



APPLICATION OF WORDWALL GAME TO IMPROVE IPAS LEARNING OUTCOMES AMONG GRADE VI STUDENTS AT SD NEGERI 24 BANDA ACEH

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ABSTRAK

Penelitian ini bertujuan untuk meningkatkan hasil belajar IPAS melalui penerapan game Wordwall pada peserta didik kelas VI SD Negeri 24 Banda Aceh. Penelitian menggunakan metode Penelitian Tindakan Kelas (PTK) yang dilaksanakan dalam dua siklus. Subjek penelitian berjumlah 34 peserta didik. Setiap siklus meliputi tahap perencanaan, pelaksanaan tindakan, observasi, dan refleksi. Pengumpulan data dilakukan melalui tes hasil belajar dan lembar observasi aktivitas guru serta peserta didik. Hasil penelitian menunjukkan adanya peningkatan hasil belajar setelah penerapan game Wordwall. Nilai rata-rata peserta didik meningkat dari 60,3 pada kondisi awal menjadi 72,5 pada siklus I dan 80,7 pada siklus II. Aktivitas guru juga mengalami peningkatan dari 72,5% pada siklus I menjadi 90% pada siklus II. Keaktifan peserta didik meningkat dari 40% pada siklus I menjadi 80% pada siklus II. Peningkatan tersebut menunjukkan bahwa penggunaan game Wordwall dapat membantu menciptakan pembelajaran IPAS yang lebih interaktif dan mendorong keterlibatan peserta didik dalam memahami materi kedatangan bangsa-bangsa asing ke Indonesia. Dengan demikian, game Wordwall dapat digunakan sebagai salah satu media pembelajaran untuk mendukung peningkatan hasil belajar IPAS di sekolah dasar.

Kata kunci: Wordwall, hasil belajar, IPAS, sekolah dasar, penelitian tindakan kelas

ABSTRACT

This study aimed to improve the learning outcomes of Grade VI students in the Natural and Social Sciences (IPAS) subject through the use of Wordwall game media. The study employed classroom action research involving 34 students at SD Negeri 24 Banda Aceh. The research was conducted in two cycles, with each cycle consisting of planning, action, observation, and reflection. Data were collected through learning outcome tests and observation sheets of teacher and student activities. The findings showed an improvement in students' learning outcomes following the implementation of Wordwall. The average score increased from 60.3 in the initial assessment to 72.5 in Cycle I and 80.7 in Cycle II. Student participation also increased during the learning process. In Cycle I, several students were still passive and required guidance when participating in Wordwall activities. Improvements in teacher guidance, classroom management, and the organization of game-based activities in Cycle II resulted in greater



student involvement. The findings indicate that Wordwall can be used as an interactive learning medium to support IPAS learning outcomes in elementary school, particularly for historical material that requires students to understand terms, events, and sequences of information.

Keywords: Wordwall, IPAS, learning outcomes, elementary school, classroom action research.

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INTRODUCTION

Education is continuously influenced by changes in curriculum policy, developments in technology, and the learning needs of students. Curriculum changes are intended to improve the quality of learning and provide opportunities for schools and teachers to organize instruction according to students' characteristics. At the elementary school level, this development requires teachers to select learning approaches and media that encourage students to participate actively rather than merely receive information from the teacher.

The implementation of the Merdeka Curriculum places greater emphasis on meaningful learning, active participation, and the development of competencies. In the IPAS subject, students are expected to develop an understanding of natural and social phenomena through observation, inquiry, discussion, communication, and reflection. The official IPAS learning outcomes for the elementary phase also emphasize students' ability to understand phenomena and communicate their understanding through learning activities.

IPAS combines knowledge related to science and social studies. The subject introduces students to phenomena occurring in their surroundings, including social relations, environmental changes, historical events, and the development of Indonesian society. Such learning requires students to understand concepts and information rather than simply memorize isolated facts. Teachers therefore need to provide learning activities that help students organize information and recall important concepts through meaningful practice.

One of the historical topics taught to Grade VI students concerns the arrival of foreign nations in Indonesia. The topic contains information about the reasons for the arrival of foreign nations, historical events, important figures, economic interests, and their effects on Indonesian society. The number of terms and historical information can make the material difficult for elementary students when it is presented mainly through lectures and memorization. Learning



activities that provide opportunities for students to respond to questions, identify important information, and review concepts are needed.

Initial observations at SD Negeri 24 Banda Aceh showed that IPAS learning was still dominated by teacher explanations and textbook use. Students had limited opportunities to participate directly in the learning process. Several students appeared less attentive, were reluctant to respond to questions, and showed limited participation during learning activities. The initial learning evaluation also indicated that student achievement had not reached the expected level. The average initial score was 60.3.

The situation indicates the need for learning media that can provide students with more opportunities to interact with the material. Learning media can help teachers present information in a more structured and attractive form. Digital learning media are particularly useful when they provide opportunities for students to answer questions, receive feedback, and repeat learning activities.

One medium that can be used for this purpose is Wordwall. Wordwall is a digital learning platform that provides several game-based activities, including quizzes, matching exercises, open-the-box activities, and other interactive formats. These activities allow teachers to transform questions and learning materials into tasks that require direct student responses.

Previous research supports the potential of Wordwall in elementary education. Lestari et al. reported improvement in IPAS learning outcomes through Wordwall in a classroom action research study involving elementary students. Their study found that learning mastery increased across successive cycles. Research by Maharani et al. also reported that web-based Wordwall media could support IPAS learning, with high feasibility and improved student learning outcomes. A recent review of Wordwall use in elementary schools further identified the platform as an interactive learning medium used in several subjects, including science and social studies.

Other studies have also reported positive findings regarding Wordwall-based learning. Indriani et al. found differences in learning outcomes between students who used Wordwall and those who received conventional learning activities. Research on Wordwall in IPAS has



likewise shown that interactive activities can be integrated into classroom action research to improve student achievement.

Although previous studies have examined Wordwall in elementary education, its application to Grade VI IPAS learning on the arrival of foreign nations in Indonesia remains worthy of classroom investigation. This topic requires students to understand historical information containing terms, events, and relationships that may be difficult to retain through conventional instruction. The present study therefore focused on the use of Wordwall as a game-based learning medium to improve student learning outcomes.

Based on these conditions, this study aimed to improve the IPAS learning outcomes of Grade VI students at SD Negeri 24 Banda Aceh through the application of Wordwall game media. The study was expected to provide an alternative learning strategy for teachers and contribute classroom-based evidence regarding the use of interactive digital media in elementary IPAS learning

METHOD

Research Design

This study employed Classroom Action Research (CAR). The research was conducted to improve the learning process and student learning outcomes through planned instructional actions. The procedure consisted of four stages: planning, action, observation, and reflection.

The research was conducted in two cycles. Each cycle was designed based on the results of the previous cycle. The reflection stage in Cycle I served as the basis for improving the learning activities implemented in Cycle II.

Research Setting and Participants

The research was conducted at SD Negeri 24 Banda Aceh, located at Jalan Tengku Tanoh Abee No. 1, Lampineung, Kuta Alam District, Banda Aceh. The research involved 34 Grade VI students. The selection of the class was based on preliminary observations showing that students' achievement in IPAS was still below the expected level and that classroom participation needed improvement.

Research Procedure

Planning



The planning stage involved identifying learning problems, preparing learning modules and teaching materials, determining the learning objectives, designing Wordwall activities, and preparing observation sheets and learning outcome tests. The Wordwall activities were designed according to the learning material concerning the arrival of foreign nations in Indonesia. Questions were developed to measure students' understanding of important terms, historical events, causes, and effects.

Action

The teacher introduced the learning objectives and presented the main material. Students then participated in Wordwall-based activities individually or in groups. The activities included answering questions, matching information, identifying historical terms, and discussing answers with classmates. The teacher provided explanations and feedback during the activities and ensured that the game remained connected to the learning objectives.

Observation

Observation was conducted during the learning process. The observed aspects included teacher preparation, explanation of learning material, classroom management, use of Wordwall, student attention, student participation, responses to questions, involvement in discussions, and completion of learning tasks.

Reflection

Reflection was conducted at the end of each cycle. The researcher and teacher reviewed the observation results and student learning outcomes to identify aspects that needed improvement. Findings from Cycle I were used to modify the learning activities in Cycle II.

Data Collection

Data were collected using two techniques: tests and observation.

The learning outcome test was used to measure students' achievement after the learning activities. The observation sheet was used to record teacher and student activities during the implementation of Wordwall.

Research Instruments

The research instruments consisted of:

1. teacher activity observation sheet;



2. student activity observation sheet; and
3. IPAS learning outcome test.

The test focused on the material concerning the arrival of foreign nations in Indonesia.

Data Analysis

Quantitative data were analyzed by calculating the mean score and learning mastery percentage.

The mean score was calculated using:

$$X = \Sigma X / N$$

where X represents the mean score, ΣX represents the total student scores, and N represents the number of students.

Learning mastery was calculated using:

$$P = (n/N) \times 100\%$$

where P represents the percentage of mastery, n represents the number of students achieving the mastery criterion, and N represents the total number of students.

Qualitative data from observations were analyzed through data reduction, data presentation, and conclusion drawing.

Research Success Indicator

The research was considered successful when at least 80% of students achieved the learning mastery criterion established by the school, accompanied by an improvement in student participation during the learning process

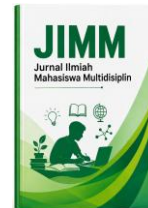
RESULTS

Initial Learning Condition

Before the implementation of Wordwall, students completed an initial assessment to determine their achievement in IPAS. The mean score was 60.3. The initial findings indicated that students experienced difficulties in understanding the material concerning the arrival of foreign nations in Indonesia. Classroom observations also showed that learning activities were still dominated by teacher explanations and textbook-based activities.

Table 1. Development of Student Learning Outcomes

Learning Stage	Mean Score	Learning Mastery
Initial condition	60.3	[verify raw data]



Cycle I	72.5	[verify raw data]
Cycle II	80.7	[verify raw data]

The mean score increased by 12.2 points from the initial condition to Cycle I. A further increase of 8.2 points occurred from Cycle I to Cycle II. Overall, the mean score increased by 20.4 points, from 60.3 to 80.7.

Cycle I

Implementation

In Cycle I, the teacher implemented Wordwall as an interactive learning medium. The learning began with an explanation of the material followed by Wordwall activities. Students answered questions and participated in game-based activities related to the arrival of foreign nations in Indonesia.

The implementation provided students with a different learning experience from the initial condition. However, several students were still hesitant to participate. Some students needed assistance when using the game and had difficulty maintaining attention during the explanation.

Teacher and Student Activities

Teacher activity in Cycle I reached 72.5% based on the observation instrument used in the study. Student activity showed that some students had begun to participate actively, but several others remained passive. Students were still adapting to the game-based learning procedure.

Learning Outcomes

The mean student score increased from 60.3 to 72.5. Despite the increase, the achievement had not yet reached the research target.

The results indicated that the implementation of Wordwall required further improvement. The teacher needed to provide clearer instructions, improve classroom management, increase opportunities for student responses, and provide additional guidance to students who experienced difficulties.

Reflection on Cycle I

The reflection identified several weaknesses:

1. instructions for Wordwall activities needed to be clearer;



2. some students remained passive during discussions;
3. teacher guidance needed to be increased;
4. classroom management needed improvement;
5. students required more opportunities to discuss answers; and
6. learning activities needed to be organized so that more students could participate.

These findings became the basis for the implementation of Cycle II.

Cycle II

Implementation

Cycle II was designed as an improvement of the first cycle. The teacher provided clearer instructions before students began the Wordwall activities. Students were also given greater opportunities to answer questions, discuss responses, and receive immediate feedback. The teacher provided more intensive guidance to students who experienced difficulties and organized the game activities according to the learning objectives.

Teacher and Student Activities

Teacher activity increased from 72.5% in Cycle I to 90% in Cycle II. The improvement reflected better preparation, clearer explanations, more effective classroom management, and greater teacher involvement in guiding students during Wordwall activities.

Student participation also increased. Students were more willing to answer questions, participate in discussions, complete tasks, and engage in the game activities.

The proportion of active students was reported to increase from 40% in Cycle I to 80% in Cycle II.

Learning Outcomes

The mean score increased from **72.5 in Cycle I to 80.7 in Cycle II.**

The overall development can be seen in Figure 1.

Figure 1. Mean Student Learning Outcomes

Initial condition → **60.3**

Cycle I → **72.5**

Cycle II → **80.7**



The increase indicates that the learning improvement implemented in Cycle II was associated with better student achievement. However, the exact percentage of learning mastery must be calculated from the original scores of all 34 students before the manuscript is published.

DISCUSSION

The findings show an improvement in Grade VI students' IPAS learning outcomes following the implementation of Wordwall. The mean score increased from 60.3 in the initial condition to 72.5 in Cycle I and 80.7 in Cycle II. The increase of 20.4 points between the initial assessment and Cycle II indicates substantial improvement in students' achievement during the classroom action research.

The improvement was accompanied by changes in student participation. During the first cycle, students were still adapting to the use of interactive game-based learning. Some students required assistance, while others were reluctant to respond to questions. After improvements were made in the second cycle, students became more involved in answering questions, discussing information, and completing learning activities.

The findings support previous research on the use of Wordwall in elementary education. Lestari et al. found that Wordwall could be integrated into classroom action research to improve IPAS learning outcomes. Their study showed progressive increases in learning mastery across cycles. This similarity suggests that interactive game activities can be useful when teachers use them as part of a structured instructional sequence rather than as an isolated activity.

The present findings are also consistent with research by Maharani et al., which reported that web-based Wordwall media was feasible for IPAS learning and was followed by improved student achievement. These findings reinforce the value of digital learning media that enables students to respond directly to learning tasks.

Wordwall may also support learning by providing repeated exposure to key information. Historical topics require students to remember terms, names, events, and relationships between events. Presenting this information through interactive questions can provide additional opportunities for students to recall and apply what they have learned.



The improvement from Cycle I to Cycle II should not, however, be attributed solely to the Wordwall platform. Changes in teacher practice also occurred between the two cycles. The teacher improved instructions, provided more intensive guidance, strengthened classroom management, and gave students greater opportunities to participate. These instructional changes were part of the action implemented in the research.

This finding is important for elementary teachers because digital media does not automatically produce better learning outcomes. The effectiveness of Wordwall depends on how the teacher selects questions, organizes student participation, provides feedback, and relates the game to the learning objectives.

The results also correspond with recent studies reporting the use of Wordwall in elementary learning. A 2024 literature review identified Wordwall as a digital platform offering various educational games that can be used in subjects including science and social studies. Research combining Wordwall with other learning approaches has likewise reported improvements in student activity, critical thinking, collaboration, and learning outcomes.

The present study contributes classroom-based evidence from Grade VI IPAS learning at SD Negeri 24 Banda Aceh. Unlike studies that examine Wordwall through experimental designs, this study focused on iterative classroom improvement through two action cycles. The findings indicate that Wordwall can be integrated into IPAS learning when accompanied by appropriate teacher guidance and classroom management.

CONCLUSION

The application of Wordwall game media improved the IPAS learning outcomes of Grade VI students at SD Negeri 24 Banda Aceh. The mean score increased from 60.3 in the initial condition to 72.5 in Cycle I and 80.7 in Cycle II. The total improvement from the initial condition to Cycle II was 20.4 points.

Teacher activity also improved from 72.5% in Cycle I to 90% in Cycle II, while the proportion of active students increased from 40% to 80%. Students became more involved in answering questions, participating in discussions, completing tasks, and interacting with the learning material through Wordwall.

The findings indicate that Wordwall can be used as an alternative interactive medium for IPAS learning at the elementary school level. Its implementation should be accompanied by



clear instructions, appropriate questions, teacher guidance, classroom management, and learning activities that remain aligned with the learning objectives.

SUGGESTIONS

Teachers are encouraged to use Wordwall as an alternative medium for IPAS learning, especially for materials containing important terms, concepts, events, and factual information. The activities should be adapted to students' abilities and learning objectives.

Schools should provide adequate technological facilities to support digital learning activities. Teachers should also receive opportunities to develop their competence in using interactive learning media.

Future researchers may examine Wordwall with larger samples, different IPAS topics, or other research designs. Further studies may also examine students' motivation, engagement, retention, or critical thinking in addition to learning outcomes.

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