

The Effect of Digital Literacy Towards The Selection of Social Science Teacher Learning Media

Gagat Triawang¹, Edi Kurniawan^{1*}

¹Universitas Negeri Semarang, Sekaran Campus C7 Building FIS Gunungpati Semarang City, Indonesia

ABSTRACT

Selection of the proper media is one of the teacher's duties in teaching. It must be followed by several aspects, one of which is teacher's ability in digital literacy to keep up with the developments of today's all-digital era. The study aimed to examine the effects of digital literacy levels on the selection of learning media for social science teachers. In the study, correlational quantitative method was used, with data collection applying questionnaires and document studies. The participants of the study were 22 social science teachers from 11 junior high schools selected via total sampling method. The obtained data were analyzed using simple linear regression. The results revealed that there was a significant effect between digital literacy on the selection of social science teacher learning media. The result of the regression equation is $Y = 0.553 + 0.119X$. Meanwhile, the result of hypothesis testing from the T-Test and F-Test showed that H_0 was rejected and H_a was accepted.

Keywords: Digital Literacy, Selection of Learning Media, Social Science Teacher

INTRODUCTION

Digital literacy is a scientific skill related to the ability in using digital media, tools, and telecommunication networks to find, assess, use, and properly utilize media in everyday life (MoEC, 2017; Al Khazaleh, 2021; Misir, 2018). Meanwhile, according to Gilster (1997), digital literacy is a capability functioned to understand and use information in various forms that come from digital sources contained in computer hardware. It can be concluded that digital literacy is the ability and expertise possessed by humans in finding, processing, and using information from various sources using digital technology (MoEC, 2017; Gilster, 1997).

Gilster (1997) explains that there are four criteria or levels of people who can be categorized as experts in digital literacy. These indicators include a) Internet Searching, b) Hypertextual Navigation, c) Content Evaluation, and d) Knowledge Assembly. Digital literacy discussed in this research is the ability of a teacher to search and understand the information available on digital technology devices.

Teacher is the main actor in the education environment who plays a role in the classroom to deliver information to students. In the delivery process, a teacher needs an intermediary or media that is selected and adapted to the information to be conveyed. Its selection also requires adequate skills and strategies so that the conveyed information can be delivered properly starting from taking material from social media intelligently to other aspects. Thus, it is hoped to involve students in interactive learning as the key to successful education (Yuniani, 2019).

Arsyad (2017: 10) describes that learning media are all tools utilized in the teaching and learning process to exemplify information that can stimulate students' interest. According to Adam (2015), learning media are described as everything in the physical and technical form that can assist teachers in the learning process to ease the delivery of

material to students. Based on the preceding definitions, it can be concluded that learning media are media or place used as tools to communicate information to the students to achieve the expected learning objectives.

The indicators used in the selection of learning media were delivered by Rohani (2019), stating that there are five mandatory criteria. Sadiman also created a formula with the keyword "ACTION". The elaboration is 1) Access, 2) Cost, 3) Technology, 4) Interactivity, and 5) Organization. Meanwhile, the discussed learning media aspect in this study focuses on how a teacher chooses the learning media used in teaching that is useful for achieving learning objectives. Therefore, the research question of the study was formulated as "What is the effect of digital literacy towards the selection of social science teacher learning media?".

METHOD

In the study the correlational quantitative method was utilized. The data were collected using primary and secondary data with document study and questionnaires. The data

Corresponding Author e-mail: edikurniawan@mail.unnes.ac.id
https://orcid.org/0000-0002-8394-9259

How to cite this article: Triawang G, Kurniawan E, (2021). The Effect of Digital Literacy Towards The Selection of Social Science Teacher Learning Media. Pegem Journal of Education and Instruction, Vol. 11, No. 4, 2021, 316-319

Source of support: Nil

Conflict of interest: None.

DOI: 10.47750/pegegog.11.04.30

Received: 26.07.2021

Accepted: 23.09.2021

Publication: 01.10.2021

were analyzed via simple linear regression method through SPSS.

The population of this study comprised 22 social science teachers in 11 junior high schools. They were from public and private schools and served as civil servants or honorary. The sampling technique used was total sampling, covering all the existing population.

The study setting was in Ajibarang Sub-district, administratively located in Banyumas Regency, Central Java Province. Ajibarang has an area of about 6,653 Ha and also an altitude of 116-196 meters above sea level. (BPS of Ajibarang, 2020)

According to the records of the Education Office of Banyumas Regency in Ajibarang Sub-district, there are 11 schools located in the Ajibarang District area. The schools are divided into two types, namely SMP (junior high school) and MTs (Islamic junior high school).

In the research process, there were several stages to obtain the results, one of which was collecting data for digital literacy on teachers using a questionnaire. Then, the data of media selection applied document study techniques. After the data was obtained, it was processed utilizing the SPSS application.

RESULTS

The results of this research are based on the data that the researcher has obtained. Then it was processed and tested using simple linear regression analysis techniques. Simple linear regression analysis is one of the methods used to determine how much the value of effect of the digital literacy variable (X) has on the media selection variable (Y). This analysis process did not directly reveal the final result of how much the effect between the two variables, but must go through several stages first. These stages include the following:

- Analysis of Simultaneous Effect between Variables

Based on Table 1 of the F test result, it can be seen that the significance value obtained is $0.016 < 0.05$. The calculated F value obtained is 6.975. Meanwhile, the F table value obtained for the independent variable, with 22 samples and a constant value of 0.05, is 4.35. This shows that the calculated F value ($6.975 > F$ table (4.35)). Thus, there is a significant effect of the

Table 1: F Test Results with ANOVA

The screenshot shows the SPSS ANOVA output for a single factor. The table displays the following data:

Sumber	Jumlah Kuadrat	df	Mean Square	F	Sig.
Between Groups	1.140	1	1.140	6.975	.016
Within Groups	3.540	20	.177		
Total	4.680	21			

Source: Primary and Secondary Data, 2021

digital literacy variable simultaneously on the learning media selection variable.

- Analysis of Partial Effect between Variables

Based on Table 2 (T-test analysis results), it can be seen that the significance value of the digital literacy variable is $0.016 < 0.05$. The calculated T value obtained is 2.641. Meanwhile, the T table value obtained for the independent variable, with 22 samples and a constant value of 0.05, is 2.086. This shows that the value of calculated T ($2.641 > T$ table (2.086)). Therefore, there is a significant effect of the digital literacy variable partially on the learning media selection variable.

- Analysis of Coefficient of Correlation (R) and Coefficient of Determination (R Square)

Based on the results of data analysis in Table 3, it the R and R-Square values are revealed. The R-value in the table is 0.509. In the criteria for the level of the correlation coefficient on relationship strength, it is found that it shows a fairly strong relationship. Similar to the value of the correlation coefficient, the value of the coefficient of determination of these two variables is shown in the R-Square table. From the table, it is known that the value is 0.259 or 25.9%. This value demonstrates that the effect of the digital literacy variable has a contribution of 25.9% to the learning media selection variable, while the remaining 74.1% is influenced by other variables outside the variables used in this research.

- Analysis of the Effect of Digital Literacy on the Selection of Learning Media

Based on Table 4 concerning the simple linear regression analysis result, it can be seen that the constant value (a) is 0.553 and the regression coefficient (b) is 0.119. Thus, the formula for the simple linear regression equation is as follows:

Description:

Y = Media Selection

a = Constant

Table 2: The Results of T Test Analysis

The screenshot shows the SPSS T-test output for a single factor. The table displays the following data:

Sumber	Jumlah Kuadrat	df	Mean Square	F	Sig.
Between Groups	1.140	1	1.140	6.975	.016
Within Groups	3.540	20	.177		
Total	4.680	21			

Source: Primary and Secondary Data, 2021

Table 3: The Result of R and R Square Analysis

The screenshot shows the SPSS Model Summary output. The table displays the following data:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509	.259	.259	.421

Source: Primary and Secondary Data, 2021

Table 4: The Result of Simple Linear Regression Analysis

Source: Primary and Secondary Data, 2021

b = Coefficient of Regression

X = Digital Literacy

So, if it is applied in the formula for a simple linear regression equation, it is:

The results of the equation above can be described or interpreted as follows:

- The constant value in this research is positive with a value of 0.553. Thus, it can be interpreted that the digital literacy variable constantly affects the selection of learning media by 0.553.
- The regression coefficient value in this research is positive with a value of 0.119. Therefore, it can be interpreted that if the literacy value increases by 1%, the value of the selection of learning media will increase by 0.119. That way, the value of the effect of digital literacy variable on media selection will move to the right or positive.

From the results of the above equation, the answers obtained from this research by testing the hypothesis are that H_0 is rejected and H_a is accepted. In other words, there is an effect between digital literacy on the selection of social science teacher learning media.

DISCUSSION

The result of this study indicates that the digital literacy possessed by social science teachers has a significant effect on the selection of learning media in Ajibarang Sub-district. H_0 is rejected and H_a is accepted.

This is in line with research conducted by Mewangi (2020), denoting that digital literacy has a significant effect in various ways. Here, the independent variable used social skills. The result also states that digital literacy has a positive effect on students' social skills showed from the acceptance of group members, giving feedback, and students' courage in asking for help to the teachers, and being able to complete and refute questions given by the teachers.

The recent study is also similar to research done by Susilo (2019) that took learning outcomes as the independent variable. The results show that there is an effect between digital literacy on learning outcomes. Viewed from the direction of the effect, there is also a strong positive influence from both.

Ulandari (2018) conducted research with the same variables regarding the effect of digital literacy. The result is

that there is an effect between digital literacy on plagiarism behavior. This research also goes in line with the result of research on literacy levels that affect the selection of learning media.

Research conducted by Hasanah (2019) also focused on the effect of digital literacy. It points out that students' digital literacy partially affects other variables followed by another result with 14% of digital literacy significance. Thus, this research is also in line with the results obtained from the recent study conducted by the researchers.

Based on similar researches elaborated above, the result of this research indicates that digital literacy does have a positive relationship with the selection of learning media and has a fairly strong effect on the two variables if it is connected with Gilster's theory (1997) for digital literacy and Rohani's theory (2019) for the selection of learning media. Thus, in this study, it is agreed that there is an effect between the theory of digital literacy to enlarge the teachers' knowledge in choosing the right and appropriate learning media with the theory of selecting existing learning media.

CONCLUSION

Based on the results of the analysis above, there is a significant effect between digital literacy on the selection of social science teacher learning media. The results point out that the regression equation is $Y = 0.553 + 0.119X$, with the F calculated result is $6.975 > 3.14$ for F table and T calculated is $2.641 > 2.086$ for T table. Then, it is found that the hypothesis testing result is that H_0 is rejected and H_a is accepted.

REFERENCES

- Adam Steffi, & Syastra Taufik. (2015). Pemanfaatan Media Pembelajaran Berbasis Teknologi Informasi Bagi Siswa Kelas X SMA Ananda Batam. *CBIS Journal*, 3 (2), 78-90
- Al Khazaleh, S. (2021). The effect of digital reading on EFL learners' reading comprehension. *International Journal of Education, Technology and Science*, 1(1), 59-70.
- Arsyad Azhar. (2017). *Media Pembelajaran edisi revisi*. Jakarta : Rajawali Pers.
- Badan Pusat Statistika. (2020). *Kecamatan Ajibarang Dalam Angka Tahun 2020*. Retrieved from www.banyumaskab.bps.go.id on 10 June 2021.
- Dinas Pendidikan Kabupaten Banyumas. (2015). *Data pokok Pendidikan Kabupaten Banyumas*. Retrieved from <http://dapodik.banyumaskab.go.id/pencarian.php?sw=1> on 12 January 2021.
- Gilster Paul. (1997). *Digital Literacy*. USA: Wiley Computer Publishing
- Hasanah, U. U., & Setiaji, K. (2019). Pengaruh Literasi Digital, Efikasi Diri, Lingkungan Terhadap Intensi Berwirausaha Mahasiswa Dalam E-Business. *Economic Education Analysis Journal*, 8(3), 1198-1215.
- Kemendikbud. (2017). *Panduan Gerakan Literasi Nasional*. Jakarta Timur

- Mewangi, A. B. dkk. (2020). Pengaruh Literasi Digital Terhadap Keterampilan Sosial Dalam Pembelajaran IPS pada Peserta Didik Kelas IX SMP Islam Al Azhar 29 Semarang. *journal.unnes.ac.id*. 5(1), 40-46.
- Mısır, H. (2018). Digital literacies and interactive multimedia-enhanced tools for language teaching and learning. *International Online Journal of Education and Teaching*, 5(3), 514-523.
- Rohani, R. (2019). Media pembelajaran. Diklat Kuliah UINSU. repository.uinsu.ac.id
- Susilo, H. (2019). *Pengaruh literasi digital dan literasi informasi keislaman terhadap hasil belajar afektif pendidikan agama Islam peserta didik SMA N 1 Kendal* (Doctoral dissertation, UIN Walisongo).
- Ulandari, D. N. (2018). *Pengaruh Literasi Digital terhadap Perilaku Plagiarisme pada Mahasiswa* (Doctoral dissertation, Universitas Muhammadiyah Jember).
- Yuniani Arnelia, Ardianty D. I., Rahmadani W. A. (2019). Era Revolusi Industri 4.0: Peran Media Sosial Dalam Proses Pembelajaran Fisika di SMA. *Gravitasi*, 2(1), 18-24.