the test and collected the answer sheets after the time was over. After that, students with even attendance numbers entered the classroom and completed the same test using the same procedure. When all students had finished the test, the researcher checked the answers and recorded the scores. The pre-test was conducted over two lessons or around 90 minutes.

Sample Questions:

The following question (Question 1-5) are taken from the 20 questions used in the paper-based Pre-Test

A. Reading Text (Contextually Familiar – Schema-Friendly)

My School Library

My school library is one of the most comfortable places in the school. It is located on the second floor near the teachers' room. The room is spacious, clean, and well-organized, so students can read and study comfortably.

The library has many shelves containing various books such as textbooks, novels, magazines, and dictionaries. There are tables and chairs provided for students who want to read quietly. The librarian is helpful and often assists students in finding the books they need.

Because the library is quiet and well-equipped, many students like to spend their free time there to read or complete their school assignments.

1. The word "comfortable" in line one of paragraph one means ...
A. Noisy
B. Unpleasant
C. Relaxing
D. Crowded
2. The word "spacious" in line three of paragraph one is closest in meaning to ...
A. Narrow
B. Wide
C. Dark
D. Old
3. The word "various" in line one of paragraph two refers to ...
A. Expensive
B. Many kinds of
C. Limited
D. Similar
4. The word "equipped" in line one of paragraph three means ...
A. Painted
B. Supplied
C. Repaired
D. Cleaned
5. Why do students feel comfortable in the library?
A. It is near the canteen
B. It is clean and organized
C. It is always full
D. It is noisy

b) Treatment 1 (Initial Treatment)

The first treatment session was conducted after the pre-test. In this session, the researcher explained descriptive text to the students. The explanation included the definition of descriptive text, its generic structure (identification and description), and its language features, such as simple present tense and adjectives. The researcher also explained how to identify the main idea and important information in a text. This activity was conducted in one lesson or around 45 minutes.

The treatment procedures were as follows:

- 1) The researcher entered the classroom and started the lesson.
- 2) The researcher explained the material about descriptive text.
- 3) The researcher gave examples of descriptive texts and discussed them with the students.
- 4) The students were given the opportunity to ask questions about the material.
- 5) After the explanation, the students joined a Quizalize activity to practice their reading comprehension skills.

The Quizalize activity was conducted as follows:

- 1) The researcher opened the Quizalize website and provided a QR code for students to join the activity.
- 2) The students entered their names and attendance numbers.
- 3) The students read a descriptive text provided in Quizalize.
- 4) The students answered 20 multiple-choice questions based on the text.
- 5) The question focused on vocabulary, main ideas, and detailed information.
- 6) The researcher monitored the students during the activity.
- 7) After all students finished, the students could see the results directly in Quizalize.
- 8) The researcher discussed questions that were answered incorrectly by many students.

So, this activity was conducted to help students practice reading comprehension through Quizalize.

c) Treatment 2 (Follow-Up Treatment)

The second treatment was conducted in the next meeting. This treatment focused on the difficulties found during the pre-test and the first treatment. Some students still had difficulties in understanding vocabulary, finding detailed information, understanding the meaning of the text, and making simple conclusions. Therefore, the second treatment was given to help students improve their reading comprehension. This activity was conducted in one lesson or around 45 minutes.

The treatment procedures were as follows:

- 1) The researcher entered the classroom and started the lesson with a short review of the previous material.
- 2) The researcher explained the parts that were still difficult for the students.
- 3) The researcher gave examples and discussed them with the students.
- 4) The students were given the opportunity to ask questions.
- 5) After all review session, the students joined a Quizalize activity to practice their reading comprehension skills.

The Quizalize activity was conducted as follows:

- 1) The researcher opened Quizalize and shared a QR code for students to join the activity.
- 2) The students entered their names and attendance numbers.
- 3) The students read a descriptive text with a slightly higher level of difficult than the text used in the first treatment.
- 4) The students answered 20 multiple-choice questions.
- 5) The questions focused on detailed information, contextual meaning, and simple conclusions.
- 6) The researcher monitored the students during the activity.
- 7) After all students finished, the researcher checked the results.
- 8) The researcher discussed questions that were answered incorrectly by many students.

d) Post-Test

The post-test was conducted after all treatment sessions using Quizalize had been completed. It was used to measure students' reading comprehension of descriptive texts after the treatment. The test was paper-based and was given directly to the students in the classroom. It consisted of 20 multiple-choice questions based on a descriptive text. The questions measured several reading skills, including:

- Vocabulary meaning (4 questions)
- Identifying specific information (6 questions)
- Determining main ideas (2 questions)
- Making inferences (2 questions)
- Identifying inferences (2 questions)
- Identifying text purpose and text type (2 questions)
- Understanding the use of SVR in organizing information and comprehension (2 questions)

Before the test started, the researcher explained the instructions and distributed the test sheets to the students. The students completed the test individually, and the researcher supervised the activity during the test. After all students had finished, the answer sheets were collected and checked by the researcher. The post-test scores were then compared with the pre-test scores to see whether there was an improvement in students' reading comprehension after the use of Quizalize.

Sample Questions:

The following question (Question 1-5) are taken from the 20 questions used in the paper-based Post-Test

B. Reading Text – Post-Test

The City Park

The city park is a popular place in my town. It is located in the center of the city and is visited by many people every day. The park has green grass, tall trees, and colorful flowers. There are benches where visitors can sit and relax. Children often play in the playground, while adults enjoy walking or exercising. The park is clean and well-maintained, making it a pleasant place for everyone.

1. What is the main idea of the text?
 - A. City traffic
 - B. Description of a city park
 - C. Children's activities
 - D. Public transportation
2. The text mainly tells about ...
 - A. A shopping center
 - B. A city park
 - C. A school yard
 - D. A zoo
3. Where is the park located?
 - A. Near the river
 - B. Outside the city
 - C. In the city center
 - D. Near the school
4. What can be found in the park?
 - A. Buildings
 - B. Shops
 - C. Grass, trees, and flowers
 - D. Parking lots
5. Who often plays in the playground?
 - A. Teenagers
 - B. Adults
 - C. Children
 - D. Teachers

e) Data Recording and Scoring

To reduce cheating and guessing, Quizalize randomized the order of questions and answer choice for each student. The test was conducted in the classroom. Students were divided into two groups, odd and even attendance numbers. The researcher supervised the class to make sure students worked independently. Students were asked to complete the test by themselves without discussion, and the time was limited to reduce guessing and copying. Quizalize automatically recorded students' answers, accuracy, and their speed in completing the questions automatically. The data were then exported and analyzed using SPSS. The post-test scores were compared with the pre-test scores to see whether the students improved after joining the Quizalize learning activities. The comparison of both tests showed whether Quizalize helped improve students' reading

comprehension of descriptive text.

Table 2. Reading Comprehension Scoring Criteria

Reading Comprehension Aspect	Description
Vocabulary Understanding	Understanding the meaning of words used in the text
Main Idea	Identifying the main idea of the text or paragraph
Specific Information	Finding detailed information stated the text
Contextual Meaning	Understanding in the meaning of words or sentences based on the context
Simple Inference	Making simple conclusions based on information in the text

The multiple-choice questions in this study were designed to measure several aspects of reading comprehension, such as identifying main ideas, understanding vocabulary, understanding contextual meaning, and making simple inferences from the text. Vocabulary mastery and inference-making ability were important in reading comprehension, especially for EFL students. Students with better vocabulary knowledge and inference skills could understand both explicit and implicit meanings in the text more effectively, as stated by Royeras and Sumayo [23].

2) Data Analysis

The data in this study were analyzed in two stages. The first stage was data presentation. In this stage, the students' pre-test and post-test scores were presented in tables and simple descriptive statistics. The purpose was to see the distribution of the scores and identify students' improvement before and after the treatment. This stage also provided a general overview of students' reading comprehension after using Quizalize as a digital learning platform. Previous research by Noni demonstrated that using digital reading platforms can help students comprehend reading texts by providing interactive elements and vocabulary support [24].

The second stage was inferential analysis. This stage was used to test the research hypothesis, which was to see whether Quizalize could help improve students' reading comprehension of descriptive text. Before testing the hypothesis, the researcher conducted a Shapiro-Wilk normality to check whether the pre-test and post-test data were normally distributed. This test was chosen because it is suitable for small sizes, especially when the number of participants is less than 50.

If the data are normally distributed ($p > 0.05$), a paired t-test was used to compare the pre-test and post-test scores. If the data were not normally distributed ($p \leq 0.05$), the Wilcoxon test was used as alternative. The test was used to see whether there was a difference between the scores before and after the treatment, and find out whether the treatment was effective students' reading scores were calculated based on the number of correct answers. Each correct answer was given 5 points, while incorrect answer was given 0. The total score is then converted into a 0-100 scale using the following formula:

$$Final\ Score = \frac{Number\ of\ Correct\ Answers}{20} \times 100 \quad (1)$$

This scoring system was used to keep the assessment fair and consistent in both the pre-test and post-test. In addition, the students' scores were grouped into five levels to make the result easier to understand, as how shown below:

Table 3. The Classification of Students Scores

Range	Category
5 - 100	xcellent
0 - 84	ood
5 - 69	dequate
0 - 54	oor
39	ery Poor

Each reading aspect was assessed using the same rubric, such as understanding main ideas, vocabulary, context, making inferences, and reading accuracy. This rubric was used in both the pre-test and post-test to keep the assessment consistent and make the result more reliable. Vocabulary mastery and inference-making ability have been highlighted as important factors affecting students' reading comprehension in EFL contexts, as reported by Ofayani et al. [25]. Students with better vocabulary knowledge tend to understand texts more easily and accurately.

Additionally, an effect size analysis was conducted to find out how strong the impact of Quizalize was on students' reading

comprehension. For parametric test, the effect size was calculated using Cohen's d, while for non-parametric test, and appropriate formula was used. This analysis were important because it showed not only whether the result is statistically significant, but also how large the real impact of the treatment was. Previous studies by Riyani on digital and AI-assisted reading tools also highlight the importance of this effect size analysis in determining how much technology-based interventions influence students' reading performance and engagement [26]. Throughout these stages, the data analysis not only shows whether the results were significant, but also explain how Quizalize helps students improve their reading comprehension of descriptive text through interactive and adaptive digital learning.

III. Result and Discussion

Result

The results of this study are presented based on the purpose of the research, which was to find out whether Quizalize improved students' reading comprehension of description texts. This section presents the results of the pre-test, treatment sessions, and post-test. The data were analyzed using SPSS to determine whether there was an improvement in students' reading comprehension after the use of Quizalize. The results are presented both descriptively and quantitatively. The discussion is also related to the Simple View of Reading (SVR) theory and game-based learning because Quizalize was used as an interactive learning platform during the teaching and learning process [13].

1) The Result of Mean Score

Figure 1. The Result of Case Processing Summary and Normality Test

Case Processing Summary						
	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
pre_test	35	100.0%	0	0.0%	35	100.0%
pos_test	35	100.0%	0	0.0%	35	100.0%

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pre_test	.164	35	.018	.941	35	.062
pos_test	.238	35	.000	.853	35	.000

a. Lilliefors Significance Correction

As shown in figure 1, the mean score of the pre-test was 72,71, while the mean score of the post-test was 87,43. The mean score increased by 14,72 points after the use of Quizalize. The minimum score also increased from 40 in the pre-test to 50 in the post-test, while the maximum score remained 100. These results indicate that students showed better reading comprehension after learning through Quizalize.

2) The Result of Normality Test

Figure 2. The Result of Case Processing Summary and Normality Test

Descriptives

[DataSet0]

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre_Test	35	40	100	72.71	17.079
Post_Test	35	50	100	87.43	12.624
Valid N (listwise)	35				

Based on the SPSS output in the Tests Normality table, the interpretation of normality is determined from the Sig. (p-value). Since the sample size was 35 students (< 50), the Shapiro-Wilk result was used for the interpretation.

Table 4. Shapiro-Wilk Normality Test Results

Data	Sig. Shapiro -Wilk	Conclusion
re_test	.062	ormal
ost_test	.000	ot normal

Decision Rule:

- If the Sig. value $> 0.05 \rightarrow$ the data are normally distributed.
- If the Sig. value $< 0.05 \rightarrow$ the data are not normally distributed.

Interpretation:

- Pre-test $\rightarrow$ the Sig. value of the pre-test was 0.062. Since $0.062 > 0.05$, the pre-test data were normally distributed.
- Post-test $\rightarrow$ the Sig. value of the post-test was 0.000. Since $0.000 < 0.05$, the post-test data were not normally distributed.

Since one of the data sets, namely the post-test, was not normally distributed, the research data did not meet the assumption of normality. Therefore, it was not recommended to use the Paired Sample T-Test. Instead, a non-parametric test, namely the Wilcoxon Signed Rank Test, was more appropriate for analyzing the data.

3) The Result of Wilcoxon Signed Rank Test

Figure 3. The Result of Wilcoxon Signed Rank Test on Students' Reading Comprehension Scores

Wilcoxon Signed Ranks Test

		Ranks		
		N	Mean Rank	Sum of Ranks
pos_test - pre_test	Negative Ranks	3 ^a	10.50	31.50
	Positive Ranks	27 ^b	16.06	433.50
	Ties	5 ^c		
	Total	35		

a. pos_test < pre_test

b. pos_test > pre_test

c. pos_test = pre_test

Test Statistics^a

		pos_test - pre_test
Z		-4.150 ^b
Asymp. Sig. (2-tailed)		.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Based on the SPSS output of the Wilcoxon Signed Rank Test, the interpretation is as follows:

a) Ranks

Table 5. Wilcoxon Signed-Rank Test

Description	N
Negative Ranks	3
Positive Ranks	27
Ties	5
Total	35

Interpretation:

- **Negative Ranks** $\rightarrow$ students obtained lower post-test scores than the pre-test scores.
- **Positive Ranks** $\rightarrow$ students obtained higher post-test scores than pre-test scores.
- **Ties** $\rightarrow$ students obtained the same scores in both

b) Test Statistics

Table 6. Wilcoxon Signed-Rank Test Statistics

Statistics	Value
Z	-4.150
Asymp. Sig. (2-tailed)	0.000

Decision Rule:

- If Sig. $< 0.05 \rightarrow$ there is a significant difference.
- If Sig. $> 0.05 \rightarrow$ there is no significant difference.

c) Result

The significant value was 0.000. Since $0.000 < 0,05$, H_0 was rejected and H_1 was accepted.

So, there was significant difference between the students' pre-test and post-test scores after the treatment was given. Since most of the post-test scores were higher than the pre-test scores, the treatment had a positive effect on the students' ability.

Discussion

The result of this study showed that Quizalize helped students improve their reading comprehension of descriptive texts. The Wilcoxon Signed Rank test showed a significance value of 0.000. This means that there was significant difference between the students' pre-test and post-test scores. Most students got better scores after using Quizalize during the learning process. The improvement could be seen in several reading skills, such as understanding vocabulary, finding the main idea, identifying detailed information, and understanding the meaning of the text. During the lesson, the students were also more active and showed more interest in learning. They paid more attention to the activities, answered the quiz questions, and enjoyed joining the lesson. This shows that Quizalize helped students learn reading in a more interesting way.

The findings of this study are similar to previous studies. Widiyanto et al. [13] found that Quizalize improved students' reading comprehension through interactive quiz activities. This is similar to the result of the present study because the students also showed better reading comprehension after learning with Quizalize. Salim and Sukarno [14] also found that gamified quizzes helped students understand reading texts more easily because they received direct feedback after answering each questions. In this study, Quizalize also gave direct feedback, so the students could see whether their answer were correct or incorrect. This helped them understand their mistakes and learn the correct answer immediately. The findings of this study also agree with the study, Matyakhan et al. [15]. They found that digital quiz platforms increased students' participation and interest during reading activities in EFL classrooms. The same thing happened in this study. Many students became more active during the lesson. They were willing to answer questions, discuss the answers, and complete the reading tasks. The quiz features, such as scores and instant feedback, made the students more interested in joining the activities. Because of this, the classroom became more active, and the students are actively involved, they have more opportunities to understand the reading text.

The findings of this study can also be explained by the Simple View of Reading (SVR) theory. This theory explains that reading comprehension depends on decoding and language comprehension. Students need to recognize words and understand their meanings before they can understand the whole text. During the Quizalize activities, the students read descriptive texts and answered questions about vocabulary, main ideas, detailed information, and the meaning of the text. These activities gave the students more practice in understanding the reading material. The direct feedback also helped them know their mistakes and understand the correct answers. Because of this, the students could improve their understanding step by step during the lesson. Another reason for the improvement may be that Quizalize created a more enjoyable learning environment. The students did not only read the text, but they also answered quiz questions and received immediate feedback. This made the learning process more interesting than using only a printed worksheet. The game features also encouraged the students to stay focused until the end of the lesson. As a result, they became more confident and were not afraid to answer the questions even when they made mistakes. This active learning process helped the students understand the reading text better. Overall, the findings of this study are in line with the previous studies and the Simple View of Reading theory. The previous studies showed that Quizalize and other game-based learning activities could improve students' reading comprehension, increase participation, and make learning more enjoyable. The SVR theory also explains why the students' reading comprehension improved because they practiced both word understanding and text comprehension during the activities. Therefore, Quizalize can be used as an effective game-based learning tool to help students improve their reading comprehension of descriptive texts in EFL classrooms.

IV. Conclusion

Based on the findings of this study, Quizalize helped students improve their reading comprehension of descriptive texts. After using Quizalize, the students showed better reading performance. They improved in understanding vocabulary, finding the main idea, identifying detailed information, understanding the meaning of the text, and making simple inferences. The students were also more active and interested during the learning activities because the lessons were more interactive and enjoyable.

The findings of this study are in line with the Simple View of Reading (SVR) theory. This theory explains that students need to understand words and the meaning of the text to achieve good reading comprehension. During the Quizalize activities, the students practiced reading the text, answering quiz questions, and receiving direct feedback. These activities helped them understand the text more easily. Therefore, Quizalize can be used as an effective game-based learning platform to teach descriptive texts in EFL classrooms.

This study also gives some contributions. For students, Quizalize can help improve reading comprehension and encourage them to take part more actively in the learning process. For teachers, Quizalize can be used as another way to make reading lessons more interesting and interactive. For future researchers, this study can be used as a reference for studies about game-based learning or digital learning platforms in English language teaching, especially for reading comprehension. Future studies can also involve more students, different school levels, or other types of reading texts to get wider results.

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