

EFFECTIVENESS OF USING EDMODO IN ISLAMIC RELIGIOUS LEARNING ON INCREASING STUDENT DIGITAL LITERACY

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Abstract: *This study aims to describe the effect of using Edmodo on Islamic religious learning on increasing student digital literacy. This research is a quasi-experimental research, with a pretest-posttest design with nonequivalent groups. The pretest and posttest are used to measure students' initial and final digital literacy skills before and after Islamic learning activities. The research was conducted on students in the first semester of the Islamic Religious Education course at the University of PGRI Madiun. The research population consisted of 300 students in the fourth semester of the 2021/2022 academic. While the research sample consisted of 60 students consisting of class A and class B. The sample selection was done randomly. Class A is the experimental class, while class B is the control class. The results of the study show that the use of Edmodo in Islamic religious learning is more effective than the use of power point to improve students' digital literacy skills in Islamic cultural history material. It is evident from the results of the t-test with a significance of 0.000 in the experimental group showing that the use of Edmodo has a positive and significant effect on students' digital literacy in Islamic learning.*

Keywords: *Edmodo, Islamic Religious Studies, Digital Literacy.*

Introduction

The development of information technology is part of the emergence of the digital revolution era in Indonesia. Very rapid developments are able to have a major influence and dominate all sectors of people's lives, including in the world of education. Digital media can present contextually, audio and visual learning materials in an interesting and interactive manner. Digital technology has spread to all levels of society but some people have not been able to use the technology

properly (Carolus et al., 2023). Inappropriate use of digital technology can have an adverse effect on the continuity of individual and social life. People who are not prepared to apply information technology and who are not literate about the information carried by the media cause various problems such as physical and psychological problems.

For students who are not wise about digital media, it can lead to consumptive actions such as addiction to playing games both online and offline, social media without time limits, accessing pornographic sites and other information that is not useful. Therefore digital literacy should be expanded so that it can educate the personality of the nation, historical and cultural context, sharing and creation, information and data, tools and systems are dimensions of digital literacy (Nedeljko et al., 2022). Through knowledge of the dimensions described above, material content and digital literacy learning procedures can be expanded both inside and outside of school. Every individual needs to understand that digital literacy is important and much needed to be able to participate in today's modern world (Wardana et al., 2023).

Islamic Religious Education is the most important component in the overall education and learning system at the tertiary level. Islamic religious learning determines student success, especially in relation to the formation of personality and noble character and the achievement of learning objectives. Islamic religious learning as an activity to present material contained in Islamic Religious Education courses (Akrim, 2020). Islamic religious learning as a basic target to instill a good personality for students as a provision for future life to be ready to compete in the digital transformation era. Islamic religious learning is presented to instill noble morals for students. The implementation of Islamic religious learning must certainly create an environment that supports the learning process so that students have a good learning process.

Learning activities in the 21st century demand learning designs that are carried out by adjusting to the development of globalization. The flow of globalization demands that everything is carried out on a digital basis (Nurrohma & Adistana, 2021). Including the development of the world of education must also be carried out on a digital basis. Learning activities are one of the most important parts of education. Islamic religious learning activities must also be carried out on a digital basis to support students' needs in order to have high literacy in the digital field to adapt to existing developments (Tambak, 2021). The success of learning activities carried out on a digital basis depends on the ability of students to be digitally literate. Meanwhile, students' digital literacy skills are strongly influenced by the use of digital technology in learning.

The use of digital technology in learning is a very important element in the learning process. The use of digital technology in learning is carried out to foster students' digital technology literacy skills and create classroom situations and conditions to eliminate various obstacles that can hinder the realization of interaction between lecturers and students in teaching and learning activities during lectures (Purnama et al., 2021). The use of digital technology in teaching and learning activities can support the achievement of a conducive Islamic religious learning climate so that learning objectives can be achieved optimally.

Based on the results of the pre-survey in the even semester of the 2020/2021 academic year in the Islamic Religious Education course at the PGRI Madiun University, it shows that learning is carried out in a *teacher center manner*. Learning activities carried out in the form of *techer centers* make students passive and only as recipients of material. Lecturers present material using simple technology, namely *power point*. If lecture activities are not possible to present presentation slides with *power point* then lecture activities are carried out with lectures. Students do not have the motivation to improve their digital literacy skills. Lecturers rarely give assignments to students to develop their digital literacy skills. Digital literacy is able to make it easier for students to gain knowledge and understanding of Islamic Religious Education courses on Islamic cultural history material. Students will be encouraged to continue to develop their abilities in obtaining new knowledge more broadly (Zaman, 2020).

The development of technology and communication which is very broad can make it easier for students to obtain information and knowledge. The internet provides services in facilitating access to various existing information. Internet users in Indonesia reached 143.26 million or around 54.7 percent in 2017 of the total population of Indonesia. This figure is very large for a developing country like Indonesia. However, not all of these figures are used for learning activities. The most widely used use of the internet is in social media and online games. As for learning activities are still very rarely done. Based on these problems, a service is needed that can accommodate learning activities to improve students' abilities to understand and carry out

learning activities with internet-based digital services called the Learning Management System (Beck et al., 2021).

One of the *Learning Management Systems* that is used by utilizing the internet to access various materials and knowledge in Islamic religious learning is Edmodo. Edmodo is a technology used in learning that functions as a *Learning Management System* (Balasubramanian et al., 2014). Edmodo as a form of classroom management implemented digitally. Edmodo provides facilities in Islamic religious learning activities as a place to upload and is able to load various kinds of material and learning activities during lectures (Kongchan, 2018). Edmodo as an electronic learning that is able to increase students' digital literacy in learning Islamic religion. Edmodo is able to present Islamic religious learning which is very effective compared to conventional learning. Learning carried out using Edmodo as a *Learning Management System* is thought to have better results than learning carried out using *Power Point* in Islamic learning (Enriquez, 2014). Edmodo can improve students' digital literacy skills in learning Islamic Religion on the history of Islamic culture.

Literature Review

Edmodo as one of the leading *Learning Management Systems* in the world. In 2013 *PC Magazine* named it the best app for teachers. Edmodo can engage users of more than 52.52% of the United States population in April 2020. Edmodo is a *cloud* -based *platform* . Edmodo is useful for facilitating students and educators in carrying out interactive learning activities *online* (Nurrohma & Adistana, 2021). Parents can also see their child's development through this *platform service* .

Edmodo provides various services including *lesson delivery, quizzes and assignments, libraries, Edmodo snapshots, gradebooks, award badges, polls, and parenting. code* . Edmodo can provide a very attractive appearance resembling social media specifically used in learning activities. Edmodo also integrates *Ms. Office* with a variety of *Google applications* for learning (Thongmak, 2013). This *platform* can provide services for free, but also provides a premium package for schools. Even though it provides a concept like social media, Edmodo provides services in managing classes with *private group services*.

Edmodo as a *platform* that contains various kinds of social media that can provide several facilities including a service for sharing files with various activity agendas and assignments by forming interactions between teachers and students (Purnawarman et al., 2016). The interaction between lecturers and students through digital world services is able to improve students' digital literacy abilities. Edmodo provides services so that students get various kinds of information on lecture material knowledge and develop skills in dealing with the digital world which in turn has a positive impact on students' digital literacy abilities.

Digital literacy is a person's ability to understand and utilize information through various digital information (Lilian, 2022). Digital literacy is the ability to efficiently manage and utilize information and communication technology originating from digital sources in academics, offices, or in other forms of public services. In this study focused on the academic field, especially in the field of learning (Ali et al., 2023). Digital literacy is an individual's ability to find and utilize information in the form of text, audio, audio-visual, visual, and animation based on digital sources. Digital literacy is a form of activity in utilizing digital technology devices in obtaining information and utilizing information obtained through digital devices (Ali et al.,

2023). Digital literacy requires an individual's ability to understand, analyze, and provide an assessment of the information he gets and carry out evaluation activities on obtaining this information.

Digital literacy plays a role in developing forms of relationships and communication processes in learning activities (Carolus et al., 2023). This capability is used to take advantage of various camera and microphone features on the device to present activities in virtual form. Individual ability to take advantage of various forms of software in presenting text and various forms of visual images that play a role in maximizing collaborative activities and interaction processes in learning activities. This activity is supported by e-mail services, online worksheets and spreadsheets, as well as services for uploading files in various software. Digital literacy skills have a role in honing skills in obtaining various kinds of quality learning resources.

Digital literacy competence has a very significant influence on learning activities carried out through digital forums, one of which is learning carried out with Edmodo. Individuals acquire digital literacy skills through a process that involves various aspects (Husna & Thohir, 2020). The formation of an individual's digital literacy skills is carried out by linking computer literacy and communication literacy. Digital literacy according to Bawden is formed based on four components which include literacy, a person's level of ability to understand information, a person's skills in managing information and communication technology, as well as a person's perspective in thinking and attitudes in understanding and using information.

Islamic religious learning is an effort to make student able to learn, need to learn, motivated to learn, willing to learn, and interested in continuing to study Islam (Zaman, 2020). The activity of studying the Islamic religion is carried out for the benefit of knowing how to have the right religion and studying islam as knowledge which result in some relatively permanent changes in one's behavior both in cognitive affective and psychomotor (Setiawan, 2019). Islamic religious learning is carried out foster religious people so that they are able to carry out the teachings of the Islamic religion properly and perfectly to achieve the glory of the world and the hereafter (Asiah et al., 2020).

Method

This study uses a quantitative approach. The quantitative approach is an approach that contains all the data obtained is summarized, analyzed and processed statistically. This research is a form of quasi-experimental research (Cresswel, 2017). Quasi-experimental research is a form of obtaining information as an estimate for information obtained in the form of an actual experiment under conditions that do not allow controlling or manipulating all relevant variables. Quasi-experimental research is based on practical and ethical (ethical) reasons. Sometimes it is not possible to place subjects into groups. In this study, there were two groups of students, namely one group of students who were given learning treatment using Edmodo as the experimental group, and one group of students who were given power point treatment as the control group. When the research was carried out in semester IV of the 2021/2022 school year. The research started on March 3 to March 29 2022 in 4 meetings. The research was conducted at PGRI Madiun University involving one class, namely class IV A as the experimental group and one class, namely IV B as the control group.

The population of this study were fourth semester students for the 2021/2022 academic year who were taking Islamic Religious Education courses with a total of 300 students divided into 10 classes. The sampling technique was carried out by random sampling or random. The steps for

determining the sample are to determine two classes out of the 10 classes. Based on random sampling, class IVA was obtained as an experimental class with a total of 30 students, while class IVB was a control class with a total of 30 students, , while class IVB was a control class with a total of 30 students. This research *uses pretest posttest with nonequivalent groups* . Research design by giving a pretest before learning and posttest after learning in each group. This design is more robust because a pretest is carried out to build equivalence between groups.

Data analysis techniques regarding digital literacy skills use descriptive and inferential analysis. Descriptive analysis is used to describe students’ conditions of digital literacy skills before and after learning in the experimental class and the control class. Descriptive analysis calculations were carried out with the help of SPSS 25.00 *for windows* . While inferential analysis is used to test hypotheses regarding the effectiveness of using Edmodo in the experimental class and power point in the control class. Testing the effectiveness is used *t-test*. Before the test is carried out, assumptions are made as the basis for independent t testing, the assumption test in question is the normality test and homogeneity test. The normality test was carried out to find out whether the data for each research variable being analyzed forms a normal distribution or not. The normality test uses the Kolmogorof-Smirnov method. While the homogeneity test is used to determine whether the variance of the samples to be compared is homogeneous or not. In this study, the homogeneity test used the Levene test. Inferential analysis calculations were also performed with the help of SPSS 25.00 for windows .

Result and Discussion

Description of Research Results

The results of the descriptive analysis of digital literacy in Islamic religious subjects using Edmodo in the experimental class and power point in the control class are shown in Table 1. Table 1 shows that there are differences in digital literacy abilities in the experimental class and the control class with very high, high, medium, low, and very low before and after learning.

Table 1. Digital Literacy Frequency Distribution

No	Criteria	Experiment				Control			
		Beginning		Ending		Beginning		Ending	
		F	%	F	%	F	%	F	%
1	Very high			30	100				
2	Tall							8	26,7
3	Currently	23	76,7			18	60	20	66,6
4	Low	7	23,3			9	30	2	6,7
5	Very low					3	10		
	Amount	30	100	30	100	30	100	30	100

Based on Table 1, it shows that before learning in the experimental class in Islamic religious learning using Edmodo there were 23 students who had digital literacy skills in the medium criteria with a percentage of 76.7%, and there were 7 students with low criteria with a percentage of 23.3%. After learning using Edmodo in the experimental class, there were 30 students who got digital literacy skills in the very high category with a percentage of 100%. Whereas in the control class before learning with power point there were 3 students who got very low criteria with a percentage of 10%, 9 students with low criteria with a percentage of 30%, and 18 students with medium criteria with a percentage of 60%. After studying Islam in the control class with power point, there were 2 students with low criteria with a percentage of 6.7%, 20 students with medium criteria with a percentage of 66.6%, and 8 students with high criteria with a percentage

of 26.7%. Differences in digital literacy abilities in the experimental and control classes can be explained in Figure 1.

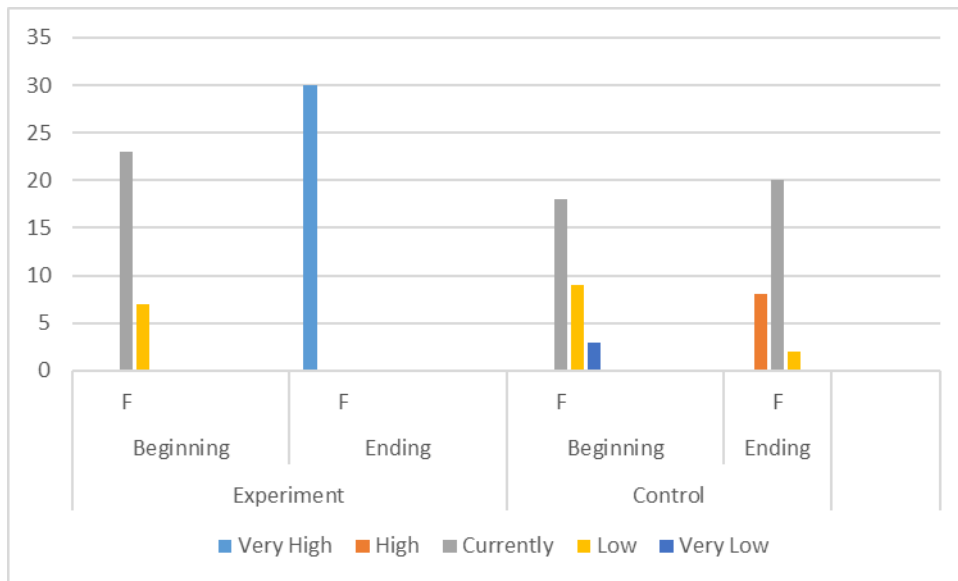


Figure 1. Digital Literacy Frequency Distribution

Based on Graph 1, it shows that there is a significant difference in digital literacy in the experimental class before and after learning with Edmodo. Before learning there were some students who got low and medium criteria, but after learning all students in one class got very high criteria. Whereas in the control class before and after learning using power point did not show a significant difference.

Inferential Statistical Requirements Test

Before the inferential analysis is carried out, it is necessary to test the requirements which include the normality test and the variance homogeneity test of each sample. The normality test was carried out to find out whether the data for each research variable to be analyzed formed a normal distribution or not. The results of the normality test analysis are presented in Table 2.

Table 2. Data Normality calculation results

No	Aspect			Criteria
		Experiment	Control	
1	Early digital literacy skills	0.9 28	0.3 65	Normal distribution
2	Final digital literacy skills	0.1 86	0.1 46	Normal distribution

Based on the SPSS output results presented in Table 2 , the Asymp value is obtained. Sig. (2-tailed) with the normality test for initial digital literacy skills (pretest) for both the experimental and control groups with the Kolmogorof-Smirnov mass calculations respectively 0.9 28 , and 0.3 65 . The two values are greater than $\alpha = 0.05$ so that Ho is accepted, namely data on students' digital literacy abilities are normally distributed. While the results per calculation with Kolmogorov-Smirnov for final digital literacy skills (posttest) in the experimental and control groups were 0.1 86 and 0.1 46 respectively . The two values are greater than $\alpha = 0.05$ so that Ho is accepted, that is, the data on students ' final digital literacy abilities are normally distributed.

The homogeneity test of variance is used to determine whether the samples taken from the population to be compared have the same variance or not to show significant differences from each other. The results of the homogeneity test of digital literacy skills can be presented in Table 3.

Table 3. Digital Literacy Homogeneity Test

Variable	Class	Significance	A	Results	Information
Digital literacy based on control group	Experiment	0.683	0.05	Sig > α	Homogeneous

Based on Table 3 it is known that the significance value of the student digital literacy variable after learning in the experimental group based on the control group has a significance value greater than $\alpha = 0.05$. This value indicates that H_0 is accepted, namely the sample variance is homogeneous. The results of the analysis indicate that the variance used fulfills the assumptions required to use the planned statistical method.

Hypothesis testing

Decision making and drawing conclusions on hypothesis testing is done with a significance level of 5% (0.05). The criterion used is that H_0 is rejected if $\text{sig} < 0.05$. The results of the *independent t analysis* with the help of SPSS 17.0 for windows are presented in Table 4.

Table 4. Independent analysis results t

Measured variable	Group Average		Sig	Information
	Control	Experiment		
digital literacy	54,39	87.52	0.000	H_0 was rejected

Based on Table 4, the score after learning digital literacy in Islamic learning using Edmodo in the experimental group and using power point in the control group obtained a t-test value (-24.426). The average digital literacy score after learning Islam using Edmodo in the experimental group was 87.52. The average digital literacy score after learning Islam using power point in the control group was 54.39. The acquisition of a significance value of 0.000 is less than 0.05. The data analysis shows that H_0 is rejected and H_a is accepted. So there is a positive and significant influence on the use of Edmodo in learning Islam at the PGRI Madiun University. The use of Edmodo in learning Islamic religion is more effective when compared to the use of power point.

Discussion

Based on the t test, a sig value of $0.000 < \alpha$ was obtained. This means that there are differences in the effectiveness of learning using Edmodo and Power Point on digital literacy. An interesting and fun atmosphere in the digital world with Edmodo is able to increase student digital literacy. Learning with Edmodo in Islamic Religious Education can make students independent learners and able to collaborate and learn in their world. The learning system will be built in an innovative, creative, effective, and fun way that can make students able to adapt between Islamic Religious Education material, the learning process, and the learning climate.

Edmodo facilitates students to be able to download Islamic religious learning materials anytime and anywhere. Students can ask the lecturer about the source of the material they get from the

internet directly via Edmodo. Lecturers can also give assignments along with submission deadlines to students through the Assignant feature. Students are able to submit their assignments independently directly by uploading it in this feature before the deadline determined by the lecturer.

Edmodo is an application that can be used to support *online learning* or *blended learning*. Teachers can send materials and student assignments without any interruption of advertisements, games and others. By using the Edmodo application, students can do assignments from home and also discuss directly with other friends about learning Islamic religion, material on the history of Islamic culture (Husna & Thohir, 2020). The use of the Edmodo application in Islamic religious learning has a positive impact on digital literacy in. This is based on the data previously described. Digital literacy is the ability to understand and use information in various forms from a very wide variety of sources which are accessed via computer devices. Digital literacy indicators are information literacy, digital scholarships, learning skills, privacy management and communication and collaboration. These indicators appear in the learning process of Islamic religion.

Edmodo facilitates students to be able to interact with lecturers via the internet, where lecturers can provide learning to students without meeting face to face in class. This can shorten the lecturer 's time in providing learning materials to students. In addition, students also indirectly gain new knowledge about the world of computers which is very useful in today's era, which all uses online systems in all aspects of the field. Using Edmodo is able to make students active in learning through accounts that students have. Lecturers upload learning material on the Edmodo account, then students will download the material that the lecturer uploaded. If you don't understand the material, you can ask questions via the comments column provided in the Edmodo account.

Learning activities presented by lecturers through the use of Edmodo provide an increase in students' digital literacy abilities in Islamic learning. Through Edmodo the level of ability to understand information in the form of Islamic religious learning materials increased quite significantly. Students are able to develop the ability to read, write, and understand Islamic learning material through the Edmodo platform provided by lecturers with a digital system as their database.

Conclusion

Based on the results of the t test, a significance of 0.000 was obtained, which meant that there were differences in the effectiveness of using Edmodo and Power Point to improve students' digital literacy skills in learning Islam. Islamic religious learning using Edmodo is able to provide a significant increase in digital literacy of students at the PGRI Madiun University compared to the use of power point.

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