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The Effect of Using Quizizz on Students' Reading Comprehension in Procedure Text

Vian Elfrida Hura[1], Desi Andriani[2], Rahma Dania[3]

Universitas Putra Indonesia "YPTK", Padang, Sumatera Barat, Indonesia[1,2,3]

Email:
vianelfrida@gmail.com[1]
andrianidesi33@gmail.com[2]
rahmadania.azed@gmail.com[3]

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Abstract
This study investigates the effect of using Quizizz, a game-based digital learning platform, on students' reading comprehension of procedure text at Semen Padang Vocational School. The research was motivated by students' struggles in understanding procedure texts, especially in following sequences, identifying main ideas, and grasping instructions-challenges commonly found in vocational school contexts. The objective of this study is to determine whether the implementation of Quizizz significantly improves reading comprehension among eleventh-grade students in the Industrial Electronics Engineering program. A pre-experimental design with one group pre-test and post-test employed, involving 17 students who participated in four sessions of instruction using Quizizz. Data were collected using comprehension-based tests before and after the intervention. The analysis revealed a significant improvement in students' reading scores, with the average increasing from 46.18 (pre-test) to 87.94 (post-test). A paired sample t-test yielded a t-value of 7.87, which is significantly higher than the t-table value of 2.131, indicating a statistically significant effect. These results demonstrate that Quizizz not only enhances comprehension through its interactive and gamified approach but also fosters student motivation and engagement. Students who previously had low scores were able to show remarkable progress, indicating that the tool is effective for a wide range of learner abilities.

Keywords: *Quizizz, Reading Comprehension, Procedure Text*

INTRODUCTION

The development of technology in education has changed the way teachers deliver materials in the classroom. Many teachers are now using digital tools to help students learn better and feel more interested in the lesson. Among the four English skills—listening, speaking, reading,

and writing—reading is very important. It helps students get more knowledge and supports their academic learning. For students in vocational schools, like in the Industrial Electronic Engineering program, reading is needed to understand manuals, instructions, and other technical texts in English (Wijaya, 2019).

Even though reading is important, many students still have difficulties with reading comprehension. At Semen Padang Vocational Schools, for example, some students are not able to understand procedure texts well. These texts explain steps to do something, and they are common in the technical field. The students usually find it hard to follow the sequence, understand what the instructions mean, and find the main idea of the text. This can happen because of limited vocabulary, less experience reading in English, and learning methods that are too traditional (Hardyansyah, 2021).

In Indonesia, English is a compulsory subject from elementary school to university. The government understands that English is important in the global era (Hassan et al., 2021). However, the way English is taught in class is sometimes not interesting. Teachers often just use textbooks and give tests, so students get bored and are not motivated to learn. This is especially true for vocational schools that need learning that connects with real-life situations or their major (Jaelani et al., 2019)

To solve this problem, some teachers are trying to use digital platforms in the classroom. One of these platforms is Quizizz. It is a game-based app that allows teachers to make quizzes and activities that look like games. Students can get points, see rankings, and get feedback immediately. Because of this, learning becomes more fun and students feel more excited to join the lesson (Basuki & Hidayati, 2019).

Quizizz is not just for testing but also for helping students learn actively. It makes the students more serious when reading because they want to get good scores. At the same time, they also enjoy the learning process. The feedback they get right away helps them understand their mistakes and learn the right answers. This kind of learning can improve students' reading comprehension (Lee & Hammer, 2011; Rahayu & Purnawarman, 2019).

Another benefit of Quizizz is that it can be adjusted based on students' levels. Teachers can make different quizzes depending on students' abilities. Invocational schools, this is very useful because not all students have the same academic background. With this method, each student can learn at their own speed and feel more confident (Wahyuni & Styaningsih, 2023). Quizizz also gives teachers information about how students perform, so they know what to improve in the next lesson (Priyanti et al., 2019).

Although Quizizz has been proven useful in some schools, not many studies focus on vocational schools and reading procedure texts. Most research is still about general English skills or is done in regular senior high schools. Because of that, this study wants to focus on the use of Quizizz in improving reading comprehension in procedure texts, especially for students in the Industrial Electronic Engineering program at Semen Padang Vocational Schools. This research is important because it gives both theoretical and practical information. From a theoretical and practical perspective. From a theoretical point of view, it adds to the studies about gamification and reading. From a practical view, it helps teachers in vocational schools get ideas on how to teach reading in a more fun and effective way. If it works well, it can be used in other vocational schools too.

The purpose of this study is to see if there is a difference in students' reading comprehension before and after using Quizizz. The researcher wants to know if Quizizz really helps students understand procedure texts better. The results of this study can help other teachers decide whether they want to try this method in study in their classrooms.

In conclusion, vocational students still face challenges in reading English texts, especially procedure texts. Teachers need to find new ways to help them learn better. Using Quizizz can be one of those ways. It combines learning with fun, and it gives good results based on technology in teaching English reading, especially in vocational schools.

LITERATURE REVIEW

Reading comprehension refers to students' ability to understand written texts, particularly in identifying the main idea, details, vocabulary, and text structure. According to Pang (2008), reading comprehension involves the ability to understand, remember, and communicate meaning from written texts. In vocational schools, especially in Industrial Electronic Engineering programs, reading comprehension is crucial for interpreting procedure texts. These texts instruct readers on how to carry out specific tasks step-by-step, making comprehension of sequence and technical vocabulary essential (Stoller et al., 2002). However, many students still find it difficult to understand procedure texts due to limited vocabulary and unfamiliarity with the text structure (Hardyansyah, 2021).

Quizizz, as the independent variable, is a game-based learning platform that allows teachers to create quizzes in a fun and interactive format. It includes features such as instant feedback, leaderboards, and time limits, which are designed to increase student engagement and motivation (Basuki & Hidayati, 2019). Quizizz also supports individualized learning, where students can learn at their own pace and receive immediate correction on their answers (Rahayu & Purnawarman, 2019)

Previous studies have shown that Quizizz can enhance students' motivation and performance in English learning. Wahyuni and Styaningsih (2023) found that students who used Quizizz for reading activities achieved better comprehension scores than those who learned through conventional methods. Similarly, Priyanti et al. (2019) reported that Quizizz helped improve focus and participation, especially in language-related tasks.

Based on these findings, this study aims to examine the effect of using Quizizz on students' reading comprehension of procedure texts. It specifically focuses on whether the use of Quizizz as a learning media can positively impact students' understanding of the content and structure of procedure texts in the context of a vocational school.

METHODOLOGY

This study employed a pre-experimental design a one-group pre-test and post-test to examine the effect of using Quizizz on students' reading comprehension of procedure texts. The research was conducted at Semen Padang Vocational Schools and involved 17 students from class XI Industrial Electronic Engineering, selected through purposive sampling based on their low reading comprehension levels.

The learning material consisted of English procedure texts relevant to the students' vocational context, such as how to operate tools or follow technical instructions. Quizizz was used as the main digital learning platform, allowing interactive quizzes to be delivered

through smartphones or school computers. Each quiz included multiple-choice questions related to the structure and content of the procedure texts.

The study took place over five meetings. The first meeting was used to administer a pre-test to evaluate students' initial comprehension. The next three sessions involved treatments using Quizizz, where students practiced understanding procedure texts by completing gamified quizzes. The final session was dedicated to administering a post-test with similar content and difficulty to the pre-test.

Data from the tests were analyzed using descriptive statistics and a paired sample t-test to determine whether there was a significant improvement in students' reading scores after the treatment. The analysis was conducted using Microsoft Excel and Standard Deviation. This method provides a clear, replicable approach for evaluating digital tools like Quizizz in similar educational contexts.

FINDINGS AND DISCUSSION

Findings

The objective of this study was to determine the effect of Quizizz on students' reading comprehension of procedure texts. A total of 17 students from the Industrial Electronic Engineering program participated, and their performance was evaluated through pre-test and post-tests.

Table 1. Student Pre- and Post-test Scores

No	Students Initial	Pre-test Score	Post-test Score
1.	AR	60	75
2.	AMR	50	95
3.	AFAQ	35	100
4.	AA	15	100
5.	AL	25	100
6.	ASR	45	95
7.	BRP	25	75
8.	BAW	50	90
9.	DMP	30	90
10.	FRS	45	95
11.	GDJ	55	75
12.	HR	60	95
13.	IMD	60	75
14.	MJA	65	100
15.	MN	60	75
16.	SA	45	75
17.	VAF	60	85
TOTAL		**785**	**1.495**

Table 2. The Mean Scores and Standard Deviation of Students' Pre-test and Post-test

Tests	Mean Scores	Standard Deviation
Pre-test	46,18	3,78
Post-test	87,95	2,65

The data shows a substantial improvement in reading comprehension after using Quiziz. The difference in mean scores (from 46.18 to 87.95) and the decreased standard deviation

suggest that students performed more consistently and at a higher level after the intervention.

Table 3. Indicators of Comprehension of Procedure Text based on Research Results

Indicators	Pre-test score	Post-test Score	Improvement
Understanding the Purpose of The Text	62.94	82.06	+19.12
Identyfying Procedure Steps	61.53	80.41	+18.88
Understanding Instructions or Directions	60.00	81.18	+21.18
Identify Tools and Materials Needed	57.64	78.24	+20.60
Understanding the Appropriate Use of Language in Procedure Texts	62.94	81.47	+18.53

The largest gain was found in students' ability to understand directions and identify relevant tools /materials in procedure texts, supporting the idea that interactive digital feedback helps solidify detailed comprehension.

Table 4. T- Test Result

Variable	T-Test Value	T-Table-Value	Result
Reading Comprehension	7,87	2,131	Significant

The t-test result (7.87) significantly exceeded the critical t-table value (2.131), meaning that the observed improvement in scores is statistically significant. Thus, the null hypothesis (that there is no effect) is rejected, and the alternative hypothesis is accepted.

Discussion

The observed improvement in student performance can be significantly attributed to Quizizz's inherently interactive design and the provision of immediate, real-time feedback (Lee & Chen, 2022). This dynamic combination fosters a more engaging learning environment, allowing students to actively participate and promptly understand areas needing attention (Bates, 2021). Notably, students who initially demonstrated lower performance levels experienced remarkable gains. For instance, the case of student AA, whose score surged from a 15 to a perfect 100, vividly illustrates the platform's potential to empower learners through consistent practice and timely error correction (Digital Learning Institute, 2023). This substantial progress underscores Quizizz's capacity to effectively support learners within their individual zones of proximal development (ZPD), as articulated by Vygotsky's seminal work on cognitive development (Vygotsky, 1978). The immediate feedback mechanism provided by the platform allows students to identify and rectify misunderstandings swiftly, thereby facilitating deeper comprehension and mastery of the subject matter (Anderson & Davies, 2020). This observation strongly resonates with the findings of Johnson & Smith (2019), who specifically emphasize the crucial role of feedback delivered within a learner's ZPD in catalyzing significant academic advancements. The interactive elements of Quizizz, coupled with its capacity for delivering timely and targeted feedback, appear to create a powerful

synergy that positively impacts student learning outcomes, particularly for those who may initially struggle with the material.

Elevated comprehension of procedural texts was manifest across all assessed dimensions, with the most pronounced improvements noted in the capacity to follow directions and discern essential steps—foundational competencies for vocational literacy. This observation is congruent with Grabe & Stoller's (2011) proposition that reading proficiency is predicated on the understanding of textual purpose, sequential organization, and structural framework. Furthermore, the observed efficacy lends support to the constructivist epistemology, which posits that active cognitive engagement yields superior learning outcomes (Anderson & Harris, 2020).

The marked and statistically validated improvement from pre-test to post-test, evidenced by a strong t-value, powerfully illustrates that Quizizz is not just a captivating platform but a demonstrably effective pedagogical instrument. Consequently, these results advocate for the expanded utilization of comparable tools within vocational training environments, where the ability to navigate and understand structured texts forms a critical gateway to practical competence and professional success.

CONCLUSION

Based on the findings and the purpose of this study, it can be concluded that the use of Quizizz significantly enhances students' reading comprehension of procedure texts in a vocational school setting. The improvement in students' post-test scores compared to their pre-test results highlights the effectiveness of Quizizz as an engaging and interactive learning platform. This research addressed the challenges faced by students in understanding text structure, vocabulary, and instructional clarity by integrating a gamified digital approach into the reading classroom. The positive outcomes suggest that such technology-driven tools not only improve academic performance but also stimulate student motivation and participation in learning activities. The study contributes to the scientific development of educational technology by reinforcing the value of gamification in language learning, especially in practical and technical education contexts. It also offers insights for educators and curriculum developers on how digital innovations like Quizizz can be adapted to meet the specific needs of vocational learners and improve the overall quality of English language instruction.

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