Media for History Learning in The Digital Era

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ABSTRACT

Background: In the information age and today's digital age, educators play an important role in shaping good character. Educators have excellent opportunities to develop professional competencies that can be enhanced, one of which is the ability to technically and creatively create innovative learning designs that facilitate educators' ability to optimize students' abilities.

Contribution: The contribution of this research is to raise awareness among educators in the digital arena of what is required to develop innovative and creative History learning media. Other matters related to educators' confidence in leveraging technology in History learning also need to be optimized.

Method: Synthesis method. Researcher synthesized information naturally to help others see connections between things.

Results: The t-test result indicated that the post-test scores were significantly higher for the experimental group (M = 41.71, SD = 2.14) than for the control group (M = 20.41, SD = 4.3), t = 4.130, p < .001. In other words, there was a significant difference in the mean post-test results between the experimental and control groups. As such, Edmodo can positively impact the academic performance of higher education students. When being applied to the experimental and control methods, the ratio was 2.62, which was greater than the reference value (1.2). This showed that Edmodo effectively improved students' study skills and knowledge.

Conclusion: The impact of this result can be explained by the fact that Edmodo increased the use of collaborative e-learning in the experimental group to keep students informed. A good website provides students with high-quality information, creativity, participatory activities and collaboration in a category called Social Networking and Communication. The application of digital literacy by utilizing media in History learning can be done by utilizing the existing facilities at Edmodo.

INTRODUCTION

In today's information age and digital age, educators play an important role in shaping a good personality. Educators have a good opportunity to develop professional competencies that can be enhanced, one of which is the ability of technology and creativity to create innovative learning designs that facilitate the ability of educators to optimize student abilities. In the digital realm, educators need to develop innovative and creative learning media. Other matters related to educators' confidence in learning with technology also need to be optimized. Competencies related to educators' knowledge, attitudes, and skills in integrating technology to facilitate learning are required. This is in line with the 2013 course which focuses on communication processes, collaboration, critical thinking skills and creativity in today's digital era. Therefore, learning media plays an important role in the learning process especially in the learning of history [1].

History learning extends as a basic understanding of history, which involves time, continuity, and change. Indonesia's national history is a basic source of knowledge about the content of history [2]. However, this cannot be achieved without using always up-to-date media to support the learning of history. Media are all forms and channels used to convey information in general or information in the learning process. Learning media is a tool that can be used to help learning success. It has a great influence on the learning process, so the use of learning media should be based on the selection of appropriate learning objectives. Therefore, when the learning media is selected and prepared properly, the purpose of learning is achieved. Thus, learning goals can be achieved if schools provide learning media [3].

The availability of learning media in schools is often still limited especially for historical studies. The media used are generally only power point and student handbooks. This does not meet the requirements of the field of 21st century education which requires learning activities to have 4 characters (4Cs) namely: Communication, Collaboration, Critical Thinking, Creativity and Innovation [4]. Hence, it is necessary to develop media that can accommodate four characters in a learning activity, namely using Edmodo to develop learning media.

Edmodo is one of the social media platforms often referred to as Facebook for schools. Edmodo is a simple mobile learning device for learning materials or content that is typically handled with a smartphone, allowing students and educators to interact online anytime, anywhere. American Association of School Librarians mentions Edmodo as one of the 25 best websites for providing students with high-quality information, creativity, participatory activities and a collaborative program called "social networking and communication" Category. Edmodo can be used not only on computers, but also via smartphones, making mobile learning [5] [6].

The main toola of learning before the 20th century were educators, blackboards, and textbooks. Learning tools are often referred to as learning media. But over time, it has evolved. Implicitly it is stated that learning media are tools used physically to deliver the content of learning materials, including books, tape recorders, cameras, tapes, video recorders, movies, TV, slideshows (frames), photos, graphics and computers [6]. This study gap is how embedded social media platforms in media learning make an impact on students' History learning. The research objective is to identify the transition from face-to-face to online learning. It is to recommend tools for online learning and to alternate quality standards and instructions for different methods of teaching and learning History with Edmodo.

Why does it have to be Edmodo, instead of others? Edmodo is an academic communication application which functions through an effective content management system and integrated learning. Edmodo is free and secure, and it serves teachers, students, and parents. It provides a safe and convenient way for users to connect, collaborate, exchange ideas and share

educational content. Teachers can use their online accounts to deliver lessons to students. The Edmodo Network offers three types of accounts (for teachers, students, and parents) that each relevant stakeholder group uses to meet their needs in their area of interest [27]. The network allows for the use of flipped classrooms, a teaching model designed to take full advantage of advanced technologies such as the Internet. By using this model, teachers plan lessons for students that include video and audio files and other resources. In flipped learning, students study material at home (or anywhere) from a computer, smartphone, or tablet; they then take a course, in which they engage in discussions, projects, and exercises in lectures [28].

METHOD

This research implements literature review, which includes new insights into the quality of action and scientific papers. The literature review activity consists of four steps: 1) developing questions; 2) searching the literature; 3) evaluating the data; 4) analyzing and interpreting. All steps are performed in stages. Analytical techniques are performed in the following ways: 1) Compare (find the equation); 2) Contrast (discovering inequality); 3) Criticism (giving opinions); 4) Synthesis (comparative); 5) Summary. Synthesizing just means combining. Instead of summarizing the main points from each source at once, gathering ideas and findings from multiple sources are conducted to make a whole point. The research gap is how media for history learning in the digital era combines traditional and modern approaches to make education more holistic and dynamic for students. In online media learning or in preparation for mobile learning, students learn concepts and theories virtually or via the Internet. At the most basic level, this involves finding similarities and differences between searched sources. The statistical tests were done to analyze the data performed by H Khoirunnisa [1] on learning history in the digital age, and use of learning media as shown in figure 1 & figure 2. The t-tests were done to analyze the data performed by Abdullah & Imam [26] on the use of Edmodo and its impact on learning and students' attitudes toward it.

RESULTS AND DISCUSSION

The choice of learning media requires the development of a learning plan to achieve the intended learning goals. This is consistent with Mariko [7], who points out that the choice of learning media as educational preparation plays an important role in the learning process. It is important to consider learning media, even when it involves institutional interests that affect the achievement of learning objectives, and [8] Holden and Westfall also suggest that media selection is a critical part of the instructional system design process. Learning objectives can be achieved by selecting media to provide well-distributed learning media.

Therefore, in this study, the multimedia learning medium was selected using software because the medium is a system that can be learned using various types of learning materials that form a systematic and practical unit or package which is also a kind of use of mobile devices. With that being said, the learning media used is the learning media using Edmodo.Studying history in school aims to equip students with the ability to think and understand history historically. Through the study of history, students are expected to develop the ability to think in chronological order and to acquire knowledge of the past that can be used to understand and explain the processes of development and change in society and sociocultural diversity in order to discover and foster a sense of national identity in the life of the international community. History studies are also designed to expose students to the diversity of life experiences and perspectives in each community. More specific historical research is [9] to encourage students

to think critically, using past knowledge to understand present and future life; to learn about history as part of everyday life; to develop intelligence and skills to understand the processes of social change and sustainability.

The aim of History subject in the 2013 curriculum is to equip students with the competencies [6] to develop students' awareness of being part of the Indonesian nation, with pride and love for their homeland, and to develop empathy and tolerance behaviors that can be applied in all areas of community and national life; to develop students' understanding of themselves, society, and the process of formation of the Indonesian nation, which has gone through a long history and continues to the present and the future; to develop behavior based on values and morals that reflect self, social and national character; to develop students' awareness of the importance of time and place/space concepts to understand the change and sustainability of Indonesian society and national life; to increase students' appreciation of historical heritage as evidence of past Indonesian civilization; to develop historical thinking skills that are essential for logical, creative, inspiring and innovative thinking skills; to develop an attitude towards the present and the future.

The goals of middle school history learning are as follows: providing an understanding of the stages of social development in different centuries; cultivating respect for the various cultural and ethnic components of the achievements of society; developing a critical awareness of the past to free students from irrational prejudice and fanaticism, narrow-mindedness and racism, and enlighten them with scientific thinking and future orientation; respecting their culture, wealth, and diversity; developing the ability to study contemporary social issues from a historical perspective; promoting the overall study of the development history of human civilization; instilling an understanding of the process of change; developing awareness of and actively participating in the importance of preserving historic monuments.

Attitude becomes the most important object of historical research. Aspects of this approach include: (1) the perception of time affects the assessment of time, starting with understanding the causal relationship between the cause of a situation and its current consequences and how to act in the future; (2) critical attitude is a comprehensive understanding of past events that shaped the nation's cultural personality; (3) attitude towards the historical legacy of past people's struggles; (4) pride in being the Indonesian nation and can achieve in various fields; (5) historical identity. Same Empathy; the climax of historical research is the birth of empathy. History teaching aims to understand and appreciate past life and apply it to present life [10].

The role of studying history is to help students understand the process of social change and development; develop historical perspectives and understandings to discover, understand and interpret emerging national identities in the past, present and future, based on the elements of globalization of the world. These changes ultimately shape a nation's identity and may affect our efforts and behaviors now and in the future.

Edmodo

Edmodo is an independent social learning platform for students and parents. Edmodo provides a safe and simple way for educators and students to exchange ideas, share content or information, and access learning activities. Edmodo is often referred to as the school's facebook. Al-Said suggested that Edmodo is a simple mobile learning device for learning materials or content that is usually processed with a smartphone, a tool for students and teachers to interact online anytime, anywhere [11].

Edmodo is one of several Social Learning Networks (SLNs) circulating around the world. The selection of Edmodo learning media is based on the existence of the Learning Management

System (LMS) as its predecessor. An LMS is an application used to manage learning, deliver content (Content Delivery System), and track online activities, such as ensuring attendance in virtual classrooms, ensuring assignment collection time, and tracking student grade results. LMS is a software that has been widely used and proven reliable in implementing e-learning systems [12]. Edmodo Features is committed to support learning activities. Edmodo classifies features based on users (i.e. teachers and students).

Teachers use assignments to provide assignments to students online. This feature comes with due dates and attachments, so students can submit work directly to the teacher as a file. Files and Links; in this feature, teachers and students can send messages by attaching files and links to class groups, students, or other teachers. Attachments are used for all types of extensions such as .doc, .pdf, .ppt, .xls, etc. Quizzes are used to provide assessments in the form of online multiple choice, short entries, and descriptive questions. The quiz can only be done by teachers and only by students. In this function, it is equipped with the work deadline, information about the quiz to be taken, the title of the quiz and the display of the quiz. For multiple-choice and short-term questions, the score calculation for each quiz item is done automatically, while the question's score needs to be checked by the teacher first.

Voting can only be shared by teachers and students. Often, teachers use polls to find out how students are reacting to certain things related to the curriculum. The following is a survey review of students' responses to the logical function of the material before being given a study. The Gradebook feature serves as a record of student grades. Assignments can be done by teachers and can be filled out manually or automatically. The library is used as a repository for various learning resources with different content. With the library feature, teachers can upload teaching materials, presentations, reference resources, images, videos, audio, and other digital content. Links and files contained in the library can be shared with students and groups. Students can also add content shared by teachers to the library.

Medals; this feature is used to award students and groups. The award can be decided by the teacher himself, so as it does not hinder the creativity of the teacher awarding. Parent Code; this feature provides each student's parent/guardian the opportunity to participate in monitoring their learning activities and daughter's grades, and teachers must access a code for parents to share with each parent/guardian by clicking on the class name to get the access code for the student's parent.
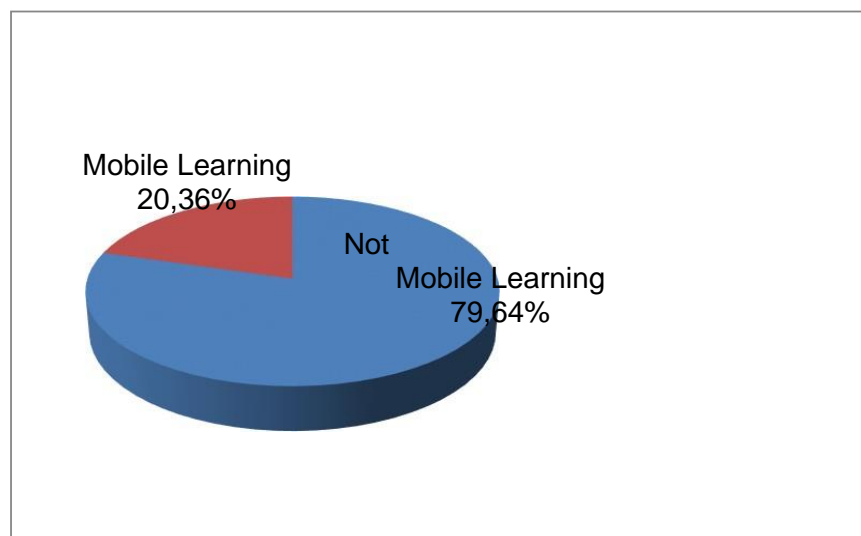
(Source: Khoirunnisa, 2019)

Figure 1. Use of Learning Media.
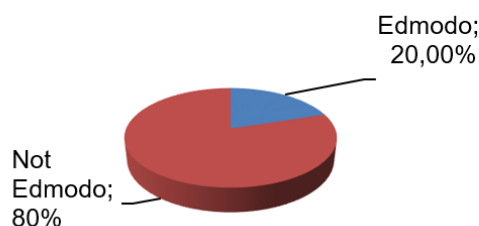
(Source: Khoirunnisa, 2019)

Figure 2. Edmodo Usage For Learning History In The Digital Age.

Figue 1 shows that results of a questionnaire distributed to educators shows that 80% does not use edmodo media in their learning history. Educators explain that the 2013 curriculum do provide opportunities to implement creativity and innovation in the learning process. However, in the process, educators have encountered some difficulties; namely the lack of funds and the long time to produce learning media, making educators find learning media production difficult. Moreover, educators are often preoccupied with administrative interests, so it is time to do the learning. The media is hijacked by administrative interests. Historical learning requires educators to use up-to-date learning media, but in reality only a minority of educators use Edmodo in the current digital age. This can be seen from the results of the questionnaire; 80% of educators do not use edmodo media and only 20% do [6].

The above problem needs a solution to solve. The researchers summed up the problem, requiring the use of edmodo to learn the presence of media in the process of learning history. The availability of Edmodo media will be able to overcome some of the difficulties that students and educators encounter in the learning process that is often only possible in the classroom. Edmodo is classified as a medium, mobile learning. The advantage of using learning media is that mobile learning fosters opportunities to break down class boundaries and prepare school students for the demands of future technological mastery. Learning using mobile learning can improve academic performance [13]. Mobile learning aims to provide useful insights into more engaging learning situations that can positively impact student achievement and independent learning outside the classroom [14]. Edmodo has a feature where each member (student) can have a profile page consisting of their latest groups, communities and posts. Members can upload a profile picture and share links and videos (via YouTube) on their page. Edmodo makes it easy for them to access their library, teaching/learning materials, and pages anywhere; such as at home, school, and travel [6] [15]. A t-test is used to examine the mean differences between the experimental and control groups in the post test, as shown in Table 1.

Table 1.T-test results for the mean differences between the experimental and control groups in the post-test.

Scale	No.	Mean (M)	Standard Deviation (SD)	T Value	Significance (P)
Experimental	35	41.71	2.14	4.130	0.00
Control	35	20.41	4.3		Significant

(Source: Abdullah & Imam, 2019)

Table 1 illustrates the t-test results. The t-test shows that the post-test scores are significantly higher for the experimental group (M = 41.71, SD = 2.14) than for the control group (M = 20.41, SD = 4.3), t = 4.130, p < .001. In other words, there is a significant difference in the mean post-test results between the experimental and control groups. As such, Edmodo can positively impact the academic performance of students at the higher education level.

In addition, Blake's (1966) modified profitability is used to calculate Edmodo's effectiveness. When being applied to the mean of the experimental and control groups, the ratio is 2.62, which is greater than the reference value (1.2). This shows that Edmodo effectively improves students' study skills and knowledge [26].

This result can be explained by the fact that Edmodo increases the use of collaborative e-learning in the experimental group to keep students informed. Results from test questions measuring levels of collaborative e-learning in the research sample shows that Edmodo collaboratively delivers information, ensuring students engage in content-related interactions, and making student achievement, learning, and review easier and cleaner.

This result is consistent with that of Labib (2007), AlKhalidi (2007), Hassan (2009), Roberts (2005), Wang (2010), and Yagci (2015), all of whom emphasize the importance of collaborative learning. The overall performance and development of skills of students, in a sense, e-learning has many advantages. For example, e-learning allows students to collaboratively acquire knowledge and gives them more freedom and flexibility in the learning process than in a formal learning environment. E-learning also facilitates the exchange of experiences and knowledge among students. Consistent with this, Maazi and Janfeshan (2018) report significant improvements in student learning outcomes after using Edmodo [26].

Application of Digital Literacy by Utilizing Edmodo Media in History Learning Activities

Figure 2 shows that digital literacy carried out by students requires skills and attitudes in using it. This is supported by the opinion of O'Brien and Scharber [16] that they describe as "socially situated practices supported by skills, strategies and stances that fostered an individual's ability to represent and understand ideas with numerous modalities and digital tools". Thus digital literacy is not as easy as imagined and prior knowledge is needed to practice it. Even Martin [17] clearly explains digital literacy, namely "Digital Literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze and synthesize. Digital resources construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process".

Digital competence stage (digital competence) includes the level of knowledge, skills ranging from visual recognition, and manual skills in using the device to a more advanced approach. The characteristics of the digital usage stage are critical, evaluative and conceptual; and also include attitudes. This digital usage stage includes the use of digital tools used during the implementation process, such as searching, finding and processing information, and developing solutions to existing problems or tasks. The last stage is digital transformation; this includes when the digital use that has been developed allows innovation and creativity for its users. Unlike the digital literacy stage, the digital literacy process consists of 13 components [18].

Furthermore, to describe the application of digital literacy with Edmodo, the teacher must first know the facilities that can be used on Edmodo. In this application there are several facilities that can be used for learning purposes, including:
1. Group; it serves to create digital classes according to the level of education or class levelNote; it serves to provide messages/statements/learning materials to students in digital

classes that have been created. In the note, the teacher can also insert images, audio, video, and others that are used for learning purposes

2. Assignment; it serves to give assignments to students online and in this section the teacher can also provide instructions that must be carried out by students as well as learning resources that can be used. Another thing is that students can send reports on assignments that they have done and in the process there is a time limit given

3. Quiz; it serves as an evaluation tool in learning activities and is divided into several types, such as multiple choice, true and false, fill in the blanks, match, and short answers. There is also a time limit for working on the questions and the score will appear once you finish taking the test

4. Library; it serves as learning resources, such as e-books, articles, videos, power points, and so on

5. Message; it serves as a two-way communication tool, between students or students to teachers.

The existence of these facilities can be used by teachers to apply digital literacy to students. Based on the results of relevant research, there are several ways to carry out digital literacy in learning activities. One of them is explained by Alperi [19] that "In learning with Edmodo digital class, students will be given study material in the form of e-books, presentations, quizzes, assignments, and examinations. Students can read all the sources given by the teacher". The interesting thing from Alperi's research [19] is that students are first given the competence to use computer media. The existence of this actually has a positive impact on students regarding the application of digital literacy. The results of research from [20] the literacy activities are carried out with the Discovery Learning strategy, namely providing a stimulus to find references that match the theme, identifying problems; then the search is presented and discussed together, and closed with conclusions from the teacher. A more technical matter is explained by Pratama, et al [21] that the application of digital literacy is by providing e-books in the form of power point and pdf files, online discussion forums, virtual PhET practicums, and providing links to learning resources that are connected to the digital library application (ipusnas) [22].

In history learning activities, digital literacy can be carried out in the core learning activities. This article will explain the digital literacy process based on the opinions of Martin and Grudziecki described above and its implementation can be carried out in Basic Competencies analyzing various theories about the process of entering Hindu and Buddhist religion and culture into Indonesia in class X. Before carrying out learning activities, history teachers must has prepared the Edmodo learning media. Students are also asked to log into their respective accounts and join class groups that have been created by the teacher. In the media that has been made, it is better for the history teacher to prepare various types of material so that it is interesting in the eyes of students. In addition, teachers can add other learning resources, such as pictures, journal articles, videos or e-books. These learning materials and resources can be uploaded in the notes section of Edmodo.

In the implementation of this lesson, several groups should be made so that it is not too heavy in the process. For example, 5 groups are made with the theme of each group, namely: the theory of brahmanas, vaisyas, knights, sudras, and the theory of countercurrents. The task is that students are asked to analyze the strengths and weaknesses of the theory and provide their analysis that it is the theory that has greater potential for truth. That way, history teachers must be able to provide learning resources related to the given task.

The digital literacy process has begun to be seen when the teacher provides materials and assignments that must be done by students. This early stage has seen the statement process,

where students must already understand the problem or task that must be completed and have prepared a solution. There is also an identification and accession process, where students begin to identify or select the resources that have been provided by the teacher and find the sources that are appropriate to their task. The evaluation and interpretation process is seen at the time of processing material from predetermined sources, so that from the initial stage to this stage each student has carried out reading activities. For the purposes of assignments that must be done by students, those can be uploaded in the assignment section and fully explained so as the students are not confused [29]. The process of statement, identification and accession, and evaluation and interpretation can be seen when the teacher uploads assignments in the assignment facility on Edmodo and students work on the assigned tasks.

The integration and analysis process is carried out when combining several sources into a new article and includes the analysis process for the problem or task given by the teacher. The process of synthesis, creation, and communication is visible when students perform their creativity in making their task reports based on specified sources and communicating with fellow group members to make their task reports. For example, in the report, there are images that support the material or it can be in the form of power points, so that it includes not only text and images, but also videos. The existence of this stage is a creative example in utilizing digital resources because students do not only collect ideas, but analyze looking for solutions; and they make products. This is in accordance with the opinion of Hague and Payton [22] that creativity can be understood in terms of: creating a product or output, thinking creatively and imaginatively, and creating knowledge or knowledge production. Creativity is more than just artistic abilities, it is also about how we think and how we construct and share knowledge. The dissemination stage is done when each group presents their work to all students and the reflection stage is done at the end of the learning activity and is seen when students provide comments regarding the learning that has been run, such as benefits, materials, learning methods, suggestions, and so on.

The existence of digital literacy stages in history learning activities using Edmodo makes learning meaningful. Ausubel explains in Baharuddin and Wahyuni [24] that meaningful learning is a process of linking new information to relevant concepts contained in a person's cognitive structure, such as facts, concepts, and generalizations that students have learned and remembered. Meaningful learning in the application of digital literacy can be seen when students implement learning by finding out for themselves the facts related to the problems they face based on the sources provided by the teacher on Edmodo and processing the new information they get into the structure of their knowledge. This is in line with Rahmah [25] that "Meaningful learning occurs when someone learns by associating new phenomena into the structure of their knowledge". In the learning process, a person constructs what he has learned and associates new experiences, phenomena, and facts into the structure of their knowledge.

CONCLUSION

The application of digital literacy by utilizing media in History learning can be done by utilizing the existing facilities at Edmodo. The most important facility is assignment because in this section there are instructions or assignments that must be done by students, and sources that can be used to do these assignments. When the teacher uploads assignments in the assignment section, the literacy process has begun to be seen with the emergence of the statement process, where students understand the problem or task that must be completed. The process of identification and accession is seen when students begin to identify or choose the sources that have been provided by the teacher. The process of evaluation and interpretation is

seen at the time of processing material from predetermined sources. Process of integration and analysis is seen when students combine several sources into a new writing and include the analysis process. The process of synthesis, creation, and communication is seen when students carry out their creativity in making task reports based on specified sources.

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