



# Implementation of Interactive Learning Media Wordwall to Improve the Activeness and Cognitive Learning Outcomes of Grade IV Students of SDN Pamotan V in the Science Subject

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**Abstract:** Activeness in learning is very important and is the key to the success of learning. Factors that drive this research include lack of student attention during learning, low student involvement in the learning process, and low use of media during classroom learning activities. The purpose of this study was to determine whether the use of wordwall as an interactive learning media in the learning process can improve the activeness and cognitive learning outcomes of students in grade IV of SDN Pamotan V in science subjects. Classroom action research (CAR) is the type of research used. The CAR model used is the Suharsimi Arikunto model. Cycle I and Cycle II of the study involved planning, implementation, observation, and reflection. This study collected data using interviews, observation sheets, tests, and documentation. The results showed that interactive wordwall learning media can improve the activeness and learning outcomes of grade IV students in science subjects. In cycle I, student activeness reached 97% with a very good score, and in cycle II, student activeness reached 88.2% with a very good score. The improvement of students' cognitive learning outcomes can be seen through the gain test score, namely in cycle I it produces a gain score test result, namely a normalized score of 0.47 which is categorized as moderate and in cycle II it obtains a normalized score of 0.69 with a moderate category. Therefore, wordwall is an interactive learning media, wordwall can be used to improve students' activeness and cognitive learning outcomes.

**Keywords:** Learning Media; Wordwall; Activeness; Cognitive Learning Outcomes.

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## 1. INTRODUCTION

Education is also a basic need for every individual as a support in carrying out daily life. Technological advances have brought major changes in the education process, encouraging the use of new media and interactive methods to improve learning in facing today's challenges. These changes have an impact on social learning media and can also encourage active participation of elementary school students in the learning process. Activeness in learning is very important and is the key to the success of learning. Active learning is when students are actively involved in the

learning process (Yanti, 2023). Every activity related to students is considered a student activity (Mulyadi, 2021). Student activity is important in learning which affects student learning outcomes in the classroom. The ultimate goal of student learning activities in schools is learning outcomes (Hidayat, 2021). Learning outcomes are an assessment of student performance to measure learning outcomes, teachers can find out how well the subject matter taught is mastered by students (Susanto, 2016). Student learning outcomes are an achievement that has been achieved academically through assignments, student activity in class and exams, all of which support the achievement of student learning outcomes (Somayana, 2020).

Based on the results of initial observations conducted on October 16, 2023, in class VI of Pamotan V Elementary School, problems were found, including the lack of student attention during learning, and student involvement in the learning process was still lacking, minimal use of media in implementing learning activities in class. Lack of activity in class has an impact on student learning outcomes. The lack of student focus on learning activities is caused by a non-interactive learning atmosphere between teachers and students (Puspitarini, 2023). Utilization of the wordwall games application as a strategy to overcome the problem of activity and cognitive learning outcomes of elementary school students in science lessons. At the teaching orientation stage, the use of learning media will greatly assist the learning process and convey messages and lesson content more effectively (Junaidi, 2019).

One of the game-based learning applications designed to assist learning activities is wordwall. Wordwall is a game application that offers a wide selection of games and practice questions designed to aid learning (Yanti, 2023). Wordwall media consists of several types of games that can be used, including quizzes, matching, anagrams, random words, word searches, grouping, etc. (Kunto, 2021). Wordwall is an interactive media that is practical, valid, and effective in the learning process in the classroom. Wordwall is an educational game designed for the learning process, but it can be said to be learning and playing because it contains templates like games (Arimbawa, 2021). This study was conducted with the aim of increasing student activity and cognitive learning outcomes of students, whether the use of interactive wordwalls in the learning process can increase student activity and cognitive learning outcomes of students in science lessons. Previous research that is relevant to this study, the first research conducted by Yanti, et al. (2023) showed that student learning activity in classes that apply wordwall media is quite effective with good communication and knowing the diversity of student characters and student enthusiasm in the learning process. Second, research conducted by Aldani (2023) shows the effect of using wordwall

applications on student learning outcomes. Third, research conducted by Puspitarini (2023) shows that the discovery learning model assisted by wordwall game applications can improve student activity and learning outcomes. Based on the background that has been explained, the researcher took the research title "Implementation of Interactive Wordwall Learning to Improve the Activity and Cognitive Learning Outcomes of Class IV Students of SDN Pamotan V in Science Subjects"

## 2. METHOD

This research is a type of Classroom Action Research (CAR), which is a form of reflective research by carrying out certain actions to improve or enhance classroom learning practices more professionally (Fauqannuri, 2022). The subjects of this study were 34 fourth grade students at SD Negeri V Pamotan, consisting of 17 girls and 17 boys. The research was carried out from October to April 2024, coinciding with the even semester (II).

This research procedure was carried out in two cycles, where each cycle was carried out in one meeting. The steps of classroom action research consist of four stages, namely planning, implementation, observation, and reflection (Arikunto, 2015). Figure 1 illustrates the cycle in classroom action research according to the model developed by Arikunto et al. (2015).

The types of data used in this study include observations or observations of learning implementation, student activity observation sheets, student learning activity observation sheets, and test sheets in the form of pretests and posttests. Data collection techniques were carried out through interviews, observations, tests, and documentation. The success of this study was determined based on indicators of success, namely an increase in students' cognitive learning activities and outcomes. In the first cycle, students' cognitive learning activities and outcomes increased from the initial criteria of 30% to a minimum of 50% after implementing the interactive learning media Wordwall. Furthermore, in the second cycle, students' cognitive learning activities and outcomes increased from 50% to a minimum of 80% after implementing the same interactive learning media.

## 3. RESULTS AND DISCUSSION

Wordwall can improve the activeness and cognitive learning outcomes of fourth grade students of SDN Pamotan V on the material of Science chapter 6 topic B about the richness of Indonesian culture. Based on the results of the study that has been conducted in two cycles, a significant increase was found in student involvement during the learning process and their cognitive learning outcomes.

In cycle I, learning begins with preparation that includes the preparation of teaching modules, learning media, and research instruments. The implementation of learning is carried out for two times 35 minutes with the division of activities into initial, core, and closing activities. In the observation stage, the implementation of teacher learning is observed based on four aspects, namely pre-learning, opening lessons, learning activities, and closing. The results of the questionnaire sheet on the implementation of teacher learning showed quite good results, although there were still some aspects that needed to be improved.

In terms of student activity in cycle I, the observation results showed that out of 34 students, 3% were classified as very active, 50% were active, 44% were quite active, and 3% were less active. Overall, classical data shows that student activity reached 97%, which means that it has met the minimum criteria for assessing activity of 50%. In addition, the results of the pretest and posttest in cycle I showed that the average pretest score was 61.7, while the average posttest score increased to 80. The calculation of the n-gain score showed an increase of 0.47 with a moderate increase classification. This indicates that the Wordwall learning media has had a positive impact on students' cognitive learning outcomes, although there are still several aspects that need to be improved.

Based on reflections from cycle I, it was found that learning still requires some improvements to achieve more optimal results. Therefore, cycle II was designed with improvements in several aspects, such as allocation of learning time, student participation, and improvement of learning media. In the implementation of cycle II, learning was still carried out for two times 35 minutes with the same structure as cycle I. However, at this stage, revisions were made to the learning module and the steps in the learning activities were clarified.

The results of observations in cycle II showed a significant increase compared to cycle I. In the implementation of teacher learning, all aspects have been implemented very well according to the observation sheet. In addition, student activity has also increased, with the results of the questionnaire showing that all aspects observed have been implemented well, reaching a percentage of 100%. In the observation of student activity in cycle II, it was found that out of 34 students, 32% were classified as very active, 56% were active, 12% were quite active, and no students were less active or passive. Classical data showed that the level of student activity reached 88.2%, which means it has exceeded the minimum limit of success determined.

The results of the pretest and posttest in cycle II showed a higher increase compared to cycle I. The average pretest score was 60.4, while the average posttest score increased to 88. The calculation of the n-gain score reached 0.69 with a moderate increase classification. This shows that

the Wordwall learning media has succeeded in improving students' cognitive learning outcomes more effectively in cycle II.

Based on the results of the reflection, it can be concluded that the use of Wordwall learning media has succeeded in increasing students' cognitive learning activities and outcomes. Compared to cycle I, cycle II showed significant improvements in aspects of student involvement in learning and learning outcomes achieved. Thus, the indicators of success have been achieved, and there is no need to implement cycle III. The results of this study also show that the use of technology in learning, such as Wordwall, can be an effective alternative in improving the quality of learning in the classroom, especially in improving student learning activities and outcomes.

#### 4. CONCLUSION

The results of field observations show that the application of interactive wordwall learning media can increase student activity in science lessons. The data shows an increase in student activity by 97% in cycle I and 88.2% in cycle II in class IV SDN Pamotan V in science subjects. By implementing game features on the wordwall together with the material taught, such as game show and open the box, student activity can be increased. Meanwhile, the results of the assessment of cognitive learning outcomes using pretest and posttest show that using wordwall as an interactive learning media and combined with the material taught, such as game show and open the box, and combined with pretest and posttest questions can improve students' cognitive learning outcomes in science lessons. In class IV SDN Pamotan V in science subjects, students' cognitive learning outcomes can be improved by using wordwall. The wordwall game application is very interesting, the fairly simple and clear guide makes it easy for teachers to convey material and evaluation in the form of games. So it is recommended that teachers utilize the wordwall game application in learning activities, and hesitate to try various other game-based learning applications. Research related to the implementation and results of learning using game-based applications also needs to be continuously carried out to develop appropriate media to improve the quality of learning.

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