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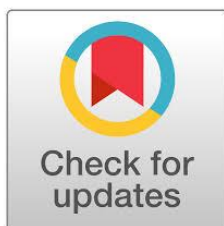
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Wordwall.net: Developing the 7th Grade Students' Reading Comprehension

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Abstract

Reading comprehension is a topic vastly studied in the field of language learning. With the rapid development of digital technology, more focus on digital tools regarding reading comprehension is deemed necessary to find the best tool to aid its improvement. This study aimed to discover how the wordwall.net website affected seventh-grade students' reading comprehension in a descriptive text learning topic at SMP Al Amanah South Tangerang. The current quantitative study used a pre-experimental design. Twenty-eight students of class VII C were the sample for this investigation. The pre and post-tests serve as data-collecting tools. Using the t-test formula, the researcher examines how student test scores differ both before and after the treatment is applied. The paired sample t-test table shows the t count is 10.726, and the critical t at the significant level ($p = 0.05$) is 1.703. Considering these results, the alternative hypothesis (H_a) is conceded. A significant effect of using the wordwall.net website for reading comprehension in grade 7 at SMP Al-Amanah has been found. The study shows that wordwall.net and other similar sites can be very helpful in making learning more fun and interactive, leading to better grades for students.

Keywords: descriptive text; media; reading comprehension; wordwall.net

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Introduction

The significance of the English language is undeniable and cannot be disregarded. Nowadays, the responsibilities of instructing the English language have many difficulties and are characterized by a highly competitive environment. Consequently, individuals are strongly encouraged to possess a comprehensive educational background and a certain aptitude generally referred to as a skill. In acquiring proficiency in the English language, it is essential to develop competence in four key language abilities: listening, speaking, reading, and writing.

The acquisition of language skills, particularly in English, necessitates that pupils initially acquire and comprehend the fundamental abilities of speaking, listening, reading, and writing. Proficiency in comprehension plays a crucial role in determining students' academic achievement and grasp of several well-established scientific areas. Reading is commonly perceived as interactive communication between the author or sender of a text and the reader.

The comprehension by reading of the contents emphasizes the reading comprehension component of reading, which is a component of reading. Reading comprehension is an element of reading a subject. Based on Elston et al. (2022) comprehending is the process by which one gains meaning from and gives a text relevance; it is our understanding and interpretation of information." Understanding is a sophisticated process involving decoding the written word, developing reading fluency, and creating connections to the text depending on background information. It entails identifying and analyzing many elements within the text, such as links between concepts, causal connections, and similarities and differences between cases presented in the discourse. Reading comprehension is not simply about enjoying reading but reading to understand and identify explicit and implicit ideas.

Reading comprehension is a part of the reading subject, emphasized in reading comprehension of the contents. Reading comprehension is a cognitive process involving interpreting and understanding written text. It entails identifying and analyzing many elements within the text, such as links between concepts, causal connections, and similarities and differences between cases presented in the discourse. Reading comprehension is not simply about enjoying reading but reading to understand and identify explicit and implicit ideas.

Generally speaking, as Ahmed et al. said, the challenges encountered in students' reading comprehension indicate that their issues stem from a limited understanding of scientific and

foreign terminology (as cited in Vaughn et al., 2019). Consequently, students often encounter difficulties in comprehending words within the context of a text or sentence. As a result, they tend to read at a slower pace to grasp the text's meaning.

Indonesian students in school face difficulties that mostly stem from deficiencies in their command of foreign vocabulary and grammar. Based on the data from Progress in International Reading Literacy Study, Indonesian students' reading comprehension is ranked 42 out of 45 countries, which implies that Indonesia student's reading comprehension is still insufficient (Mullis et al., 2012)

Another problem also faced by students is that the learning activities in Indonesia often continue to utilize traditional learning media. Incorporating engaging media into the process of reading instruction can cultivate students' inspiration and enthusiasm, enhancing their overall learning experience. Moreover, Oakhill et al. (2019) mention that instructing reading is poised to facilitate the pupils' acquisition of a proficient understanding of the subject matter.

Based on the researcher's pre-observations, students in grade 7 at SMP Al Amanah experienced difficulties in reading comprehension due to their limited reading interest and inadequate language acquisition and background knowledge, making it difficult to understand the material they read. They faced challenges in comprehending literature, acquiring prior knowledge, understanding unfamiliar vocabulary, and understanding syntax that is not only unfamiliar but also very different from their first language. In learning English, students will have difficulties understanding reading texts if they do not understand the words that make up the sentences in the reading. At this stage, vocabulary acquisition and background knowledge become crucial for students to improve their reading comprehension skills.

Comprehending written material is an essential component in the development of reading skills. Within the reading comprehension framework, readers can derive pertinent information from the material they have perused. In this modern era, there has been a notable acceleration in technological progress, as demonstrated by the extensive integration of technology into various aspects of human existence. The field of education is not immune to the consequences of technology breakthroughs. Technology innovations have played a crucial role in the realm of education and have had a considerable influence on it the utilization of technology is essential for facilitating learning processes (Hauer, 2017).

Therefore, teachers must provide and establish a conducive learning environment. One of the key attributes of a professional teacher is the capacity to resolve issues and employ efficient instructional media. Teachers must employ diverse media to instruct English, including video games, songs, and other forms. Young learners often react positively when prompted to employ their creativity, engaging in puzzles, games, and other similar tasks. Therefore, it is recommended that English teachers should not be inactive or completely give up on their efforts to improve their classes.

In this study, the researcher was interested in assisting students' reading comprehension skills by using interactive media like Kahoot and Quizziz. However, in this study, researchers chose the wordwall.net platform as the learning media to be researched. Utilizing the wordwall.net platform to teach reading comprehension can greatly benefit students. This platform offers visually appealing game displays, a wide range of game options, and digital media that are both engaging and effective in enhancing students' reading comprehension skills. Teaching reading comprehension by wordwall.net as a media might be helpful for the students.

Wordwall.net is an online platform that is an interactive learning evaluation tool or media in the form of games aimed at enhancing students' proficiency in writing, reading, and speaking, and can develop students' thinking power and competitiveness in understanding the material. This platform may serve as a potential solution to address the issue of waning student enthusiasm for reading. This research specifically focuses on evaluating the efficacy of wordwall.net media learning in teaching reading comprehension of descriptive text to seventh-grade students at Al - Amanah Middle School. The research is limited to this specific objective.

Although several research studies have investigated digital technology (Medina & Hurtado, 2017; Çil, 2021), there is a lack of research addressing the utilization of wordwall.net. This study aims to assess the efficacy of wordwall.net as an educational gaming platform to address the existing knowledge gap. Wordwall.net is an educational and entertaining platform that provides a diverse range of gaming options, making it a distinctive instrument for improving learning. This study offers a comprehensive analysis of the influence of wordwall.net on students' reading comprehension by examining the mean scores and the discrepancy among individual scores. It provides new insights into the usefulness of wordwall.net compared to other web resources.

Consequently, students derive advantages from the utilization of this program. Students are likely to experience a greater degree of enjoyment in their learning endeavors when utilizing this application. This platform has the potential to serve as a learning innovation that can assist teachers in facilitating engaging and enjoyable educational experiences for students. According to prior research and expert findings by Swari (2023) and Nenohai et al. (2022) from those studies based on the findings of the two investigations above, which used distinct variables and objects. They claimed that using the wordwall.net website as a learning medium produces effective outcomes since it can enhance students' interests during the learning process. Students commonly encounter challenges in reading comprehension that are often linked to their existing background knowledge and incomplete mastery of foreign vocabulary, particularly in English subjects that involve descriptive text material. To address this, the researchers utilized the wordwall.net online learning platform to enhance students' fundamental reading comprehension skills, which they have not fully attained yet. In order to address this issue, the researchers used the online learning platform known as wordwall.net to improve the students' fundamental reading comprehension skills by utilizing particular content, including various reading features. The information shown above demonstrates a gap between the findings of this study and those of past research, the goal of which is to improve student's learning achievement. To fill in the gap mentioned above, this study tried to find the answer to the question, "Is there any significant effect of using the wordwall.net website as a medium on the student's reading comprehension in learning descriptive text?"

Literature Review

Reading Comprehension

Nation (2019) argued that reading comprehension results from two distinct skill sets: decoding and linguistic comprehension. For our current discussion, decoding refers to the capacity to recognize words in written form, whereas linguistic comprehension refers to the capacity to comprehend spoken language. The rationale for the Simple View is evident and persuasive: decoding and linguistic comprehension are needed for reading comprehension, and neither in isolation is satisfactory.

Reading is an active process of identifying, comparing, evaluating, and applying ideas. Reading comprehension refers to the cognitive process of comprehending and interpreting a text's implicit content. Reading becomes the main aim of language teaching, a skill, and a part of the teaching program. Its purpose is to enable students to read and understand the text materials correctly.

The process of comprehending written material is a multifaceted task that requires the interaction between the text itself and the cognitive abilities of the reader. Reading comprehension refers to the cognitive process through which individuals extract and construct meaning from written texts. This process involves a reciprocal and holistic exchange of ideas between the reader and the content being conveyed (Hasan, 2015). Accuracy pertains to phonological and orthographic processes, while fluency incorporates time considerations. Lastly, comprehension encompasses the understanding and interpretation of written material.

Reading encompasses more than simply comprehending the literal meaning of written words. It facilitates communication and engagement between the author, who conveys their perspective through the text, and the readers, who endeavor to interpret the author's words Yang et al. (2015). When students read, they will try to build the meaning and get an understanding of the text; if they do not understand the text, it means that they do not get the information or message that the writer wants to deliver. Assert that reading comprehension holds significant importance within the EFL/ESL learning process and should be given due emphasis across various educational levels.

The act of reading encompasses a wide range of activities and processes. The comprehension of a specific text does not solely rely on the understanding of individual word meanings. Reading is a cognitive process involving interpreting and comprehending a written text. This process encompasses four key elements, namely purpose, selection, anticipation, and comprehension. The act of comprehending is considered a fundamental attribute of the reading process. The significance of a text lies in the reader's active engagement and extraction of its meaning. Additionally, this technique facilitates the reader's construction of meaning from the text itself (Mohammed & Hasan, 2023).

Najeeb (2013) argued that it has been observed that the ability to comprehend written text is contingent upon several factors, including the readers' prior knowledge, cognitive abilities,

proficiency in vocabulary, and, notably, linguistic competence. The purpose of reading and acquiring literacy skills is apparent. One of the subjects that researchers emphasized is the three reading comprehension models: bottom-up, top-down, and interactive. Reading comprehension encompasses more than memorizing the definitions of individual words within a text; it primarily involves how pupils actively construct and derive meaning from it. The act of comprehending written text necessitates the possession of a diverse range of abilities and a certain degree of preexisting knowledge on the side of the reader.

Based on Gilakjani and Sabouri (2017), the discussion is categorized into three distinct areas: the bottom-up process, the top-down process, and the interaction process. The bottom-up process emphasized that this procedure's primary objective is to examine a text's smaller components, such as individual letters, words, phrases, and sentences. Before comprehension, the reader peruses all the words within a phrase or sentence. This paradigm begins by deciphering the most minute elements in language components, specifically phonemes, graphemes, and words, and after that, derives significance from the tiniest to the most extensive units. Consequently, the reader utilizes prior knowledge to assimilate the information they encounter in the texts. In the top-down process, readers do not read each word in a text but rather concentrate on recognizing the subsequent word. They attempt to deduce the significance of words or sentences. Readers initiate the process of predicting or anticipating the content of the reading text based on its title, which allows them to narrow down the focus or range of the text. Then, they infer the meaning of the text. Finally, the interactive process incorporates information from multiple sources, including orthographic, lexical, syntactic, semantic knowledge, and schemata (Gilakjani & Sabouri, 2017). As readers read, the decoding process provides mutual support. If individuals lack comprehension of written material, they should utilize their existing expertise to assist them.

The authors used skimming reading techniques on descriptive text material in this study. The skimming reading technique entails selecting and analyzing a text to identify the primary concept (it is advantageous to locate the topic sentences initially to comprehend the key idea of a paragraph). Engaging in expedient and meticulous reading may be necessary to address the discourse topic efficiently. The attention can be rapidly directed towards identifying crucial information, which can be examined with greater care.

Descriptive text is one of the many texts: narrative, descriptive, recount, explanatory, recounts, spoofs, argumentation, reports, news items, anecdotes, procedure, hortatory, discussion, and reviews. According to Sipayung et al. (2021), descriptive text is a text that describes a particular person, place, or thing to give information.

According to Elleman and Oslund (2019), understanding what is being read is one of humans' most difficult activities. There are three common aspects of reading. The first is determining the main idea. The main idea refers to the central theme or topic that the author communicates to the reader. The key ideas are the main ideas or themes that form the core of a tale. To comprehend the content, the reader must actively seek out and identify the primary idea within the text. Mastering the talent of determining the main idea involves comprehending and identifying the central point of a passage through summarization and recognizing the recurrence of ideas. The second aspect is vocabulary. Arafat et al. (2022) examined vocabulary as a set of words held by an individual or a component of a given language. The collection of all words the person understood, or all words the person will use to create a fresh statement, defines their vocabulary. Usually, one's vocabulary addition is seen as a crucial component of either the development of one's competence in a regulated language or the learning process of a language. The third aspect is simple grammar. Poletiek et al. (2018) said that simple grammar typically refers to a set of linguistic rules and structures that are relatively uncomplicated and easy to understand. Simple grammar in artificial language learning could entail simple syntactic patterns, minimal vocabulary, and basic sentence structures. Usually acting as the first stage in language acquisition and learning, it helps people to understand basic language components before moving on to more difficult grammatical construction.

According to Brown (2007), reading is an astoundingly complex cognitive process. Brown mentioned five steps of that process. The first is determining the main idea. Determining the central theme of a work involves understanding the author's intended message. A proficient reader comprehends both the concepts and the relative importance conveyed by the authors. The second involves actively seeking information about a specific objective while disregarding unnecessary information. Thirdly, the reader will have an easier time comprehending the reading material if they can recognize references to words. Fourth is making inferences. An inference is

a well-founded conjecture or conclusion derived from the logical reasoning presented in the section. Lastly, if the reader can spot allusions to words, it will be much simpler to comprehend the material they are reading.

Wordwall as Media

Media have a significant role in enhancing the overall quality of the instructional and learning procedures. Furthermore, they can enhance the appeal and engagement of the learning process. Using audio-visual media as an educational tool is seeing significant growth and advancement. Based on the comprehension above, educational media is a facilitative instrument in the pedagogical process by effectively engaging students' cognitive, affective, and psychomotor domains. Therefore, this form of media has the potential to facilitate and enhance the educational process.

Wordwall.net is a platform for learning built on games and allows teachers to build interactive quizzes and teaching activities for their students. We can employ a wide variety of template designs provided by this website. These include multiple-choice and true/false questions, spin the wheels, anagrams, word search formats, and other features. These formats make it possible for us to conduct exciting quiz-style sessions. The participation of teachers in these activities can be improved by incorporating multimedia components such as photographs, videos, and diagrams, which will make the questions more visually appealing. Wordwall.net converts the learning experience into a competitive game where students use their devices to answer questions in a dynamic and gamified environment. Correct answers win points, and the atmosphere is designed to be exciting and engaging. Students' rankings are displayed on a live leaderboard, depending on their performance. The display adds an aspect of friendly competition to the students, which helps to drive them. Wordwall makes it simple for students to engage by allowing them to use their smartphones, tablets, or PCs. It is accessible on any device that is capable of web access.

Research findings demonstrating the efficacy of wordwall.net as a media point to various factors explaining why utilizing wordwall.net generates a favorable influence. First of all,

wordwall.net interactive and competitive character helps to raise students' involvement and drive to participate in reading exercises actively. Wordwall.net lets teachers combine the reading text with visual components, including photos or infographics, enhancing students' comprehension and memory of the reading content. wordwall.net also gives students instant comments on their performance, which helps them to see areas needing work on reading comprehension. By guaranteeing constant exposure to the reading material and vocabulary, the wordwall.net quiz structure also helps with repetition and reinforcement. Finally, wordwall.net can be used in groups to inspire students to talk about and share their knowledge of the reading content, strengthening their comprehension. Teachers can build a successful learning environment that improves students' reading comprehension skills using these interactive, interesting, multimodal tools.

Alkamel and Chouthaiwale (2018) explained that integrating technology in education enhances the dynamism, interactivity, and engagement of the learning process for individual learners. In order to effectively transmit information to students, educators are required to utilize learning media. The progression of technology also presents educators and learners with enhanced and valued media, facilitating knowledge acquisition.

Based on Kazhan and Karpiuk (2023), the judicious use of media might enhance motivation to interact with the materials, as contemporary youth tend to take technologies for granted and derive pleasure from using diverse mobile devices in their daily lives for communication, research, entertainment, and education. Additionally, Kazhan and Karpiuk (2023) stated that wordwall.net, a web 2.0 tool that can be used to design vocabulary and grammar exercises, as well as various learning games, puzzles, and tests, has similar functions—this technology of education many interactive games which helps students increase their vocabulary.

Related to wordwall.net, which is categorized as an online game, Çil (2021) stated that wordwall.net is an edutainment website with multiple game choices. This web tool is a good quality platform because of its attractive user interface, various and complete features, and affordable pricing. In terms of the user interface, this website looks very simple. The menu display and its features are easy to find. Game templates and instruction manuals are available on the

start page or Home. Besides, wordwall.net provides exclusive features, such as Create Activity, Community, My Activities, and My Results.

Following Bueno et al. (2022), the wordwall.net website is often regarded as an engaging and stimulating resource for pupils rather than being perceived as dull or uninteresting. This web-based program facilitates the creation of educational resources, including quizzes, matching activities, pairing exercises, anagram puzzles, word randomization tasks, word search challenges, grouping exercises, and more. Notably, other than granting users the ability to browse their online media creations, they also possess the option to download and print the content on physical paper. The teacher can effortlessly transition between templates with a single click. This feature distinguishes activities and enables the teacher to optimize time. In addition, a teacher can modify any preexisting activity to align with the lesson and teaching approach. In addition, this website provides a diverse selection of themes featuring distinct images, fonts, and noises. It also gives additional options like setting a timer and modifying the gameplay. Research and debate highlighted by Fauqannuri (2021) revealed the use of Wordwall in Islamic religious education subjects in enhancing student motivation and learning outcomes. Using Wordwall-based media helped the students in the study become more motivated and produce better learning results. The evidence could be seen from the pre-, cycle I, and cycle II stages. Regarding raising pre-cycle learning motivation, a value of 45 was acquired; cycle I got a value of 51.45; cycle II got a value of 76.8. This value has climbed and approached the designated benchmarks. The following figures are some of the features available in worldwall.net.

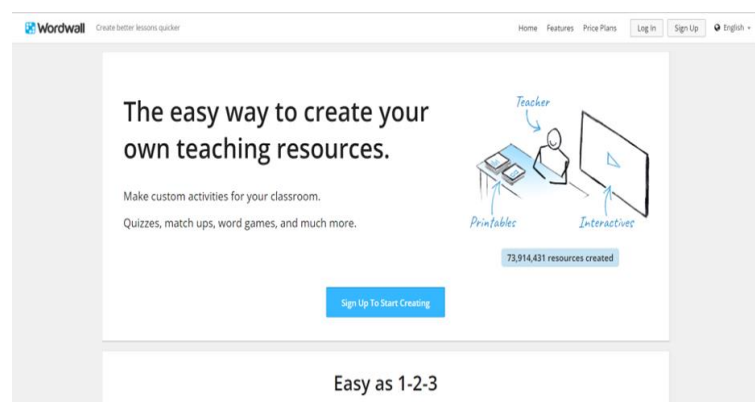


Figure 1. Home page of wordwall.net

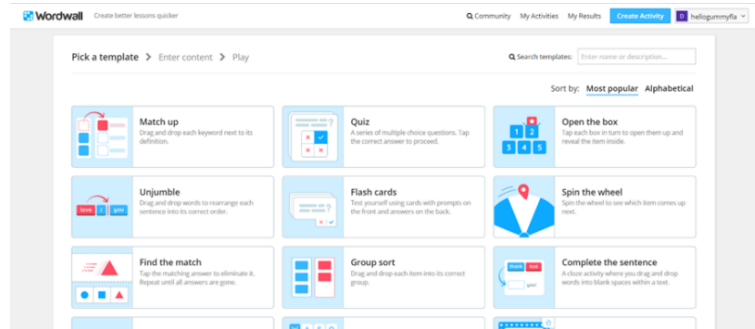


Figure 2. Page one of wordwall.net template design

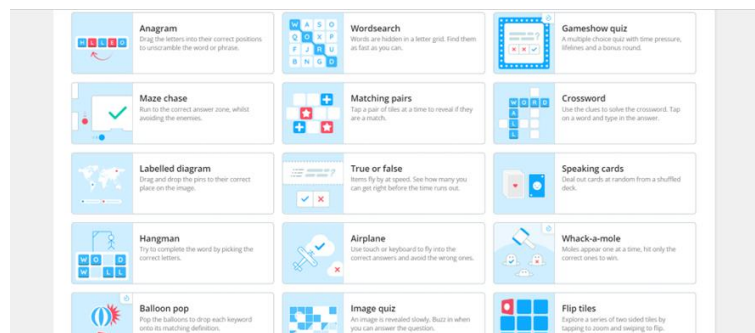


Figure 3. Page two of wordwall.net template design

wordwall.net

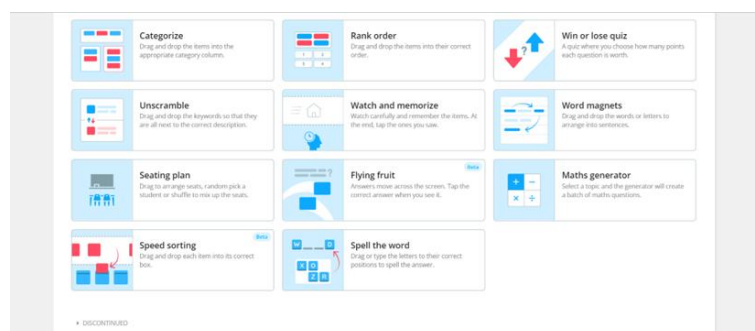


Figure 4. Page three of wordwall.net template design

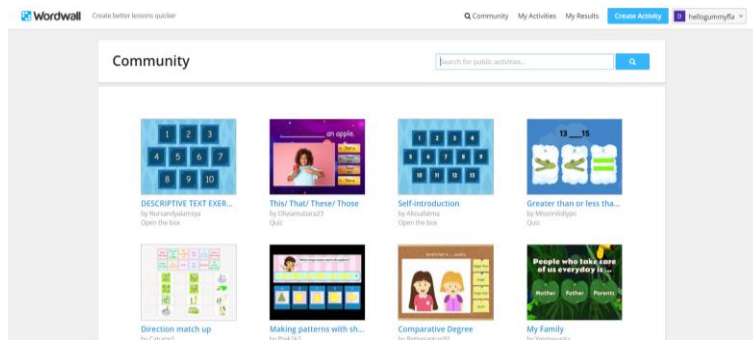


Figure 5. Community of wordwall.net

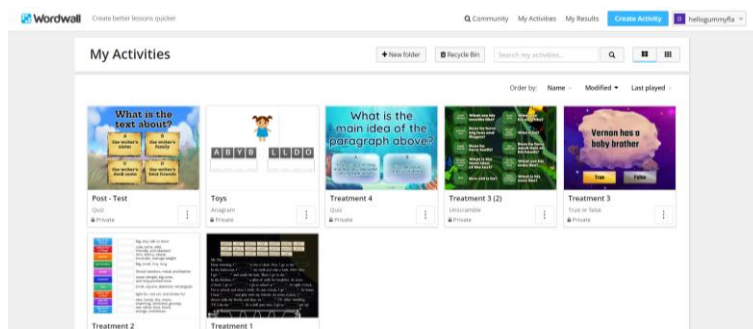


Figure 6. My Activities

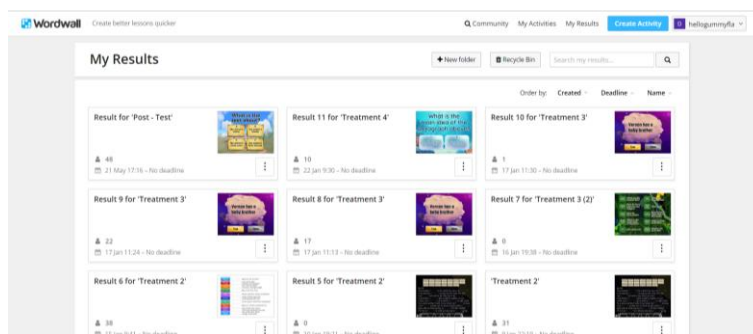


Figure 7. My Results

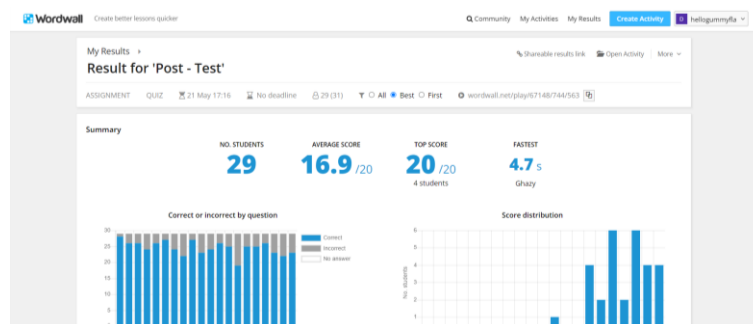


Figure 8. Results score

Wordwall.net has several benefits in facilitating the instruction of fundamental principles around words. In addition, Rahmawati and Wijayanti (2022) stated that educators can select the vocabulary subject or grammatical element from a vast collection of exercises. All tasks provided are interactive and designed to facilitate the straightforward learning of English. One of the disadvantages associated with using word walls is the considerable time investment required, as well as the need for certain equipment, colors, imagination, and the ability to provide a well-designed word wall. The teacher requires additional time to develop the game. wordwall.net cannot currently upload video or audio files, rendering it impractical for teachers seeking to utilize such media to enhance listening skills. For a teacher who uses this medium at no cost, they are only allotted five opportunities to create their own game. One further limitation of this game is the potential for pupils to cheat during gameplay.

This research has stages that are useful to see if there are significant changes in the use of Wordwall as a learning media, which are as follows: (1) In the initial pre-test activity, the researcher gave practice questions about descriptive text on a paper sheet; in this activity, it took 1 hour for students to understand the contents of the text. (2) In the treatment activity, the researcher began to apply the wordwall.net website as a learning media. In the first treatment, the researcher designed "complete the sentence"; students had to fill in the empty sentences in the description text questions. In this activity, the researcher gave a time limit of 40 minutes. (3) The second treatment, make "match word" match the word. On the question of describing someone at this stage takes 40 minutes. (4) Treatment 3, "true or false" games, students need to read in advance the text description questions given in their theme books. Moreover, it takes 45 minutes. (5) Treatment 4: Students answer the "quiz" about the story's main idea, simple

grammar, and vocabulary. It took 50 minutes for students to complete it. (6) In the last process, the post-test, the researcher gave students a "quiz" to see the development of understanding and the benefits of using wordwall.net as a learning media.

Method

Based on Creswell and Creswell (2018), experimental design involves the identification of the sample and the subsequent generalization of the findings to the population. The primary objective of experimental design is to evaluate the influence of treatment on study outcomes while accounting for other variables that may also influence these outcomes.

The researchers employed a pre-experimental approach in their research, wherein the researcher observes and intervenes in a single primary group throughout the investigation. This design lacks a control group for comparison with the experimental group.

The researchers conducted this research at seven - grade at SMP Al - Amanah. The study was conducted in the academic year of 2023/2024 for the sixth meeting of this study. The seventh grade indicates the change from elementary to secondary schooling. Students are typically still working on the foundational reading abilities necessary for their future academic achievement. As such, this site is pertinent to studies about the growth of reading comprehension. The chosen school faces difficulties with reading comprehension, including poor reading motivation, a dearth of resources, and a dearth of engaging instructional materials. Because of this, it is the perfect place to test and evaluate new teaching strategies or media.

The researchers took only one class as the sample and the respondent of this research. Class 7 C was chosen to represent the sample selected through cluster sampling. The total number of students as a sample of this research is 28.

Three techniques were used in this research for collecting the data; they are pre-test, treatment, and post-test. The pre-test given is in the form focused on the task of answering multiple-choice questions, specifically 20 questions derived from short passages of descriptive text. The writer held four sessions during treatment to achieve more effective outcomes. In the last meeting, the writer gives 20 questions on post - test in class.

The design of these questions considers their alignment with learning objectives, their changing levels of difficulty, and their inclusion of a variety of question kinds to assess diverse elements of students' abilities completely. The instructions are written with clarity, use language suitable for the pupils' level of comprehension, and are pertinent to familiar circumstances. This procedure aims to create an assessment instrument that is precise in gauging students' reading proficiency.

Techniques for analyzing data in this study consisted of the normality test to assess if the data were normally distributed using the Shapiro-Wilk technique. The standard criterion is satisfied when the test outcomes do not exhibit statistical significance at a specific significance level (α), where $\alpha = 0.05$.

After collecting the results of students' answers during the pre-test and post-test, the researchers compiled the students' scores from the lowest to the highest results and then summed them up to get the results and the average value. The value scale is used to describe each student's score. Then, when analyzing data and proving a hypothesis, the authors calculated the mean values, standard deviations, and t -values.

As the final step of what was found, the following hypothesis is tested: "wordwall.net developed of 7th-grade students' reading comprehension". The goal of hypothesis testing is to discover whether or not it is accepted or rejected, which further leads to answering the research question. The formula for hypothesis acceptance or rejection is: If $t\text{-score} < t\text{-table}$, H_0 is accepted, and H_a is rejected. If $t\text{-score} > t\text{-table}$, H_0 is rejected, and H_a is accepted

The value of t that the researchers used, the value of $t_{1-\alpha} = t_{\tau\alpha}$, so the value of y to the right of which there is an area of $1 - \alpha$, which means that there is also an area of α to the left of it is equal to the negative value of t which gives an area of α at the tail of the right. For a distribution of t with 27 degrees of freedom, we have $t_{0.683} = -t_{1.313} = -6.084$. This means that the value of t derived from a random sample of size 28, drawn from a normal distribution, will fall between -6.084 and 6.084 with a probability of 0,025.

Findings

Students' Reading Comprehension

The sample of the research was the seventh-grade students of Class 7C. All 28 students were initially given a pre-test to measure their basic reading comprehension skills and prior knowledge. After collecting pre-test data, the writer utilized wordwall.net to attract students to enhance the reading tests.

The treatment was given for the fourth meeting. At the last meeting, the researcher gave a post-test. The writer used both tests' results as reference points to analyze the student's improvement and enhancement in reading tests. These tests consisted of 20 multiple-choice questions of descriptive text for 28 students as the sample.

Table 1. The results score of the pre-test and post-test

No	Name	Pre-test	Post-test
1.	AHID	65	85
2.	AHM	60	100
3.	EVG	70	100
4.	FH	80	80
5.	KA	70	100
6.	KSH	45	85
7.	KAR	70	85
8.	KN	70	90
9.	MSR	75	80
10.	MAS	45	80
11.	MRM	50	80
12.	MDDFS	65	95
13.	MFA	65	75
14.	MGBAK	60	95
15.	MT	40	90
16.	MZAH	85	70
17.	NA	75	70
18.	NQS	40	70
19.	NY	45	80
20.	NAHS	75	70
21.	PKD	45	55
22.	RCPD	70	95
23.	RHWD	80	80
24.	RAB	60	90
25.	SRP	65	75
26.	SHF	70	80
27.	SRP	65	80
28.	VR	70	70
	TOTAL	1.775	2.305
	MEAN	63,39	82,32

As seen in the table 1, the mean reading comprehension score in the pre-test score is 63.39 and the post-test result after the treatment with worldwall.net is relatively higher, which

is 82.32. A substantial disparity exists between the individual and average values of the entire set.

To accurately analyze the data provided in the table, it is crucial to pay attention to important measurements, such as the average score. This metric is a major indicator of how well students perform in reading comprehension when utilizing Wordwall.net as an educational resource. The mean score is the arithmetic average of all individual scores, serving as a comprehensive indicator of pupils' overall performance as a group.

The mean score is determined by aggregating each student's scores and dividing the sum by the total number of pupils. This value provides an understanding of the average performance level of the entire group. A higher mean score would indicate that pupils performed well on average, suggesting that using wordwall.net has effectively improved their reading comprehension skills. On the other hand, a decrease in the average score could suggest that the tool did not substantially impact students' comprehension skills or that other variables may have affected their performance.

The criteria classify the students' scores into distinct levels, including excellent, good, fair, or poor. These categories facilitate comprehension of most students' placement within the performance continuum. For example, if many pupils are classified as 'good' or 'outstanding,' it indicates that the tool was usually successful. Conversely, if many pupils are classified as 'fair' or 'poor,' it could suggest the necessity for extra assistance or different methods. By examining the average score, the variation in individual scores, and how these scores are classified based on the criteria for assessing indicators, readers can get a more comprehensive picture of the overall efficacy of Wordwall.net in enhancing students' reading comprehension. The indicator assessment criteria serving as a standard for categorizing grades are as shown in table 2.

Table 2. Indicator of component reading comprehension

No	Score	Fable Case	Criterion
1.	85 - 100	A	Excellent
2.	70 - 84	B	Good
3.	55 - 69	C	Fair
4.	50 - 54	D	Poor
5.	0 - 49	E	Very poor

Nevertheless, the present study evaluated the participants' reading comprehension level using a rubric modified by Shehzad (2019). Based on Shehzad (2019), reading comprehension levels are classified into four categories: very poor, poor, average, and good. Nevertheless, the present study categorized the reading comprehension level into five categories based on the number of accurate responses in the reading comprehension exam, as illustrated in Table 2. The scores were derived from each student's performance, encompassing the pre-test and post-test stages. Next, the researcher organized the scores in ascending order.

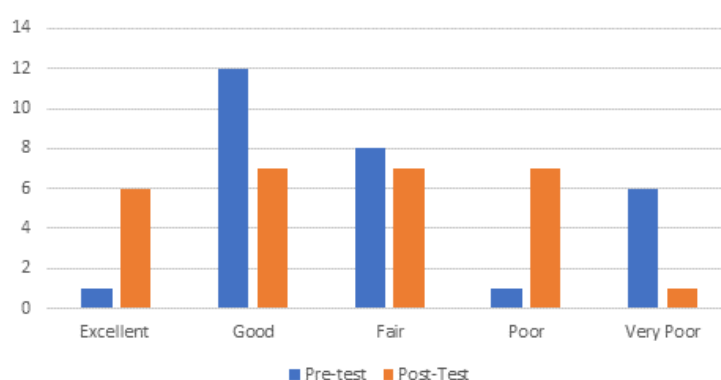


Figure 9. Grading chart of pre-test and post-test student's criteria

As shown in Figure 9, there are differences between the scores received before and after the test, as the table and figure shown show. The results showed that the pre-test means score was 63.39, and the sample size was 1.755. With a mean score of 82,32, the post-test sample size was 2.305. Based on the outcomes of the scores, the post-test scores are higher.

Statistical Difference between the Pre and Post Tests

After descriptive data were obtained, the next step was to prove the hypotheses by inferential statistics. It aims to demonstrate the effectiveness of each test conducted and its correlation with using Wordwall.net as a learning medium. In this study, researchers conducted four tests: normality test, paired sample statistic, paired sample correlations, and paired sample test.

Table 3. Normality test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre_test	.193	28	.009	.914	28	.025
Post_test	.156	28	.083	.947	28	.167

The normality of data is a fundamental need for numerous statistical tests, as normal data serves as a foundational assumption in parametric testing. In this study, the researcher employed the Shapiro-Wilk approach due to the limited sample size of less than thirty individuals. The results indicate that the data with a value greater than >1.67 follows a normal distribution. The normally distributed data were then analyzed using a paired sample t-test to compare the pre and post-test results.

Table 4. Paired sample statistic

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre_test	63.39	28	12.770	2.413
	Post_test	89.39	28	11.012	2.081

The Paired Samples t-test is a statistical method that compares the means of two measurements obtained from the same individual, object, or related units. These "paired" measures can represent several entities or phenomena, such as: A measurement obtained at two distinct time points, such as pre-test and post-test an intervention, to assess any changes that may have occurred.

Table 5. Paired sample correlations

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre_test & Post_test	28	.047	.811

In paired samples, the correlations display the bivariate Pearson correlation coefficient and a two-tailed significance test for each pair of entered variables. The Paired Samples Test provides the findings of the hypothesis test.

Table 6. Paired sample test

	Paired Differences							
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Pre-test - Post-test	-18.929	16.463	3.111	-25.312	-12.545	-6.084	27	.000

Based on the calculation of the t-test in Table 6, the data of this study show significant results; this can be seen from the results of the mean value of 18.929, a standard deviation of 16.463, a mean, standard error of 3.111, a lower interval of 25.312, and upper interval 12.545. the t-test result of 10.726 degrees of freedom 27 and significant (2-tailed) is 0.000 < α (0.05). On the other hand, based on the hypothesis explained in table 6. Proves that H_1 is accepted, H_0 is rejected.

Discussions

From the results presented above, the pre-test and post-test scores are the pre-test of 1.775, while the post-test score is 2.305. A mean score of 63.39 was obtained before the exam, while a mean score of 82,32 was obtained after the test. What this indicates is that the variances of the initial test and the final test are not identical to one another. Additionally, based on the statistical calculations presented earlier, there is a substantial gap between the mean value of reading comprehension results obtained using the WordWall.net website and those obtained without using the wordwall.net website.

Based on the paired sample t-test table, the t obtained was 10.726, and $t_{critical}$ was at the significant level (p) = 0.05 was 1.703. In contrast, if $t_{obtained} \leq t_{critical}$ at the significant level (p) + 0,05, then the hypothesis (H_0) is rejected and accepted the alternative hypothesis (H_a), then it is significant (2-tailed) equal to 0.000 with a significant level of $\alpha = 0,05$ (2-tailed). Because the score is $0.000 < \alpha$ (0.05), H_a is accepted, and H_0 is rejected.

The results of this study show that seventh-grade students at SMP Al-Amanah have much-improved reading comprehension when using wordwall.net. These findings complement the mounting corpus of studies supporting the inclusion of digital technologies into the classroom to improve learning results. Comparative research with related subjects has investigated how digital tools affect reading comprehension. For instance, Medina and Hurtado (2017) found that interactive educational websites significantly improve vocabulary acquisition among university students. Similarly, Julita (2024) demonstrated that gamified learning platforms could engage students more effectively, leading to better comprehension and retention of reading material.

Despite previous studies, the present one offers a more concentrated analysis of a particular digital tool, wordwall.net, and its utilization in a real-world classroom environment. While Medina and Hurtado (2017) and Julita (2024) offered proof of the general efficacy of digital tools and gamified platforms, this study offers thorough insights into how wordwall.net especially improves reading comprehension for seventh-grade pupils.

This research is one of the few that specifically examines wordwall.net, a platform known for its interactive and customizable features. By concentrating on a specific technology, the study provides useful information for teachers wishing to include similar digital resources in their courses. The controlled pre-experimental approach the study used increases the validity of the results. The acceptance of the alternative hypothesis (H_a) and the rejection of the null hypothesis (H_0) show the major influence of wordwall.net on reading comprehension, reducing the effect of outside variables.

Furthermore, this study adds to the mounting data showing that junior high school students' reading comprehension can be much improved by digital aids such as Wordwall.net. The study is useful for teachers and researchers seeking to include digital resources in reading teaching by providing a particular analysis of the tool's performance. Future studies should build

on these results by looking at long-term effects and studying the tool's applicability in other educational environments and student populations.

Conclusion and Implication

An alternative hypothesis that using wordwall.net improves reading comprehension was accepted, proven by a paired sample t-test, which showed that the change was significant. It can be concluded that the wordwall.net site is a useful way to help students understand descriptive texts. It is also a good resource for teachers who want to use digital tools in their lessons.

The implications of this study have important effects on education, especially when it comes to using digital platforms to help students learn better. The study shows that wordwall.net and other similar sites can be very helpful in making learning more fun and interactive, leading to better grades for students. The study had some limitations, namely not having a control group and only looking at one school, which might mean that the results cannot be used in other situations. In addition, the instrument also had not been tested for validity.

More studies could be done to examine how digital tools like wordwall.net affects reading comprehension and other school skills over time. Studies with a wider range of sample and various school settings could also confirm these results and find new uses. In conclusion, the study gives us useful information about how digital tools can improve learning, and it urges teachers to use technology to get their students more involved and help them do better in school.

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References

- Alkamel, M. A. A. & Chouthaiwale, S. S. (2018). The use of ICT tools in English language teaching and learning: A literature review. *Veda's Journal of English Language and Literature-JOELL*, 5(2), 29-33. <https://joell.in/wp-content/uploads/2018/04/29-33-THE-USE-OF-ICT-TOOLS-IN-ENGLISH-LANGUAGE.pdf>
- Arafat, Y., Rosyid, N., & Kholisah. (2022). Study of literature on improving students' vocabulary through total physical response. *English Education Department Journal*, 1(1), 1-10. <https://jurnal.ubest.ac.id/index.php/eed/article/view/321>
- Brown, H. D. (2007). *Principles of language learning and teaching* (Fifth Edition). Pearson.
- Bueno, M., Perez, F., Valerio, R., Mareth, E., & Areola, Q. (2022). A usability study on Google site and wordwall.net: Online instructional tools for learning basic integration amid pandemic. *Journal of Global Business and Social Entrepreneurship (GBSE)*, 7(23), 61-71. www.gbse.com.my. [http://www.gbse.com.my/V8%20NO.23%20\(JANUARY%202022\)/Paper-288-.pdf](http://www.gbse.com.my/V8%20NO.23%20(JANUARY%202022)/Paper-288-.pdf)
- Çil, E. (2021). The effect of using wordwall.net in increasing vocabulary knowledge of 5th grade EFL students. *Language Education & Technology (LET Journal)*, 1(1), 21-28. <https://www.langedutech.com/letjournal/index.php/let/article/view/16>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications Ltd.
- Elleman, A. M., & Oslund, E. L. (2019). Reading comprehension research: Implications for practice and policy. *Policy Insights from the Behavioral and Brain Sciences*, 6(1), 3-11. <https://doi.org/10.1177/2372732218816339>
- Elston, A., Tiba, C., & Condy, J. (2022). The role of explicit teaching of reading comprehension strategies to an English as a second language learner. *South African Journal of Childhood Education*, 12(1), 1-10. <https://doi.org/10.4102/sajce.v12i1.1097>
- Fauqannuri, I. R. (2021). *Penerapan Media Berbasis Wordwall dalam Meningkatkan Motivasi dan Hasil Belajar Siswa Kelas VII B Mata Pelajaran Pendidikan Agama Islam di SMPN 2 Panji Situbondo Tahun Pelajaran 2021/2022* [Undergraduate thesis, UIN Kiai Haji Achmad Siddiq Jember]. <http://digilib.uinkhas.ac.id/9879/>

- Gilakjani, A. P., & Sabouri, N. (2017). How can students improve their reading comprehension skills? *Journal of Studies in Education*, 6(2), 229-240. <https://doi.org/10.5296/jse.v6i2.9201>
- Hasan, S. W. (2015). The effect of teaching reading comprehension strategies on Iraqi EFL college students' performance in reading comprehension. *University of Babylon Journal*, 23(2), 544-561. <https://www.iasj.net/iasj/article/103192>
- Hauer, T. (2017). Education, technological determinism and new media. *INTED2017 Proceedings*, 10026-10030. <https://doi.org/10.21125/inted.2017.2401>
- Julita, R. (2024). The impact of gamification on EFL students' reading comprehension. *Journal of English as a Foreign Language Education (JEFLE)*, 4(2), 136-149. <https://doi.org/10.26418/jefle.v4i2.74901>
- Kazhan, Y. M., & Karpiuk, V. A. (2023). Enhancing German language learning through interactive tools. *CTE Workshop Proceedings*, 11, 15-28. <https://doi.org/10.55056/cte.596>
- Medina, E. G. L., & Hurtado, C. P. R. (2017). Kahoot! A digital tool for learning vocabulary in a language classroom. *Revista*, 4(12), 441-449. https://revistapublicando.org/revista/index.php/crv/article/view/673#google_vignette
- Mohammed, S., & Hasan, F. (2023). Investigating Kurdish EFL students' speed reading and reading comprehension levels at the University of Duhok. *Humanities Journal of University of Zakho*, 11(3), 643-652. <https://doi.org/10.26436/hjuoz.2023.11.3.1091>
- Mullis, I. V. S., Martin, M. O., Foy, P., & Drucker, K. T. (2012). *PIRLS 2011 international results in reading*. IEA. <https://timssandpirls.bc.edu/pirls2011/international-results-pirls.html>
- Najeeb, S. S. R. (2013). The business of teaching English as a second language: A Libyan case study. *Procedia - Social and Behavioral Sciences*, 70, 1243-1253. <https://doi.org/10.1016/j.sbspro.2013.01.184>
- Nation, K. (2019). Children's reading difficulties, language, and reflections on the simple view of reading. *Australian Journal of Learning Difficulties*, 24(1), 47-73. <https://doi.org/10.1080/19404158.2019.1609272>
- Nenohai, J. A., Rokhim, D. A., Agustina, N. I., & Munzil, M. (2022). Development of gamification-based Wordwall game platform on reaction rate materials. *Orbital*, 14(2), 116-

122. <https://doi.org/10.17807/orbital.v14i2.16206>

- Oakhill, J., Cain, K., & Elbro, C. (2019). Reading comprehension and reading comprehension difficulties. In *Reading Development and Difficulties: Bridging the Gap Between Research and Practice* (pp. 83–115). Springer International Publishing. https://doi.org/10.1007/978-3-030-26550-2_5
- Poletiek, F. H., Conway, C. M., Ellefson, M. R., Lai, J., Bocanegra, B. R., & Christiansen, M. H. (2018). Under what conditions can recursion be learned? Effects of starting small in artificial grammar learning of center-embedded structure. *Cognitive Science*, 42(8), 2855–2889. <https://doi.org/10.1111/cogs.12685>
- Rahmawati, A. P., & Wijayanti, P. R. (2022). Implementing joyful learning strategy using Wordwall in order to improve reading comprehension skills. *Proceedings Series on Physical & Formal Sciences*, 3, 32–35. <https://doi.org/10.30595/pspfs.v3i.261>
- Shehzad, M. W. (2019). *The roles of self-efficacy and metacognition in reading comprehension among Saudi EFL learners* [Doctoral thesis, Universiti Utara Malaysia] <https://etd.uum.edu.my/9045/>
- Sipayung, K. T., Tampubolon, S., Napitupulu, F. D., & Tobing, F. L. (2021). Generic structure of descriptive text written English language learner and teachers. *Linguistics and Culture Review*, 5(S3), 1636–1650. <https://doi.org/10.21744/lingcure.v5ns3.1950>
- Swari, N. K. T. A. (2023). Wordwall as a learning media to increase students' reading interest. *Jurnal Pendidikan Bahasa Inggris Indonesia*, 11(1), 21–29. <https://doi.org/10.23887/jpbi.v11i1.1572>
- Vaughn, S., Fall, A. M., Roberts, G., Wanzek, J., Swanson, E., & Martinez, L. R. (2019). Class percentage of students with reading difficulties on content knowledge and comprehension. *Journal of Learning Disabilities*, 52(2), 120–134. <https://doi.org/10.1177/0022219418775117>
- Yang, Y., Tsai, Y.-R., & Hikaru, Y. (2015). Top-down and bottom-up strategy use among good and poor readers in EFL reading comprehension. *European Journal of English Language Teaching*, 4(3), 101–114. <https://doi.org/10.5281/zenodo.2235593>