

GAME-BASED LEARNING AS THE MEDIA OF ART AND CULTURE LEARNING FOR JUNIOR HIGH SCHOOL STUDENTS IN INDONESIA

¹SRI SUMARNI, ²NADIA SIGI PRAMESWARI, ³MOHAMAD SUHARTO, ⁴DWI MARYONO

^{1,2}Universitas Sebelas Maret, Universitas Negeri Semarang,
E-mail: ¹marnis_ri@yahoo.com, ²nadiasigi87@gmail.com, ³vicom4client@yahoo.com, ⁴dwimarus@yahoo.com

Abstract - The fundamental value of Art and Culture Subject in Indonesia is the appreciation towards art and culture and the art participation at local, regional, and global level. The problem that exists today is that Art and Culture Subject is frequently considered trivial by Junior High School Students in Indonesia. Therefore, there should be a breakthrough in game-based learning media so that students' sensitivity will increase. Game-based learning is a learning method that uses game application specially designed for improving students' interest in learning. The purpose of this study is to know the characteristics of educational game liked by Junior High School Students in Indonesia.

Keywords - Game-based Learning, art and culture, Junior High School Students.

I. INTRODUCTION

Art and Culture is the subject that gives opportunity to the students to get involved in various appreciation experience or creation experience to generate a product in the form of an art work.

The orientation of Art and Culture Subject is facilitating emotional, intellectual, physical, conception, social, aesthetic, artistic, and creativity experience for the students by conducting appreciation and creation activity towards various object products surround the students that are beneficial for human life that cover such as; kinds, forms, functions, benefits, themes, structures, features, compositions, raw materials, supporting materials, tools, excess technique and its limitations [1]. Soedarso explains that the purpose of art and culture is to develop sensitivity and creativity; to give facility to students to express themselves in the form of fine arts; to equip the students in forming their perfect personality in order to be able to fully participate in the society [2]. Ironically, Art and Culture Subject in Indonesia is frequently considered trivial by the students. This is a significant problem considering the importance of Art and Culture Subject especially for Junior High School Students in expressing themselves creatively through various ways and media.

The previous research stated that based on the observation towards the students at State Junior High School (SMPN) 3 Lengayang, West Sumatra gave passive responses during the learning process. Many students considered Art and Culture Subject was trivial, until the students did not respond the explanations from the teacher. That caused the low score of the students in Art and Culture Subject [3].

Based on the results of the previous research (Rusanti, 2010) at State Junior High School (SMPN) 2 Glagah, Banyuwangi, there were 50% of grade VII Junior High School Students that had less interest towards Art and Culture Subject especially Fine Arts. That caused low achievement of grade VIII students at SMPN 2 Glagah in Art and Culture Subject (Fine Arts) [4]. As stated in

the previous research that Android application-based interactive learning media can raise students' motivation and support teachers' teaching and learning activity at school [5]. In the context of art education, the concept elaboration of DBAE (Discipline-Based Art Education), the competence of Art and Culture Subject covers the ability to feel the aesthetic of fine arts (included design and craft), aesthetic of music, aesthetic of dance, aesthetic of theater, and the aesthetic of cinema/multimedia, however this study is limited in the context of Fine Arts especially. The purpose of this study is to know the characteristics of educational game like by the students in supporting the learning of Art and Culture Subject at Junior High School level.

II. THE METHOD

The method used in this study was qualitative. Qualitative research is the research that leads to a number of methodological approach, based on various theoretical principles (such as: phenomenology, hermeneutics, and social interaction), through the method of data collection and non-quantitative data analysis, and aims to find out the social relationships and describe the reality in accordance with the respondents' statements [6]. The data collection technique conducted was through the study of literature and documents of the previous research.

III. DISCUSSION

A. Game-based Learning

Computer games meet the actual needs and interests of children, and are becoming the most popular computer activity and provide a new mode of interaction. Some of the advantages of games are that they are attractive and novel. Games also provide a better atmosphere and help keep the learners focus on the task, therefore games are valuable educational tools. Kids like all humans love to learn when it is not forced upon them. Modern computer and video games provide learning

opportunities every second [7]. According to previous studies, it was found that DGBL is an effective approach for constructing students' knowledge, promoting learning motivation and fostering problem-solving skills [8].

B. The Fundamental Value of Culture and Art Subject

Culture and Art Subject consists of various substance as follows:

1. Expression Substance, the field of training consists of painting, sculpting, arranging any waste goods in accordance with the rules of art. Creation Substance is defined as making the design of advertisement or pictorial slogan, translating the discourse, empowering the waste to be usable things (chairs, tables, and so on) that require ideas and proper appearance.

2. Skill, that emphasizes on the technical skill and the diligence until it is reproductive or the ability to multiply the work correctly and quickly and other people can take the work as the example, for examples; handicrafts, weaving, and carving.

Usually the products of other subjects, such as; Indonesian Language Subject, Mathematics, History, or other scientific subjects, after the learning process, the level of the competence achievement of the students can be assessed. The result seems real immediately and can be proved. For example; with the topic of multiplication, if the students are tested, then they can work on it. Unlike those subjects, art education subject characteristic is very individualistic because the comprehension, the enjoyment, the appreciation are also individualistic. Then the work art, like painting, design, craft, music, dance, and theater require sensing and appreciation that also occurs individually. However, if it reviewed carefully, then the result is cumulative, it means that it can be felt after it is all over.

Art as the media of education contains meaning that through the art of education (teaching), human's dignity can be nurtured. The meaning of individual coaching in order to grow up and have personality in accordance with the purpose of national education are learned in it [9].

The previous research stated that students' interest towards Art and Culture Subject was very low. In one class that consisted of 42 students, it was known that there were 47,6% students with less interest towards Art and Culture Subject, while there were only 16,6% students with high interest towards Art and Culture Subject. That shows a very big comparison between both of them [10].

One of the problems encountered by teachers in learning activities is that they feel difficult in making efficient learning media and raise students motivation during the learning process in the class. Teachers need learning media in order to support the textbooks. To maximize learning achievement, it is not enough only through giving lecture in the class, otherwise it needs

to be supported with interactive media until the students can learn and interact directly.

C. The Characteristics of Game-based Learning Like by The Students

According to Mayer, multimedia learning is created when the students build mental representation from words and pictures presented to them (for example; printed texts and illustration or narration and animation). The promise of multimedia learning is that students learn deeper towards the message of multimedia designed well that consists of texts and pictures compared to delivering information traditionally that involves the text only [11]. Kirriemuir and McFarlane defines digital game as something that provides digital information in the form of visual form to one player or more; and change the digital information that is adjusted for the players. The children play, either traditional game or modern game such as digital game, it has become prevalent. Playing is the children's job. In playing, the children continually practice complicated process of life and full of stress, communication, and achieve satisfying relationship with other people [12]. Playing has role in the development, in which the functions of playing are; to develop sensory-motor, intellectual development, socialization, creativity, self awareness, and moral values [13]. According to Nazarudin [14] and Griffiths [15], children begin to be interested in games when they are seven years old, one third children at the age of teen years play games everyday and 7% of them play games at least 30 hours per week. Based on the interviews with the teachers, the learning media that can emerge high curiosity can attract more attention of the students. Students' interest can be built through media with the composition of color, picture, or illustration liked by the students. If the media is in the form of audio-visual, either films or animations, then the duration is better to be not more than 5 minutes because it can emerge students' boredom. The message wrapped with humor seems more interesting and becomes students' favorite. Teachers are suggested to make learning media in the form of audio-visual. They need to acquire special IT skill and it is not easy because it takes a long time to learn.

In Cognitive Theory of Multimedia Learning (CTML), according to Mayer [16], humans have two ways in processing any information through visual (seeing) and audio (listening) or more popular as Dual Channel. This underlies the concept of interactive multimedia learning that is the combination of audio and visual components. Furthermore Mayer states that humans also have limited capacity in accepting the information at the same time.

According to the statements from the teachers, educative game is the media that becomes the students' favorite. Students' learning experience through game makes the materials delivered easy to remember. Every single teacher needs learning media that consists of the combination of audio, visual, and interaction components. Therefore, learning media in

the form of interactive story is considered very necessary because it can raise students' motivation in learning. Delivering the story that has firm correlation to daily life makes students easier to understand the lesson. The visualized story with detail illustration and full color can propel the students to the scientific approach. The success of a learning media is achieved when the students are propelled to observe, ask, reason, try, and communicate or represent the things they have learned. The elementary school teachers state that students' attention will increase when teachers use interactive media in learning activities. Students' interest can be built through media with color composition, picture, or clear illustration liked by the students. If the media is in the form of audio visual, either films or animation, then the duration should be not too long because it can make the students bored. The message wrapped with humor seems more interesting and liked by the students. The challenging learning game has positive effect towards learning either directly or indirectly. The challenge in the game is the firm predictor of the learning achievement. The design of challenging learning game ideally must be able to follow the skill and learning development of the students to support the learning at sustainable stages [17]. The weakness of learning game can cause the decrease of students' sensitivity towards the environment around them. Indeed, this kind of effect must be avoided. Therefore, as the solution, developing the game-based learning media must insert some questions related to concerns about themselves and surrounding environment, for instance: "Had you done your worship?", "Had you cleaned your bedroom?", "Had you helped your parents?", "Had you taken a shower?", these can be reminders for the students to stay discipline and care about their surrounding environment.

CONCLUSION

Art and Culture Subject has different characteristics from other subjects. Art as educational media contains meaning that through the art of education (teaching), humans' dignity can be nurtured. The meaning of individual coaching in order to grow up and have personality in accordance with the aims of the national education are learned. Ironically, Art and Culture Subject in Indonesia is frequently considered trivial by the students. This is a significant problem considering the importance of Art and Culture Subject especially for Junior High School students in expressing themselves creatively through various ways and media. One of the problems encountered by teachers in learning activities is that they feel difficult in making efficient learning media and raise students' motivation during the learning process in the class. Teachers need learning media to support the textbooks. To maximize the learning achievement, it is not enough if only through lecturing in the class, instead it needs to be

supported by interactive multimedia until the students can learn and interact directly.

Computer games meet the actual needs and interests of children, and are becoming the most popular computer activity and provide a new mode of interaction. Some of the advantages of games are that they are attractive and novel. Games also provide a better atmosphere and help keep the learners focus on the task (Heinich, Molenda, Russell, & Smaldino, 2002), therefore games are valuable educational tools. Kids like all humans love to learn when it is not forced upon them. Modern computer and video games provide learning opportunities every second.

It can be concluded that the characteristics of game-based learning liked by the students are (1) emerging high level of curiosity in order to attract more attention of the students; (2) the color composition, pictures, or illustration liked by the students; (3) if there is the component of audio visual, either films or animation, then the duration should be not more than 5 minutes because it can cause students' boredom; (4) the message wrapped with humor seems more interesting and liked by the students; (5) the design of challenging learning game ideally must be able to follow the skill and learning development of the students in order to support the learning at sustainable stages.

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REFERENCES

- [1] Ardipal, "Kurikulum Pendidikan Seni Budaya yang Ideal bagi Peserta Didik di Masa Depan," *Jurnal Bahasa dan Seni*, Vol. 11 No. 1, pp. 1-10, 2010.
- [2] Soedarso S. P., "Tinjauan Seni". Yogyakarta:
- [3] Sakudayarsana, 1987.
- [4] Resti Yulia Gusti, Ardipal, and Yos Sudarman, "Penerapan Metode Contextual Teaching and Learning dalam Pembelajaran Seni Budaya di SMP". Skripsi Prodi Pendidikan Sendratasik, Fakultas Bahasa dan Seni, Universitas Negeri Padang, Indonesia, 2012.
- [5] Rusanti, Nira. "Minat Siswa Terhadap Mata Pelajaran Seni Budaya pada Sub Pokok Mata Pelajaran Seni Rupa". Skripsi prodi pendidikan Seni Rupa, Universitas Negeri Malang, Indonesia, 2011.
- [6] Tjahjo Prabowo, Mohamad Suharto, Mulyanto, and Nadia Sigi Prameswari, "The Roles of Interactive Multimedia Learning Android-based Application for Primary Schools Teachers", 3rd ISME International Colloquium, pp. 585-591, 2016.
- [7] Sarantakos, Sotorios, "Social Research". Australia: Macmillan Education Australia, 1998.
- [8] Ching-Hsue Cheng, and Chung-Ho Su, "A Game-based learning system for improving student's learning effectiveness in system analysis course ", *Procedia - Social and Behavioral Sciences* 31, pp. 669 – 675, 2012.
- [9] Gwo-Jen Hwang, Li-Yu Chiu, and Chih-Hung Chen, "A contextual game-based learning approach to improving students' inquiry-based learning performance in social studies courses", *Computers & Education* 81, pp. 13-25, 2015.
- [10] Ardipal, "Kurikulum Pendidikan Seni Budaya yang Ideal

- [13] bagi Peserta Didik di Masa Depan,” Jurnal Bahasa dan Seni, Vol. 11 No. 1, pp. 1-10, 2010.
- [14] Rusanti, Nira. “Minat Siswa Terhadap Mata Pelajaran Seni Budaya pada Sub Pokok Mata Pelajaran Seni Rupa”. Skripsi prodi pendidikan Seni Rupa, Universitas Negeri Malang, Indonesia, 2011.
- [15] Mayer, R.E. “The promise of multimedia learning: using the same instructional design methods across different media”. Netherlands: Elsevier Science Ltd., 2003.
- [16] Kirriemuir, J. and Mcfarlane, A, “Report8: Literature Review in Games and learning”, United Kingdom, Futurelab, 2006.
- [17] Wong, D.L., et al, “Buku Ajar Keperawatan Petriatrik Vol 1”, 2010.
- [18] Nazarudin. Manajemen Pembelajaran. Yogyakarta: Teras, 2007.
- [19] Broto, R. A. “Dampak Video Game pada Anak Perlu Diwaspadai”. Kolumnis: Rab A. Broto, Januari 2006.
- [20] Mayer, R.E. “The promise of multimedia learning: using the same instructional design methods across different media”. Netherlands: Elsevier Science Ltd., 2003.
- [21] Juho Hamari, David J. Shernoff, Elizabeth Rowe, Brianno Collier, Jodi Asbell-Clarke, Teon Edwards, “Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning”, Computers in Human Behavior 54, pp. 170-179, 2016.

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