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Optimizing the Use of Wordwall Educational Games Aplication

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ABSTRACT

Background. Wordwall is an interesting application associated with this program. The app is clearly intended as an educational tool, a platform and an exhilarating evaluation for students. Teachers find it suitable with the concept of learning and playing using wordwall during student learning to keep it interesting and avoid boredom

Purpose. Wordwall media can increase happiness, excitement, enthusiasm and motivation.

Method. This wordwall can be used for all levels of online and offline learning, from elementary school to college.

Results. , Its simple design and many features, Wordwalls is very easy for new users to understand, Wordwalls has several advantages, Wall is very special compared to other web applications.

Conclusion. The use of word walls in the learning process is not yet common, but there are many documents and research results about word walls on the Internet. Using phallus words by students in online learning, it was concluded that phallus words can improve students' learning activities and outcomes. The text wall increases students' interest in the lesson and reduces boredom during the teaching process.

KEYWORDS

Character, Habituation, Greetings

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INTRODUCTION

The digital era is developing from time to time and slowly playing an important role in the midst of human (Lin dkk., 2020). The digital age is characterized by the ubiquity of the (Al-Ayyoub dkk., 2019), so distance is no longer a (Zhang & Chen, 2019). This digital era has brought much solace to the (Munster dkk., 2020). By only spending time in front of a computer or (Mendoza-Silva dkk., 2019), people can communicate electronically and interact with various countries and even carry out

transactional activities that can be carried out at (Pettersen dkk., 2021). In the digital era, the world of education is experiencing rapid (Lee dkk., 2019). One of them is e-learning. Online learning is an innovation that can be carried out in the learning education (Cummings dkk., 2019). The world of health cannot be separated from the following developments in the digital era. To register for medical (Ustun dkk., 2019), for (Buslaev dkk., 2020), it is enough to open an application form that is already (Baek dkk., 2021), but it can also be used when making an appointment or visiting a ("2022 Alzheimer's Disease Facts and Figures," 2022). In the digital age, technology plays a very important (Zuo dkk., 2020). Digital communication technology in particular has reigned supreme in all aspects of (Lamb dkk., 2021). This shows the tremendous impact of the digital age on technology, (L. Wu dkk., 2019), (Ahmad & Zhang, 2020), education and physical (T. Wu dkk., 2021). In this (Olabi dkk., 2021), technological development is happening at an incredible (Duan dkk., 2019), including in relation to many aspects of human life. In the digital age, most of the (Ferlay dkk., 2021), (Packer dkk., 2020).

RESEARCH METHODOLOGY

The approach used in this research is a mixed study that combines qualitative and quantitative (experimental) techniques. Blended research is research that combines between two researchers, namely qualitative and quantitative. The use of a mixed approach in this study is based on the types of research tools and techniques used. Qualitative techniques will be used for observations, interviews, and notes, and quantitative techniques will be used for questionnaire techniques used in the initial stage of conducting surveys on Islamic religious education teachers at SDN 1 Nagri Kidul spread throughout Indonesia. The tool development model on which the research is based is the 4-D model, a tool development model proposed by Thiagarajan, Semmel and Semmel in 1974. This model includes four stages of development. So define, plan, develop, share - define, plan, develop, share. The data obtained was analyzed using Miles and Huberman analysis. The three phases of data analysis are data compression, data visualization, and validation (Miles & Huberman, 1994). The developed product was validated using a valid instrument evaluation to determine the quality of the developed Wordwall product. The authentication carried out was a content review by an expert, the PAI teacher of SDN 1 Nagri Kidul. After the data was declared feasible, the product was tested on limited (Harapan dkk., 2020), with an assessment by the teacher as a panel user.

Table 1. Interval of the average validator assessment score

Interval Average Score (%)	Verification Category
90 – 100	Very Good
80-89	Good
70-79	Adequate
60-69	Not enough
<60	Very Small

Observations were also made to explore understanding and attitudes during the learning process through the following descriptive and explanatory (Guest dkk., 2020).

1. 1. Comprehension: Yes, the score is based on the correct answer to the index wall question 1.
   a. Determine the answer yourself (without help)

b. Operate the vehicle by yourself (without assistance)
c. Does not take long to answer

Score 4 if all flags are met, 3 if only 3 flags are met, 2 points if only 2 flags are met, 1 point if only 1 flag is met.

1. Attitude: Assessed by enthusiasm for learning, with indicators
   a. Be careful when studying
   b. Give the correct answer
   c. Consistent
   d. Passion

Interval of the average student acquisition score

Average Interval (%)	Effectiveness Category
X = 0	None
0 < X < 25	Fractions
25 < X < 50	Almost Half
X = 50	Half
50< X < 75	Majority
75 < X < 100	Almost Overall
X = 100	Overall

RESULT AND DISCUSSION

(Define Stage)

In this (Long & Holtzman, 2019), activities are carried out to identify problems in the learning process which are achieved by defining development (Bartels dkk., 2019). This step is done to analyze the needs in the learning (Rubin dkk., 2019). At this stage, a preliminary study was carried out in the form of literature analysis of Wordwall studies, PAI in elementary schools, innovative teaching materials and PAI programs in elementary schools. This wordwall application was chosen for development because it has several advantages over free wordwall as a basic option with a variety of (Naveed dkk., 2019). (Al-Ayyoub dkk., 2019), if you want to add more templates than we (Gandeepan dkk., 2019), you will have access to them after (Tan dkk., 2021). Another benefit of Wordwall is that anyone can access it by clicking on the link shared on WhatsApp, Google (Burnette dkk., 2020), etc. In (Wang dkk., 2020), the games created can be printed in PDF format so that they can be accessed offline and accessed by those with network or internet quota issues (Baek, 2010).

This word wall can be developed according to the learning program and applied to all fields of study and all levels of education. (Kerru dkk., 2020), the Indonesian education system is still based on the 2013 curriculum, except for the subjects of Religious Education and Physical (Pokhrel & Chhetri, 2021), Sports and Health (PJOK) which are (partially) taught (Li dkk., 2019) . and PJOK. The provision of religious materials in these schools provides Indonesia with a sacred perspective that accords

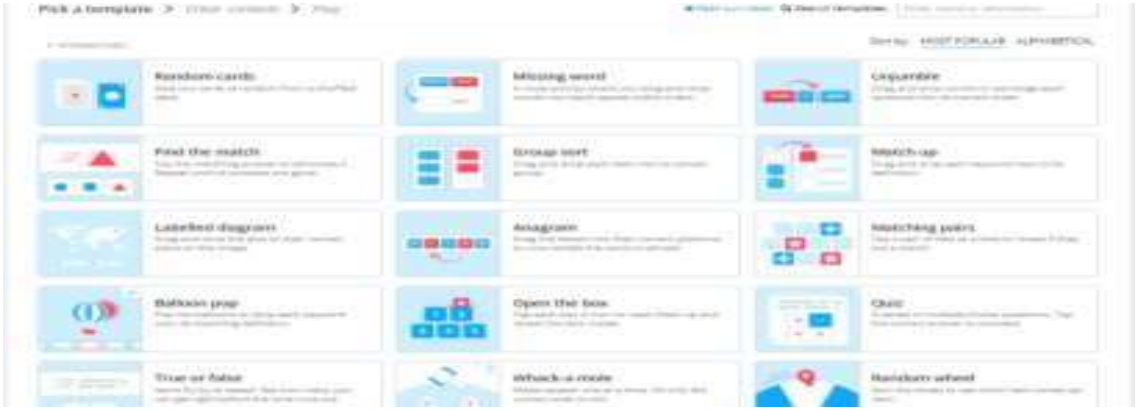


Figure 1. Template games on the wordwall

When designing the word wall, the focus is on the question and answer content as well as the selection of game types. The type of game should be selected according to the characteristics of elementary school students and the level of difficulty appropriate for elementary school students. The characteristics of elementary school children measured from cognitive development at this age are characterized by rapid improvement in critical skills and problem solving, but from a socio-emotional point of view: children are eager to be accepted from (Xue & Shen, 2020), so try different paths with their personality to find the path that suits them best. The types of problems used in this study are finding the maze, finding the airplane, popping the (Bettenworth dkk., 2019) , and opening the box. Similarly, the content of the questions and answers must match the illustrations in the available video learning materials. The questions are formulated in the area of Higher Level Thinking (HOT).

PAI learning to develop HOT can be done at the level of analysis, evaluation and creativity. The word wall game is a game that is presented in a test format in the form of technical questions. Therefore, word wall acts as an assessment tool that can be used to measure student learning outcomes. This educational word wall game is an online game that is suitable for all levels of students, from kindergarten to college. Online games are expected to improve the learning process of elementary school religious education students because the selection of online games coincides with the development of technology that has been integrated with gadgets in children's daily lives.

3. Development Stage (Developing)

The development of the PAI Elementary Document Wordwall application is based on the analysis of student needs. By entering the question text on the Wordwall page, the product was validated in development. The certification used was content review by experts who have expertise in the field. The finished product was evaluated from various perspectives, including the content of the questions, the form of the product, and its relevance to the characteristics of fourth grade students. The Wordwall game product developed by HEIs went through three stages of verification. At each stage, the contributions and suggestions sent by the validators were collected and processed. The preliminary test results on all aspects showed that the Wordwall game product performed quite well with a score of 79%. See the second product. The Wordwall game scored 88% in the correct category. All three products received a "very good" rating of 94%. The fourth verification result was used as a reference for product suitability in the trial stage and received an excellent rating of 100. The final product of the Wordwall application generated from this research. It is an evolution of the existing model where four games were created in WordWall as shown in

Once the WordWall multimedia educational game product has been reviewed and validated, it can be tested in a limited classroom environment. The limited trial was conducted in the third year

of SDN 1 Nagri Kidul. At that time, the PAI teacher at SDN 1 Nagri Kidul received user assessments and student observations of the use of the media.

Data collection techniques

Data collection is an important step in research. Thoroughness and accuracy are needed so that the data obtained is of high quality and valid. The following data collection methods were used in this study:

a. a. Observation, Direct observation of student activities during the learning process using Wordwall web media. The researcher acts as an observer who monitors and supports the use of the media. Comments are collected based on observations of student activity during the learning process.
b. b. Documents containing Minimum Completion Criteria (KKM) data, photos, or images of Wordwall web media. In addition to the observations made, the documents also contain records of student grades and screenshots of learning activities from beginning to end.
c. c. Tests were conducted by researchers to assess student competence during the teaching process. This test uses Wordwall web media.
d. d. Interviews with PAI teachers and students as respondents. The interview was conducted with the teacher and three students of grade V.

Data Analysis

This analysis is carried out to determine the success or failure of the actions taken as part of the research. Research data (observations, interviews, tests and literature) were processed through quantitative and qualitative data analysis to increase the level of indicators in each cycle and the conditions for learning success with Wordwall applications. web media. Learn PAI. Quantitative data analysis was used to determine the improvement of student performance due to a deeper understanding of PAI learning concepts. The analysis was calculated using the following formula:

Calculate the class average with the formula:

$$x = \frac{\sum X}{\sum N}$$

Description:

X= Average

∑X= sum of all students' scores

∑N= number of students

1) 1) Calculating the percentage of achievement of completeness using the formula:

$$P = \frac{\sum \text{siswa yang tuntas belajar}}{\sum \text{siswa}} \times 100\%$$

Description:

P = Percentage of learning completeness,

Σstudents who completed their learning = number of students who scored more than ≥75,

Σsiswa = total number of students who took the test

Table 3.1 Student Success Level Criteria

Success Rate	Standard
≥ 80 %	Very Satisfactory
60 – 79 %	Satisfactory
40 – 59 %	Medium
20 – 39 %	Low
< 20 %	Very low

Research Results

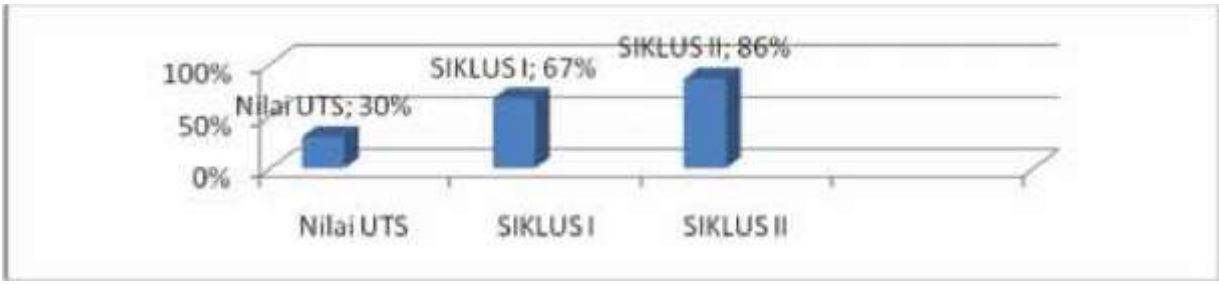
Analysis of the data shows that during the implementation of cycle I, observation of the learning process showed that although teaching activities and student learning outcomes had improved, they were not yet optimal. The data obtained are as follows. The results of observations of student learning activities obtained in this study are as follows.

Table 4.10 Improvement in Student Activities from Cycle I to Cycle II

CYCLUS I	Number of students	presentation	CYCLUS II	Number of students	presentation
EXCELLENT	4	15%	EXCELLENT	21	78%
GOOD	16	59%	GOOD	4	15%
Adequate	7	26%	Adequate	2	7%
LACK	0	0	LACK	0	0

Based on the table above, it can be seen that the level of strengthening of student learning activities increased gradually from cycle I to cycle II. This shows that at the university level there were only 4 students who were classified as very good at 15%, in the good category there were 16 students with a value of 59%, in the good category there were 7 students with a value of 26%. Then in cycle II the excellent results increased to 21 students with 78%, then there were 4 students with good results (15%) and 2 students with good results (7% ratio). Increasing PAI students' learning activities through the use of Wordwall web media and can see how many students can achieve good grades during the learning process after Cycle II. Learning Outcomes Semester I and Semester II The academic tests used were formal tests given at the end of each cycle.

These tests were designed to measure improvement in learning outcomes. The improved results from these tests indicate that the success metrics have been met. The percentage of student achievement is represented with a bar graph as follows:



The successful use of Wordwall web media can improve teaching activities and student learning outcomes and is reflected in the teaching process. This can be seen from the observation of student learning activities in cycle I. This can be seen in Cycle I. In Cycle I the number of students in the "very good" category was 16 students with a percentage of 59%. In Cycle I, the number of students who fell into the "very good" category was 16 students with a percentage of 59%. In Cycle II the number of students in the "very good" category increased. Academic achievement with very good results with a total of 21 students. The percentage is 78% which shows that learning PAI through web word wall can increase student learning activities. Based on the results of the final exam of the first semester, 67% of students' academic achievement was in the course "Prioritizing Honesty and Justice". With the highest rank. After that, the results of the Cycle II student test showed excellent learning results through the use of subject-specific materials for food and beverages that are halal and far from haram. Based on the analysis of the 1st and 2nd semester test results, the learning outcomes of 5th grade students of SDN 1 NAGRI KIDUL have increased in each lesson and students understand the concept of PAI learning. From this it can be concluded that the learning process with Wordwall web media can improve the learning outcomes of fifth grade students of Islamic Religious Education at SDN 1 Nagri Kidul.

CONCLUSION

Based on the results of research and discussion about the use of wordwall web media conducted at SDN 1 Nagri Kidul, it can be concluded: The use of wordwall web media can improve PAI learning outcomes in hardware. Defense of Justice and Materialism. Consume halal food and drinks and stay away from prohibited items. Students understand the concept of PAI learning, especially what they learn. Cycle I reached a completion rate of 67%. On the other hand, the program completion rate in Cycle II reached 86%. This indicates that the students have met the Minimum Integrity Requirements (KKM). Improvements were also seen in the results of student performance tests after using Wordwall web media during the learning process. Observations of student learning activities also showed improvement at the college level. I scored very good 78% of 21 students.

Advice

According to the research findings that have been discussed, I as the author make a few recommendations to be used as useful input, including: let learning happen as it is. 2) Teachers are expected to continue to seek teaching opportunities with greater diversity and create a conducive learning environment. This will have a positive impact on student learning outcomes. Students are advised to be more actively involved in the learning process, such as paying attention when the teacher explains, taking notes on important topics, and repeating them on other occasions.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

Author 4: Formal analysis; Methodology; Writing - original draft

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