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Aspects of Visual Communication Design in Animated Learning Media for Early Childhood and Kindergarten

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Abstract---Visual communication design media through animation is the most appropriate means of assisting learning methods in early childhood which functions to help early childhood develop sensory and motor skills in early childhood. Also, it is constructive for teachers and parents to facilitate teaching methods that can concretely stimulate motivation in students. This study will describe a learning model that uses visual communication designs, especially animation in early childhood in the Surakarta area, Central Java, Indonesia. This research method includes data collection, data analysis, and presentation of data analysis. The stages of analysis from various sources of results from information from both literature reviews and interviews were carried out using an interactive model, where each component of the research includes the stages of data collection, data reduction, presentation and conclusion drawing. Test the validity of the data using data triangulation techniques, namely triangulation of data sources and triangulation of theories. The data analysis technique uses the stages of data collection, data reduction, data presentation, and concluding.

Keywords---animation, education, kindergarten, learning media, visual communication.

Introduction

The development of human life has to start in the womb of the mother, birth, and until her reaches adulthood. The stages in each age level are related to one another as a whole in one unit. The process of individual development of each child begins with reflexes and then the development of the central nervous system and the development of other functions, such as motor, emotional, intellectual, and social aspects (Putri et al., 2019). Likewise, human development in the learning process, where each age stage will change learning methods and media that always adjusts the individual character, the environment, and the media they receive during the learning process.

Inside this study, we will try a research approach to elementary school education and kindergarten in the Surakarta area, Central Java, Indonesia. The research object is a school that is included in the category of early childhood education, where the meaning is all educational efforts in facilitating the development and learning of children from birth to the age of six through the provision of various experiences and stimuli that are developing,

integrated and comprehensive so that children can grow and develop positively. Healthy and optimal following the morals and life adopted (Sutedjo & Prilosadoso, 2016). The development of science and technology has a positive impact on advances in education. According to the opinion Yelland (2001), that the application of ICT (information and communication technology) in the classroom can improve learning materials that can be done by teachers, by providing materials and questions that are not possible without using ICT, by extending to students learning more exciting materials and for the teacher. It will be more comfortable in the learning process (Schiller & Tillett, 2004). The role of technology and communication, where one of them is the emergence of learning that uses visual communication designs, one of which is animation media which has begun to be used in elementary and preschool education.

The advancement of developments in the field of technology and information has made a combination possible coordination and coordination of verbal presentation modes, namely: various narratives and texts on a monitor screen with nonverbal presentation modes, namely graphics, video, animation, and sound in only one device in the form of computers, gadgets and other devices (Moreno & Mayer, 1999). Optical media in the form of animation is the most suitable means of assisting learning methods in early childhood. From the presentation put forward by Olsen (1994), at present, the potential in the field of information and communication technology (ICT) is essential and is the main foundation for educational reform, especially efforts to achieve goals in learning approach that is more student-centered (Schiller & Tillett, 2004). So in this study will describe the importance of learning media in the form of animation which has advantages in all aspects, both visually, soundly, material, and messages that can be received by students in the learning process.

Information technology, one of which is animation media, is a sub-sector of the creative industry, which is included in businesses whose business opportunities are increasing significantly and can absorb a large number of creative workers (Heriwati et al., 2020). The development of the animation industry today is not only targeting children but also adolescents and adults. The selection of animation media for learning media is adjusted to the character of elementary schools and kindergartens, where at their age the ability to absorb audiovisual media is very quickly accepted by them. The animation is a visualization technique that is widely used in the world of education today, either as a whole, part of live-action, or as a unit with live-action. The world of film is rooted in the world of photography, while animation is rooted in the world of images, namely illustration and graphic design.

The animation is excellent if used in a learning media, and the introduction of two-dimensional or three-dimensional objects, such as for learning media material that requires visualization from the user, besides animation can combine several virtual things into a real-like display that can be displayed in real-time which will attract understanding for students in the learning process (Dabbagh & Kitsantas, 2012; Gikas & Grant, 2013). The market of the animation industry can encompass various fields, namely architecture, interior design, archeology, serial film, advertisement, education, games, arts, and multimedia industry i.e. web design (Prilosadoso & Pujiono, 2019). Based on the introduction above, media research regarding the role of visual communication design, especially animation in learning media for elementary and kindergarten students, where the spirit will be supported by interactive multimedia (voice text, images, animation, and video) (Nicholson-Cole, 2005; Ord et al., 2002).

Materials and Methods

The method used in this learning media research is descriptive research. The rationale for this research, the approach is that the problem material is a fact at present, namely the problem under study where it occurs when the research process is carried out (Purnamasari & Nugraheni, 2017). According to Turan (2014), qualitative research methods using a questionnaire that aims to study in detail the subject studied in this educational research (Heriwati et al., 2020). According to Sutopo (2003), the reason is that this method (1) can describe the process from time to time in a natural situation without the researcher's engineering; (2) allows for inductive analysis, which is oriented towards exploration, discovery, and inductive logic, so that the resulting theory is based on patterns in reality; and (3) enable the description of human behavior in a natural context (Nugrahani, 2012). In the implementation of this research, it is included in descriptive qualitative research focuses on describing and explaining the role of visual communication design, especially in animation as a solution for learning media in early childhood and kindergarten.

This study aims to develop the field of visual communication design, especially animation in learning media which seeks to provide an alternative educational media that is attractive to early childhood and kindergarten (Graue, 1992; Trueswell et al., 1999). In this research, the method used in this research was developed by formulating principles in animation literature (Kwon & Lee, 2011). Technology innovation is the main driving factor for success in winning a competition at the global level as in the current era. The presence of information media in this visual communication design causes the communication process to have a different style and appearance for each

information and the intended target audience. The presence of information media in the field of visual communication design causes the communication process to have a different style and appearance for each information and consumer to be addressed (Guizar & Panindias, 2019).

From preliminary observations, it was found that various sources of information both from literature reviews and interviews were conducted using an interactive model, where each research component includes the stages of data collection, data reduction, data presentation, and finally in the form of concluding. The analysis process in the research stage of this learning media is according to the explanation of Miles & Huberman (1994), which will be carried out continuously along with the interacting cycles until the information being sought is entirely complete. The notion of animation is based on the production tools provided to produce learning media through visual communication design, especially animation, as described in the 4 (four) processes below, namely: a) Pick a character; b) Pick a background; c) Add dialogue; and d) Direct (Xiao, 2013). Test the validity of the data in this learning media research using data triangulation techniques which consist of three parts, namely triangulation of data sources and triangulation of theories. Data triangulation is applied to check the validity of the data by comparing it from other aspects. The data analysis technique used interactive chain analysis with the stages of data collection, data reduction, data presentation, and concluding the end of the research.

Results and Discussions

Animation as an effective and interesting learning media

According to Lowe (2003) the theory that in the present era, a development in the field of technology has been able to change the way people think and view the world and the universe (Prilosadoso et al., 2020). Technological developments in the last decade, where rapid computing capacity and the advancement of visual communication design technology, multimedia learning media have changed and evolved from static and monotonous text to become increasingly sophisticated and attractive media. Two characteristic aspects seem to be popular among designers and other practitioners so that the use of animation media has an impact on students' ability to interact with the instructional material being taught (Betrancourt, 2005; Ehlschlaeger et al., 1997).

The benefits of animation related to visual communication design are interesting and useful in today's education world. Almost all of the users' experiences, both teachers and students, have used and seen simple animation media in PowerPoint and other software that has been widely circulating in the community. Besides, individual schools have even used animation software which is more complex and complicated in its operation as a learning medium.

The teacher can categorize animated content as a learning medium in the classroom into three main types: a) Expositive: students can see directly from the monitor screen; b) Interactive: students can learn interactively, and c) Quizzes: students can find out how able they are to receive and receive learning material through light tests (Xiao, 2013). The appearance of a profile is generally initially recognizable and attracts readers or viewers from the aspect of its visual elements. Animated content in today's era attracts the most viewers from the public by utilizing Flash or Java-based technology. From the perspective of animation applications, there is more space in learning media that is more attractive and has many benefits compared to other media (Xiao, 2013).

Conclusion

The field of visual communication design, mostly through animation media, is in research as a learning medium for school and kindergarten students where animation media can stimulate and attract students' interest in learning either in the classroom or in other locations. The resume that can be drawn as a conclusion that animation media is to integrate all elements of animation into teaching and learning activities. Situations that are realistic, immersive, and interactive have always been the main criteria in selecting animation material in teaching and learning activities so that activities between teachers and students are maximized, and students become interactive, the material can be received with animation media. Besides, the conclusion in this study is that in designing learning media through visual communication design media through animation, it must include 3 (three) categories, namely: a) Expositive; b) Interactive; and c) Quizzes.

The development of learning media in the future is an essential factor in the press of pursuit, especially school and kindergarten students because they are potential future successors of the nation, it is necessary to collaborate with various stakeholders related to education at an early age always to work together. Much development with

collaboration between learning materials and information technology is still being explored to be able to create advanced learning media according to the times, without losing the character of students in absorbing knowledge.

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References

- Bétrancourt, M. (2005). The animation and interactivity principles in multimedia learning. *The Cambridge handbook of multimedia learning*, 287-296.
- Dabbagh, N., & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *The Internet and higher education*, 15(1), 3-8. <https://doi.org/10.1016/j.iheduc.2011.06.002>
- Ehlschlaeger, C. R., Shortridge, A. M., & Goodchild, M. F. (1997). Visualizing spatial data uncertainty using animation. *Computers & Geosciences*, 23(4), 387-395. [https://doi.org/10.1016/S0098-3004\(97\)00005-8](https://doi.org/10.1016/S0098-3004(97)00005-8)
- Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *The Internet and Higher Education*, 19, 18-26. <https://doi.org/10.1016/j.iheduc.2013.06.002>
- Graue, M. E. (1992). Social interpretations of readiness for kindergarten. *Early Childhood Research Quarterly*, 7(2), 225-243. [https://doi.org/10.1016/0885-2006\(92\)90006-K](https://doi.org/10.1016/0885-2006(92)90006-K)
- Guizar, V. T., & Panindias, A. N. (2019). Media Promosi Edukasi Sejarah Melalui Perancangan Karakter Visual Singo Ulung Bondowoso. *TEXTURE: Art & Culture Journal*, 2(1), 74-83.
- Heriwati, S. H., Pujiono, B., Panindias, A. N., & Prilosadoso, B. H. (2020). Hanoman's 2D Animated Character in Ramayana Wayang Story. 4(3), 168–174. <https://doi.org/https://doi.org/10.29332/ijssh.v4n3.527>
- Kwon, J. Y., & Lee, I. K. (2011). Cartoon-like stylization for character animation. In *2011 International Symposium on Ubiquitous Virtual Reality* (pp. 48-51). IEEE.
- Lowe, R. K. (2003). Animation and learning: selective processing of information in dynamic graphics. *Learning and instruction*, 13(2), 157-176. [https://doi.org/10.1016/S0959-4752\(02\)00018-X](https://doi.org/10.1016/S0959-4752(02)00018-X)
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Moreno, R., & Mayer, R. E. (1999). Cognitive principles of multimedia learning: The role of modality and contiguity. *Journal of educational psychology*, 91(2), 358.
- Nicholson-Cole, S. A. (2005). Representing climate change futures: a critique on the use of images for visual communication. *Computers, environment and urban systems*, 29(3), 255-273. <https://doi.org/10.1016/j.compenvurbsys.2004.05.002>
- Nugrahani, F. (2012). Reaktualisasi tembang dolanan Jawa dalam rangka pembentukan karakter bangsa (kajian semiotik).
- Olsen, M. B. (1994). The semantics and pragmatics of lexical aspect features. *Studies in the linguistic sciences*.
- Ord, T. J., Peters, R. A., Evans, C. S., & Taylor, A. J. (2002). Digital video playback and visual communication in lizards. *Animal Behaviour*, 63(5), 879-890. <https://doi.org/10.1006/anbe.2001.1983>
- Prilosadoso, B. H., Pujiono, B., & Supeni, S. (2020). The Character of the Pacitan Wayang Beber Cartoon as a Cultural Preservation Effortfor Millennial's Generation. *International Journal of Advanced Science and Technology*, 29(4), 2517–2522. <http://sersec.org/journals/index.php/IJAST/article/view/21090>
- Prilosadoso, B. H., Pujiono, B., Supeni, S., & Setyawan, B. W. (2019). Wayang beber animation media as an effort for preserving wayang tradition based on information and technology. In *Journal of Physics: Conference Series* (Vol. 1339, No. 1, p. 012109). IOP Publishing.
- Purnamasari, I., & T Nugrahani, P. I D. (2017). Perencanaan Pengajaran Berdasarkan Pendekatan Sistem. *Jurnal Pedagogika Dan Dinamika Pendidikan*, 8(3), 64–75.
- Putri, R. O. C. E., Firdausi, N. A., Susetya, B. A., & Prilosadoso, B. H. (2019). Pelestarian Cerita Ramayana Melalui Media Wayang Limbah Kertas Untuk Siswa Sekolah Dasar Di Sukoharjo. *Prosiding: Seni, Teknologi, Dan Masyarakat*, 2, 245-251.
- Schiller*, J., & Tillett, B. (2004). Using digital images with young children: Challenges of integration. *Early child development and care*, 174(4), 401-414.

- Sutedjo, A., & Prilosadoso, B. H. (2016). Perancangan Desain Permainan Materi Pendidikan Anak Usia Dini Berbasis Wayang Beber. *Acintya Jurnal Penelitian Seni Budaya*, 8(1).
- Sutopo, A. H. (2003). Multimedia interaktif dengan flash. *Yogyakarta: Graha Ilmu*, 32-48.
- Trueswell, J. C., Sekerina, I., Hill, N. M., & Logrip, M. L. (1999). The kindergarten-path effect: Studying on-line sentence processing in young children. *Cognition*, 73(2), 89-134. [https://doi.org/10.1016/S0010-0277\(99\)00032-3](https://doi.org/10.1016/S0010-0277(99)00032-3)
- Turan, B. (2014). The opinions of teachers on the use of cartoon character in the mathematics lesson. *Procedia-Social and Behavioral Sciences*, 141, 1386-1391. <https://doi.org/10.1016/j.sbspro.2014.05.239>
- Xiao, L. (2013). Animation trends in education. *International Journal of Information and Education Technology*, 3(3), 286.
- Yelland, N. (2001). *Teaching and learning with information and communication technologies (ICT) for numeracy in the early childhood and primary years of schooling*. Canberra, ACT: Department of Education, Training and Youth Affairs.