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How to Apply Android Applications (Edmodo) and Google Forms as Learning Media in Historical Learning in High School

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ABSTRACT

The learning that has been carried out so far, both conventionally and those who have implemented e-learning using computer devices, then slowly changes to mobile-based learning by utilizing smartphones and tablets. The use of ICT in history learning is expected to further increase students' understanding of the material being studied. The purpose of this study is to analyze how teachers apply Android applications (edmodo) and google forms as learning media in historical learning. The method used is descriptive analysis with a qualitative approach. The researchers collected the data throught literature review and analyzed them using content analysis technique. The data analysis stages comprised data reduction techniques, data presentation, and conclusion drawing. In addition, the development of this media can be done by the teacher independently. The use of Android applications (edmodo) and Google forms can be used as evaluation tools for history learning in high school. Learning by utilizing android(edmodo) and google forms and sent to students via social media is expected to be able to overcome the limitations of teachers in distance learning

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1. INTRODUCTION

Information and communication technology is one of the rapidly growing fields today (Ostler, 2012). Various kinds of new innovations are developed by experts. Updates that occur in information and communication technology are developing very quickly, new innovations are developed by experts and various major world companies that participate in creating these new innovations (Al-Emran et al., 2016). A real example in the various innovations that can be enjoyed today such as the existence of smartphones and tablets. The learning that has been carried out so far, both conventionally and those who have implemented e-learning using computer devices, then slowly changes to mobile-based

learning by utilizing smartphones and tablets (Sakat et al., 2012). The development of information and communication technology is slowly changing the learning paradigm (Dian Anggraeni & Kustijono, 2013). This proves that along with the rapid development of information and communication technology will have an influence on the learning process (Schunk, 2012).

In the interest of advancing mobile technology and improving affordability as well as their broad capabilities, mobile device platforms especially Android has changed from a communication tool to a tool for communication socialization, entertainment, and learning. This has greatly changed the functioning of the world, even learning process. Learning through mobile phones or mobile learning has become part of the educational process. Mobile learning or M-Learning is a type of e-learning that provides educational content and learning supporting materials through wireless communication devices (Christianne, 2013). Mobile Presence Learning cannot replace direct learning with face-to-face face in class, but only as a complement in the process learning and can be used by students to re-learn the material which has not been understood anywhere and anytime.

The majority of the operating systems on smartphones and tablets that are often encountered today are Android. Android is an operating system intended for mobile devices created by the Google company. This operating system is also growing rapidly and various updates are made every year. The Android operating system is famous for its open operating system and has a very large number of supporting application systems (Nealbert et al., 2014) . No wonder this operating system is widely used on smartphones and tablets. This open system on Android is a distinct advantage for this operating system, so many developers can create supporting software in the form of Android applications (Thompson & Misra, 2012). One that can be used as an ICT-based evaluation medium is Google Forms. Google Forms is part of the Google Docs component provided by the tech giant Google. Google forms is software that can be accessed for free and is quite easy to operate.

Seeing this, the researcher is interested in describing how the procedure for learning history is by utilizing Android-based applications and Google Forms. The majority of the use of information and communication technology is done when delivering learning materials (El-Hussein, & Cronje, 2010). This is also given that the majority of students have mobile devices that support the implementation of this Android-based learning evaluation (Darmawan, 2016). The implementation of the 2013 curriculum opens wide opportunities for the creation of a mobile-based teaching system (Akkat Hasjiandito; Haryono, 2014). So that teachers can use facilities such as computers, laptops, smartphones, tablets and the internet as supporting media in the learning process. Interesting breakthroughs to integrate information and communication technology into all subjects need to be appreciated, because this will certainly provide broad opportunities for teachers to explore all existing facilities as a means of learning and evaluation.

History subjects taught in schools have a strategic position in shaping the character and civilization of a dignified nation as well as in the formation of Indonesian people who have a sense of nationality and love for the homeland. History has the potential to make us human beings, something other subjects and school curricula cannot do. Related to this, the researchers took Indonesian history material for class X in semester 1 which is expected to be a good and effective alternative for teachers in evaluating learning, and students also feel comfortable in the evaluation process because students are used to using smartphones and tablets.

Multimedia in the computer context according to Hess, (2014) is the use of computers to present and combine text, sound, images, animation, and video with tools and connections so that users can navigate, interact, create, and communicate. Research conducted by (Teodorescu, 2015) with the aim of this research is to improve the learning process by using technology that is at our fingertips, and stimulate students to integrate independent learning into their busy schedules. Research conducted by (Sittichailapa et al., 2015) that applying this learning tool allows students to understand the intended material in a shorter time and with pleasure. Based on the relevant research above, what has not been researched is the analysis of the application of technology-based learning. All of them use mobile earnings in learning. However, all of them do not reveal how the mobile learning procedure is to

measure achievement in learning. Research by Martono and Nurhayati (2014) on application implementation Android-based mobile learning as a flexible learning medium. Research result it is that 95% of female students enjoy using learning mobile applications and only 5% do not enjoy, concluded that the use of mobile learning applications can make the learning process more flexible.

The development of learning media in schools is still very minimal and still conventional, including evaluation media (Suartama, 2010). Teachers in schools still feel hesitant to use technology-based evaluation media and choose to carry out paper-based evaluations (Mardapi, 2012). Although school facilities and infrastructure to evaluate learning with technology are very supportive. The school already has a wifi network and a computer laboratory that can be used in learning (Liu & Hwang, 2010). Almost all students also have smartphones that support them to carry out learning evaluations (Smaldino et al., 2005; Singhal, 2017). Based on the problem above, the researcher wants to analyze how teachers apply history learning media based on ICT applications using Android (edmodo) and Google forms.

2. METHODS

The purpose of this study is to analyze how teachers apply historical learning media based on Android applications and google forms. The method used is descriptive qualitative method. The researcher acts as a key instrument that must collect data by visiting the data source directly. The research subjects were determined using a purposive sampling technique where the research subjects were selected according to the research objectives. The research subject is the teacher. The research was conducted in high school on the research subjects, namely the history teachers of class X, XI and XII. Data was collected through literature review (content analysis), as well as documentation and interviews. The literature review is carried out by collecting books and articles related to the android application and google forms. Data was collected using direct observation/observation methods, and in-depth interview methods. The standard of data validity in qualitative research refers to the standards of credibility, transferability, dependability, and confirmability. The data analysis technique used is descriptive qualitative analysis.

3. FINDINGS AND DISCUSSION

Procedure for the Application of Learning History based on Android and Google Forms

Currently, there are many sites for making Android applications that are free and easy to operate. These sites that provide services for making Android applications are of course very helpful for many ordinary people who do not really understand the ins and outs of computer programming. The end result of this Android-based learning is in the form of an application that runs on students' smartphones (Roberts, 2012). Currently, there are many sites for making Android applications that are free and easy to operate (Siti Muyaroah; Mega Fajartia, 2017). Its application begins with opening the site through a computer or laptop that is connected to the internet. After entering the address, then click the Create Apps button in the upper right corner. Next, you are asked to fill in an active email address and then enter the Term of Service, then you are asked to agree to the Term of Service. Then the main page or work space appears that is used to create our application. Then click Create New Project and a page looks like a blank smartphone screen that will be used to create an application. Before processing and making applications, we should make a concept about the application that we will make. Through this concept, we can determine what the desired application design looks like, the layout of the icons in the application, how many pages the desired application displays and also what the contents of the application are (Markauskaite, 2007).

Mobile applications are applications that can be used by the user easily even if they have to move around move position. Mobile applications that are used on education is called mobile-learning or m-learning. learning. M-learning is all forms of learning where the learner is not in a certain location and can benefit from the mobile side (Sutrisno, and Istiyanto, 2009). Application m-learning requires an

operating system in order to run. One operating system for mobile devices which is widely used is Android. Android is an open source system based on Linux for mobile devices that includes systems operations, middleware and applications. Android was chosen because dominate the operating system used by the user mobile devices in Indonesia. Recorded until the end March 2016, Android has been used by more than 71% of mobile device users in Indonesia. Application based on Android developed by the method Agile development. Agile is a development methodology that is fast, light, flexible and standby.

This method is more emphasize teamwork over tools and processes, software versus complete documentation, meetings with clients versus contract documents and responsive to change rather than following first plan. Not only make participants students in enjoying and understanding the material in using the application android, the use of android is also able to make learning more free. That statement matched the results delivered by Liliarti and Kuswanto (2018), that android-based learning media is capable of improve the competence of diagrammatic representation and argumentative in learning both inside and outside the classroom.

This will make it easier as well as be a guideline when creating applications through the App Inventor site. Then after the concept is made, it's time to start making applications. The first thing that needs to be done is to determine the number of application page views that will be created, in the History Learning Evaluation Media application this time, the researcher prepares several pages including: Start Page, Menu Page, User Guide Page, About Application page, Competence Page, Question Page and the Values Page. In addition to creating pages according to the required number, these pages will later have their own commands that will help this application to run properly. To add a page simply press the AddScreen button. After pressing the Add Screen button then a dialog box appears to give the name of the new page that will be created. Name the page as desired according to the needs of the application that will be created at a later stage. Choose the images that have been prepared and try to make images with a .png file type, of course if you have a .jpeg type image you can also include it, but researchers prefer .png, this will make the editing process easier later. All image files that have been uploaded to the media can be displayed on all pages that have been created.

Meanwhile, computer-based history learning uses Google forms software. Google forms is an application developed by Google to create a survey and developed questionnaire (Pinto et al., 2011). Google forms is part of Google doc, a Google pilot application for creating, editing, and saving documents (Coal, 2016). Forms created in Google forms are automatically saved on Google drive and can be easily shared with anyone (G Suite by Google cloud, Forms). Although this application is branded to create surveys and questionnaires, Google forms can also be used to create learning evaluation media. Google forms were chosen as the evaluation medium because this application can be accessed easily by everyone (Siti Muyaroah; Mega Fajartia, 2017). In Google forms, the teacher does not need to make evaluation questions in several packages because Google will automatically randomize the order of questions and answer options. For multiple choice questions and short entries, Google forms can correct answers automatically and students can find out the value of the learning evaluation results after completing work (Rahardja et al., 2018). Google forms will automatically save the results of student work and the teacher can download in the form of an Excel document complete with the scores obtained and the answers chosen by the students.

Making Google forms as a learning evaluation medium is not difficult. The first step is to make sure the teacher has a Google account. Currently, almost all teachers have smartphones. Most of the smartphones used by teachers are based on Android, so the teacher must already have a Google account. In using an Android-based smartphone, users are required to have a Google account to be able to access services, one of which is Google forms (Utami, 2021). If you don't have a Google account, teachers can register via https://accounts.google.com/SignUp//. Teachers can start creating forms by visiting the Google forms address via http://www.google.com/int/id_id/forms/about/. After entering the page, click the “Open Google Forms” or “Go to Google Forms” button.

This button will take you to the start page of Google forms (Sianipar, 2019). The start page contains the form title, form background settings, questions, responses and form model settings. If the Teacher's Google account is not yet active, then when visiting the page, the teacher will be asked to log in to Google I first, the level of student achievement by using this learning media. This is in accordance with research from (Akkat Hasjiandito; Haryono, 2014) (Trust, 2012) which shows that blended learning-based learning can improve student learning outcomes. This is supported by the results of (Utami, 2021) research proving that the use of Google Forms as a medium to evaluate student learning outcomes is effective in the midst of the Covid-19 pandemic where learning cannot be done face-to-face but online. Thus students can learn activities in accordance with the instructions given by the teacher. Students can observe pictures and express their opinions. The teacher can provide reading material that is a source of learning and students can answer according to the existing reading. The teacher can also provide discussion material that can be discussed by students with their existing families, then students write down the results of the discussion in the place provided by the teacher.

4. CONCLUSION

The application of historical learning media based on Android applications (edmodo) and Google learning forms is more effective and efficient when compared to the conventional method that has been carried out so far using paper. In addition, the development of this media can be done by the teacher independently. The use of Android applications (edmodo) and google forms can be used as evaluation tools in history learning in high school. Barriers to teacher mastery on the use of virtual classes, or digital classes can be overcome with easy learning media and can be sent through existing social media. Learning by utilizing android(edmodo) and google forms and sent to students via social media is expected to be able to overcome the limitations of teachers in distance learning. Recommendations based on the findings of this study are that each learning process can apply Android applications and Google forms in terms of reactions, and the learning process is feasible to use in an effort to improve learning outcomes. the suggestion is that the application can be developed by adding elements of video and sound, because video is a medium which is very good for describing events important events in the history of philosophy. Learning content can be supplemented with add material from other library sources, because the application only relies on a source library in the process of development.

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