



THE INFLUENCE OF THE USE OF CONVENTIONAL LEARNING MEDIA AND THE USE OF SOCIAL MEDIA ON THE LEARNING OUTCOMES OF GRADE X STUDENTS AT ISLAMIC VOCATIONAL SCHOOL 1 DURENAN

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Abstract—This research aims to analyze the influence of using conventional learning media and social media on the learning outcomes of 10th-grade students at SMK Islam 1 Durenan. The research method used is quantitative with a survey approach. The population in this study consists of all 160 students in the 10th grade, and the sample was taken from two classes with a total of 45 students. The data collection instruments used were questionnaires and grade documentation, with data analysis techniques employing multiple linear regression. The t-test results show that conventional learning media have an influence on student learning outcomes with a significance value of 0.029 (< 0.05). Meanwhile, the use of social media does not have a significant influence with a significance value of 0.189 (> 0.05). The simultaneous F-test results yield a significance value of 0.090 (> 0.05), indicating that both variables together do not have a significant influence on learning outcomes. The coefficient of determination (R^2) value of 0.118 indicates that only 11.8% of the variation in learning outcomes can be explained by these two variables, while the remaining variation is influenced by other factors not examined. It can be concluded that conventional learning media and social media have no significant simultaneous effect on students' learning outcomes.

Keywords— Conventional Media, Social Media, Learning Outcomes

I. INTRODUCTION

Technological advancement is a real natural phenomenon that cannot be avoided and has become a primary need of modern society. Along with the development of technology, learning methods have also undergone significant changes. The education system in Indonesia is expected to prepare students to become citizens with a strong commitment to being intelligent, critical, participative, and morally upright individuals. Currently, learning media is no longer limited to conventional media such as textbooks, whiteboards, and printed modules, but has also evolved into digital media, including social media[1].

Based on the observations at SMK Islam 1 Durenan class X PSPT, conventional learning (lectures) by teachers usually uses printed books so that students only observe and look at the whiteboard. This makes students less active and lazy in receiving the material presented, as learning is only focused on what is delivered, hence they do not understand optimally. Learning that only requires students to summarize the material is considered less interesting to engage students enthusiastically, actively, and well. Quality learning highly depends on the interest of the students and the creativity of the teachers. A good learning design supported by adequate facilities, combined with the creativity of teachers, will make it easier for students to achieve learning targets and learning outcomes.

In the use of social media, students exhibit deviations when accessing it secretly during lessons. Students do not focus on the ongoing learning process, but are instead engrossed in opening their social media. Social media includes various applications such as Instagram, Tiktok, Whatsapp, Twitter, and Facebook. These applications are very popular among teenagers, especially among vocational school students. During lessons, social media can facilitate students in searching for learning materials or additional sources of information. Social media also presents many types of educational content that can enhance knowledge and interest in learning to understand skills. Social media also presents many types of educational content that can increase knowledge and interest in learning in understanding skills. The purpose of using social media in the learning process is to add material that is not in the package book which tends to be concise in its explanation, as well as group discussions between students and teachers at a distance. Discussing between groups, they also use whatsapp a lot.

II. RESEARCH METHODS

A. Types of Research

This research uses a quantitative method, which aims to measure the influence between the predetermined variables statistically. The type of research used is a survey method,



where data is collected from respondents using a questionnaire to obtain information about the influence of the use of conventional media and social media on the learning outcomes of Class X students at SMK Islam 1 Durenan.

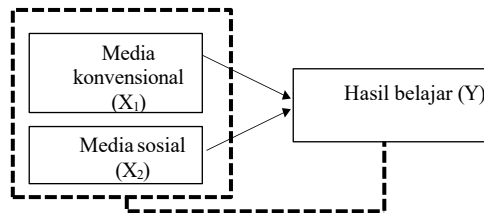


Figure 1 Research Design

The table above shows two types of relationships between variables, partial relationships that show the relationship of one free variable to the bound variable, and simultaneous relationships, which show the simultaneous relationships are shown by dotted lines

The research process will be carried out as follows: problem selection, implementation of preliminary studies, planning of research plans, determination of problems, basic assumptions, and hypotheses, selection of approaches, determination of variables and data sources, determination and preparation of instruments, data collection, analysis of data application, drawing conclusions, and writing reports[2].

B. Research Variables

According to [3], research variables are components, characteristics, or values owned by individuals, objects, or activities that have undergone changes and have been chosen by researchers to be used as research subjects. The author then draws conclusions or evaluations regarding independent variables and dependent variables. Independent variables (independent variables) are variables that affect or cause changes or the emergence of dependent (bound) variables. Dependent (bound) variables are variables that are affected or that are a consequence, due to the presence of independent variables. In this study, the author used an independent variable (X) and a bound variable (Y).

C. Population and Sample

Population is defined as a collection of subjects or objects that have certain qualities and characteristics, which have been determined by the author to be analyzed and from which research conclusions are drawn [3]. The population in this study is 160 students in class X at SMK Islam 1 Durenan Trenggalek. Sample research uses a partial or representative of the studied population to generalize the results of the study [4]. The use of samples is carried out when the population is too large, so that researchers cannot access it entirely for research due to limited funds, energy, and time; therefore, samples are taken from the population.

D. Data Collection Techniques

The data collection method in the study is used to obtain various information and data needed. Data collection can be done in various contexts, sources, and methods. The data collection techniques used in this study are as follows:

1. Questionnaire

Questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents." The questionnaire includes a number of questions that are relevant to the variable and must be answered by the respondent. The distribution of this questionnaire will be done through Google Form. The questionnaire assessment guidelines will use the Likert scale. The Likert scale is used to measure the attitudes, opinions, and perceptions of a person or group. People about social phenomena. Using the Likert scale, each statement item has a gradation from very positive to very negative. The answer criteria for each statement have a score of 5, 4, 3, 2, 1 Before being submitted to the research sample, the research instrument must first be tested for its validity and reliability.

2. Documentation

Documentation is a data collection technique in quantitative research processes or data records in the form of the values of student learning outcomes that have been recorded in official documents by the school or educational institution.

E. Data Analysis Techniques

1. Test Instruments

The validity test will be carried out first at SMKN 2 Tulungagung for students in class X Office Management 1 and 2. The validity test is carried out to test the level of validity or validity of an instrument in research.

In the validity test, SPSS version 31 was used as a tool in data testing, for the validity test of the sample number of 65 students used r table 0.244 with 50 questions, for a significant *level of alpha* of 5% or <0.05.

Research instruments must be tested for their reliability or reliability. A research instrument can have a high level of confidence, if the results of the instrument test show relative and consistent results" The reliability of a variable is said to be greater if it has a Cronbach *Alpha value* (> 0.60). Meanwhile, values smaller than (<0.60) are said to be unreliable[5].

2. Classic assumption test

a. Normality tests

Normality tests are used to test whether the data is normally distributed or not. Normally distributed data means data that comes from a normally distributed population, so that the sample taken can really represent the population[6]. To see the data is normally distributed or not it is possible to use the *Kolmogorov Smirnov test*.

b. Homogeneity test

Levene's test of homogeneity of variance is calculated by SPSS to test Anova's assumption that each group (category) of independent variables has the same variance. If the Levene statistic is significant at 0.05, therefore, we can reject the zero hypothesis that states that the group has the same variance [7].

c. Multicollinearity test

Multicollinearity testing will be tested using the help of the SPSS 31 program by looking at the value of Variance Inflation Factor (VIF) and tolerance Tolerance, If the value of



VIF is less than 10 and Tolerance is more than 0.10, then it is stated that multicollinearity does not occur [8].

d. heteroscedasticity test

The heteroscedasticity test aims to identify whether in the regression model there is an unevenness of residual variance between one observation and another. If the residual variance from one observation to another is consistent, then it is called homokedasticity; On the other hand, if the variance varies, it is called heteroscedasticity.

e. linearity test

The linearity test is a prerequisite for continuing linear regression analysis. The purpose of the linearity test is to find out whether the free variable (x_1) has a linear influence on the bound variable (Y), as well as the free variable (x_2) on the independent variable (Y). The linearity test can be carried out through the linearity test. The applicable criterion is that if the significance value in linearity < 0.05 , then it can be interpreted that there is an influence between the free variable and the bound variable

3. Hypothesis Test

a. T Test

the t-statistical test is carried out to show how far the influence of one independent variable individually is in explaining the variation of the dependent variable. Decision-making criteria by taking sig. 0,05 ($\alpha = 5\%$)[7].

b. Test F

The F test was carried out to assess the feasibility of the research regression model. The decision-making criteria used a significance value of 0.05 ($\alpha = 5\%$). The basis for decision-making based on the ANOVA table is as follows: If the Sig. value ≤ 0.05 , then the research regression model is feasible. If the Sig. value > 0.05 , then the research regression model is not feasible.

c. The determination coefficient test

The determination coefficient test is used to evaluate the extent to which the model (independent variable) can explain the variance of the dependent variable. [7]. The coefficient of determination has a value between 0 and 1. When the coefficient of determination is close to 1, it indicates that almost all the information needed to explain the fluctuations of dependent variables can be obtained from independent variables. On the other hand, a determination value of 0 indicates that there is very little information in the independent variable to explain the variance in the dependent variable.

III. RESULTS OF RESEARCH AND DISCUSSION

A. Presentation of data on research results

This study was conducted to determine the "impact of using conventional learning media and social media on the learning outcomes of X grade students at SMK Islam 1 Durenan" with a population of all X grade classes totaling 160 students. The samples of this study are class X PSPT 1 with 22 students and class PSPT 2 with 23 students. The data for this study were obtained from the results of a questionnaire.

Based on the validity results, it was concluded that 50 questionnaires on learning media and social media after being analyzed using SPSS version 31 out of 50

questionnaires, there were 49 questionnaires that were declared valid and 1 questionnaire item that was declared invalid. In invalid statements, they will be deleted and not used. This validity test stage uses the help of SPSS by comparing the significance value, if the significance is < 0.05 then it is declared valid, and if the significance is > 0.05 .

Table I Reliability Test Results

| <i>Reliability Statistics</i> | |
|-------------------------------|-------------------|
| <i>Cronbach's Alpha</i> | <i>N of Items</i> |
| 0,969 | 49 |

Based on table I above, 49 statements of learning motivation that have gone through the validity test get a Cronbach's Alpha value of 0.969 1 which is greater than 0.60. Then it can be declared reliable.

B. Hypothesis Test Data Analysis

Before testing, the data was analyzed first through several prerequisite tests, namely normality, linearity, multicollinearity, and heteroscedasticity tests. Furthermore, hypothesis testing was carried out partially (t-test) and simultaneously (F-test).

1. Uji prasyarat analisis

a. Normality test

Table I Normality Test Results

| <i>Asymp. Sig. (2-tailed)^c</i> | <i>Taraf Signifies</i> | <i>Conclusion</i> |
|---|------------------------|-------------------|
| 0.200d | 0,05 | normal |

In table II, Based on the data above, it is known that the value of Asymp. Sig. (0.200) $>$ and the value of monte carlo sig. (0.377) is also > 0.05 , so it can be concluded that the data meets the assumption of normality (normally distributed), both based on *asymptotic* significance and *Monte Carlo significance*.

b. Homogeneity test

Table II Homogeneity Test Results

| <i>Lavane's test</i> | <i>Taraf Signifies</i> | <i>Information</i> |
|----------------------|------------------------|--------------------|
| 0,058 | 0,05 | Homogeneous |

In table III, Based on the output results obtained, it can be determined that the value of Based on Mean sig. 0.058 is more than 0.05 so it can be concluded that the data variants are homogeneous.

c. Multicollinearity test

Table IV Multicollinearity test

| <i>Variabel</i> | <i>tolerance</i> | <i>VIF</i> |
|-----------------|------------------|------------|
| X1 | .343 | 2.919 |
| X2 | .343 | 2.919 |



Based on table IV, it can be seen that the tolerance value in the variables of conventional learning media (X1) and social media (X2) is 0.343, meaning greater than 0.10. The VIF value for both variables is 2.919, meaning it is less than 10. The model has occurred multicollinearity between the variables of conventional media use and social media. This means that the two independent verifiabiles do not strongly influence each other in the regression model, and the analysis can be continued.

d. Heteroscedasticity test

Table V Heteroscedasticity test

| Variabel | Sig | Taraf Signifies |
|----------|------|-----------------|
| X1 | .136 | 0,05 |
| X2 | .066 | 0,05 |

Based on table V, a significance value (Sig.) for social media was obtained of 0.136 and for conventional media of 0.066, both values were greater than the significance level of 0.05, which means that there was no indication of heteroscedasticity in this regression model.

e. Results of the Linearity Test

Table VI Results of the Linearity Test

| Variabel | Sig | Taraf Signifies |
|----------|------|-----------------|
| X1 | .808 | 0,05 |
| X2 | .208 | 0,05 |

The results of the linearity test between the learning outcome variable (Y) and conventional media (X1) showed a significant value of deviation from linearity of 0.808, which is much greater than 0.05. This shows that there is no deviation from the linear shape. Although the significance value of linearity of 0.127 has not shown a very strong influence statistically, it is assumed to be linearity and can be further analyzed using linear regression.

The linearity test between the learning outcome variable (Y) and social media (X2) showed a significant deviation from linearity value of 0.208, which is also greater than 0.05. This suggests that the absence of significant deviations from the form of the relationship between learning outcomes and social media can also be said to be linear, and linear regression analysis can be used on both variables.

2. Hypothesis Testing

a. Partial Hypothesis Test T

Table VII The results of the t-test

| Model | t | Sig |
|------------|--------|-------|
| (Constant) | 7.808 | <.001 |
| X1 | 2.258 | .136 |
| X2 | -1.336 | .066 |

1) The influence of conventional learning media on student learning outcomes

The results of the t-test showed that the Conventional learning has a significant influence on student learning outcomes, with a significance value of 0.029 (< 0.05) and a t value of 2.258. This shows that the more effective the use of conventional learning media, the higher the learning outcomes of students. Conventional media such as textbooks, whiteboards, or physical props are still proven to be relevant and play a positive role in the learning process.

2) The effect of social media use on student learning outcomes

Based on the results of the t-test, the use of social media had no significant effect on students' learning outcomes, with a significance value of 0.189 (> 0.05) and a t-value of -1.336. Although social media can be used as a means of supporting learning, these results show that its use is not strong enough or effective enough in improving student learning outcomes. This can happen because social media is more often used for entertainment than academic activities, or a lack of control and direction in its use as a learning tool.

b. Simultaneous Hypothesis Testing

Table VIII Simultaneous hypothesis test results

| Regression | ANOVA ^a | |
|------------|--------------------|-------|
| Residual | Sig | F |
| Total | .090 ^b | 2.549 |

Based on the results of the F test, a significance value of 0.090 (> 0.05) and an F value of 2.549 were obtained. This shows that the variables of social media and conventional media simultaneously do not have a significant effect on student learning outcomes. Thus, although one of the variables (conventional media) has a partial effect, when viewed together, the two variables do not have a significant influence on learning outcomes.

c. Determination coefficient test

Table IX Determination coefficient test

| Model Summary ^b | | | | |
|-----------------------------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .344 ^a | .118 | .074 | 2.685 |
| a. Predictors: (Constant), x1, x2 | | | | |
| b. Dependent Variable: y | | | | |

The determination coefficient test is used to measure the extent to which independent variables contribute to the variation of dependent variables in regression models. Based on the *Model Summary table*, the R Square value was obtained as 0.118 or equivalent to 11.8%. This means that 11.8% variation in student learning outcomes can be explained by two independent variables, namely social media and conventional media together.

While the remaining 88.2% is explained by other factors that are not studied in this model, In addition, the Adjusted R Square value of 0.074 indicates results that have been adjusted for the number of predictor variables and the



number of samples. This adjusted R Square is more accurately used in models that have more than one independent variable. With a relatively low R^2 value, it can be concluded that the two independent variables in this study only contribute small to student learning outcomes, so it is necessary to consider other variables that are more influential in the next study.

3. Discussion

a. The influence of conventional learning media on student learning outcomes

In partial hypothesis testing using the (t) test, the learning media variable had a significance result of 0.029 (< 0.05). The significance result is smaller than 0.05 and can be interpreted that the variables of conventional learning media have an influence on student learning outcomes.

The results are in line with Mahfuz's [9] research where the results of research on conventional learning media have a positive effect on students' academic results, especially if used appropriately and in accordance with school conditions and students' abilities. The above research results are also in line with the research conducted by Dreyer et al., [10] where this study shows that the group that attended the class face-to-face recorded an average score of 7.38 on the written exam, while the online group obtained an average score of 7.02. The difference is statistically significant (Cohen's $d = 0.135$), and the correlation value is $r = 0.236$ ($p < .001$), confirming that in conventional learning it has a positive impact on students' writing ability and conceptual comprehension, this will also have a positive impact on learning outcomes.

The above statement is strengthened by research conducted by Kandukoori [11] which states that the results that conventional learning media are found to still have a significant influence on student learning outcomes, especially in the context of certain materials. In learning, conventional learning media has its own advantages in the world of education. One of its advantages is ease of implementation, as it does not require advanced technology or complex additional devices. Teachers can deliver material directly and systematically, with full control over the course of learning in the classroom. This allows the learning process to be more directed. In addition, conventional media is also more economical and suitable for application in schools that have limited technological facilities, so that it remains relevant in the current educational context, especially in areas that have not been fully digitized Dahlya Narpila et al., [12].

b. The effect of social media use on student learning outcomes

In the test, in the partial hypothesis testing using the test (t), the social media variable had a significance result of 0.189 (> 0.05). The significance result is greater than 0.05 and can be interpreted that social media has no influence on students' learning outcomes.

The results of this study are in line with the research conducted by Azmi et al. [13] where the results in the study were rejected with a correlation value of r before 0.043, which shows that there is no positive correlation between the influence of online social media and learning outcomes. The recording of the r_{xy} value is calculated as 0.043, which is in the range of coefficient 0.00-0.20, the level is in the low level. He also explained that this is due to the fact that social media

is more used by students for entertainment purposes, such as watching videos, playing social media, and communicating informally, rather than being used as a means of supporting learning. In addition, teachers and schools have not optimally directed the use of social media as a learning medium that is structured and in accordance with the curriculum. Students also tend to be distracted when using social media, thereby reducing concentration and learning effectiveness. In addition, the mathematics learning content available on social media is still limited and not well organized, so it is not able to directly improve the understanding of concepts or student learning outcomes.

According to Adjei & Asante [14] who conducted a study of 200 students in Ghana, it was found that the use of social media did not have a significant impact on student learning outcomes. The results showed that although social media took up some of students' learning time, its influence on academic achievement was not strong enough to be considered significant. The above results are strengthened by research conducted by Telaumbanua & Zai [15] where the results are shown by the correlation value between social media use and learning outcomes which is classified as very low, which is 0.221. These values show that the relationship between the two variables is very weak and insignificant. Although most students use social media for a certain amount of time every day, it does not have a significant effect on improving learning outcomes.

c. The influence of conventional learning media and the use of social media on student learning outcomes

Based on the simultaneous hypothesis test or the F test, the result was a significance value of 0.090 (> 0.05). This value shows that the independent variables, namely conventional learning media (X_1) and Social Media (X_2), simultaneously have no influence on the bound variable, namely learning outcomes (Y). Meanwhile, in the R Square test, a result of 0.118 or equivalent to 11.8% was obtained. These results can be strengthened from the results of simultaneous hypothesis tests where the results of the R^2 value show low attachment or influence.

These results are in line with research conducted by Kurniawan et al. [16]. Where in the research results were obtained that showed that conventional learning media did not have a significant effect on student learning outcomes. This is proven through a simple linear regression test which produces a significance value of 0.167 (> 0.05) and a determination coefficient value (R^2) of 0.017, which means that only 1.7% of learning outcome variables are influenced by conventional media

Conventional learning media tend to have limitations in terms of visual stimulation and interactivity. This has an impact on low student involvement in the learning process. Many students experience boredom and difficulty in understanding the material, especially if the material is abstract, complex, or theoretical. The lack of support for multimedia elements such as animation, simulation, or audio-visual components makes it difficult for students to capture and imagine important concepts, especially in subjects such as science or mathematics. This condition is a challenge for



students who have a tendency to learn visually or kinesthetically, because their learning style is not well accommodated by a monotonous learning approach [17].

The use of social media has no effect on student learning outcomes, this is strengthened by research by Ramly & Ayu [18] as a result of research that the use of social media has a bad impact on student learning outcomes. This study shows that excessive use of social media by students tends to lower their learning outcomes

However, the researcher also noted that social media has positive potential if used appropriately, such as facilitating access to information, expanding insights, and allowing students to share learning materials online. But in practice, these positive benefits are still outweighed by the negative impacts due to uncontrolled use. It should be emphasized that social media in general has a negative influence on student learning outcomes if not used wisely, and there needs to be guidance and control from the surrounding environment to direct its use to be more productive in the context of education [18]

IV. CONCLUSION

1. The Influence of Conventional Learning Media on Learning Outcomes

The results of the t-test showed that conventional learning media had an influence on students' learning outcomes with a significance value of 0.029 (< 0.05). This shows that the use of conventional media such as whiteboards, textbooks, and physical props remains relevant in improving students' academic understanding and achievement, especially when used appropriately and contextually.

2. The Effect of Social Media Use on Learning Outcomes

Based on the t-test, the use of social media had no significant effect on students' learning outcomes with a significance value of 0.189 (> 0.05). These results show that social media has not been utilized optimally in the academic context and is more predominantly used for non-learning purposes, which has an impact on decreasing concentration and learning effectiveness.

3. The Simultaneous Influence of Conventional Learning Media and Social Media on Learning Outcomes

The results of the F test showed that the two variables simultaneously had no significant influence on student learning outcomes, with a significance value of 0.090 (> 0.05). This is reinforced by an R^2 value of 0.118 which shows that only 11.8% of the variation in learning outcomes can be explained by these two variables, while the rest is influenced by other factors that were not studied in this study.

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