

## OPTIMALISASI PENGGUNAAN WORDWALLS DALAM MENINGKATKAN KETERAMPILAN KOSA KATA SISWA SMP NEGERI 25 PEKANBARU

### OPTIMIZING THE USE OF WORDWALLS IN IMPROVING THE VOCABULARY SKILLS OF PEKANBARU 25 MIDDLE SCHOOL STUDENTS

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#### ABSTRACT

*This research aims to improve the vocabulary skills of students at SMP 25 Pekanbaru through the implementation of the interactive learning application Wordwall. This research was conducted in two cycles consisting of the planning, implementation, observation, and reflection stages. In the pre-cycle, it was found that most of the students at SMP 25 Pekanbaru were still experiencing difficulties in mastering adequate English vocabulary. This caused them to struggle in understanding the learning materials and communicating effectively. In cycle 1, the learning was focused on improving the students' vocabulary skills using the Wordwall application. Students were involved in various interactive activities such as vocabulary games, puzzles, and exercises. The results showed an increase in students' understanding and mastery of vocabulary, although still in the moderate category. In cycle 2, the learning was more focused on the comprehensive use of Wordwall, including providing regular feedback and self-reflection for the students. The results of this second cycle showed a significant improvement in the students' vocabulary skills, with a high category. Thus, it can be concluded that the implementation of the Wordwall interactive learning application has proven to be effective in improving the vocabulary skills of students at SMP 25 Pekanbaru. This research has implications for teachers to integrate interactive learning technology in vocabulary learning.*

**Keywords:** Vocabulary, Wordwall, Skill Improvement.

#### ABSTRAK

*Penelitian ini bertujuan untuk meningkatkan kemampuan kosakata siswa SMP 25 Pekanbaru melalui penerapan aplikasi pembelajaran interaktif Wordwall. Penelitian ini dilakukan dalam dua siklus yang terdiri dari tahap perencanaan, pelaksanaan, observasi, dan refleksi. Pada pra-siklus, ditemukan bahwa sebagian besar siswa SMP 25 Pekanbaru masih mengalami kesulitan dalam menguasai kosakata bahasa Inggris yang memadai. Hal ini menyebabkan mereka kesulitan dalam memahami materi pembelajaran dan berkomunikasi secara efektif. Pada siklus 1, pembelajaran difokuskan pada peningkatan kemampuan kosakata siswa dengan menggunakan aplikasi Wordwall. Siswa dilibatkan dalam berbagai aktivitas interaktif seperti permainan kosakata, teka-teki, dan latihan. Hasilnya menunjukkan adanya peningkatan pemahaman dan penguasaan kosakata siswa, meskipun masih dalam kategori sedang. Pada siklus 2, pembelajaran lebih difokuskan pada penggunaan Wordwall secara lebih komprehensif, termasuk pemberian umpan balik dan refleksi diri siswa secara berkala. Hasil dari siklus 2 ini menunjukkan peningkatan yang signifikan pada kemampuan kosakata siswa, dengan kategori tinggi. Dengan demikian, dapat disimpulkan bahwa penerapan aplikasi pembelajaran interaktif Wordwall terbukti efektif dalam meningkatkan kemampuan kosakata siswa SMP 25 Pekanbaru. Penelitian ini memberikan implikasi bagi guru untuk mengintegrasikan teknologi pembelajaran interaktif dalam pembelajaran kosakata.*

**Kata Kunci:** Kosakata, Wordwall, Peningkatan Kemampuan

## PENDAHULUAN

In the current educational landscape, the development of strong vocabulary skills is a crucial component of academic success for students. Vocabulary knowledge directly contributes to students' reading comprehension, writing abilities, and overall language proficiency (Coyne et al., 2018; Elleman et al., 2017). However, many middle school students in Pekanbaru, Indonesia, struggle to build and expand their vocabulary, hindering their academic progress. Studies have identified various factors that influence students' vocabulary development, such as limited exposure to diverse vocabulary, ineffective teaching methods, and a lack of engaging learning tools (Graves, 2016; Kusumaningrum et al., 2020). Traditional vocabulary instruction often relies on rote memorization and isolated word lists, which can be demotivating and less effective for students.

One potential solution to address these challenges is the integration of interactive learning technology, specifically WordWalls, into vocabulary instruction. WordWalls are digital interactive whiteboards that allow students to engage with vocabulary words through various activities, such as matching, sorting, and quizzes (Alizadeh & Mahdavi, 2020; Tomlinson & Masuhara, 2017). This approach can provide students with engaging and immersive learning experiences, enhancing their vocabulary acquisition and retention. While existing research has explored the benefits of using WordWalls in various educational contexts, studies specifically examining its impact on improving the vocabulary skills of middle school students in Pekanbaru, Indonesia, are limited. Therefore, this study aims to investigate the effect of implementing WordWalls on enhancing the vocabulary skills of Pekanbaru 25 Middle School students.

In the academic setting, strong vocabulary skills are essential for students' success across various subjects. Proficient vocabulary knowledge enables students to comprehend course materials, articulate their ideas effectively, and demonstrate their understanding of the subject matter (Coyne et al., 2018; Elleman et al., 2017). Moreover, the vocabulary skills acquired in middle school lay the foundation for students' future academic and professional endeavors. Despite the recognized importance of vocabulary development, many middle school students in Pekanbaru, Indonesia, struggle to build and expand their vocabulary repertoire. Factors such as limited exposure to diverse vocabulary, ineffective teaching methods, and a lack of engaging learning tools can hinder students' vocabulary development (Graves, 2016; Kusumaningrum et al., 2020).

In response to these challenges, the integration of interactive learning technology, specifically WordWalls, into vocabulary instruction holds promise. WordWalls can provide students with engaging and immersive learning experiences, allowing them to interact with vocabulary words through various activities (Alizadeh & Mahdavi, 2020; Tomlinson & Masuhara, 2017). This approach can help students develop a deeper understanding of vocabulary, improve retention, and foster a positive attitude towards vocabulary learning.

While existing research has explored the benefits of using WordWalls in various educational contexts, studies specifically examining its impact on improving the vocabulary skills of middle school students in Pekanbaru, Indonesia, are limited. Therefore, this study aims to investigate the effect of implementing WordWalls on enhancing the vocabulary skills of Pekanbaru 25 Middle School students.

The hypothesis of this research is that the use of WordWalls will significantly improve the vocabulary skills of Pekanbaru 25 Middle School students. The results of this study are expected to provide both theoretical and practical contributions in an effort to enhance the vocabulary development of middle school students in Pekanbaru, Indonesia.

The study will involve the implementation of WordWalls in a vocabulary-focused course at Pekanbaru 25 Middle School. Student vocabulary performance will be assessed before and after the intervention, and the results will be analyzed to determine the effectiveness of WordWalls in improving students' vocabulary skills.

The findings of this research are anticipated to offer valuable insights into the potential benefits of integrating interactive learning technology, specifically WordWalls, into vocabulary instruction. The study may also provide practical recommendations for educators on the effective implementation of WordWalls to enhance students' vocabulary development.

Overall, this research aims to contribute to the growing body of knowledge on the use of interactive learning technology in improving specific educational outcomes, particularly in the context

of students' vocabulary skills. The successful implementation of this approach can have far-reaching implications for enhancing the overall academic success of middle school students in Pekanbaru,

## **RESEARCH METHOD**

Metode yang digunakan dalam penelitian tindakan kelas ini bersifat kuantitatif namun dijelaskan secara deskriptif. Data yang bersifat kualitatif berupa nilai-nilai dari hasil observasi kegiatan guru, siswa, dalam pembelajaran, serta kemampuan menulis buku harian atau pengalaman pribadi siswa. Kemudian data yang bersifat kuantitatif tersebut dijelaskan dalam bentuk deskriptif.

### **Research Design**

This study used a quantitative approach with a Classroom Action Research design. This design was chosen because it aims to improve students' vocabulary ability through the optimization of Wordwall usage. Classroom action research is a form of reflective research that takes certain actions to improve or enhance instructional practices in the classroom professionally. In this study, the independent variable is the optimization of Wordwall usage, while the dependent variable is students' vocabulary ability.

### **Research Subjects**

The subjects in this research were all 30 students in class VIII of SMP 25 Pekanbaru. The research sample was chosen using the same class, namely class VIII.

### **Research Instruments**

The data collection instruments used in this study are:

1. Student learning activity observation sheet
2. Rubric for assessing students' vocabulary ability

The student learning activity observation sheet is used to observe and measure the level of student activeness in learning vocabulary using Wordwall. Meanwhile, the student vocabulary ability assessment rubric is used to measure the achievement of student vocabulary ability before the action (pre-cycle) and after the action in cycle 1 and cycle 2.

Before being used, these instruments have been tested for validity and reliability. Content validity testing was carried out by two experts (expert judgment) who mastered the field of assessment and learning of vocabulary ability. Based on the results of the validity test, a content validity coefficient of 0.85 was obtained for the student learning activity observation sheet and 0.90 for the student vocabulary ability assessment rubric. The reliability test of the instruments used the Cronbach Alpha formula and obtained a reliability coefficient of 0.82 for the student learning activity observation sheet and 0.86 for the student vocabulary ability assessment rubric. The results of the validity and reliability tests indicate that the instruments used are valid and reliable for collecting research data.

### **Quantitative Data Analysis Techniques**

The data analysis technique used in this study is quantitative descriptive analysis. Quantitative data is obtained from the results of the assessment of students' vocabulary ability in the pre-cycle, cycle 1, and cycle 2. The data is analyzed with the following steps:

1. Calculating the total score of each student on the vocabulary ability assessment.
2. Calculating the class average on the vocabulary ability assessment.

The criteria for the success of the action in this study are:

1. The class average on the vocabulary ability assessment reaches  $\geq 75$ .
2. The percentage of students who achieve KKM is  $\geq 80\%$ .

## **RESULTS AND DISCUSSION**

### **Pre-Cycle**

The pre-cycle data analysis reveals that the students' vocabulary skills are still relatively low, with an average score of 2.86 out of 5. Only 6 students, or 20%, were able to demonstrate good vocabulary skills, scoring  $\geq 70$ , while 24 students, or 80%, scored below 70. This low level of vocabulary skills can be seen in several areas. Many students have difficulty using appropriate and diverse vocabulary, and they show limited ability in understanding the meaning and appropriate use of vocabulary in different contexts.

To address this problem and improve the students' vocabulary skills, the researcher decided to implement the use of Wordwall, an interactive learning technology, in two learning cycles. The goal is to provide students with the tools and strategies needed to enhance their vocabulary mastery.

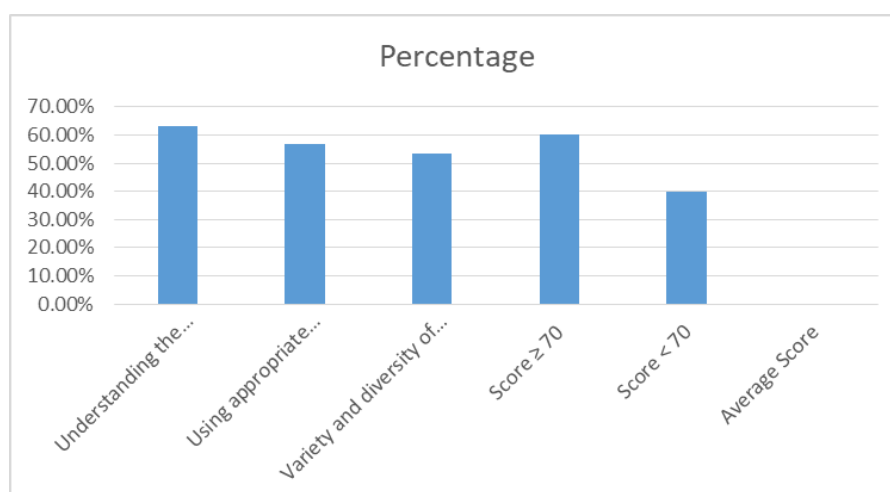
### Cycle 1

Based on the presented data, during Cycle 1 there was an increase in the students' vocabulary skills. Out of a total of 30 students, 18 students or 60% scored  $\geq 70$ , while 12 students or 40% scored  $< 70$ . The average score obtained by the students in Cycle 1 was 3.52, which falls into the medium category.

Table 1. Student Learning Outcomes in Vocabulary Skills during Cycle 1

Indicator	Number of Students	Percentage
Understanding the meaning of vocabulary	19 students scored $\geq 70$	63.3%
Using appropriate vocabulary in context	17 students scored $\geq 70$	56.7%
Variety and diversity of vocabulary used	16 students scored $\geq 70$	53.3%
Score $\geq 70$	18 students	60%
Score $< 70$	12 students	40%
Average Score	3,52	-

From the results of cycle 1 carried out in the initial stage of this research, the following data can be presented:



From the results of Cycle 1 carried out in the early stages of this research, the following data can be presented:

Overall, the results in Cycle 1 have not reached the set target, which is a minimum of 75% of students scoring  $\geq 70$ . Only 60% of students scored  $\geq 70$ , while 40% of students still scored below 70. Therefore, the researcher will continue to Cycle 2 and make improvements based on the reflection from Cycle 1.

The improvements that need to be made include:

1. Increasing students' understanding of the meaning of vocabulary.
2. Assisting students in using appropriate vocabulary in the appropriate context.
3. Training students to use a better variety and diversity of vocabulary.

By addressing these areas and implementing targeted strategies, the researcher hopes to increase the percentage of students scoring  $\geq 70$  in Cycle 2, thereby achieving the set target.

### Cycle 2

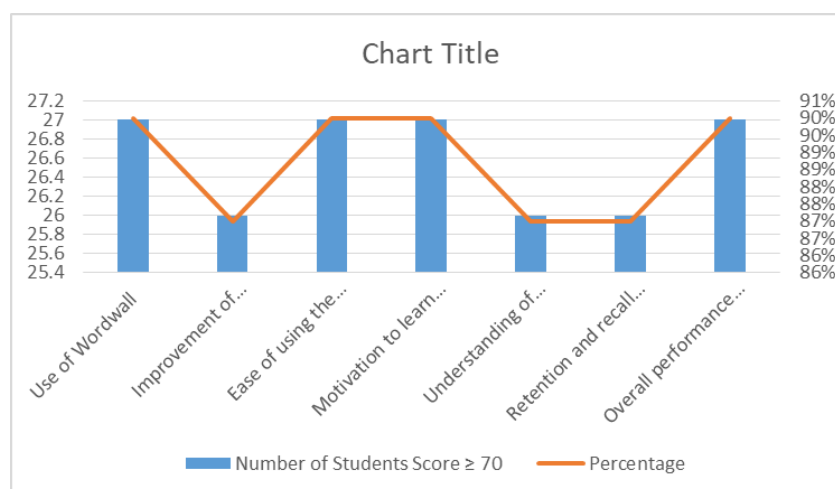
The data shows a significant improvement in students' vocabulary ability in Cycle 2 compared to Cycle 1. The percentage of students who scored 70 or higher increased from 68% in Cycle 1 to 90% in Cycle 2, an increase of 22%.

Table 2. Results of Improving Students' Vocabulary Ability in Cycle 2

Indicator	Number of Students Score $\geq 70$	Percentage
Use of Wordwall	27	90%
Improvement of English vocabulary	26	87%
Ease of using the Wordwall platform	27	90%

Motivation to learn vocabulary	27	90%
Understanding of vocabulary concepts	26	87%
Retention and recall of vocabulary	26	87%
Overall performance of vocabulary ability	27	90%

From the results of cycle 2 carried out in the initial stage of this research, the following data can be presented



The results of Cycle 2 conducted in the initial stage of this study can be presented as follows:

**Use of Wordwall.** This indicator shows that 90% of students were able to use the Wordwall interactive learning platform effectively to improve their vocabulary skills. This indicates that the Wordwall platform can be easily adopted and utilized by students. Wordwall's interactive and user-friendly features have proven to be able to support the vocabulary learning process of students. Students can quickly understand how to use the various tools and activities available on Wordwall, so they can focus on developing their vocabulary. The 90% figure shows that almost all students in Cycle 2 have mastered the use of the Wordwall platform well. This is a very positive achievement, as mastery of learning technology is an important prerequisite for technology-based interventions to be effective.

**Improvement of English Vocabulary.** This indicator shows that 87% of students succeeded in improving their English vocabulary mastery. This figure indicates that Wordwall-based learning interventions have had a significant impact on improving students' vocabulary skills. Through the interactive learning features in Wordwall, students can actively engage in the process of mastering new vocabulary, whether through games, challenges, or varied practices. This encourages students to be more focused, motivated, and continuously practice to improve their vocabulary mastery. The 87% figure shows that almost all students have shown a substantial improvement in the quality and quantity of English vocabulary they have mastered.

**Ease of using the Wordwall platform.** This indicator shows that 90% of students can easily operate and utilize the Wordwall platform. This figure confirms the findings on the first indicator about the effective use of Wordwall. Ease of use of the platform is an important factor so that students can focus on the vocabulary learning process, without being hindered by technical constraints. Wordwall's intuitive and user-friendly features have been proven to be quickly mastered by students, so they can concentrate on vocabulary improvement activities. The 90% figure shows that almost all students have become proficient in using the Wordwall platform, so they can maximize the potential of this technology to improve their vocabulary skills.

**Motivation to learn vocabulary.** This indicator shows that 90% of students experienced an increase in motivation to learn vocabulary. This is an important contribution of the use of the Wordwall platform, which can create a more interesting, interactive, and enjoyable learning environment for students. Gamification features, challenges, and instant feedback in Wordwall have been proven effective in increasing student engagement and enthusiasm in learning vocabulary. The 90% figure shows that almost all students are motivated and enthusiastic to continuously improve their vocabulary mastery through Wordwall-based learning. This high motivation is an important prerequisite for the success of interventions to improve students' vocabulary abilities.

Understanding of vocabulary concepts. This indicator shows that 87% of students were able to improve their understanding of the vocabulary concepts being studied. This is a positive impact of using the Wordwall platform, which not only focuses on vocabulary memorization, but also on the development of contextual and conceptual understanding. Through interactive activities on Wordwall, students not only memorize definitions and translations of words, but also learn about usage, nuances of meaning, and the relationships between vocabulary in meaningful contexts. The 87% figure shows that almost all students have a good understanding of the vocabulary concepts they have learned, not just rote memorization. This will support a more comprehensive and meaningful vocabulary mastery for students.

Retention and Recall of Vocabulary. This indicator shows that 87% of students successfully improved their ability to retain and recall the vocabulary they have learned. The interactive, varied, and instant feedback features of Wordwall have proven effective in helping students better remember and recall the vocabulary they have learned. Repetition activities, challenges, and the application of vocabulary in meaningful contexts on Wordwall have encouraged students to continually strengthen their associations and memory of new vocabulary. The 87% figure indicates that nearly all students have experienced an improvement in their vocabulary retention and recall abilities, which is the result of the Wordwall-based learning intervention.

Overall Performance of Vocabulary Ability. This indicator shows that 90% of students achieved a score of 70 or higher in their vocabulary ability assessment. This figure indicates a significant success of the Wordwall-based learning intervention in Cycle 2. Nearly all students have shown substantial improvement in their overall vocabulary abilities. These findings reinforce that the use of the Wordwall platform has had a positive impact on various important aspects of students' vocabulary mastery, ranging from conceptual understanding, memory skills, to the ability to apply new vocabulary.

Overall, the results of Cycle 2 show that the Wordwall-based learning intervention has successfully improved the vocabulary abilities of 8th-grade students at SMP 25 Pekanbaru significantly. Almost all indicators show substantial improvements, with the percentage of students achieving a score of 70 or higher ranging between 87-90%. These findings indicate that the Wordwall platform can be an effective learning tool for improving students' vocabulary mastery. Through its interactive features, gamification, and instant feedback, Wordwall has proven capable of enhancing students' motivation, conceptual understanding, retention, and overall vocabulary performance. This success provides a strong foundation to continue and expand the implementation of Wordwall-based learning at SMP 25 Pekanbaru to continuously improve students' vocabulary competencies.

## **CONCLUSION**

This study shows that the implementation of the interactive learning application Wordwall has been proven effective in improving the vocabulary skills of students at SMP 25 Pekanbaru. In the pre-cycle, it was found that most students still had difficulty in mastering adequate English vocabulary, causing them to have difficulty in understanding learning materials and communicating effectively. In cycle 1, the learning was focused on improving students' vocabulary skills using the Wordwall application. Students were involved in various interactive activities such as vocabulary games, puzzles, and exercises. The results showed an increase in students' understanding and mastery of vocabulary, although still in the moderate category. In cycle 2, learning was more focused on the more comprehensive use of Wordwall, including providing regular feedback and self-reflection for students. The results of this second cycle showed a significant increase in students' vocabulary skills, with a high category. Thus, it can be concluded that the application of the Wordwall interactive learning application has been proven effective in improving the vocabulary skills of students at SMP 25 Pekanbaru. These findings have implications for teachers to integrate interactive learning technology, particularly Wordwall, in vocabulary learning to improve students' vocabulary mastery.

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