



Invention: Journal Research and Education Studies
Volume 6 Nomor 2 Juli 2025

The Invention: Journal Research and Education Studies is published
 three (3) times a year

(March, July and November)

Focus : Education Management, Education Policy, Education
 Technology, Education Psychology, Curriculum Development,
 Learning Strategies, Islamic Education, Elementary Education

LINK : <https://pusdikra-publishing.com/index.php/jres>

The Effect of Wordwall-Based Interactive Media on the English Vocabulary Mastery of Fifth Grade Students at UPT SDN 1 Bangkala Kabupaten Jeneponto

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ABSTRACT

This research is based on the low vocabulary mastery of fifth grade students at UPT SDN 1 Bangkala Kabupaten Jeneponto. This study employed a quantitative approach with a quasi-experimental design of the nonequivalent control group type. The objectives were to describe the use of Wordwall in grade V; to describe vocabulary mastery; and to analyze the effect of Wordwall on vocabulary mastery. Descriptive analysis showed excellent implementation of Wordwall. Inferential analysis revealed a sig. (2-tailed) value of $0.000 < 0.05$ with $t\text{-count} > t\text{-table}$ ($7.946 > 2.042$), hence H_a was accepted. The conclusion is that Wordwall has a significant effect on students' English vocabulary mastery.

Kata Kunci

Wordwall, Vocabulary Mastery, English, Wordwall Interactive Learning Media

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INTRODUCTION

Education is a basic need that continues to evolve with the advancement of time, science, and technology. The role of education is crucial in improving the quality of human resources (Hermanto, 2020). In a global context, proficiency in foreign languages, particularly English, has become an important indicator in addressing the challenges of the modern world. English is an international language widely used across various fields, including academia, business, and cross-cultural communication (Aziz & Gantara, 2021).

However, based on the results of the EF EPI (Education First English Proficiency Index) 2024 survey, the English language proficiency of Indonesians is still relatively low. The EF EPI itself is a globally recognized survey and is considered the gold standard in assessing English language proficiency. In that year, Indonesia ranked 80th out of 116 countries with a score of 468, far below the global average. In Asia, Indonesia ranked 12th out of 23 countries (EF EPI, 2024). This situation raises concerns about the ability of the younger generation

to compete on the global stage. Therefore, it is important to introduce and teach English from elementary school as a foundation.

Although English language learning has been introduced from an early age, the reality is that students' vocabulary proficiency is still relatively low. Several studies have pointed out that vocabulary is an important aspect that forms the basis of language proficiency. Good vocabulary mastery will make it easier for students to understand sentence context, read texts, write, and communicate orally (Sucandra et al., 2022). However, many students experience difficulties in memorizing, understanding the meaning, and using words in English sentence (Sugiharti & Riftina, 2019). Mastery of English vocabulary itself includes several important indicators, including the ability to pronounce words correctly, spell words accurately both orally and in writing, and understand the meaning and use of words in sentences contextually. These three indicators form the basis for assessing the extent to which students are able to recognize and use English vocabulary effectively (Andriani & Sriwahyuningsih, 2019).

Similar problems were found at UPT SDN 1 Bangkala Kabupaten Jeneponto. Based on observations, fifth-grade students still struggle to master English vocabulary. Teaching methods tend to be conventional and monotonous. Lectures and learning media are limited to blackboards and printed books, which causes students to be less active and lose interest in learning. English teachers at the school also stated that limited media and a lack of variety in learning strategies have a negative impact on student engagement in the learning process.

Low student interest in learning is one of the factors contributing to poor learning outcomes. Setiawan et al., (2022) state that learning success is greatly influenced by student interest. Therefore, innovation is needed in the delivery of material that can stimulate student motivation and interest in learning. One approach that can be used is the use of technology-based interactive learning media. In this case, Wordwall is one innovative solution.

Wordwall is a game-based learning platform that provides various interactive features such as quizzes, puzzles, and interesting educational games (Amril et al., 2023). This media is considered capable of increasing student participation, strengthening memory, and creating a more enjoyable and competitive learning atmosphere (Purnamasari et al., 2022). Wordwall enables teachers to deliver content in a more varied and flexible manner and allows students to interact directly with the learning material.

Edgar Dale's cone of experience theory reinforces the importance of using media in learning. According to Dale, learning that involves direct experience

(learning by doing) will provide a retention effect of up to 90% compared to conventional methods such as reading and listening only (Junaidi & Husnita, 2023). In this case, Wordwall as an interactive media allows students not only to see and hear, but also to be actively involved in learning practices through digital games.

Several previous studies also support the effectiveness of Wordwall in English language learning. Research results (Widyaningsih et al., 2023) state that Wordwall can significantly improve students' vocabulary mastery, and (Nurhafitri et al., 2024) also state that the use of Wordwall has a positive effect on student learning outcomes, particularly in terms of English vocabulary mastery.

Based on the above description, it can be concluded that English language learning at the elementary school level still faces serious challenges, particularly in terms of vocabulary mastery. Therefore, the use of interactive learning media such as Wordwall is very important to be implemented. This study aims to determine the use of Wordwall media in grade V of UPT SDN 1 Bangkala Kabupaten Jeneponto, to determine students' vocabulary mastery before and after using interactive Wordwall media, and to test whether there is a significant effect of using Wordwall media on students' English vocabulary mastery.

RESEARCH METHODE

This study used a quantitative approach with a quasi-experimental research type, using a nonequivalent control group design. This approach was chosen to objectively determine the effect of using Wordwall-based interactive media on the English vocabulary mastery of fifth-grade students at UPT SDN 1 Bangkala, Kabupaten Jeneponto. The population in this study consists of all fifth-grade students in the 2024/2025 academic year, with the sampling technique conducted using purposive sampling, which involves selecting two pre-existing classes with relatively equivalent academic abilities. Class VA was designated as the experimental class receiving instruction using the Wordwall medium, while Class VB served as the control class using the Quizizz medium in instruction as a comparison. Each class consists of 16 students, resulting in a total sample size of 32 students in this study.

1. Research Instruments

The instruments used in this study consist of:

- a) An English vocabulary proficiency test using a written test in the form of multiple-choice questions and an oral test in the form of direct questions, both of which are used for pre-tests and post-tests based on three

indicators of vocabulary proficiency: pronunciation, spelling, and meaning.

- b) An observation sheet for the implementation of the Wordwall media, used to assess the extent of media implementation in the learning process in the experimental class.
- c) Documentation, used to supplement visual data and as validation of learning activities during the research period.

2. Research Procedure

The research was conducted in three main stages, namely:

- a) Initial stage (pre-test): conducted to measure the initial English vocabulary proficiency of students in both classes.
- b) Treatment stage: the experimental class was given lessons using Wordwall media for six meetings, while the control class received conventional lessons without interactive media.
- c) Final stage (post-test): conducted to reassess students' abilities after the intervention was given to the experimental class and conventional instruction to the control class.
- d) Observation: conducted concurrently with the treatment to evaluate the implementation of Wordwall media by teachers and student engagement in learning.

3. Data Analysis Techniques

The data were analyzed using the following techniques:

- a) Descriptive analysis, to determine the mean, standard deviation, and category of English vocabulary mastery in each class.
- b) Independent sample t-test, to determine significant differences between the experimental class and the control class in the post-test results.

All analyses were performed using IBM SPSS Statistics version 25 software.

RESULTS AND DISCUSSION

Results

This study was conducted to determine the effect of using Wordwall-based interactive learning media on the English vocabulary mastery of fifth-grade students at UPT SDN 1 Bangkala, Kabupaten Jeneponto. Data collection was carried out through pre-tests and post-tests as well as observation sheets. The results were analyzed using descriptive and inferential approaches.

Overview of the use of Wordwall interactive media in fifth grade at UPT SD Negeri 1 Bangkala

An overview of the use of interactive media Wordwall in grade V UPT SDN 1 Bangkala is presented based on the results of the Observation of Learning Implementation and Student Activities. To support the validity of the implementation of learning media using Wordwall, the researcher used observation sheets for both teachers and students during the learning process. The observation was conducted over two learning sessions. The results of the observation on the implementation of the interactive Wordwall media can be seen in more detail in the table below:

Table 1.
Results of Teacher Observations on the Implementation of
Learning Using Interactive Media Wordwall

Teacher Observation Sheet	Experimental Class	
	Meeting 1	Meeting 2
Score obtained/Maximum Score	35/44	42/44
Persentase	79%	95%
Category	Good	Very good

Table 2.
Results of Student Activity Observations in the Implementation of
Learning Using Interactive Media Wordwall

Student Observation Sheet	Experimental Class	
	Meeting 1	Meeting 1
Score obtained/Maximum Score	32/40	39/40
Persentase	80%	97%
Category	Good	Very good

Based on the two tables above, it can be concluded that the implementation of learning and student participation increased from the first meeting to the second meeting. Teachers became more optimal in implementing learning steps using Wordwall media, and students showed higher active and enthusiastic involvement in the second meeting. Thus, the use of Wordwall interactive media in the learning process went very well.

Steps for using Wordwall:

This study used three Wordwall game features: Flashcard, Anagram, and Open the Box. The following are the steps for using Wordwall in the learning process:

1. Teaching materials were delivered using the flashcard feature on Wordwall, and students repeated the pronunciation of words provided by the Wordwall application.
2. Students are divided into three groups to play the Anagram game using the Wordwall feature, which involves competing to arrange random letters into a correct word.
3. After the word is successfully arranged, students take turns spelling the word correctly and accurately.
4. Students individually answer questions related to the functions of human body parts through the Open the Box game on the Wordwall feature.

Advantages of Wordwall Media:

- a) Increases student engagement through interactive and fun games.
- b) Helps strengthen vocabulary mastery through repeated practice in various quiz formats.
- c) Fosters motivation to learn because the attractive display and immediate feedback from the games make students more enthusiastic.
- d) Facilitates teachers in presenting material and evaluating student understanding quickly and efficiently.

Disadvantages of Wordwall Media:

- a) Requires an internet connection and adequate devices, so not all students can access it optimally.
- b) Less effective if used too frequently without varying methods, as it can lead to student boredom.
- c) Requires teachers to have the skills to design appropriate content so that it is not just about playing games but still achieves learning objectives.

Overview of English Vocabulary Mastery of Fifth Grade Students at UPT SD Negeri 1 Bangkala

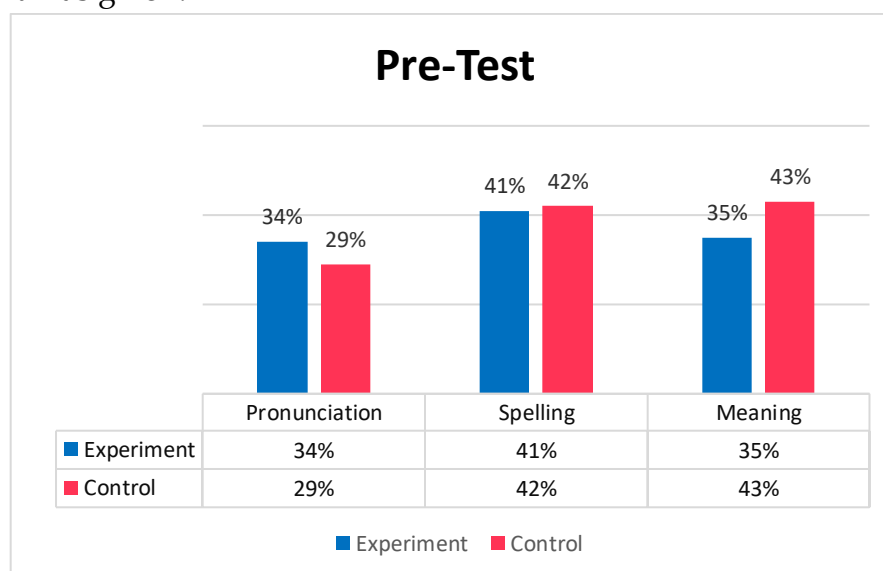
The English vocabulary mastery referred to in this study consists of three indicators, namely pronunciation, spelling, and meaning. The variable of English vocabulary mastery among students in this study was measured using oral and written tests. Pre-test were conducted for both the experimental and control groups to determine and obtain an initial picture of the students' English vocabulary mastery before the treatment. The results of the pre-test and post-test for the control and experimental groups before and after the treatment can be seen in the following statistical description table:

Table 3.
Description of Pre-Test and Post-Test Scores of Students in the
Experimental and Control Classes

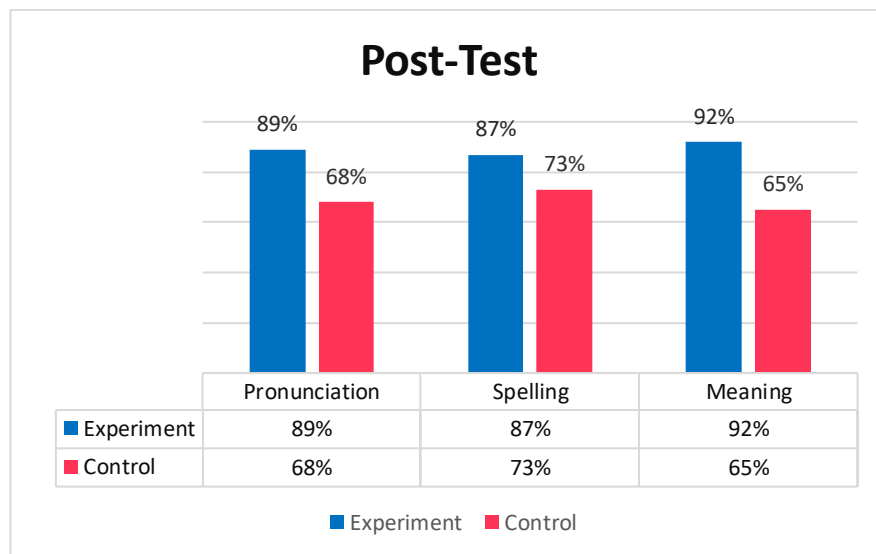
Descriptive Statistics	Pre-test		Post-test	
	Experiment	Control	Experiment	Control
Sample Size	16	16	16	16
Minimum	21	18	79	52
Maximum	73	70	97	85
Mean	36.50	37.06	89.31	69.63
Range	52	52	18	33
Std. Deviation	14.208	12.097	5.250	8.405
Median	33.00	36.00	89.50	70.00

The mean score of the experimental class was 89.69, which falls into the “very good” category, while the control class scored 69.63, which falls into the “good” category. The experimental class saw an increase of **52.81** points, while the control class also increased but not as much as the experimental class, with an increase of only **32.57** points. This indicates that the use of the interactive learning medium Wordwall contributes more significantly to students' learning outcomes, particularly in improving their mastery of English vocabulary.

In addition to the average score, the following graph shows the English vocabulary proficiency of students in the experimental and control classes based on three indicators of English vocabulary proficiency before and after the treatment was given:



Picture 1.
Comparison of English Vocabulary Mastery Indicators between the
Experimental Class and the Control Class before the treatment was given



Picture 2.

Comparison of English Vocabulary Mastery Indicators in the Experimental Class and Control Class After Treatment

Based on the graph above, there was an increase in all three indicators of students' English vocabulary mastery after the treatment was administered, both in the experimental class that used the interactive media Wordwall and in the control class that used the media Quizizz. When compared to the pre-test scores in the experimental class, there was a significant increase. The pronunciation indicator in the pre-test scored 34%, then increased to 89% in the post-test. The spelling indicator scored 41% on the pre-test and increased to 87% on the post-test. Meanwhile, the meaning indicator scored 35% on the pre-test and increased to 92% on the post-test. On the other hand, there was also an increase in the control class, although not as significant as in the experimental class. The pronunciation indicator in the pre-test scored 29%, then increased to 68% in the post-test. The spelling indicator in the pre-test scored 42% and increased to 73% in the post-test, while the meaning indicator in the pre-test scored 43% and increased to 65% in the post-test.

This shows that the use of Wordwall contributes to improving students' English vocabulary. Students who learn with Wordwall demonstrate better vocabulary comprehension, more accurate pronunciation, and the ability to use vocabulary in a more accurate context. This media helps students visualize words better through fun educational games, thereby increasing their engagement in learning.

The effect of Wordwall interactive media on the English vocabulary mastery of fifth-grade students at UPT SD Negeri 1 Bangkala

To statistically test whether there is a significant difference between the two groups, a hypothesis test was conducted. In this study, an independent

sample t-test was used. The probability value used was 5% or 0.05. The test results can be said to have a difference or effect if the significant value is smaller than the sig probability value (2-tailed <0.05). The results of the independent sample t-test can be seen in the following table:

Table 4.
Results of the Independent Sample t-test

Data	t_{calculated}	df	t_{table}	Sig (2-tailed)	Description
<i>Post-test</i> Experiment and Control	7.946	30	2.042	0.000	Significant

The 2-tailed significance value is $0.000 < 0.05$ and the calculated $t > \text{table } t$ ($7.946 > 2.042$), so it can be concluded that there is a significant difference between the experimental and control classes. With these results, it can be concluded that there is a significant difference between the English vocabulary mastery of students who use Wordwall media and those who do not.

Discussion

The use of Wordwall media provides a new atmosphere in the learning process. Students can learn actively in the classroom, students respond very well and enthusiastically using Wordwall interactive media. In addition, students' English vocabulary mastery ability increased as seen from the increase in the value of each indicator of English vocabulary mastery ability (pronunciation, spelling and meaning) after the use of Wordwall interactive media. Learning in the classroom is more effective. So it can be concluded that there is an effect of using Wordwall interactive media on students' English vocabulary mastery ability.

Interactive media such as Wordwall allows students to learn more actively, in accordance with Dale's theory of learning experience (Junaidi & Husnita, 2023), where students' active involvement through visualization and direct practice strengthens memory and concept understanding. The results of this study support previous findings that Wordwall is effective in improving students' vocabulary mastery (Widyaningsih et al., 2023); (Nurhafitri et al., 2024). Thus, Wordwall can be recommended as an effective and fun learning media to be applied in English learning in elementary schools.

Overall, the results show that the use of Wordwall-based interactive learning media can have a positive impact on improving students' mastery of English vocabulary. The experimental class that used this media showed a higher average score, a better distribution of scores, as well as increased student engagement in the learning process. Wordwall media proved effective in

creating a fun, interactive and meaningful learning atmosphere. Through the game features available, students can learn vocabulary actively and not feel burdened. This finding is in line with modern learning principles that emphasize students' active participation and visual-auditive-kinesthetic approach in the learning process.

This success also reinforces the view that innovations in learning media need to be continuously developed to suit the needs of today's digital generation. Wordwall, as an example of adaptive digital media, is proven to be able to bridge the limitations of conventional learning methods, and has a significant impact on student learning outcomes, especially in mastering English vocabulary.

Thus, the results of this study provide a strong basis that the integration of technology through learning media such as Wordwall not only improves learning outcomes, but also shapes a more relevant and enjoyable learning experience for primary school students.

This study has limitations in its limited scope, as it was only conducted in one school with two classes. Therefore, generalization of the results to a wider population needs to be done carefully. In addition, the duration of the implementation of Wordwall interactive media in learning is relatively short, so the long-term impact cannot be observed thoroughly.

Other variables that could potentially affect the results, such as interest in learning English, learning environment support and teacher characteristics, have not been analyzed in this study. Future research is recommended to examine the effectiveness of using interactive media over a longer period of time, at different levels of education, as well as involving other variables such as learning motivation, learning interest and student learning strategies. In addition, the use of interactive media such as Wordwall also has the potential to be applied in other subjects, so that its effectiveness can be compared across subjects.

CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that Wordwall-based interactive learning media has a significant effect on the mastery of English vocabulary of grade V students of UPT SDN 1 Bangkala Kabupaten Jenepono. The application of Wordwall media in learning makes the learning process more interesting, interactive and effective. This is shown through the increase in the average post-test score of students in the experimental class compared to the control class, as well as the t-test results which show significant differences between the two groups.

Thus, Wordwall is proven to be a feasible alternative learning media to be applied in English learning in elementary schools to optimally improve students' vocabulary mastery.

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