Gores Application Based on Mobile Learning as a Supporting Media for Arts and Culture Learning for Junior High School Students

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Abstract— Entering the era of the 2000s is a period that makes learning media meet the steep point. Students begin to feel bored with the media that already exists. In this millennial era learning media need to be promoted which are not only helpful in learning, but also media that is liked by students and attractive for them. The focus of this research is to design a mobile learning model with the theme Art and Culture as a supporter of Art and Culture subjects for Middle School students. This study took the subject of 7th grade students in SMP 20 Surakarta and SMP 16 Surakarta through the interview stage which was then continued with the design of the user learning application interface for mobile learning. Gores is a mobile learning-based application that has a function and purpose as a medium for student learning in Art and Culture subject. GORES is designed to be interesting and unique for children to teens. The role of the GORES application is as a student facilitator so they are be able to make drawings so as to encourage their potential and creativity in drawing. Teachers can be facilitated with this media because this media can be used by students through their own devices at the same time. This interactive process can support the achievement of learning goals that have been designed by the teacher, especially in terms of student activity in the classroom in accordance with the 2013 curriculum.

Keywords—mobile learning, applications, arts and culture, curriculum 2013, junior high school.

I. INTRODUCTION

Learning is a process of communication between students, teachers and teaching materials. Submission of learning messages from teachers to students is mostly done using textbooks. This makes students less interested and feel bored when receiving the lesson so that it gives the effect of lazy to study. The use of media in learning can help students in providing meaningful experiences. The use of media in learning can facilitate students in understanding something abstract to be more concrete [1].

The development of Information and Communication Technology (ICT) has encouraged the creation of innovations in all fields. One way is to develop learning by utilizing hand-based and mobile-based media (mobile) or better known as *mobile learning* that promises the independence of time and place in the real sense [2]. Mobile learning is starting to become a reliable formulation in terms of innovative learning in the 21st century. In the era of technological development, learning does not have to be done in class or school. Students can learn not only from textbooks, as is the case with device-based learning which is currently popular among children and adults. M-learning is a form or learning model that utilizes the capabilities of mobile devices. M-learning includes many e-learning features such as multimedia content and communication with other students who also have some uniqueness in terms of flexibility of time and place so that their presence is in demand by many groups, especially among educators or teachers.

The 2013 curriculum as a new formulation in alleviating difficulties in learning has not been fully successful which even procedurally and administratively makes teachers difficult. Teachers have difficulty in making learning media in accordance with curriculum requirements, as well as difficulties in integrating thematic learning [3]. In terms of compiling learning materials and which are integrated into thematic teaching materials, teachers need media technology and supporting information for the achievement of learning objectives [4].

This research is focused on Arts and Culture education subjects because these subjects have a role in the formation of personal or mental attitudes of students in harmony. This is because arts and culture education focuses on the developmental needs of children in achieving emotional intelligence and social intelligence. In the subject of Art and Culture, cultural aspects are not discussed separately but are integrated with art. Therefore, the subject of Cultural Arts is basically a culture-based arts education. Cultural Arts Education has multilingual, multidimensional, and multicultural nature. Multilingual means developing the ability to express themselves creatively in various ways and

through media such as visual language, sound, motion, roles and various combinations. Multidimensional means the development of various competencies including conception (knowledge, understanding, analysis, evaluation), appreciation, and creation by harmoniously combining elements of aesthetics, logic, kinesthetic and ethics. Multicultural nature implies that art education fosters awareness and ability to appreciate various cultures of the archipelago and abroad. This is a form of forming a democratic attitude that enables a person to live in a civilized and tolerant manner in a diverse society and culture. Culture and art education has a character in the orientation of quality student behavior change in knowledge, skills, and attitudes of appreciating works of art [5].

The focus of this research is to design a mobile learning model with the theme Art and Culture as a supporter of Art and Culture subjects for Junior High School students. Learning cultural arts is very necessary in order to foster a sense of love for students of Indonesian cultural arts. This feeling of love can lead to interest, creativity, and appreciation of children towards the arts and culture of the nation [6]. Through mobile learning, students can increase their sensitivity to Indonesian art and cultural heritage which contains philosophical content, local wisdom and social norms that lead to education.

II. METHODOLOGY

This study takes the subject of 7th grade students in SMP 20 Surakarta and SMP 16 Surakarta. This research was conducted in July 2018 until March 2019. There were two stages in this research. The first stage is the stage where researcher used interview data collection techniques to junior high school students to find out the application model that students like.

While in the second stage, researcher created a mobile learning application interface design based on the results of interviews with junior high school students.

III. RESULT AND DISCUSSION

The first stage, researcher conducted interviews with junior high school students as a resource to find out the application model they liked.

Table 1. Profile of the Sample %

Demographic Variable	Categories	%
Schools	SMP N 1 Surakarta	50
	SMP N 2 Surakarta	50
Grade	VII	100
Gender	Male	34
	Female	66

The results of interviews with 20 junior high school students of 7th grade selected at random in SMP 13 Surakarta and SMP 16 Surakarta are as follows:

1. Most (> 50%) students want the name of the application with a short word and a familiar name, so it's easy to remember.
2. Most (> 50%) students like white as the dominant color of the application interface design.
3. Most (> 50%) students want applications using buttons that are easy to understand.
4. Most (> 50%) students want applications tailored to students' current abilities.

The second stage, researcher made a mobile learning application interface design based on the results of interviews with junior high school students.

A. The Name of Mobile Learning

The name "GORES" appears in this study because of its attention to the actual conditions of art learning in pre-college schools. The main target is the level of students in junior high schools as the initial stages of forming the interests and talents of students. By encouraging students' attention to their creativity, students will be encouraged to love the arts so that in senior high school and even college they can develop their potential as one of the parts of art preservation in Indonesia.

The meaning of GORES (etch) according to the Kamus Besar Bahasa Indonesia (KBBI) or Big Indonesian Dictionary has synonyms of line; kerf; streak; scar which outline is an activity in the form of making lines, scribbling or shredding so that in general the word GORES has the intention of someone's freedom in carrying out GORES activities, so that all channels and emotions can be expressed through GORESan.

B. Logo design of GORES

**Figure 1. GORES logo.
(Source: author)**

The meaning of the GORES logo is a typograph that has letters written in the style of a human handwriting as if it were written using a pen that symbolizes the creative power poured by someone and is a symbol of freedom in expressing the shape and style of creativity possessed. GORES writings use capital letters that symbolize a strict principle as a form of strong identity inherent in this application to support efforts to increase student interest and creativity in all forms of art. In addition to typographs in the GORES logo that have meaning, the binder paper background that is the background of the word GORES also has its own meaning. The meaning contained in binder paper is a picture of a white canvas which can then be GORES (etched) a variety of shapes so that it can express emotions and create works. Symbols of binder paper are generally familiar papers found among students so that they

can be the intended symbol of making GORES applications for people who want to learn to etch creativity or study art. These symbols symbolize the ability of students who were previously difficult to express their ideas in drawing, but later they became tried so that they finally became able to, which is starting from GORES (etch) on a binder paper. Capital letters emphasize that with a strong interest and determination, it can encourage students to be able to create work that confirms their learning process that starts from GORES.

Aside from being symbolic, the GORES logo also contains meaning in terms of color rendering. The dominance of the GORES logo is black and white which means the basic color of the initial depiction of each GORESan (etch) pen made by students. The white color on the canvas depicts the innocence of a media to be GORES (etched) with a variety of shapes and colors. Like the talent of students in encouraging their creative power that starts from scratch. While the black color in the stroke and the outline typograph color on the logo symbolize the basic color of the ink on the pen that begins to GORES (etch) as the student's initial step in writing a text or picture that will be done. The combination of black and white is one of the contrast symbols commonly found on a piece of paper with writing so that it represents an illustration and the work contained in each GORESan (etch) that will be done by students.
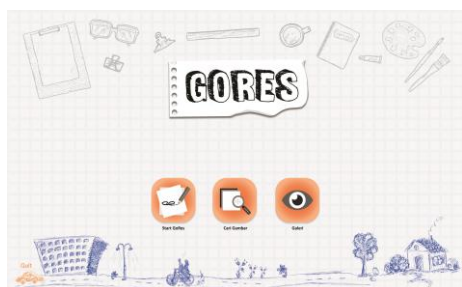
Figure 2. Page 1 Display of the GORES application
(Source: author)

The GORES application is displayed epic with a white background, equipped with gray drawing / painting equipment sketch drawings on the upper side, while on the lower side there are sketch drawings of city views (houses, trees, roads, buildings, vehicles, lights road) painted in blue ink. This blue ink is also used as the basic color of a painting tool (pencil) when drawing / painting in the drawing area. The combination of background composition, application logos, function keys and supporting display (sketch drawings) top and bottom shows that the application concept is simple, minimalist and up-to-date. In the display on the GORES application there are four link buttons which include the Start GORES button, search for images, galleries and quit (exit the application).

Figure 3. Page 2 Display of the GORES application.
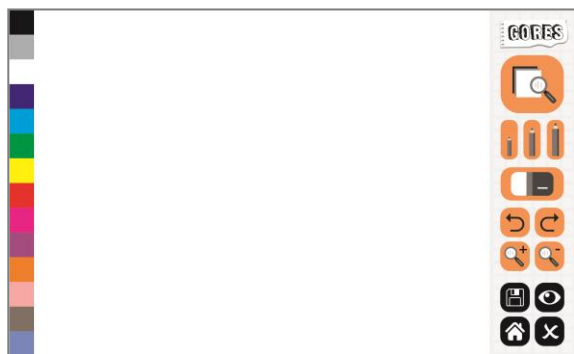**(Source: author)**

On the theme page there are three selected themes that have been adapted to the objects in the material in 7th grade arts and culture subject (2013 Curriculum). The material is included in chapter 1, which is drawing. Drawing is a universal language and was known long before humans recognized writing. Images have been known to people since pre-literacy and are often associated with human activities and ancestral spirits because they are considered to provide blessings and protection. For ancient humans, the image is not just a communication tool for ancestral spirits, but also provides strength and motivation to survive.

Drawing not only involves physical activity but also mental. Physical activity is related to the skill to use drawing tools while mental is related to taste, intention, and creativity to fulfill their daily needs. Humans in drawing activities require media, tools and materials that are always changing in accordance with the times. If in ancient times humans were able to draw using the materials available in nature, then today drawing equipment has been produced by factories as an economic commodity. Humans through drawing can convey ideas and symbols as a form of expression. Therefore it can be said that frawing is one means to express someone's feeling.

Drawing not only relies on imagination but also requires an object. The universe is an object that will never run out to be drawn or explored. Teh wealth of flora, fauna, and nature are objects that can be drawn. The beauty of flora, fauna, and nature is a source of inspiration and exploration in drawing. In addition to flora and fauna and nature, other drawing objects are decorative types. Decorative or ornamentation is a form of art that has developed since prehistoric times.

The variety of decoration in Indonesia is influenced by factors in the natural environment, flora and fauna, and culture of each region. The desire to decorate is a human instinct. In addition, the making of decorative ornaments is also based on the needs of the community, both practical and related to religion or believes. There is a variety of decoration has a symbolic meaning because it contains the cultural values of the supporting community. Drawing decoration can be done with stylization (styling), namely by simplifying the shape of the object that becomes the source with consideration of beauty. In addition, the decorative image must also be adjusted to its function.

Figure 4. Page 3 Display of the GORES application. (Source: author).

The appearance of the drawing page consists of parts, namely the drawing area, the color area, and the equipment area.

1. *Area of drawing (drawing page)*. This drawing area has a function as a worksheet or a means to do drawing or painting activities in this application. Drawing area with white base colors will be more neutral and simplify the process of drawing and combining the desired colors.
2. *Color area. The color tool toolbar* in this application is equipped with 14 standard colors. Choice of colors that are quite a lot will help in the process of making drawings or paintings.
3. *Equipment area.* Toolbar tools provided by this application are quite numerous and representative to support the making of drawings / paintings that will be made. The following functions are some of the buttons that are on the equipment toolbar.
4. GORES logo.
5. *Preview. Preview* is a button that functions to see the image that has been created in full size or original display.
6. *Pencil Tools. The pencil tools* button here consists of three types based on the thickness of the line. So we can choose which type of pencil will be used to draw on the drawing area
7. *Eraser. The eraser* button has an eraser function when you want to erase images or lines on the image area.
8. *Undo. Undo* is a button that contains a command to cancel an order that has been done before.
9. *Redo. Redo* is a button that contains a command to return a command that was previously canceled.
10. *Zoom in. Zoom in* is a button that works to enlarge the display image
11. *Zoom out. Zoom out* is a button that serves to reduce the appearance of images
12. *Save. Save* is a button that serves to save the image or object work that is in the image area
13. *Gallery. Gallery* is a button that functions to open a gallery that contains pictures from the activity of drawing / painting that we previously saved (save) in this application. So if we are drawing, then want to stop, you can save first and then exit the application. If in the future you want to continue, then just press this gallery button and select the image that was previously saved.

14. *Home. Home* is a button that functions to return to the main page of the GORES application
15. *Exit. Exit* is a button that functions to exit the drawing area work or from the GORES application

IV. CONCLUSION

Learning media has been developing since its emergence in the 90s. Technology experts have designed a media that can help teachers interact with students in learning activities. However, entering the 2000s, learning media encountered a steep point where students began to feel bored with the media that already existed. In this millennial era, it is necessary to promote learning media which are not only helpful for learning, but also the media that students like and enjoy. Learning media must be innovative so that students can like it which is in the form of media that is present in accordance with the characteristics of the soul of the users of its era. The word innovative becomes a benchmark that innovative learning media is not only the latest media, but also has a novelty value that makes a difference from previous learning media. In this context, one of the innovative learning media products is an application called GORES.

GORES is a mobile learning based application that has a function and purpose as a student learning media, especially in the subject of Arts and Culture. GORES is designed to be attractive and unique so that it appeals to children and teenagers. This media's role is as a facilitator for students to be able to make drawings so as to encourage the potential and creativity of students in drawing. One of the characteristics of learning media according to Santyasa [8] is that the media is fixative. Fixative has the meaning that learning media has the ability to capture, store and display an object or event. Thus, the object or event can be drawn, photographed, recorded or filmed, and stored and then displayeg again when needed. GORES is an application that is designed mobile so that it can be used anywhere and anytime, in accordance with the principles of learning media.

The *mobile* trend in GORES is a symbol of the creation of innovative IT-based media that can be accessed via *smartphones*. This is in accordance with the principle of *accessibilit*y media. Learning media used in the teaching and learning process should be accessible to teachers and also students as the target audience. Media accessibility depends on the technology used and the learning objectives themselves. GORES makes it easy for students or users to be able to access it widely through personal mobile phones which of course most people in Indonesia already have them. Although to be able to access GORES requires a *smartphone* that is already included in the Android category, the *mobile* principle that is emphasized is to support *users* in getting easy access anywhere and anytime.

In learning arts and culture, creativity which is not limited in the context of art teaching materials can be raised through GORES mobile learning based applications. Teachers can be facilitated with this media because of its use which can be done independently by students by using

their devices at the same time. This interactive process can support the achievement of learning goals that have been designed by the teacher, especially in terms of student activity in the classroom which is in accordance with the 2013 curriculum.

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