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Wordwall Platform and Its Effect on Students' Reading Comprehension

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Abstract. The effect of the Wordwall platform in enhancing students' reading comprehension was examined in this study, focusing on eighth-grade students at a private Islamic Junior High school in Jambi. A quantitative approach with a quasi-experimental design was employed, involving two groups: an experimental group and a control group, each consisting of 29 students selected through cluster random sampling. Data were obtained through pre-tests and post-tests using short essay questions focused on recount texts. A notable effect in reading performance was observed in the experimental group, which mean score increased from 55.86 to 76.03. Meanwhile, the control group demonstrated a smaller increase, from 57.59 to 69.14. The data met the assumptions of normality and homogeneity, and a statistically significant difference was identified through a post-test t-test ($t = 3.699$, $p = 0.01$), indicating that the alternative hypothesis could be accepted. These results suggest that the integration of Wordwall into reading comprehension contributes positively to students' learning outcomes. Moreover, its interactive features were found to enhance student engagement, indicating that digital tools such as Wordwall can be effectively utilized to support reading comprehension, particularly in junior high school contexts.

Keywords: *Quasi experimental design, Recount text, Students' reading comprehension, Wordwall platform*

Introduction

Reading remains one of the most crucial skills that learners need to develop—not only to succeed in their academic journey but also to function effectively in social and personal contexts. As Kocukglu (2013) highlights, students benefit greatly from cultivating critical and analytical reading habits, which enable them to grasp the underlying intentions of a written text. Similarly, more than a school-based activity—it is deeply woven into daily life, supporting both communication and personal growth.

At the heart of reading lies comprehension: the ability to understand the meaning of a text as a whole rather than merely recognizing individual words or sentences (Amalia et al., 2024). Gilakjani (2017) notes that strong reading comprehension skills equip students to manage academic tasks more effectively, helping them analyse written material, form opinions, and express those ideas with clarity and confidence.

Despite its importance, reading comprehension is still a significant hurdle for many learners, including students in Indonesia. (Ismet et al., 2022) Points out that different stages of education present unique obstacles in understanding English texts. This challenge is particularly evident when students engage with **recount texts**, which demand not only sufficient vocabulary but also the ability to make inferences, extract key information, and stay engaged during the reading process.

In response to the ongoing challenges in reading instruction, educators are increasingly encouraged to adopt creative and learner-centered teaching methods that can

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bring more energy and relevance into the classroom. One approach that continues to gain attention is the integration of digital platforms like *Wordwall*. This browser-based tool enables teachers to design interactive games and activities that support student learning in a fun and engaging way. As noted by Muthmainnah et al. (2024) and Purwitasari (2022), technology in education offers more than just convenience—it provides opportunities for teachers to craft lessons that are both meaningful and enjoyable. In an era where students are already closely connected to digital devices, incorporating familiar tools into the learning process can create a sense of comfort and motivation. Furthermore, Crittenden et al. (2019) highlight that exposing students to digital learning environments helps nurture essential 21st-century competencies, such as creativity, curiosity, and critical thinking, all of which are crucial for their growth in and beyond the classroom.

Wordwall offers a wide range of interactive templates—like quizzes, matching games, word searches, and labeling exercises—that can be creatively tailored to meet different learning goals (Gede et al., 2022). What makes *Wordwall* stand out is not just its role as a teaching aid but also its ability to serve as a fun and engaging way to evaluate students' understanding. As highlighted by Purwitasari (2022), this platform turns assessment into a more meaningful experience, where students can demonstrate their knowledge in an environment that feels less like a test and more like a game.

Studies exploring the use of *Wordwall* in language learning have revealed encouraging results. One example is a study by Wanefit (2022), which reported noticeable improvements in students' descriptive writing skills after incorporating *Wordwall* activities into the classroom. The platform's vibrant visuals and interactive design appeared to hold students' attention, making learning feel more dynamic and enjoyable. These positive effects suggest that *Wordwall* may also be effective in enhancing reading comprehension, especially by creating a more engaging learning environment.

Furthermore, Preliminary interviews and classroom observations conducted with the eighth-grade English teacher at MTs Laboratorium Sultan Thaha Saifuddin Jambi revealed several issues related to students' reading comprehension of recount texts. According to Mr. Refky Wardana, who taught this material in the last semester, a significant number of students scored below the Minimum Mastery Criteria (KKM) on a reading comprehension test involving recount texts, indicating low levels of understanding. He further identified key challenges faced by students, including limited vocabulary that hinders their ability to grasp textual meaning, difficulty in recognizing both explicit and implicit information, and a general lack of motivation during reading sessions. This demotivation appears to stem from monotonous instructional approaches, where students are merely instructed to read texts from their textbooks without the support of interactive or strategic learning methods.

The challenges encountered by students in understanding recount texts reveal a persistent gap between curriculum expectations and actual classroom achievement. Empirical findings indicate that a considerable number of students fail to meet the Minimum Mastery Criteria (KKM), suggesting deficiencies in fundamental reading comprehension skills. Among the primary obstacles are limited vocabulary knowledge and the inability to interpret both explicit and implicit information within a text. These issues prevent students from fully grasping the sequence of events and central ideas conveyed in recount texts. Furthermore, conventional instructional methods that rely heavily on textbook reading without incorporating interactive or student-centred strategies contribute to low levels of student engagement and motivation. Such passive learning environments hinder the development of critical reading abilities, particularly in the context of narrative texts that require inferential reasoning and contextual understanding.

Although numerous studies have examined strategies to enhance reading comprehension, there remains a lack of research that specifically addresses the integration of digital game-based learning tools—such as Word wall—in the teaching of recount texts at the junior high school level, particularly within the context of Indonesian Islamic education institutions. This research aims to fill that gap by exploring the effectiveness of using Word wall as an interactive medium to improve students' reading comprehension of recount texts.

The novelty of this study lies in its focus on combining technology-enhanced learning with narrative reading instruction, providing an innovative approach that not only enriches vocabulary and inferential skills but also increases student motivation through engaging digital activities. This approach is expected to contribute new insights into the development of effective, modern teaching strategies for reading comprehension in EFL classrooms.

Building on these classroom observations and insights from previous research, this study sets out to explore the use of Wordwall as a tool to support students' reading comprehension, particularly in understanding recount texts. By bringing this digital platform into the learning environment, the study aims to examine how Wordwall can enhance students' participation, deepen their comprehension, and contribute positively to their overall academic achievement.

Theoretical Framework

In this study, the focus lies on exploring how interactive digital tools, specifically the Wordwall platform, influence students' reading comprehension—particularly in understanding recount texts. This section narrows down the key variables of the research and defines the conceptual lens through which the data will be analyzed and interpreted.

Reading Comprehension as a Cognitive Process and Constructive Process

Reading comprehension is not merely about recognizing words on a page—it is a dynamic cognitive process that requires active engagement between the reader and the text. Rather than receiving meaning passively, readers construct understanding by connecting the ideas in the text with their existing knowledge and experiences. As Grabe and Stoller (2011) explain, successful reading involves the integration of new information with what the reader already knows in order to form a meaningful and coherent interpretation. This ability allows readers to grasp the main idea, identify supporting details, draw inferences, and synthesize information—all of which are especially important when working with genres like recount texts that often follow chronological structures and involve reflection on past events.

In the context of Indonesian education, many students continue to face challenges in developing strong reading comprehension skills. Factors such as limited vocabulary, insufficient background knowledge, and low interest in reading contribute to these difficulties. These challenges become even more evident when students are asked to engage with recount texts, which demand not only an understanding of past-tense language and sequencing but also the capacity to interpret cause-and-effect relationships. Recent studies have noted that students often struggle to identify key ideas, interpret unfamiliar words, and make logical inferences (Nanda & Azmy, 2020; Hakim et al., 2023). To help overcome these obstacles, educators are increasingly encouraged to adopt more interactive, student-centered approaches—such as the use of digital game-based tools—which can foster engagement and support deeper comprehension in ways that traditional methods may not.

Recount Text as a Contextual Focus

Recount texts are narrative forms that recount past experiences or events in chronological order. In junior high school curricula, they are widely used to build foundational narrative skills in English. However, these texts can be cognitively demanding for learners who are unfamiliar with past-tense structures, temporal connectors, or narrative organization. For this reason, recount texts are ideal for assessing reading comprehension as they require learners to navigate both linguistic and structural challenges.

The researcher uses recount texts in this study to measure how well students comprehend sequence, cause and effect, and factual detail—all essential components of narrative comprehension. Recount texts also provide a familiar and relatable context for students, making them a meaningful tool for assessing the effectiveness of innovative teaching methods.

Wordwall as a Pedagogical Innovation

In today's digital age, the integration of technology in the classroom is no longer optional—it is essential (Apriani et al., 2024). One such tool that bridges the gap between engagement and academic learning is **Wordwall**, a browser-based application that enables teachers to create interactive games, quizzes, and activities.

Rooted in constructivist learning theory, Wordwall encourages students to build their understanding through active participation, instant feedback, and repeated exposure. The platform includes various activity templates, such as quizzes, matching games, and word searches that cater to different learning styles: visual, auditory, and kinaesthetic. From a cognitive perspective, Wordwall supports **dual coding theory**, which argues that the combination of visual and verbal information improves memory and understanding. By turning reading tasks into game-like experiences, Wordwall helps reduce learning anxiety, fosters motivation, and enhances cognitive engagement—factors known to positively affect reading outcomes.

Material and Method

This study employed a quantitative approach using a quasi-experimental design with the Non-equivalent Groups Design. This research has one research question: Is there any significant difference in students' reading comprehension of recount text who are taught by using Wordwall Platform and those who are not using Wordwall Platform?. It involved administering a pre-test to measure students' initial reading comprehension of recount texts, followed by a post-test after the intervention. The research was conducted at MTs Laboratorium UIN Sultan Thaha Saifuddin Jambi, involving a total of 58 eighth-grade students. Cluster random sampling was used to select the sample, with class VIII C (29 students) as the experimental group and class VIII D (29 students) as the control group. The experimental group received instruction using the Wordwall platform, while the control group was taught using conventional methods where reading aloud is used.

The research instrument used in this study was an essay-based reading comprehension test, specifically designed to evaluate students' understanding of recount texts. The test was structured around key indicators of **literal-level reading comprehension**, as suggested by several reading scholars (e.g., Grabe & Stoller, 2011; Day & Park, 2005). These indicators were carefully selected to measure different aspects of reading comprehension, ensuring that the students' ability to process and interpret the recount texts could be effectively assessed. The main indicators of the instrument are as follows:

1. **Identification of Main Ideas**: This indicator focused on assessing the students' ability to identify the central message or primary theme of the text. In recount texts, the main idea typically relates to the overall event or experience being narrated. The accuracy with which students could identify the main idea was considered a crucial aspect of their comprehension.
2. **Recognition of Supporting Details**: The ability to identify supporting details was another critical component of the test. This indicator examined how well students could locate and understand the specific details that reinforce the main idea of the text. These details help clarify when, where, and how events took place, which is especially important in recount texts, where chronological order is key.
3. **Interpretation of References**: Students were also assessed on their ability to understand references in the text, such as pronouns and other terms that refer to previously mentioned or upcoming elements. Misunderstanding references, such as the use of pronouns like *he*, *she*, or *they*, could disrupt the flow of the narrative and hinder overall comprehension. This indicator was designed to measure how well students could track these relationships within the text.
4. **Drawing Inferences**: Although primarily focused on literal comprehension, students were also assessed on their ability to draw simple inferences from the text. This involved using the explicit information provided in the text to make logical connections, such as understanding the emotions of characters or the causes behind certain events.

The ability to draw inferences is essential for deeper understanding, particularly in recount texts, which often imply feelings and motivations without directly stating them.

Each item in the reading comprehension test was crafted to address these indicators, ensuring that the students' understanding of the text was comprehensively evaluated. By focusing on these aspects, the instrument was designed to assess both surface-level comprehension and the ability to make connections within the text, offering valuable insights into the effectiveness of the instructional methods used. Lastly, the collected data were analyzed using descriptive statistics to determine the mean scores of both groups. An independent sample t-test and paired sample t-test were applied to examine the statistical significance of the difference between the pre-test and post-test scores and for the differences in both classes. The N-Gain score was also calculated to measure the effectiveness of the intervention. A statistically significant difference in scores would indicate the positive impact of the Wordwall platform on students' reading comprehension.

Results and Discussion

Result

This research aimed to investigate the effectiveness of the Wordwall platform in improving students' reading comprehension of recount texts at MTs Laboratorium UIN Sultan Thaha Saifuddin Jambi. The improvement was measured by comparing pre-test scores (before learning using Wordwall) and post-test scores (after learning using Wordwall) in both the experimental and control groups. The pre-test assessed students' initial reading comprehension, while the post-test measured their comprehension after the intervention.
The data collected from both groups were analysed by calculating the mean, standard deviation, maximum score, and minimum score for the pre-test and post-test. The results are summarized in Table 1.

Table 1.
Descriptive Statistics

	N	Range	Min	Max	Mean	Std deviation	Variance
Pre-Exp	29	45	30	75	55.86	11.423	130.480
Post-Exp	29	30	60	90	76.03	7.119	50.677
Pre-Con	29	40	35	75	57.59	11.388	129.680
Post-Con	29	25	55	80	69.14	7.080	50.123
Valid N	29						

Based on the data presented in the table, differences in the highest and lowest scores of the Pre-Test between the experimental and control groups can be observed. Before the implementation of the treatment, as reflected in the Pre-Test results, the control group demonstrated slightly higher performance compared to the experimental group. Following the treatment administered to the experimental group—while the control group received no intervention—both groups were given a Post-Test. A notable distinction in the learning outcomes was recorded. The experimental group exhibited an improvement, with an average Post-Test score of **76.03**, whereas the control group attained an average score of **69.14**. These findings suggest that the integration of the Wordwall platform contributed positively to the students' performance in reading comprehension of recount texts, indicating its effectiveness as a learning tool.

Learning Outcomes in Reading Comprehension of Recount Text Using Wordwall Platform (Experimental Class)

The data obtained from the experimental group, in which the Wordwall platform was utilized during instruction, show that students' average scores improved from **55.86** in the Pre-Test to **76.03** in the post-Test. The variance values decreased from **130.480** (Pre-Test) to **50.677** (Post-Test), indicating a more consistent performance among students. Furthermore, the standard deviation also declined from **11.423** to **7.119**, suggesting reduced score dispersion following the intervention.

Learning Outcomes in Reading Comprehension of Recount Text Without Wordwall Platform (Control Class)

In the control group, where conventional teaching methods were employed without the use of the Wordwall platform, the students' average scores increased from **57.59** (Pre-Test) to **69.14** (Post-Test). The variance shifted from **129.680** to **50.123**, while the standard deviation decreased from **11.388** to **7.080**. Although an improvement was also observed in this group, the progress was less substantial compared to that of the experimental group. Furthermore, following the descriptive analysis, hypothesis testing was conducted to further examine the data. By using a paired sample t-test, the results presented in the previous table (Table 2) provide evidence of the positive effect of the Wordwall platform on students' reading comprehension performance.

Table 2.
Paired Sample t-test

				Interval of the Difference			**Significance**	
	Mean	**Std. dev**	**Std. Error mean**	**Lower**	**Upper**	**T**	**One-Sided**	**Two Sided**
Pre-Test Experiment - Post-Test Experiment	-20.172	8.502	1.579	-23.407	-16.938	-12.777	<.001	<.001
Pre-Test Control – Post-test Control	-11.552	6.827	1.268	-14.149	-8.955	-9.112	<.001	<.001

Based on the data presented in Table 1, it can be seen that the post-test scores of the experimental class showed a considerable improvement, with the mean score rising from **55.86** (pre-test) to **76.03** (post-test). Moreover, the **p-value (two-tailed)** obtained was **0.001**, which is lower than the significance threshold of **0.05**. This indicates that the difference in scores before and after the treatment was statistically significant. Therefore, the paired samples t-test confirmed that a meaningful change occurred in students' reading comprehension after the use of the Wordwall application.

The t-test analysis was conducted to assess the effectiveness of the treatment by comparing students' pre-test and post-test scores. The paired sample t-test yielded a **t-value of 12.777** with **28 degrees of freedom (df = 28)**. Based on these results, the **null hypothesis (H_0)** was rejected, while the **alternative hypothesis (H_1)** was accepted. This provides strong evidence that the Wordwall platform had a significant and positive impact on the students' reading comprehension of recount texts in the experimental group.

In Table 2, the control class data is presented. The mean score on the pre-test was **57.59**, while the post-test mean score increased to **69.14**. Similar to the experimental group, the p-value obtained was **0.001**, which is also below the 0.05 significance level. This suggests that students in the control class also experienced a statistically significant improvement in

their reading comprehension, although to a lesser degree than those in the experimental group.

Further analysis using the paired samples t-test for the control class resulted in a **t-value of 9.112** with **28 degrees of freedom**. Accordingly, the **null hypothesis (H_0)** was rejected, and the **alternative hypothesis (H_1)** was accepted. While the results indicate a significant improvement in reading comprehension within the control class, the magnitude of improvement was notably smaller compared to that observed in the experimental group. This highlights the added value of integrating the Wordwall application as a learning tool in enhancing students' reading comprehension of recount texts.

On the other hand, after calculating the effect of the word wall platform on students' reading comprehension, an independent sample t-test was used to find out the difference between the experimental and control groups. Table 3 shows the result of the independent sample t-test.

Table 3.
Independent Sample t-test

	F	Sig.	t	Df	One Sided	Two Sided	Mean Difference	Std. Error Difference	Lower	Upper
Equal Variance Assume	.021	.887	3.699	56	<.001	<.001	6.897	1.864	3.162	10.631
Equal Variance, Not Assumed			3.699	55.9	<.001	<.001	6.897	1.864	3.162	10.631

The results of the *t*-test analysis on students' learning outcomes are presented in Table 3. As shown in the table, a **t-count of 3.699** was obtained with a **significance value of 0.001**, which is lower than the established threshold of 0.05. Therefore, the **alternative hypothesis (H_1)** was accepted, indicating a statistically significant difference between the two groups. This finding is further supported by the mean score of the **experimental class**, which reached **76.03**, compared to **69.14** in the **control class**. Based on these results, it can be concluded that the use of the Wordwall application was effective in enhancing students' reading comprehension of recount texts. The implementation of this digital learning tool in class VIII at MTs Laboratorium UIN Sultan Thaha Saifuddin Jambi demonstrated a positive impact on students' academic performance, particularly in understanding English recount texts.

Discussion

The findings of this study indicate that the use of the Wordwall platform significantly enhanced students' learning outcomes in reading comprehension of recount texts among eighth-grade students at MTs Laboratorium UIN Sultan Thaha Saifuddin Jambi. A clear improvement was observed in the experimental group that received instruction using Wordwall, compared to the control group that experienced conventional teaching methods.

Based on the results, the Wordwall platform proved to be effective in generating interactive learning tasks, providing immediate feedback, and recording students' activity logs. These features not only supported students' understanding of the material but also allowed educators to monitor learning habits and adjust instruction accordingly. The recorded activity history served as a valuable reference for both formative assessment and reflective teaching practices. The average score of the experimental class increased from 55.86 (pre-test) to 76.03 (post-test), while the control class showed a smaller improvement from 57.59 to 69.14. The results of the paired sample *t*-test confirmed the statistical significance of this difference, with a *t*-value of 3.699 and a significance level of 0.01 (< 0.05), indicating that the null hypothesis was rejected. This provides strong evidence that the Wordwall platform contributed meaningfully to students' reading comprehension achievement.

In terms of classroom dynamics, students in the experimental group responded positively to the digital learning experience. The use of Wordwall shifted the learning environment from teacher-centered to more student-active, where learners could engage with content through technology. This aligns with the characteristics of 21st-century learning, where digital literacy and learner autonomy are essential. Furthermore, the process of teaching in the experimental class included activities such as analyzing the structure of recount texts, matching text components with their functions, and completing comprehension tasks—all facilitated via the Wordwall platform. Students demonstrated enthusiasm and active participation, suggesting that the integration of digital media can increase motivation and reduce monotony in language learning.

In contrast, the control class, which relied on conventional methods and printed learning materials (Students' worksheets), showed signs of disengagement. Students were less enthusiastic, and their performance did not improve as significantly. This supports the notion that technology-enhanced learning environments can better accommodate the needs and preferences of modern learners.

These results are in line with previous research. For instance, Sari (2019) found a significant difference in student performance between those taught using Wordwall and those who were not, with the experimental group achieving a higher post-test average. Similarly, Aldika (2021) demonstrated the effectiveness of the Wordwall platform in improving listening skills in Indonesian language classes, and Nadia (2020) confirmed that Wordwall strategies positively impact writing achievement in Islamic boarding schools. Moreover, initial observations indicated that the experimental class initially scored lower than the control class during the pre-test. According to interviews with the English teacher, the control class was generally more advanced. However, following the treatment using Wordwall, the experimental class surpassed the control class in post-test performance, illustrating the transformative potential of digital platforms in supporting lower-achieving learners.

To sum up, the use of Wordwall as both a learning medium and an assessment tool has shown to be more effective in supporting reading comprehension of recount texts compared to traditional methods. The interactive and feedback-rich features of Wordwall contributed to greater engagement, improved comprehension, and better learning outcomes overall. These findings reinforce the importance of integrating educational technology into classroom practices to enhance student-centered learning.

Conclusion

Based on the results of data analysis and hypothesis testing, it can be concluded that the use of the Wordwall platform as a learning medium was found to be effective in improving students' reading comprehension of recount texts. The learning outcomes of students who were taught using the Wordwall platform were significantly higher than those of students who received instruction through conventional methods. This effectiveness is demonstrated by the increase in average scores, where the experimental class improved from a pre-test mean of 55.86 to a post-test mean of 76.03, which falls into the medium category. In comparison, the control class showed a more modest increase, from a pre-test mean of 57.59 to a post-test mean of 69.14, categorized as low. These findings indicate a more substantial improvement in the experimental group, suggesting the positive impact of the Wordwall platform on students' comprehension abilities. Furthermore, the results of the paired sample t-test revealed a t-count of 3.699 with a significance value of 0.01, which is less than 0.05. This finding led to the rejection of the null hypothesis (H_0), indicating a statistically significant difference between the pre-test and post-test scores in the experimental group. In conclusion, the Wordwall platform can be considered an effective digital learning medium and assessment tool for teaching reading comprehension of recount texts, particularly for eighth-grade students at MTs Laboratorium UIN Sultan Thaha Saifuddin Jambi. Its integration into the learning process not only enhances student engagement but also contributes meaningfully to the improvement of learning outcomes.

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