

THE INFLUENCE OF ANDROID APPLICATION-BASED LEARNING MEDIA ON THE MOTIVATION TO LEARN ISLAMIC STUDIES AND ETHICS FOR STUDENTS OF SMP NEGERI 1 JATISRONO FOR THE 2021/2022 SCHOOL YEAR

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Abstrak

Media pembelajaran digunakan oleh setiap guru dalam proses pendidikan di sekolah, guru yang baik dapat mengembangkan media pembelajaran interaktif yang mampu meningkatkan motivasi belajar siswa. Peneliti telah merancang satu media pembelajaran interaktif berbasis aplikasi android. Maka permasalahan yang muncul dalam penelitian ini yaitu apakah media pembelajaran yang dirancang peneliti ini dapat mempengaruhi motivasi belajar siswa terutama pada siswa SMP Negeri 1 Jatisrono.

Metode yang digunakan dalam penelitian ini yaitu dengan pendekatan kuantitatif untuk mengetahui level perspektif siswa terhadap penggunaan android dalam pembelajaran dan pengaruhnya terhadap motivasi belajar siswa. Sampel dalam penelitian ini adalah siswa kelas VIII D dan G SMP Negeri 1 Jatisrono tahun ajaran 2021/2022 yang dipilih dengan metode random sampling. Teknik pengumpulan data yaitu dengan survey dan observasi yang dibagi menjadi dua tahap pretest dan posttest. Teknik analisis data menggunakan uji statistik menggunakan aplikasi SPSS. Hasil penelitian menunjukkan bahwa adanya pengaruh yang signifikan pada motivasi belajar siswa setelah diberi treatment berupa media pembelajaran berbasis aplikasi android.

Kata Kunci: Media pembelajaran, Aplikasi android, Motivasi Belajar

Abstract

Learning media is used by every teacher in the educational process at school. good teachers can develop interactive learning media that can increase students' learning motivation. Researcher designed one interactive learning medium based on an android application. So, the problem that arises in this study is whether the learning media designed by this researcher can affect student learning motivation, especially in students of SMP Negeri 1 Jatisrono.

The method used in this study is with a quantitative approach to determine the perceived level of android used in the teaching of Islamic education and to test whether the used of application influence students' motivation. The samples in this study were class VIII D and G students of SMP Negeri 1 Jatisrono for the 2021/2022 school year who were selected using the random sampling method. The data collection technique is by a survey and observation. Data analysis techniques using statistical tests using the SPSS application. The results showed that there was a significant influence in the student learning motivation after being given treatment in the form of android application-based learning media.

Keywords: Learning media, Android Application, Learning Motivation

1. INTRODUCTION

Speaking of learning media, I remember my experience in 2020 when I participated in an innovative learning media design competition at IAIN Salatiga. There I designed a learning media that could be said that the media I made was outside the specified competition topic, but I was able to get first place from the media I made. In the competition it was determined to

make learning media in the form of videos or powerpoint presentations, but I thought to go beyond that. So, I designed learning media in the form of an Android application which of course I gave elements of video and powerpoint so as not to violate the rules of the competition. With the innovations that I included in the learning media, I managed to get 1st place in the competition.

Starting from there, I think that the most important learning media is not from how the form or appearance of the media but how efficient and well functional in attracting students to learn and easy to use for both teachers and students. Many learning media have good and attractive designs but are less efficient in use in the learning process.

Then the learning media that I designed in the competition was used by my father who was an Islamic education teacher in one of the junior high schools in Wonogiri. And he said that it is much easier to use this application-shaped media than with media that was previously always used, even after using the learning media for a long time, many changes have occurred in his students such as increasing their prayer diligent or more visible manners.

From there it can be seen how important a learning medium is to influence the learning process of students at school. Learning media has a very important role regarding the interaction of students and teachers in the learning process. Media is any form and channel that people use to transmit messages/information. Media is a variety of components in a student's environment that can stimulate him to learn. Media is any physical tool that can present messages and stimulate students to learn, such as books, movies, tapes, and others. Media are forms of communication both printed and audio-visual and equipment. Media should be manipulated until it can be seen, heard, and read . From the understanding of learning media, we can conclude that a professional teacher must be able to develop learning media that can channel messages / information well, and can stimulate or motivate students to learn.

Learning media is everything that is used to help the learning process and clarify the delivery of the message that the teacher wants to convey to students in order to achieve predetermined learning goals. In line with the understanding of learning media above, Arsyad said that "media is an inseparable part of the teaching and learning process in order to achieve educational goals in general and learning goals in schools in particular". According to Arief explained that "the teaching and learning process is basically the delivery of messages from the source of the message to the recipient of the message in a certain way or media". This means that the media has an important role in the learning process in the classroom and outside the classroom. Therefore, it is appropriate that the use of media in the classroom and outside the classroom must be applied, especially by teachers. However, from the results of observations

at SMP Negeri Jatisrono, the application of learning media has not been implemented optimally and efficiently. This can be seen when teachers teach and deliver learning materials tend to use textbooks and blackboards only and students will certainly only read and do the questions in it if given assignments by the teacher.

Then I was curious whether the media I designed could affect learning motivation in students, so I wanted to find out about it with this research. Seeing the importance of learning media used by teachers can affect student learning motivation, researchers found that in learning at SMP Negeri 1 Jatisrono, most teachers there still use conventional learning media such as power points, textbooks, pictures, videos, and so on. Especially when entering this pandemic period, the use of learning media is increasingly limited because teachers cannot interact directly with students in class.

Therefore, researchers have compiled an innovative learning media for Islamic Religious Education and ethics in the form of an android application. Because there is no research that uses learning media that is similar to learning media made by authors in the Wonogiri region. So, in this study, researchers want to know the effectiveness of the application of this android application-based Islamic Religious Education learning media to the learning motivation of class VIII students of SMP Negeri 1 Jatisrono.

From the background review that has been described above, the researcher will examine through experimental research entitled “THE INFLUENCE OF ANDROID APPLICATION-BASED LEARNING MEDIA ON THE MOTIVATION TO LEARN ISLAMIC STUDIES AND ETHICS FOR STUDENTS OF SMP NEGERI 1 JATISRONO”.

2. METHOD

This study uses a quantitative approach with the aim of determining the level of student perspective on the use of android applications in learning and its effect on learning motivation. The study population is all grade VIII students of SMP Negeri 1 Jatisrono for the 2021/2022 school year, totaling 310 students. While the sample of this study was class VIII D as an experimental class and class VIII G as a control class of 31 students each, so that the total sample was 62 students. The sampling technique uses random sampling by lottery. Data collection techniques using surveys and observations are then tested for validity and reliability. The data analysis technique used is an assumption test, namely normality test and reliability test, then a hypothesis test begins with a descriptive analysis with the results of data tabulation calculations using MS Excel and continued with simple linear regression analysis and F Test.

3. RESEARCH RESULTS

3.1 Data Validation Technique

3.1.1 Validity test

Validity testing is carried out to determine the validity or absence of a questionnaire from each of these variables. One way to find out which questionnaires are valid or invalid, we must find out the r table first. The formula of r table is $df = N - 2$ so $62 - 2 = 60$, so r table = 0.254. If r count > 0.254 then the item is said to be valid, and if r count < 0.254 then the item is declared invalid. Here are the results of the validity test of variables (X) and (Y) using IBM SPSS Statistic 25:

Table 1. Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| X1 | 51.1774 | 160.902 | .340 | .880 |
| X2 | 51.5645 | 156.742 | .445 | .878 |
| X3 | 52.6290 | 155.090 | .373 | .881 |
| X4 | 52.3871 | 149.454 | .580 | .873 |
| X5 | 52.1774 | 156.050 | .384 | .880 |
| X6 | 51.8871 | 159.184 | .447 | .878 |
| X7 | 51.9355 | 153.602 | .528 | .875 |
| X8 | 52.7903 | 147.578 | .694 | .869 |
| X9 | 52.7419 | 148.850 | .775 | .868 |
| X10 | 52.5323 | 155.466 | .462 | .877 |
| X11 | 52.3548 | 150.888 | .625 | .872 |
| X12 | 52.7581 | 149.334 | .651 | .871 |
| X13 | 51.2258 | 160.014 | .312 | .882 |
| X14 | 52.6613 | 152.752 | .606 | .873 |
| X15 | 51.9194 | 153.452 | .552 | .874 |
| X16 | 50.9516 | 160.112 | .306 | .882 |
| X17 | 52.6774 | 151.665 | .631 | .872 |
| X18 | 52.1774 | 160.902 | .293 | .882 |
| X19 | 52.7419 | 153.670 | .533 | .875 |
| X20 | 52.1774 | 159.820 | .298 | .882 |

From the results of testing the validity of Variable X above, there are 20 questionnaire items that are said to be valid because each item already has a higher number than the r table. The r table in this study is 0.254, which means every questionnaire item of the android-based learning media variable are valid. Item-Total Statistics.

Table 2. Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| Y1 | 82.5161 | 311.533 | .323 | .919 |
| Y2 | 82.1935 | 313.962 | .288 | .920 |
| Y3 | 83.6452 | 304.790 | .507 | .917 |
| Y4 | 82.1774 | 306.673 | .430 | .918 |
| Y5 | 82.0968 | 312.810 | .265 | .920 |
| Y6 | 82.3387 | 307.670 | .401 | .918 |
| Y7 | 83.7903 | 297.578 | .689 | .914 |
| Y8 | 84.0000 | 299.902 | .679 | .914 |
| Y9 | 83.8548 | 297.831 | .706 | .914 |
| Y10 | 83.9516 | 299.030 | .578 | .916 |
| Y11 | 83.9032 | 298.154 | .622 | .915 |
| Y12 | 83.0323 | 304.622 | .443 | .918 |
| Y13 | 83.5806 | 296.543 | .583 | .916 |
| Y14 | 83.5161 | 304.188 | .502 | .917 |
| Y15 | 82.4677 | 311.237 | .343 | .919 |
| Y16 | 82.6613 | 310.851 | .397 | .918 |
| Y17 | 83.7903 | 302.004 | .567 | .916 |
| Y18 | 83.1290 | 302.016 | .539 | .916 |
| Y19 | 82.2742 | 315.055 | .271 | .920 |
| Y20 | 82.1613 | 313.383 | .275 | .920 |
| Y21 | 83.6129 | 296.569 | .704 | .914 |
| Y22 | 83.3710 | 295.647 | .682 | .914 |
| Y23 | 83.5806 | 302.477 | .568 | .916 |
| Y24 | 82.4032 | 312.638 | .345 | .919 |
| Y25 | 83.3548 | 301.380 | .516 | .917 |
| Y26 | 83.3226 | 298.517 | .620 | .915 |
| Y27 | 83.1452 | 302.192 | .479 | .917 |
| Y28 | 83.6129 | 296.405 | .698 | .914 |

From the results of testing the validity of Variable Y above, there are 30 questionnaire items that are said to be valid because each item already has a higher number than the r table. The r table in this study is 0.254, which means every questionnaire item of the students' learning motivation variable are valid.

3.1.2 Reliability test

Reliability comes from the English word rely, which means to trust, and reliable which means trustworthy. So, reliability can be interpreted as trust. Trust relationships with permanence and consistency. An instrument that is said to be reliable if it provides fixed or consistent results when used to measure repeatedly. To determine the reliability of the questionnaire, researchers used the Alpha Cronbach method. In determining the reliability of the instrument in this study using a limitation of 0.6. The instrument is said to be reliable when the Cronbach Alpha value > 0.6 and is said to be unreliable when the Cronbach Alpha value < 0.6 . Here are the results of reliability tests using IBM SPSS Statistic 25:

Table 3. Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .882 | 20 |

The results of the reliability test on the variable learning media based on android applications (X) can be seen that Cronbach's alpha on this variable is $0.882 > 0.60$. the results proves that all statements in the questionnaire variable (X) are declared reliable.

Table 4. Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .919 | 30 |

The results of the reliability test on the variable students' learning motivation (Y) can be seen that Cronbach's alpha on this variable is $0.919 > 0.60$. the results proves that all statements in the questionnaire variable (X) are declared reliable.

3.2 Test of Assumption

3.2.1 Normality Test

Data is declared normally distributed if it has a sig value. > 0.05 . If the data meets the requirements of the normality test, the data can be continued using the parametric test. Here are the normality test results using the IBM SPSS Statistic application:

Table 5. One-Sample Kolmogorov-Smirnov Test

| | | Android based learning media | Students' learning motivation |
|----------------------------------|------------------|------------------------------|-------------------------------|
| N | | 62 | 62 |
| Normal Parameters ^{a,b} | Mean | 54.84 | 86.00 |
| | Std. Deviation | 13.084 | 18.017 |
| Most Differences | Extreme Absolute | .126 | .111 |
| | Positive | .126 | .111 |
| | Negative | -.060 | -.075 |
| Kolmogorov-Smirnov Z | | .992 | .876 |
| Asymp. Sig. (2-tailed) | | .279 | .426 |

a. Test distribution is Normal.

b. Calculated from data.

From the table 4.5 above, we can see that the normality test results above are listed Asymp values. Sig. (2-tailed) is 0.279 in the variable Learning media based on android applications and a value of 0.426 in the variable of student learning motivation. So, we can conclude that both variables have a significance value higher than >0.05 which means that both variables are normally distributed

3.2.2 Linearity Test

The linearity test was conducted to determine the form of the relationship between the independent variable (Android application-based Learning Media (X)) and the dependent variable (PAI Learning Motivation and Ethics (Y)). Data is expressed as linear or has a relationship between variables if the significance value of deviation from linearity > 0.05 . Here are the results of the linearity test using the IBM SPSS Statistic 25 program:

Table 6. ANOVA Table

| | | | Sum of Squares | df | Mean Square | F | Sig. |
|---|----------------|--------------------------|----------------|----|-------------|--------|------|
| Students' learning motivation * Android based learning media | Between Groups | (Combined) | 14548.605 | 34 | 427.900 | 2.199 | .019 |
| | | Linearity | 4475.116 | 1 | 4475.116 | 23.000 | .000 |
| | | Deviation from Linearity | 10073.489 | 33 | 305.257 | 1.569 | .117 |
| | Within Groups | | 5253.395 | 27 | 194.570 | | |
| | Total | | 19802.000 | 61 | | | |

In table 4.6 above we can see that in the column value of sig. deviation from linearity is 0.117 > 0.05 which means we can conclude that there is a relationship between variable X (Android application-based learning media) to Variable Y (student learning motivation).

3.3 Descriptive Analysis

3.3.1 Variable frequency distribution

Based on data that has been collected from respondents, the results of research related to android application-based learning media (X) collected with a total of 20 statements with 5 alternative answer choices, and the results of research related to students' learning motivation on islamic studies (Y) collected with a total of 30 statements with 5 alternative answer choices the results of responses from 62 respondents to these statements are as follows:

Table 7. Variable frequency distribution

| Variable Distribution Frequency | | | | | | | | | | |
|---------------------------------|------------------|-----|-----|-----|-----|------|-------|--------|--------|----------|
| Variable | Alternate Answer | | | | | N | Score | Mean | RAL | Category |
| | STS | TS | N | S | SS | | | | | |
| Android based-learning media | 260 | 307 | 316 | 207 | 150 | 1240 | 3400 | 2.7419 | 54.83% | adequate |

| | | | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|------|------|--------|--------|----------|
| Students | | | | | | | | | | |
| Learning motivation | 334 | 375 | 585 | 337 | 229 | 1860 | 5332 | 2.9136 | 58.27% | adequate |

Based on table 4.7 above, it can be seen that the answer score on the Android based learning motivation variable has an average score of 2.7419 with a Respondent Achievement Level (RAL) of 54.83%. So, it can be stated that the perspective of grade VIII students of SMP Negeri 1 Jatisrono on Android-based learning motivation has an Enough category.

While the answer score on the students' learning motivation variable has an average score of 2.9136 with a Respondent Achievement Level (RAL) of 58.27%. So, it can be stated that the perspective of grade VIII students of SMP Negeri 1 Jatisrono on Student learning motivation has an Enough category.

3.4 Hypothesis Test

3.4.1 Simple linear regression analysis

Simple Linear Regression Analysis is a linear relationship between one independent variable (X) and the dependent variable (Y). This analysis is to find out the direction of the relationship between variables. The results of simple linear regression Analysis will be explained below.

Table 8. Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .475 ^a | .226 | .213 | 15.983 |

a. Predictors: (Constant), Media Pembelajaran Berbasis Aplikasi Android

b. Dependent Variable: Motivasi Belajar PAI

The value of R which is a symbol of the coefficient. In the table above the correlation value is 0.475. This value can indicate that the relationship between the two research variables is in the sufficient category. Through the table above also obtained the value of R Square or Coefficient of Determination (CD) which shows how good the regression model formed by the interaction of independent variables and dependent variables is obtained. The CD value obtained is 22.6%. So, it can be interpreted that the independent variable X has a contributing influence of 22.6% to the variable Y.

Table 9. Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|-------------------------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 50.100 | 8.814 | | 5.684 | .000 |
| | Android based learning media | .655 | .156 | .475 | 4.186 | .000 |

Dependent Variable: Motivasi Belajar PAI

The results of calculating the simple regression coefficient above show that the value of the constant coefficient is 50.100, the coefficient of the free variable (X) is 0.655. So, the regression equation $Y = 50.100 + 0.655 X$ is obtained.

Based on the equation above, it is known that the value of the constant is 50,100. Mathematically, the value of this constant states that when Android Based Learning Media 0, then Students' Learning Motivation has a value of 50,100.

Furthermore, the positive value (0.655) contained in the regression coefficient of the free variable (android based learning media) illustrates that the direction of the relationship between the free variable (android based learning media) and the dependent variable (Students learning motivation) is unidirectional, where every increase of one unit of the android-based learning media variable will cause an increase Students learning motivation 0.655.

3.5 F Test

The F-test was conducted to find out whether the learning media based on the android application variable had a significant effect or not on the motivation to learn PAI and manners in class VIII students of SMP Negeri 1 Jatisrono. The result of the F test is explained below:

Table 10. ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 4475.116 | 1 | 4475.116 | 17.519 | .000 ^a |
| | Residual | 15326.884 | 60 | 255.448 | | |
| | Total | 19802.000 | 61 | | | |

a. Predictors: (Constant), Media Pembelajaran Berbasis Aplikasi Android

b. Dependent Variable: Motivasi Belajar PAI

The significance test table above is used to determine the level of significance or linearity of regression. Criteria can be determined based on the signification value test (Sig), provided that the Sig value < 0.05 . Based on the table above, the value of Sig. = 0 is obtained. 0 0, means Sig. < 0.05 . So, the regression equation model based on the research data is significant, or the regression equation model meets the criteria.

Based on the results of the F test in the table above, the F count of 17,519 is higher than the F table value of 4.00 with a significance level of 0.000 or < 0.05 , then simultaneously the variable Reliability, android application-based learning media has a significant effect on student learning motivation variables.

From the test results above, we can conclude that the problem formulation number two was answered with Ho being rejected and Ha being accepted or partially variable Android application-based learning media has a significant effect on PAI and ethics learning motivation of grade VIII students of SMP Negeri 1 Jatisrono.

4. CLOSING

This study was conducted to examine the influence of android application-based learning media on PAI learning motivation and ethics in grade VIII students of SMP Negeri 1 Jatisrono. Based on the results of research in the previous chapter, it can be concluded that: The level of student perspective on the use of android application-based learning media and PAI learning motivation and ethics in grade VIII students of SMP Negeri 1 Jatisrono has an Enough category. This is obtained from the respondent's answer score on the android application-based Learning Media variable has an average score of 2.7419 with a Respondent Achievement Level (RAL) of 54.83%. While the respondent's answer score on the student learning motivation variable had an average score of 2.9136 with a Respondent Achievement Level (RAL) of

58.27%. Which means that students' perspectives on android application-based learning media and PAI learning motivation and ethics in grade VIII students of SMP Negeri 1 Jatisrono are included in the **Enough** category.

Variable Android application-based learning media has a significant positive influence with moderate degrees on PAI learning motivation and ethics in grade VIII students of SMP Negeri 1 Jatisrono. This means that the more use of android application-based learning media, the better the motivation to learn PAI and ethics of grade VIII students of SMP Negeri 1 Jatisrono. It is characterized by the value of $f\text{-count} > f\text{-table}$ ($17.519 > 4.00$) with a significance level of 0.000 or < 0.05 , then simultaneously the variable Reliability, android application-based learning media has a significant effect on student learning motivation variables. So, H_0 was rejected and H_a was accepted or partially the variable of android application-based learning media had a significant effect on PAI learning motivation and ethics in grade VIII students of SMP Negeri 1 Jatisrono.

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