

Students' Digital Literacy Skills Through Blended Learning: A Study in Elementary School

Idah Faridah Laily¹, Misbah Binasdevi²

^{1,2}Institut Agama Islam Negeri Syekh Nurjati Cirebon

idahfaridahlaily82@gmail.com, misbahbdv@syekhnurjati.ac.id

Abstract: This study aims to describe students' digital literacy skills through blended learning. This study used a quantitative approach with an ex post facto model. This study was conducted at MI PGM, MI Salafiyah and MI Darul Hikam with a sample of 80 combined students from the three schools. Data in this study was collected through quantitative techniques in the form of observation, documentation and questionnaires. The data was analyzed using linear regression analysis with the help of SPSS applications. Based on the data obtained, an average of 74.1% of students answered that teachers have implemented blended learning well. In addition, based on the results of a simple linear regression calculation with a significance value of $0.000 < 0.05$, it states that there is an influence of blended learning implementation on students' digital literacy skills.

Keywords: Digital Literacy, Blended Learning

INTRODUCTION

Today the use of technology is one of the abilities that must be owned and developed. The existence of technology today can help a person's unmet needs. These needs include obtaining information and knowledge easily (Ardi et al., 2019; Hidayat et al., 2018), facilitate distance communication and become one of the media that supports the learning process (Zheng et al., 2017). Technology becomes something important that cannot be avoided, such as android technology, tablets, and computers. Everyone has the right to enjoy the technology facilities available, but not everyone can use technology directly without adequate training and knowledge, especially for young people who are not familiar with technology. The introduction of technology to children from an early age aims to train capacity building and utilize digital technology optimally, known as digital literacy (Daharnis et al., 2018; Taufik et al., 2018).

Digital literacy is related to the ability to understand, build new knowledge and information, then utilize it from various digital sources so that children are able to survive and adapt in the digital era (Mohammadyari & Singh, 2015; Prior et al., 2016). This is why experts and policymakers agree that digital literacy needs to be implemented in the education process. Building digital literacy in children with supervision will have a positive impact and become an attractive learning medium for children (Katterfeldt et al., 2016). Digital literacy will facilitate children's ability to acquire knowledge or information and self-development in various aspects such as language, cognitive, social, emotional, physical, motor, moral and religious values. Digital Literacy is an individual's awareness, attitude, and ability to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze, and

synthesize digital resources (Gallardo-Echenique et al., 2015; Ifdil et al., 2018; Rangka et al., 2018)

Of course, this digital literacy ability is very necessary in the era of revolution 4.0. Unfortunately, the literacy ability of students in Indonesia based on the results of the PISA and TIMSS surveys shows that literacy skills are still relatively low (Arikan et al., 2016; Fathonah & Subali, 2020) as it is ranked 74th out of 79 countries participating in PISA and ranked 45th out of 50 countries participating in TIMSS (Hawa & Putra, 2018). Meanwhile, regarding digital literacy, this matter is reinforced by the results of research conducted by the Digital Literacy Activist Network (JAPELIDI) which found that digital literacy skills in schools are still relatively low, which is around 3.68% compared to other institutions (Pratolo & Solikhati, 2021). The weak digital literacy ability of these students becomes a problem if learning is carried out with a full online system. This requires the government to move quickly to prevent failures in the education system in Indonesia during and after the Covid-19 pandemic so that the goals of national education can still be achieved. In the new academic year 2021/2021, the odd semester the government began to relax the online learning policy to limited face-to-face learning activities (Menteri, 2021). Of course, to implement this rule, a suitable learning model is needed to be carried out online and online. The learning model is blended learning (Ferdiansyah et al., 2021).

This blended learning combines two activities, namely face-to-face and online / online. This learning model integrates technology in the learning process. Basically, this blended learning model was designed and implemented in the early 21st century. The application of blended learning in elementary schools can actually be applied if you pay attention to students' habits when surfing the internet (Suhartono, 2017). This shows that Indonesian students have become tech-savvy individuals, but have not received comprehensive guidance conducive to their learning process. On this basis, blended learning is one of the learning model solutions that can be applied in increasing students' digital literacy. There are some previous studies related to the application of blended learning (Dian et al., 2020; Suhartono, 2017) The research discusses how the application of the blended learning model in elementary schools can be implemented. One of the important things is the availability of computers and internet access in schools that must be adequate. The application of blended learning in schools can be done in two ways, namely on-line and off-line. There are also several relevant studies that discuss the effect of blended learning on students' mathematical and science literacy (Lestari, 2020; Safitri, 2021; Saman et al., 2019) The focus of the discussion is on the influence of the application of blended learning on students' mathematical and science literacy. During the COVID-19 pandemic, blended learning became an alternative learning model that could be used by teachers when face-to-face learning was limited (Budiyono, 2020) and able to foster student learning independence in mathematics subjects, this is based on research conducted by Utami (Sufia & Novita Lestari, 2020)

While other studies discuss the analysis of students' digital literacy skills through the application of schoology-based e-learning (Pratama et al., 2019) Which concludes that the application of schoology-based e-learning can train students' digital literacy skills but is still not optimal for digital literacy training. Further research conducted by Lela Rahmah., et al. with

the title “pengembangan media interaktif tema sehat itu penting untuk meningkatkan literasi digital pada kelas V Sekolah Dasar” who succeeded in developing interactive media that was able to increase the digital literacy skills of elementary school students by 38% in three meetings (Rahmah et al., 2021). There is also research that discusses the application of e-learning to improve students' digital literacy skills in the new normal era (Anggrasari, 2020) which concludes that students' literacy skills increase after the implementation of e-learning-based learning.

Unlike some of the studies that have been described before, in this study researchers want to analyze students' digital literacy skills through the application of blended learning. The focus of the study is more emphasized on improving students' digital literacy skills after there is a treatment for the implementation of blended learning, the impact of learning that must be carried out during the pandemic transition period and the current 4.0 revolution era, where there are three things that students must master, namely literacy, skills and character. Based on this background, researchers argue that it is necessary to analyze students' digital literacy skills through blended learning in order to find formulations that can be applied within the scope of Islamic Education as an effort to synergize and support the government's agenda related to improving students' literacy skills.

METHODS

In this research using a quantitative approach with an ex post facto model. The basis for choosing this approach is because it focuses on the consequences of research that centers on fundamental questions in this research and is not just oriented to research methods. This research was conducted at three Madrasah Ibtidaiyah schools in Cirebon City, namely MI PGM, MI Salafiyah and MI Darul Hikam with a total of 80 grade V students.

Data was collected through observation, documentation and questionnaires distributed to 80 grade V students from the four schools. The questionnaire contains a list of statements containing indicators of the implementation of *blended learning* and also indicators of students' digital literacy skills using a *linkert scale* with four answer choices, namely Strongly Agree (S), Agree (S), Disagree (TS), and Strongly Disagree (STS). The total statement for the implementation of *blended learning* is 12 items and students' digital literacy skills are 10 items. After the data was obtained, it will be analyzed using an analysis of simple linear regression was first tested for normality and homogeneity of the data obtained with the help of SPSS version 16 software. The test criterion is H_0 is rejected if the value is significant (2-tailed) < 0.05 , whereas if the value is significant (2-tailed) > 0.05 then H_0 is accepted.

RESULT AND DISCUSSION

This research was conducted in class V at three Madrasah Ibtidaiyah schools in Cirebon City, namely MI PGM, MI Salafiyah and MI Darul Hikam. The research was carried out on June 28, 2022 starting from the delivery or submission of research permits to schools until the implementation of research until August 10, 2022 with the research subjects, namely and

students of class V MI PGM, MI Salafiyah and MI Darul Hikam. There are six indicators that become a reference or basis for data collection related to the implementation of blended learning to improve students' digital literacy skills in the post-COVID-19 pandemic period. The six indicators are 1) determine the type and material of teaching materials, 2) determine the blended learning design used, 3) determine the online learning format, 4) test the design made, 5) organize blended learning well, and 6) prepare criteria for evaluating the implementation of blended learning.

Data was obtained through observations of several schools that apply blended learning through several sources both websites, informants and seeing directly at the school. The questionnaire was distributed to grade V students to find out digital literacy skills and the application of blended learning. Then at the documentation stage, researchers collect documents related to the implementation of blended learning as reinforcement of observation data and questionnaires.

Based on the observational findings, it was found that each school, especially in high grades, in this case class V has implemented blended learning even though its application only began during the pandemic until after the Covid-19 pandemic. This can be seen from the planning, implementation and assessment described in several activities, namely 1) determining the type and material of teaching materials, 2) determining the blended learning design used, 3) determining the online learning format, 4) testing the design made, 5) organizing blended learning well, and 6) preparing criteria for evaluating the implementation of blended learning carried out in the implementation of blended learning in class V The post-Covid 19 pandemic period with one of the goals is to increase students' digital literacy.

In order to determine the effect of blended learning on digital literacy skills, the questionnaire data distributed to students was then analyzed with a simple linear regression formula using the help of SPSS software. The hypothesis of this study is that if the significance value < 0.05 , then there is an influence of blended learning on improving students' digital literacy skills. Based on the results of the questionnaire, it is known that the average percentage of student responses related to the implementation of blended learning is in the good category with the percentage number above 55% as illustrated in the following graph:

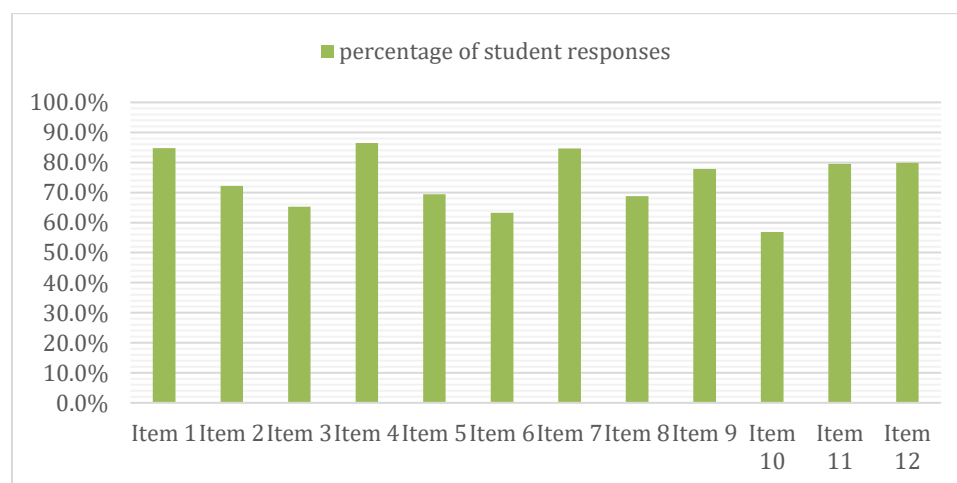


Figure 1. Student responses related to the implementation of blended learning

Meanwhile, the percentage of student questionnaires related to digital literacy skills is in the good category with an average percentage above 70%. As illustrated in the graph below:

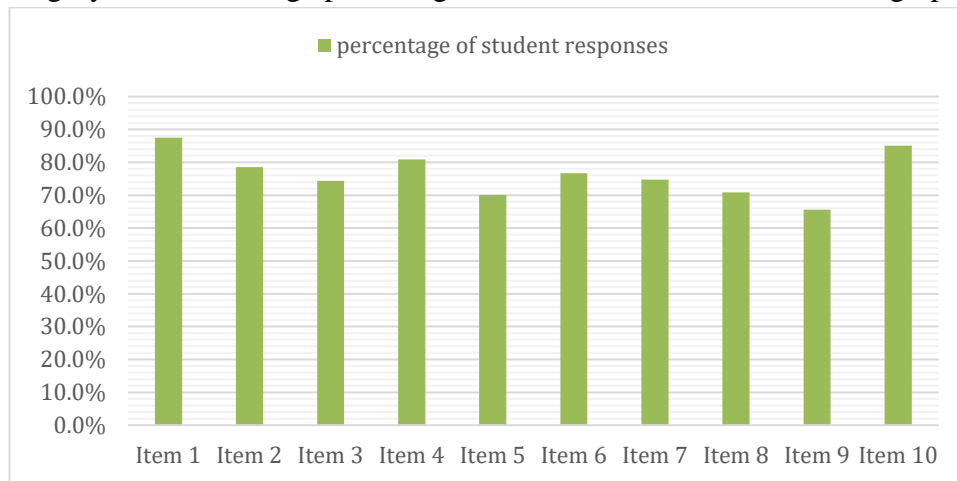


Figure 2. Student responses to digital literacy skills

Furthermore, the data from simple linear regression analysis of students' digital literacy skills through blended learning were presented based on questionnaire data as follows:

Table 1. Simple linear regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	(Constant)	14.495	2.696		
Blended Learning	.452	.075	.585	6.041	.000

a. Dependent Variable: Literasi Digital

Based on table 1, it is known that the significance value is at 0.000 which means less than 0.05 ($0.000 < 0.05$), and the B unstandardized coefficients value is positive 0.452 which means that blended learning has a significant positive influence on improving students' digital literacy skills. This means that blended learning can be a recommendation for schools, especially teachers, in overcoming students' low digital literacy. The government and everything related to building education in Indonesia are trying to improve this by intensively socializing to schools to continue to improve students' literacy skills. Literacy in this case includes reading literacy, numeracy literacy, science literacy and digital literacy (Binasdevi et al., 2022; Effendi et al., 2021; Kaeophanuek et al., 2018). Efforts to improve students' literacy skills in Indonesia are increasingly important during the covid 19 pandemic, this is because during the covid 19 pandemic learning is carried out online (in the network) so that it demands all elements of digital literacy education. Many things can be done to support the improvement of students' digital

literacy skills both by selecting the digital media used (Ningsih et al., 2021) and the selection of learning models to be used, one of which is the use of blended learning (Rachmadtullah et al., 2020).

Increasing digital literacy skills is certainly inseparable from the role of teachers in cultivating active, creative and fun learning. During the COVID-19 pandemic, teachers are required to be smart in packaging learning to achieve the expected goals even though they are hindered by the pandemic. MI PGM, MI Salafiyah and MI Darul Hikam use a blended learning model as a solution to these problems. This is also said by Wardani, et al (2018) that blended learning has its own appeal to be used in the 21st century and the current 4.0 revolution era. Although blended learning is still new to teachers, all efforts are made to benefit students and achieve learning goals as well.

CONCLUSION

Through this study, it was found that the application of a problem based learning model that is oriented towards environmental literacy, will be able to improve students' narrative writing skills, especially those related to environmental problems. Not only improve writing skills but also improve students' ability to solve problems, and think critically about students' ability to work together in groups to solve a problem. This means that educators in elementary schools, especially in Indonesia, can apply the problem based learning model as a way to overcome problems related to critical thinking skills, problem solving, writing, reading, and low learning outcomes.

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