



The influence of the use of kahoot and wordwall learning media on the learning interest of phase c students of SD Negeri 69 Manado

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Abstract

A study has been conducted on the effect of using kahoot and wordwall learning media on the learning interest of phase C students at SD Negeri 69 Manado. This study uses a quantitative approach with a quasi-experiment method. The research design used is one-group pretest-posttest. The data collection technique used is a questionnaire. The data analysis technique is the analysis requirements test, namely the regression analysis requirements test (normality test and linearity test) and hypothesis testing (simple regression analysis and multiple regression analysis). The results show that there is a significant influence between the kahoot media variable on the learning interest of phase C students at SD Negeri 69 Manado. There is a significant influence between the wordwall media variable on the learning interest of phase C students at SD Negeri 69 Manado. Kahoot media and wordwall media together have a significant influence on the learning interest of phase C students at SD Negeri 69 Manado.

Keywords: Learning media, kahoot, wordwall, student learning interest

Introduction

Education is one of the important pillars in human resource development. Education is a conscious effort to pass on culture from one generation to the next. Education forms the current generation as a role model based on the teachings of the previous generation. Until now, education does not have a completely standard definition because of its complex nature, especially because its main subject is humans. Education is also an important aspect in building a nation. Education is a process carried out by individuals with the aim of providing direction and guidance to the next generation. The main purpose of education is to produce quality graduates who have the ability to meet the needs of society and contribute to advancing the nation. (Rahman *et al.*, 2022) ^[29]. In a simple and general sense, the meaning of education is a human effort to grow and develop innate potentials, both physical and spiritual, in accordance with the values that exist in society and culture. Education and culture exist together and advance each other. Interest has a very big influence on student learning activities.

With the interest in learning in students, it will arouse curiosity and pleasure in students to continue learning. Curiosity and enjoyment of learning can be obtained from the material taught and the teacher's way of delivering the lesson material, if the lesson material and the teacher's way of delivering the lesson material do not match the student's interests, then the student will not learn well and optimally, because there is no attraction for him. He is reluctant to learn, he does not get satisfaction from the lesson. On the other hand, lesson material that interests students is easier to memorize and deliver, because interest adds to learning activities. That the learning interest of each student in the learning process is not the same, students who have a high interest in learning will easily accept the lessons given by the teacher because of their high motivation of curiosity and have a strong spirit so that everything they want can be realized.

While students who have a low interest in learning find it difficult to accept lessons because they tend not to want to know and do not pay attention to the material given by the teacher so that their learning outcomes are less than optimal. For that, in order to create quality successors to the nation, innovative educators are needed so that educators can create an interesting and effective learning process because this can increase students' interest in learning and understanding of the material being taught. (Sianturi and Firdaus, 2022) ^[40] At the beginning of the learning process, in addition to having the skills to plan learning and communicate well, teachers also need to design and develop effective learning strategies to support the student learning process. Learning will take place well if it is managed well.

The feeling of boredom and laziness that is felt for too long by students will later make students lose motivation and ask to do active learning and make students not try to construct their knowledge independently. This condition is thought to have an impact on student learning outcomes. Motivation and interest in learning are one aspect that influences learning outcomes because of the urge to make changes. So that good motivation and interest will also have a good effect on student learning outcomes and if students do not have motivation and interest, student learning outcomes will also not be good.

Learning media are tools or means designed to help someone deliver learning materials so that the teaching process in schools becomes easier and more effective. (Yeni *et al.*, 2023) ^[39] Teaching media plays a role in supporting the student learning process in order to achieve success in learning outcomes. The use of teaching media in the learning process has several reasons, including: teaching media can attract students' attention so as to increase learning motivation, learning materials become easier to understand and help students achieve the learning objectives set on that day. In addition, the use of media makes teaching methods more varied, and students are more active in the learning process. They not only listen to the teacher's

explanation, but also do various activities such as watching videos, pictures, direct practice, and demonstrating the material being studied.

Along with the development of technology, learning can be made more interactive and enjoyable through the use of digital learning media, according to (Sumilat, 2018) [34] many applications or software are created and circulated and can be used for free to facilitate the process of transferring knowledge. There are several learning media that are currently popular and widely used, namely Kahoot! And Wordwall. Kahoot is a game-based learning platform that allows teachers to create interactive quizzes to actively involve students in the learning process. This media can help: [1] Increase students' interest in reading through fun and interesting methods. [2] Increase understanding of the material through quizzes that require students to read, think, and answer quickly.

Wordwall is one of the learning media that has begun to be known in learning in Indonesia and its effectiveness has been proven. According to (Savira and Gunawan 2022) [32] This application can be used as an online learning innovation so that the learning process that takes place is not boring. An innovation that can attract attention and increase students' interest in learning. This learning media is an interactive application based on an official website that is useful for creating student practice questions that include quizzes, word searches, chasing in a maze, true or false, matching games, correct sentences and others, in learning in countries with advanced education quality, such as England and the United States teachers have used Wordwall learning media. However, in Indonesia itself the use of Wordwall learning media is not widely known. So that it becomes a strong basis in this study to overcome student learning problems in the subject of the periodic system of elements. Because besides learning, students can also play so that researchers hope that this Wordwall learning media can be used effectively for the learning process.

Based on the results of the researcher's observations at SD Negeri 69 Manado, problems were found in the implementation of learning, especially related to the effectiveness of the use of learning media by teachers. Teachers tend to still use conventional methods such as lectures without involving varied or interactive media. The media used are often limited to textbooks and whiteboards, while the potential use of technology or other visual media has not been optimally utilized. The lack of effectiveness in the use of this learning media has an impact on low student involvement in the learning process. Students appear less enthusiastic, easily lose focus, and have difficulty understanding the material presented. In addition, learning becomes monotonous and does not stimulate students' creativity or critical thinking skills. Based on this background, a study was conducted on the effect of the use of Kahoot and Wordwall learning media on the learning interests of students at SD Negeri 69 Manado. This study aims to analyze the effect of the use of Kahoot and Wordwall learning media on the learning interests of phase C students at SD Negeri 69 Manado and to compare the effectiveness of Kahoot and Wordwall learning media in increasing the learning interests of phase C students at SD Negeri 69 Manado.

Methods

This study is a study that uses a quantitative approach. This study is intended to determine whether there is an influence between two variables. The magnitude or high influence is then expressed in the form of a correlation coefficient (Ali *et al.* 2022). In a quantitative approach, the nature of the relationship between the variables will then be analyzed using statistical test tools and using objective theories. This study aims to test the proposed hypothesis by describing and analyzing the existing variables, namely the effect of using Kahoot and Wordwall learning media on the learning interests of students at SD Negeri 69 Manado. This study uses a quasi-experiment method. The research design used is one-group pretest-posttest, namely students are given a pretest to measure learning interest before treatment, then given treatment using Kahoot and Wordwall media alternately, and after that given a posttest to see changes in learning interest.

The population in this study were 4th grade students at SD Negeri 69 Manado. The number of samples in this study is the same as the population. The sample was 33 people. The instrument used in this study was a set of multiple-choice and descriptive tests with learning using media in the form of a final test (posttest). However, before the test instrument was given, a validation and reliability test was first carried out to determine the feasibility of the test instrument that had been made. The data collection technique used in this study was a questionnaire. According to Sugiyono (2013:199) "a questionnaire is a data collection technique carried out by giving a set of written questions or statements to respondents to be answered". The research instrument contains a number of statements that must be responded to by respondents to find out information about: Kahoot!, Wordwall, and Learning Interest. In other words, this study consists of one dependent variable, namely: learning interest (Y), and two independent variables, namely: Kahoot! (X1), and Wordwall (X2). The collected data were analyzed to test whether the established hypothesis could be accepted or rejected. Before the data analysis was carried out, the analysis requirement test process had been carried out, namely the regression analysis requirement test (normality test and linearity test) and hypothesis test (simple regression analysis and multiple regression analysis).

Results and Discussion

Results

1. Validity Test

To calculate the validity test of the questionnaire instrument, the Product Moment correlation is used in the SPSS 26 program. The basis for decision making in the test is if the $r_{\text{count}} \text{ value} > r_{\text{table}}$, then the questionnaire item is declared valid. Conversely, if the $r_{\text{count}} \text{ value} < r_{\text{table}}$, then the questionnaire item is declared invalid and cannot be used for further research processes.

a. Kahoot Variable Questionnaire Validity Test

The data analyzed by the researcher in the kahoot variable consists of 40 questions distributed to respondents. After the data is obtained, the validity test is then carried out in the SPSS 26 program. The validity test above can be concluded that the number of questions in the kahoot variable is 40 questions. The 40 questions with valid information are

because the r_{count} value $> r_{\text{table}}$, all data that has been tested for validity will be used in the following testing process in this study.

b. Wordwall Variable Questionnaire Validity Test

The data analyzed by the researcher in the wordwall variable consists of 40 questions distributed to respondents. After the data was obtained, the validity test was then carried out in the SPSS 26 program. The results of the validity test above can be concluded that the number of questions on the wordwall variable is 40 questions. The 40 questions with valid information are because the r_{count} value is $> r_{\text{table}}$, all data that has been tested for validity will be used in the following testing process in this study.

c. Validity Test of the Student Learning Interest Variable Questionnaire

The data analyzed by the researcher in the student learning interest variable consisted of 40 questions that were distributed to respondents. After the data was obtained, the validity test was then carried out in the SPSS 26 program. The validity test above can be concluded that the number of questions on the student learning interest variable is 40 questions. The 40 questions with valid information are because the r_{count} value is $> r_{\text{table}}$, all data that has been tested for validity will be used in the following testing process in this study. All questionnaire data in this study were declared valid because the r_{count} value is $> r_{\text{table}}$. This study also used a sample of 30 respondents with a df value = 30-2. So the r_{table} value in this study is 0.3610.

2 Classical Assumption Test

a. Normality Test

The normality test is used to determine whether the data distribution results are normal. The normality test is basically carried out by comparing the current data with data that has been normally distributed with the mean, or the total amount of data with the same standard deviation. This study uses the Shapiro Wilk test. The sig. value of the kahoot media is 0.96 and the wordwall media is 0.102 and the student's interest in learning is 0.070, which means > 0.05 . Therefore, the data above is normally distributed. It is known that the significance value of all test variables is greater than 5% or 0.05 generated from the research model, which indicates that the data from the regression model and the confounding variables or residuals have been normally distributed.

b. Multicollinearity Test

The Multicollinearity Test is carried out to ensure whether the regression model shows a correlation between independent variables. In this study, the correlation matrix between independent variables is seen by calculating the Tolerance and VIF values. The results of the Multicollinearity Test obtained VIF results of less than 10 and the Collinearity Tolerance value was greater than 0.01 in all test variables, so it was stated that there was no multicollinearity in the data used by the researcher.

c. Heteroscedasticity Test

The heteroscedasticity test was conducted to determine whether the regression model experienced inequality in the residual differences between one observation and another. This study uses the Scatterplot test. Data (dots) are

randomly distributed both above and below the number 0 on the Y axis. Therefore, it can be concluded that there is no heteroscedasticity, so the regression model can be used. The heteroscedasticity test in this study also uses the Glejser test. The significance value of all independent variables is greater than 0.05 or 5%, namely from the kahoot media variable 0.548 and the wordwall media 0.921. This means that there are no symptoms of heteroscedasticity in the test model used.

3 Multiple Linear Regression Analysis Test

This analysis is used to answer the research objectives, namely to determine the magnitude of the influence of two or more independent variables on one dependent variable. The magnitude of the influence is indicated by the regression coefficient with the following formula:

$$Y = a + \beta X_1 + \beta X_2$$

Student Learning Interest = $a + \beta$ Kahoot Media + β Wordwall Media

$$\text{Student Learning Interest} = -134.312 + \beta 1.296 + \beta 1.019$$

From this formula, it can be interpreted as follows:

- Based on the results of the regression equation, a constant number of -134.312 is produced. Which means that if all independent variables, namely Kahoot Media (X_1) and Wordwall Media (X_2) are 0, then the student learning interest (Y) that is realized is -134.312.
- Based on the regression equation, the independent variable Kahoot Media (X_1) has a positive regression coefficient. Assuming other variables are consistent, if the independent variable Media Kahoot (X_1) increases by one unit. Then the students' interest in learning (Y) will increase by 1.296.
- Based on the regression equation, the independent variable Media Wordwall (X_2) has a positive regression coefficient. Assuming other variables are consistent, if the independent variable Media Wordwall (X_2) increases by one unit. Then the students' interest in learning (Y) will increase by 1.019.

4 Research Hypothesis Testing

a. Partial Test (t)

Partial test is used to determine the effect of each independent variable individually on the dependent variable.

- It is known that the results of the significance test show that there is a probability value of 0.000 < 0.05 . This value can prove that the Hypothesis is accepted, which means that the Kahoot media variable has a significant effect on students' learning interest.
- It is known that the results of the significance test show that there is a probability value of 0.000 < 0.05 . This value can prove that the Hypothesis is accepted, which means that the wordwall media variable has a significant effect on students' learning interest.

b. Simultaneous Test (F)

The simultaneous F test (Simultaneous Test) is used to determine whether or not there is a simultaneous effect between the independent variables on the dependent variable. The results of the significance test show that there is a probability value of 0.000 < 0.05 . This value can prove that the Hypothesis is accepted, which means that the Kahoot media and wordwall media variables have a simultaneous effect on students' learning interest. Based on the analysis in terms of significance testing, there are the following criteria:

H_a is accepted if the significance level is <0.05

H_0 is rejected if the significance level is >0.05

The calculated F number resulting from the ANOVA test is 35.933 with a significance level (probability number) of 0.00. Because the probability number Sig. = 0.00 $< \alpha = 0.005$, H_0 is rejected and H_a is accepted. This means that there is a significant influence between Kahoot media (X1) and Wordwall media (X2) on students' learning interest (Y).

c. Simple and Multiple Regression Analysis

1. Determination Coefficient Determination (Adjusted R²)

The determination coefficient (R²) explains how much percentage is given by the independent variable to the dependent variable simultaneously or simultaneously. To find out the percentage contribution of the influence of the kahoot media variable (X1) on students' learning interest (Y) and the wordwall media variable (X2) on (Y) and Kahoot media and wordwall media on students' learning interest, the results of the determination analysis calculation (Adjusted R²) can be used. The R Square value is 0.525, which means that the ability of the Kahoot media variable to influence the student's learning interest variable is 52.5%, which means that the variability of the dependent variable that can be explained by the variability of the independent variable is 52.5%, the remaining 47.5% is influenced by other factors outside the model that explains the dependent variable.

2. Hypothesis Testing of Kahoot Media on Learning Interest

To find out the positive and significant influence between the kahoot variable on students' learning interest, the t-test can be used.

First step: Calculate the t table value.

- Alpha (α) / 2 = 0.05 / 2 = 0.025 (2-sided test)
- Degree of Freedom (df) = (number of data 33-1) = 32
- With these provisions, the t table value is (ttab) = 1.695 (table list attached).

Second step: Look at the testing criteria

- H_a is accepted if t count (t_{count}) $>$ (t_{table}) or
- H_0 is rejected if t count (t_{count}) $<$ (t_{table})

Third step: Making a Decision:

Because the t_{count} value between X1 (kahoot media) and Y (student learning interest) is obtained as $t_{hit} = 6.222 >$ (ttab) = 1.695; then H_0 is rejected and H_a is accepted which states that kahoot media has an effect on student learning interest. T count gets a positive value, so it has a positive effect. Thus it can be concluded that the better the kahoot media, the more the learning interest of Phase C students at SD Negri 69 Manado increases. The R Square value is 0.325, which means that the ability of the wordwall media variable affects the student's learning interest variable by 32.5%, which means that the variability of the dependent variable that can be explained by the variability of the independent variable is 32.5%, the remaining 67.5% is influenced by other factors outside the model that explains the dependent variable.

d. Testing the Wordwall Media Hypothesis on Learning Interest

To determine the positive and significant influence between the wordwall media variable on student learning interest, the t test can be used.

First step: Calculate the t table value.

- Alpha (α) / 2 = 0.05 / 2 = 0.025 (2-sided test)
- Degree of Freedom (df) = (number of data 33-1) = 32

With these provisions, the t table value is obtained as (ttab) = 1.695 (table list is attached).

Second step: Looking at the testing criteria

- H_a is accepted if t count (t_{count}) $>$ (t_{table}) or
- H_0 is rejected if t count (t_{count}) $<$ (t_{table})

Third step: Making a Decision

Because the t count value between X2 (wordwall media) and Y (students' learning interest) is obtained as $t_{hit} = 4.283 >$ (ttab) = 1.695; then H_0 is rejected and H_a is accepted which states that wordwall media has an effect on students' learning interest. T count gets a positive value, so it has a positive effect. Thus it can be concluded that the better the wordwall media, the more the learning interest of Phase C students at SD Negri 69 Manado increases. The R Square value is 0.705 which means that the ability of the Kahoot media and wordwall media variables affects the student's learning interest variable by 70.5%, which means that the variability of the dependent variable that can be explained by the variability of the independent variable is 70.5%, the remaining 29.5% is influenced by other factors outside the model that explains the dependent variable.

e. Hypothesis Testing of Kahoot and Wordwall Media on Learning Interest

The f test is used to determine whether the variables of teacher ability and learning media together have an effect on student learning outcome variables.

First: Calculate the F-table value with the following provisions;

- Alpha (α) = 0.05
- Degree of Freedom (df) = (number of data 33-2) = 31
- With these provisions, the F-table value is obtained = 2.911 (table list is attached).

Second: Determine the testing criteria;

- H_a is accepted if the calculated F (F_{count}) $<$ (F_{table}) or
- H_0 is rejected if the calculated F (F_{count}) $>$ (F_{table})

Third: Make a decision:

Because the F-count value obtained is $F_{hit} = 35.933 >$ (F_{tab}) = 2.911; then H_0 is rejected and H_a is accepted, which states that the Kahoot media and Wordwall media variables together have an effect on the learning interest of phase C students at SD Negeri 69 Manado.

Discussion

1. The Effect of Using Kahoot Learning Media on Students' Interest in Learning

Based on the hypothesis test above, it is proven that the kahoot media variable has a positive and significant effect on the learning interest of phase C students at SD Negri 69 Manado. This shows that the increasing use of kahoot media can increase the learning interest of phase C class students at SD Negri 69 Manado. The use of Kahoot media in the classroom can increase the effectiveness of learning, create

a more interactive learning experience, and make the learning process more student-centered (student-centered learning). Based on the results of the determination coefficient calculation, the effective contribution of the influence of kahoot media on the learning interest of phase C students at SD Negeri 69 Manado is 52.5%. While the rest is influenced by other variables that are not examined in this research model. Thus, the kahoot media variable has a positive effect on the learning interest of phase C students at SD Negeri 69 Manado.

This is in line with research conducted by (Yarnaidi Latief *et al.* 2024) ^[38] entitled "Implementation of the Kahoot Application in Short Story Text Learning" in this study stated that the use of Kahoot media has benefits in learning short story texts, namely that it makes lessons more interactive, creative, and innovative, and makes lessons more focused on students. Another study conducted by (Cahyo Saputro, Mansur, and Hadi Utama 2024) ^[9] entitled "Utilization of Kahoot-Based Interactive Learning Media in Increasing Student Learning Interest" in this study also concluded that the Kahoot application is very effective in increasing student learning interest. This is because the features of Kahoot support online learning. With the discussion to quiz features, educators are accommodated to carry out learning using digital learning media. In addition, the use of fonts and colors in the application design also makes it attractive to students, thereby increasing student learning interest in the learning process. Kahoot media, as a game-based learning platform, is able to create a more fun, interactive, and competitive learning atmosphere. The use of Kahoot makes students more active, focused, and motivated in following the lesson. Interest in learning increases because students feel more challenged and directly involved in the learning process. Overall, the use of Kahoot media can be used as an alternative effective innovative learning strategy to increase students' interest in learning, especially in the context of learning that requires active participation and emotional involvement of students.

2. The Effect of Using Wordwall Media on Students' Interest in Learning

Based on the hypothesis test above, it is proven that the wordwall media variable has a positive and significant effect on the learning interest of phase C students at SD Negeri 69 Manado. This shows that the increasing use of wordwall media can increase the learning interest of phase C class students at SD Negeri 69 Manado. The use of Wordwall media in the learning process makes a positive contribution to improving the quality of interaction and student interest in learning in the classroom. Based on the results of the calculation of the coefficient of determination, the effective contribution of the influence of wordwall media on the learning interest of phase C students at SD Negeri 69 Manado is 32.5%. While the rest is influenced by other variables that are not examined in this research model. Thus, the wordwall media variable has a positive influence on the learning interest of phase C students at SD Negeri 69 Manado. This is in line with research conducted by (Herta *et al.* 2023) ^[14] entitled "Utilization of Wordwall Game Applications in Learning to Grow Elementary School Students' Learning Interests" which states that Wordwall is a platform that can help increase student interaction and involvement in the learning process. With Wordwall, teachers can create various types of interactive learning

activities such as crossword games, word puzzles, word cards, and others. Wordwall learning media is one of the interactive media that is easy to use and can increase student interest and motivation. Wordwall learning media influences students' learning interests and motivation so that learning outcomes increase. The use of wordwall media in learning can affect students' learning interests.

3 The Effect of Using Kahoot and Wordwall Learning Media on Students' Learning Interests

Based on the results of the hypothesis test, it is proven that kahoot media and wordwall media together have a positive and significant effect on the learning interests of phase C students at SD Negeri 69 Manado. This is proven by the results of the determination coefficient calculation, namely kahoot media and wordwall media together have an influence on the learning interests of phase C students at SD Negeri 69 Manado by 70.5%. The remaining 29.5% is determined by other variables not discussed in this study. Thus, based on the results of the study, variable X1 (kahoot media) and variable X2 (wordwall media) have had a positive and significant effect on the learning interests of phase C students at SD Negeri 69 Manado. This means that the better the use of kahoot media and wordwall media, the more it can increase students' learning interests, especially phase C students at SD Negeri 69 Manado.

Conclusion

1. Kahoot Media (X1) and Learning Interest (Y) based on the results of the R Square score calculation, the percentage contribution of influence is 0.525 or 52.5%. So, from the calculation of the R Square score, it can be concluded that there is a significant influence between the Kahoot media variable on the learning interest of phase C students at SD Negeri 69 Manado.
2. Wordwall Media (X2) and Learning Interest (Y) based on the results of the R Square score calculation, the percentage contribution of influence is 0.325 or 32.5%. So, from the R Square calculation, it can be concluded that there is a significant influence between the Wordwall media variable on the learning interest of phase C students at SD Negeri 69 Manado.
3. Kahoot Media (X1) and Wordwall Media (X2) together on learning interest (Y) based on the results of the R Square calculation, the percentage contribution of influence is 0.705 or 70.5%. So, from the R Square calculation, it can be concluded that Kahoot media and wordwall media together have a significant influence on the learning interest of phase C students at SD Negeri 69 Manado.

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