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The Use of Multimedia Technology in Early Childhood Literacy

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ABSTRACT
UNESCO shows that the reading interest of Indonesians is in ranks 60 out of 61 countries in the world which shows that the interest of Indonesians in reading and writing is relatively low, therefore, the habit of reading should be introduced to children, by using multimedia technology. This study aimed to describe the use of multimedia technology for literacy learning in early childhood education, including: implementation of multimedia technology utilization in children's literacy learning. This study is a qualitative research. Data collection used observation techniques, interviews and document review. The data validity was obtained through triangulation. The data analysis technique was done using interactive model. The results show that: Implementation of use of multimedia technology in literacy learning was implemented in each step of learning centers with steps:(a) focusing attention, (b) orientation, (c) modeling, (d) child play stage, and (e) summary.

Keywords: *early childhood, literacy learning, multimedia technology.*

I. INTRODUCTION

In this globalization era, a study of the "Most littered Nation In the World" conducted by Central Connecticut State University, Indonesia was ranked 60th out of 61 countries regarding interest in reading (Gewati, 2016). Indonesian people's habits in reading and writing is relatively low, the condition is very alarming. Referring to the UNESCO survey in 2011 showed that the index level reading Indonesian people is only 0.001 percent. This means that there is only one person out of 1000 residents who still want to read the book seriously. Thus it should be maximal in growing and improving the reading culture of Indonesian society. Starting from multiply reading, both at school and at home, to the provision of infrastructure such as the supply of books to read,

The book become a means of intelligence, many people become smart and rich because of reading. Therefore, the habit of reading should be introduced to children at an early age. Every child should be introduced to the reading so that they quickly mastered the language and proficient in reading (Permatasari, 2016) In connection with the child, there are pros and cons to read and write at early age children. Various studies and supports the idea that children under 7 years of age allowed to learn calistung, and other studies have different opinions that not to learn calistung. The reason contra aligned with the research of child development psychologist from Switzerland, Jean Piaget as outlined by Afin Murtie on his calistung Teach Children to Play. He stated that the future of children cannot yet concrete operational thinking. Children become overburdened and the original purpose of educating children into a dilemma because even children become unhappy and could not enjoy their lives. In fact, the opinion of its own Piaget caused confusion for parents and teachers who want to develop their intellectual potential without having to wait for ages 7 years. One can imagine how children it difficult to follow the lessons when they enter elementary school (Bimba Aiueo, 2013) These days in Indonesia, several elementary schools requires the students to be able o read and write as a requirements of New Students Admission (NSA), the reading and writing becoming units that must be resolved by children under seven years (Early Childhood) (Eprilia & Prasetyarini, 2011). Piaget's opinion of its own cause confusion for parents and teachers who want to develop their intellectual potential without having to wait for ages 7 years. One can imagine how children it difficult to follow the lessons when they enter elementary school (Bimba Aiueo, 2013).

Early childhood education is focused on finalizing the students emotionally, socially, and cognitively to be able to follow the process of learning in Primary Schools (Ruhaena, 2015). Kemendikbud asked the Kindergarten's teachers not to burden their students learn to read and write as well as at the primary level. Director of ECCE Kemendikbud, Ella R. Yulaelawati Ph.D states that "Helping children to enrich their language through play is recommended compares to imposing the children to read without the child knows its meaning. The method is not classically ". Ella added that, learning in early childhood was not like learning in elementary school classrooms, where teachers dictate the child to write or read, for

children at an early age should be learning in a fun way and not leave the burden. Besides Ella also states that "The point that can be done is to teach more vocabularies, storytelling, reading books through creative expressive not flat reading". In line with Ella, Chairman of the Association of Teachers and Education Personnel in Early Childhood (HIMPAUDI) Prof. Netty Herath said that early childhood should be taught to read and count solely on the stages, it is included in an activity called with literacy (Aji, 2015).

Literacy is one of the areas of academic skills which most important because it affects the acquisition of skills in other academic fields. Good literacy skills can broaden the horizons of knowledge, inspire or even solutions open up many new opportunities. Results of research by Senechal & LeFreve show that good early literacy skills help children to learn and read easier and improve children's success in school (Ruhaena, 2014, p.1). Additionally, Allington states that children's early literacy skills may predict later literacy skills at moderate to high level (Trehearne, 2011, p.34). Children who have mastered the literacy skills early will cause the child to be a good learner throughout his life.

Activities that take advantage of multimedia technologies will further support literacy learning process, as it integrates text with images, animations and sounds. It is very interesting for children because getting through many senses sensory stimulus, not only see and hear it. Multimedia multisensoris able memfungsi more receptors that inputs that go to the brain becomes more powerful and facilitate the process of information coming into the brain. In addition, the multimedia technology, helped children to understand more quickly the things that are abstract because it can be presented more concrete.

Multimedia is one factor of many factors that have the most impact in the growth, development of psychological and behavioral changes in all ages, especially children. Responding to the influence of multimedia technology to the development of such children, educators must know in advance about the substance of multimedia technologies and able to be part of them. That is, do not stutter technology, and of the knowledge of the educators are able to maximize the positive and minimize the step by step can be negative impacts.

Multimedia learning promises great potential for changing the way a person to learn, to obtain information, customize information and so on, and also provides an opportunity for educators to develop learning techniques so as to produce maximum results. Likewise for learners with learning multimedia educational purposes would be quickly achieved with a strategy to absorb information quickly and efficiently, resources are no longer focused on the text of a book solely but broader than that. Growing awareness of the importance of the development of multimedia learning must be realized by educators, especially the availability of support from the technology.

Multimedia learning is a form of technology that can be used as an alternative medium of learning. The use of multimedia can stimulate and enhance student motivation in learning. The influx of multimedia in learning to create a fun atmosphere in the study for multimedia combines some elements of the media so that the learning process by using multimedia more attractive. According Warsita (2008) defines that multimedia interactive learning can be defined as a combination of various media were packed (programmed) in an integrated and interactive way to deliver a message specific learning. The relationship between the message and the media, the media here act as a message (Fero, 2011).

Multimedia learning can be developed on the assumption that the communication in the learning process will be more meaningful, because it is a combination of multimedia learning various media elements that consist of text, graphics, photographs, animations, video and sound are presented interactively in instructional media. Multimedia regarded as a medium of teaching and learning are attractive based on its ability to touch the various senses: sight, hearing and touch (Ramli, 2013, p.57). It becomes a good alternative as a tool for teaching and learning.

With the multimedia technology in literacy learning will make the learning process more interesting, for example in terms of appearance combined with some images or animations. The attractiveness of the physical appearance greatly affect the learning process, the more attractive multimedia display, the students are more motivated to learn, thus affecting the results of their study (Resiani, 2015). The beauty, the attractiveness and their interactivity in a medium of learning is a means that learners are not boring in following the lessons and the greatest effects are expected to be motivated learners and make it easier to accept the subject matter (Fanny, 2013). It is clear that the use of multimedia technology in teaching can be accepted on the basis of self-learning process and enhance the active role of students (CBSA).

Results of an initial interview conducted by researchers for 15 kindergarten teachers in kindergarten Sabbihisma shows that there is still confusion experienced by teachers in the use of multimedia technology in a positive way in the process of learning in kindergarten. There are no clear guidelines and examples of how to use multimedia technology was performed in learning, particularly in literacy learning of children. Whereas the use of multimedia technology is now a critical factor in the implementation of learning in the era of industrial revolution 4.0.

TK Sabbihisma is a kindergarten that uses multimedia technology in the development of the literacy skills of children. The curriculum used in learning in kindergarten curriculum 2013 Sabbihisma is combined with information technology-based learning. Nearly 50% of learning in kindergarten using multimedia technology. The use of multimedia technology in teaching literacy in kindergarten, can be a model for other kindergartens in the city of Padang. Therefore, research into the use of multimedia technology literacy learning in kindergarten Sabbihisma worth doing.

II. METHODOLOGY

This is a qualitative research. Sources of data in this study are: (a) The key informants (key informant), key informant was the teacher. While informants selected by snowball include school principals, students, and staff employees of the kindergarten Sabbihisma. (B) the place and event, where researchers obtained data include among others the implementation of multimedia-based learning both in the classroom.

Data were collected using three data collection techniques are observation, interview and documentation. This study using test degree of confidence (credibility) via triangulation techniques. Triangulation is a technique by utilizing the data validity checking something else. Triangulation is used in this research is triangulation with the source, comparing and checking the degree of confidence behind the information gained through time and different tools in qualitative research. Besides using triangulation, this study also uses triangulation method.

According Sugiyono (2006: 308) "Analysis of the data is data arranged in a site to be described." In doing the data analysis researchers refer to the steps described Miles and Huberman (2007: 16), which consists of three stages: "Data reduction (data reduction), presentation of data (data display) and data analysis used in this study is a model of interactive analysis of Miles & Hiberman

III. RESULT AND DISCUSSION

The use of multimedia technology in learning in kindergarten Sabbihisma integrated with learning activities in the 2013 model curriculum and learning centers of scientific learning approach. The learning activities in the curriculum of learning centers with the 2013 model in question is the main environmental footing, footing experience before play, during play and footing footing after the play. In the implementation of learning by using multimedia technology on learning in kindergarten Sabbihisma foothold activities play environment filled with phase concentration and focus. Activity on the footing of experience before the game, filled with the orientation stage and modeling stage. Footing when playing is filled with children's stage play, and activities on the ground after the play, filled with stage summary.

Learning literacy conducted in kindergarten Sabbihisma not be separated from the use of methods, approaches and learning models. The learning method used in kindergarten Sabbihisma determined by the teacher, that is according to plan learning activities that day, and the creativity of teachers. Trianto (2011, p.93) discloses a method of the means used to implement a plan that has been prepared in concrete activities that have been prepared for the purpose of optimally achieved. Therefore, many of the methods that can be used in the use of multimedia technology in teaching literacy, the method of question and answer, the storytelling method, the method of assignment, direct practice methods, and methods of performance.

The methods carried over well adapted to the learning approach in kindergarten Sabbihisma. This approach to learning in kindergarten is a scientific approach. The use of multimedia technology in literacy learning is done with scientific-based integrated learning. By the time children learn to use multimedia technology, children do activity as observed image, reasoning images or materials on the computer screen, digging up information using the Internet, ask the teacher, and communicate what they have acquired during the learning. Trianto (2011, pp.90-93) revealed that the approach as a way to achieve the goal. Therefore, the use of approach is very important in literacy learning using multimedia technology.

Aspects of the literacy skills are stimulated by using multimedia technology in kindergarten Sabbihisma refers to the achievement indicators of early childhood development 5-6 years old on basic competence 4:12, which shows early literacy skills with a variety of works, the indicator is: mentioning the symbols of letters known, familiar sound of the initial letter of the name of the objects around him, to understand the relationship between sounds and shapes of letters, read his own name, and the names themselves, understand the meaning of the word in the story. This is consistent with the opinion of Snow (2008, p.276) states that at the age of 5 years old child can read a syllable, can recognize words irregular to see, predict what will happen in the story.

At the time of stimulating the child's ability to: mention the symbols of letters known, familiar sound of the initial letter of the name of the objects around him, to understand the relationship between sounds and shapes of letters, the teacher made material in the form of flash player named learning program smart kids, The program was created by teachers. This program contains some content, namely: reading, writing, numeracy and educational games. In the kindergarten teachers recognize letters Sabbihisma using content read. In reading is divided into several sections, namely: recognize letters, know the names of objects and animals around and get to know animal sounds. Children can recognize letters easily, because images, sounds and animations are interesting. Furthermore, to stimulate the child to understand the meaning of words in the story, teachers prepare lesson video. The results showed that when children watch video lessons, the classroom atmosphere becomes conducive and focused. Children sit notice instructional videos to complete. Looks children vieo served interested teachers. They follow the storyline with the occasional reading the text available on the video. It has been described previously by Verhallen (2006, P.17) that "the computer-animated story is more effective support for the understanding of narrative and language development than the pictures beamed do not move". They follow the storyline with the occasional reading the text available on the video. It has been described previously by Verhallen (2006, P.17) that "the computer-animated story is more effective support for the understanding of narrative and language development than the pictures beamed do not move". They follow the storyline with the occasional reading the text available on the video. It has been described previously by Verhallen (2006, P.17) that "the

computer-animated story is more effective support for the understanding of narrative and language development than the pictures beamed do not move".

IV. CONCLUSION

Implementation of the use of multimedia technology in the teaching of literacy implemented in stepping-stone of learning centers with the steps: (1) concentration and focus, (2) orientation, (3) modeling, (4) the stage of a child's play, and (5) a summary. Aspects of the literacy skills of children who were stimulated using multimedia technology are: write and read his own name, mentioning the symbols of the letters were known, familiar sound of the initial letter of the name of the objects around him, to understand the relationship between sounds and shapes of letters, understand meaning of the word in the story.

REFERENCES

[1] Aji, YA (2015, November 27). Disallow Kemendikbud Kindergarten Children Learning to Read. Bogor Today. downloaded from http://www.bogor-today.com

[2] Chee, TS & Wong AFL (2003). Teaching and learning with technology. Singapore: Pearson Prentice Hall.

[3] Eprilia, UH, and Prasetyarini, A. (2011). Implementation of Learning Method calistung Starters For Kids Play Group Aisiyah in District Kartasura Sukoharjo. Humanities Research Journal, 12 (2), 129.

[4] Fanny, Arif Mahya, Siti Partini Suardiman. 2013. Development of Interactive Multimedia Lesson for Social Sciences (IPS) Primary Class V. Journal of Prima Edukasia 1 (1).

[5] Fero, David. 2011. Learning Media Development using Macromedia Flash 8 Lesson Function Highlights ICT and ICT Equipment Work Processes at SMAN 2 Banguntapan. http://ejournal.iainpurwokerto.ac.id/index.php / insania / article / view / 320 https://ejournal.undiksha.ac.id/index.php/JEU / article / view / 5929 https://journal.uny.ac.id/index.php/jpe/article / view / 2311

[6] Miles, Matthew B and Amichael Huberman.2007. analysis *Data Qualitative Sourcebook on Methods New*.Translation Tjetjep Rohendi Rohisi. Jakarta: Indonesian University.
Permatasari, Ane (2015) Building a Nation Quality With Cultural Literacy. Proceedings of the National Seminar UNIB Language Month.

[7] Priyanto, Dwi. 2009. Development of Computer-Based Multimedia Learning. Journal of Alternative Education Thought INSANIA 14 (1).

[8] Ramli, M., (2013). Application of Multimedia Technology in Education. Ittihad Journal Kopertais Kalimantan region XI. 11 (19).

[9] Resiani, Ni Kadek, Anak Agung Gede Agung, I Nyoman Jampel. 2015. Development of Multimedia Interactive Learning on the Subject IPS Seventh Grade Students in Junior High School Semester Academic Year 2014/2015 7 Singaraja. e-Journal EduTech Ganesha Education University Department of Educational Technology 3 (1).

[10] Ruhaena, L. (2014). Literacy Development of Children with multisensory approach. Journal of Psychology. Yogyakarta: Gadjah Mada University.

[11] Ruhaena, L. (2015). Model multisensory: Stimulation Solutions Literacy Preschool Children. Journal of Psychology, 42 (1), 47.

[12] Snow, CS (2008). What counts as Literacy in Early Childhood? Hand book of Early Childhood Development. 274-316. Singapore: COS Printers.

[13] Sugiyono. 2006. Quantitative Approach Educational Research Methods, Qualitative and R & D. Bandung: Alfabeta.

[14] Trehearne, P. (2011). Learning to Write and Loving It!. USA: Library of Congress Cataloguing-in-Publication Data.

[15] Trianto (2011). Thematic Learning Development Design for Early Childhood TK / RA & Early Childhood Classroom SD / MI. Jakarta: Kencana Prenada Media Group

[16] Warsita, Bambang, 2008. Instructional Technology Platform and Applications. Jakarta: Rineka Reserved.