IMPROVING STUDENT LITERACY SKILLS THROUGH VISUAL COMMUNICATION MEDIA

Khoirul Alam[1], Undang Suryatna[2], Ali Alamsyah Kusumadinata[3]

[123]Program Studi Sains Komunikasi, Fakultas Ilmu Sosial Dan Ilmu Politik, Universitas Djuanda Bogor Jl. Tol Ciawi No 1 Kotak Pos 35 Bogor 16740

Corresponding Author E-mail address:
alialamsyahkusumadinata@gmail.com

Abstract: The aim of this study was to comprehends students' literacy abilities through visual communication media. Indicator of the assessment literacy ability based on the PISA institution in 2009 – 2015. The research was conducted at Sekolah Dasar Islam Terpadu Insantama Bogor in 2018/2019 academic years. The research approach used quantitative which used census in five class elementary school. Total sample in the case were 126 students. One-Group Pretest-Posttest Design method was used in the research. Simple linear regression was used in analysis process. The result of regression R = 0,886 showed correlation between an improving students' literacy skills with Visual Communication Media (X) is strong and positive. Then, from the result of ANOVA data processing, showed: F Calculated was 148.380 with a significant level 0,000. Because the probability (0,000) was much smaller than 0,05, so the regression model can be used to predict an improving students' literacy skills. The conclusion was there are significant influence on improving students' literacy skills. The ability of student literacy in listening and analyzing an object of learning.

Keywords: literacy skills, communication media, visual.

1. INTRODUCTION

Learning is a process as well as a stage for someone to know something. Human learning process as a means for self-development. In the Big Indonesian Dictionary (Pusat Bahasa, 2008), learning is defined as an effort to acquire knowledge, intelligence, or skills. Learning comes from the word teaching which means 'instructions' given to someone to be known or obeyed.

Improving the quality of learning is a concrete step in efforts to improve education as well as human resources in this country. However, this is certainly not an easy thing. Hard, smart, conscious and planned efforts from various related parties are needed, especially in the school environment. Included in this effort is to use all available facilities for mutual progress.

PIRLS 2011 International Results data in Reading, shows Indonesia is ranked 45th out of 48 participating countries. Meanwhile, data on the reading literacy test according to PISA in 2009 shows that Indonesia is ranked 57th with a score of 396 (average score of OECD 493). In addition, Program Data for International Students Assessment (PISA) 2012 shows Indonesian students ranked 64th with a score of 396 (OECD, 2013). The countries participating in PISA in 2009 and 2012 amounted to 65.

Based on PIRLS and PISA data, on the aspect of reading comprehension skills, the ability of Indonesian students is fairly low. Reading is not a culture among Indonesian students, especially at the elementary school level, even though reading is an important part of learning. This condition must be corrected immediately by introducing literacy early on. In this case the government through Permendikbud No. 23/2015 states that schools set aside time periodically in order to get used to reading which is an effort to foster character. Some aspects measured in the literacy test are: using, understanding and reflecting reading into writing. Loves reading is very important in the process of literacy activities.

Literacy is useful as a means of students to recognize, understand, and apply the learning outcomes they obtain. Literacy is expected to strengthen and foster character as written in Minister of Education and Culture Regulation No. 23 of 2015. One of the activities is "reading non-learning books before learning with a duration of about 15 minutes". In its development, literacy is associated with other abilities. This is stated in Ferguson (2004) Basic Literacy, which includes the ability to hear, speak, read, write, and count relating to the ability to analyze (calculating), perceive information (perceiving), communicate, and describe information (drawing) based on personal understanding and conclusion.

According to Zaenal and Rusdiana (2017), among the important things in the learning process was the choice of communication media in education. This is due to the fact that the function of the media is very strategic in the implementation of the education process. Literacy is a part of learning activities that is very possible to be carried out with additional content based on visual material because this media has more characteristics that rely on the sense of sight by displaying visual elements. Meanwhile, Sumah and Kusumadinata (2020) explained that literacy skills in learning need to be improved by the school system especially teachers as part of the source of information for students. Interesting content can make students interested and motivate students in learning.

Visual media can be used as learning communication media. As a communication media, visual media is useful to clarify the presentation of messages so that learning becomes more effective, including the school literacy program. But based on the observations of researchers, visual media has not been maximally used in literacy in schools, even though the availability of facilities and infrastructure is very supportive.

Previous research relevant to literacy skills, by Asyhari and Hartati (2018) explained that scientific learning can improve the profile of students' scientific literacy abilities in the aspects of competence and knowledge aspects of environmental pollution material. As for the influence of communication media. Adri et al. (2020) researching with similar research with regard to the use of animation in nature learning in high school showed experiences and positive effects on student learning outcomes. Fitrihandayani (2017) showed that there was a positive and significant influence on the use of audio-visual media on student learning outcomes in social studies subjects IV SD Negeri Ratna Chaton. Based on this, the purpose of this study is to find out the increase in students' literacy abilities through visual communication media.

2. METHODS

2.1. Research Design

The research approach used quantitative by summarizing the score from the value of the questions asked to students. This study uses experimental research with the aim of seeing the different effects of treatment that occur after an explanation is given and before an explanation (Sugiyono 2005). The object of this research was the students' literacy ability (Y) and visual communication media (X).

2.2. Participants

The sampling technique used a census in class 5th with deliberate determination of the sample. This was based on the ability of the fifth grade is quite ideal to determine the quality of a learning method. This research was conducted at Sekolah Dasar Islam Terpadu Insantama Bogor, West Java by making fifth grade students the object of research. The study was conducted in June to November 2018. The research population was 126 of the number of students in fifth grade divided into four classes.

2.3. Data analysis

Data analysis technique used, simple linear regression analysis. Aims to see the effect of a variable that is able to explain the position of the variable being tested (Kriyantono, 2016). The simple Linear Regression Model used is: $Y = a + b1X1$, where Y is the ability of Literacy, a is a constant, b1 is variable efficiency and X1 is visual communication.

3. RESULTS AND DISCUSSION

3.1. Characteristics of Visual Communication Media

According to Zaenal and Rusdiana (2017), learning media are divided into several characteristics, namely: (1) visual media, (2) audio media, (3) projection media, (4) internet. Visual media is one part of learning by having characteristics rely on the sense of sight. Visual communication media facilitate students in learning and further clarify the material being taught.

The media characteristics mentioned, graphic media and projection media are often used at SDIT Insantama, especially fifth grade. In graphic media, almost all of them have been used in learning (literacy), especially pictures and posters. This is because the literacy material at the initial (stage) presents light reading to foster students' interest in reading first. Researchers also found the use of visual communication media in schools was at a developing stage. It is said to develop because this learning is supported by the availability of LCD / projector in each class. So in terms of facilities and infrastructure, SDIT Insantama already supports learning optimally. Learning activities are already using the facilities properly. However, its use in certain subjects only. Not all learning can be done with visual communication media. The use of media depends on the material to facilitate understanding and improve the ability to remember students, especially on cognitive aspects.

Kriyantono (2016) the main focus in cognitive psychology is its long-term memory. Cognitive psychology views humans as individuals who are always active in finding and selecting every information for processing. The advantages of using visual communication media are able to be easily understood by students. Based on the characteristics of instructional media using visual media has characteristics, among others. (1) Understanding reading text with pictures, (2) Interested in learning using pictures, (3) Understanding subject matter summarized in the form of pictures (visual), (4) Making summaries easily if accompanied by pictures, (5) Memories about the subject matter become stronger by drawing. From the questions asked to students about how the influence of visual communication media on the learning material used results in an average student response of strongly agree (37%), agree (44%), doubt (17%), disagree (3%) and strongly disagree (1%). The use of visual communication media can help students in learning. In other words, the characteristics of visual communication media related to the sense of sight have a positive impact on learning (literacy) of students who are capable and easy to remember.

The use of subject text with pictures makes it easy for students to understand and interpretation their experiences through pictures. This assessment obtained was 95% of students stated strongly agree and agree with the reading text material pictorial. The pictorial material can increase the stimulation of students' imagination of the objects recognized in each word stimulation described in the picture. On the other hand, students at the age of 12 years have an interest in objects or objects that can be visualized. This shown in the data where the students stated strongly agree and agree (97%) of the visualization of the image. In thematic learning in the education of fifth grade elementary school children, it is very helpful for students to understand an explanation using pictures. Visualization of images in learning and delivery of material to the conclusion is interpreted with accuracy 70% understand well and 30% understand with an explanation from a companion both teacher and friend. Explanation of pictorial material by given an opportunity for students to tell stories again then students were able to explain well by 76% and the rest is still difficult to argue. Child psychology between the ages of 7-12 years at the elementary school level has a great interest in visualization and student assessments are only 65% who agree and strongly agree with a series of learning material activities that are drawing or visualizing through pictorial objects. Thematic learning material with the application of the 2013 curriculum, teachers are required to be able to explain to students to deliver material easily and in accordance with the educational terms of reference. Therefore, understanding learning material that is accompanied by pictures can help students understand the lesson more clearly.

However, teachers need to realize that not all students are able to express their understanding in the form of images, limitations in understanding in the media of images can be manipulated with identical symbols from the concept of material obtained and inserted with information on the pictures or symbols made. So it can be stated that students' responses to the influence of visual communication media are able to absorb 77% of the learning material delivered by the teacher.

3.2. Student Literacy Ability (Pre-test-Post-test)

The basic literacy abilities measured in this study consist of five aspects: listening, speaking, reading, writing and counting. Basic literacy skills were measured using questions relating to learning themes with measurements consisting of 5 statements. The data generated was listed in Table 1.

Table 1 Distribution of students' literacy abilities (pre-test)

Grades		Class A	Class B	Class C	Class D	Total
Literacy Abilities	Good (>70)	29 (94%)	31 (100%)	26 (81%)	30 (94%)	116 (92%)
	Poor (<70)	2 (6%)	0 (0%)	6 (19%)	2 (6%)	10 (8%)
Total		31 (100%)	31 (100%)	32 (100%)	32 (100%)	126 (100%)

Based on the preliminary data (pre-test), the fifth grade students answer was 94% and the answer was not good, only 6%. While fifth grade B answers questions well by 100%. While fifth grade C got good grades, only 81% and 19% were not good. From this data there were a variety of grades distribution between classes where fifth grade B was superior and followed by fifth grade A and D. While fifth grade C has the problem of being able to understand reading texts in thematic learning material. From the overall assessment, only 8% of fifth grade students have problems in thematic learning in the form of texts. So researchers began to present explanations of thematic learning using visual images. After making adjustments to learning using visual media, researchers obtain data that can improve students' ability to comprehend reading texts visually. After learning was finished at the end, the student's final learning activities were given a post-test. Post-test has the function of knowing the final ability after being presented a more communicative learning media using visual media. So we got an increase in the ability of the average student. The results of the comparison of the average pre-test and post-test scores of the research students were presented in Table 2.

Table 2 Comparison between pre-test and post-test in thematic learning

Grade		Class A	Class B	Class C	Class D	Average
Thematic Learning	Pre-test	87	90	81	86	86
	Post test	93	95	89	92	92

Based on Table 2, it was known that an increase in the average value of students after being treated. In class A, the mean value before treatment is 87 while after treatment is 93. This means that the increase in score was as much as 5. In grade five B, the mean value before treatment is 90 whereas after treatment was 95. means the increase in score was 5. In grade five C the average value before treatment was 81 while after treatment was 89. This means an increase in score 8. In grade five D the average value before treatment was 86 while after treatment is 2. It means an increase in score 6. This showed the influence of the use of visual communication media to improve students 'literacy skills in supporting the achievement of the learning process in school and improve students' cognitive abilities in the long run by 6%.

3.3. The Effect of Literacy Ability Through Visual Communication Media

The results of the assessment of fifth grade students who was processed then tested using simple regression analysis to see the improvement that can be obtained from the learning model through visuals. Visual Communication Media Variable was symbolized (X) and increased literacy ability was symbolized (Y). The results of the regression analysis showed Figures R =

0.886 showed a correlation / relationship between Increased Literacy Ability (Y) with Visual Communication Media (X), strong and positive. While the number R2 or the coefficient of determination was 0.785 (meaning 0.886 x 0.886). Santoso (2010) recommends using R2 of 0.780. This means that 78.00% variation in Attitude Change (Y) can be explained. While the remaining 22% was explained by other factors not examined.

Then from the processed data about Anova, the F-count obtained was 148,380 with a significant level of 0,000. With a probability (0,000) far <0.05, the regression model can be used to predict the increase in literacy ability (Y) on Visual Communication Media (X). So the model that is built from increasing student literacy skills is Y = 0.605 + 0.338 Visual Communication Media. This showed that visual communication media in one unit can improve 0.338 students' literacy abilities in one unit. While the influence of the value is positive on student liability (Table 3).

Table 3 Model for increasing students' literacy abilities towards visual communication media

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.605	.159		3.818	.000
	Visual Communication	.338	.072	.394	4.686	.000

a. Dependent Variabel: Visual Communication

The influence of visual communication media, on the ability of Basic Literacy (listening, speaking, reading, writing, and counting). Seen in each percentage of the influence of communication media on the average ability of Basic Literacy in each class has a significant increase with an average of 6%. The use of media was adapted to the lesson (especially literacy) to facilitate understanding and improve students' remembering abilities, especially on cognitive aspects. Based on previous research conducted by Primavera et al. (2014), states that there was an influence of the use of audio-visual media (video) on student learning outcomes. Therefore, visual communication media in student literacy activities support students' ability to remember long-term (cognitive) knowledge during the learning process. Madang et al. (2017) showed that the use of media can improve student learning outcomes in learning respiration (Natural Sciences). Other research shows, Velders et al. (2007) revealed that students 'abilities in learning to use visual media were able to arouse students' enthusiasm to dig deeper information.

4. CONCLUSION

The characteristics of visual media related to the sense of sight have a positive impact on student learning (literacy). This communication media was used to make it easier for students to learn, especially literacy activities and interest in various reading texts. Based on data calculations it was known that an increase in the average value of students after being given communication media treatment by 6%. With a predicted increase of 0.943 in one unit with an interval of 78% confidence can be explained. This showed the influence of the use of visual communication media to increase the ability of student literacy to support the achievement of the

learning process at school and improve students' cognitive abilities in the long run. Therefore primary school teachers are expected to increase creativity, motivate and interest in fostering a culture of fond of reading, maximizing the use of visual communication media in learning literacy in schools, especially literacy programs. Schools are expected to always support various types of interactive learning models related to communication media in order to improve student learning outcomes and literacy abilities in particular.

REFERENCES

Adri, HT., SA Yudianto., Mawardini, A. & Sesrita A. (2020). Using Animated Video Based On Scientific Approach To Improve Students Higher Order Thinking. *Indonesian Journal of Social Research (IJSR)*, *2*(1): 9-17. https://doi.org/10.30997/ijsr.v2i1.23.

Asyhari, A. & Hartati, R. (2018). Profile of Improvement of Students' Literacy Capabilities through Scientific Learning. *Al-Biruni, 7 (2*), 179-191.

Ferguson, B. (2004). *Information Literacy: A Primer for Teachers, Librarians, and other Informed People. US: International Reading Association*

Fitrihandayani, A. (2017). *The Use of Audio Visual Media on Student Learning Outcomes in Class IV Social Studies Subjects at SD Negeri Ratna Chaton.*. [Skripsi]. Bandar Lampung (ID); Universitas Lampung.

Kriyantono, R. (2016). *Practical Techniques of Communication Research: Accompanied by Practical Examples of Media Research, Public Relations, Advertising, Organizational Communication, Marketing Communications*. Jakarta (ID): Kencana Prenada Media Grup.

Madang, K., Santoso, L.M. & Pasela, W.P. (2017*).* The Effect of Somatic, Auditory, Visual, and Intellectual (Savi) Approaches with Animated Media on Student Learning Outcomes. *Didaktika Biologi*, 1 (1), 71-78.

OECD. (2013). *PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy,* OECD Publishing. *http://dx.doi.org/10.1787/9789264190511-en.*

Permendikbud No 23. (2015). *Cultivation of Character*. Jakarta: Mendikbud RI.

PIRLS. *(2011). International Result in Reading. TIMSS & PIRLS.* International Study Center Lynch School Education: Boston College.

Primavera, Citra, I.R. & Suwarna, I.P. (2014). *The Effect of Audio Visual Media on Learning Outcomes of Class XI Students on the Concept of Elasticity*. Prosiding Seminar Nasional Pendidikan IPA FITK UIN Syarif Hidayatullah Jakarta. Repository UIN. Halaman 6. Jakarta. (Prosiding).

Pusat Bahasa. (2008). *KBBI Online. Indonesia Dictionary*. Jakarta: Pusat Bahasa Depdiknas RI. http://puatbahasa.diknas.go.id

Santoso, Singgih. (2010). *Parametric Statistics: Concepts and Applications with SPSS. 1st Printed. PT. Elex Media Komputindo*. Jakarta (ID): PT Gramedia.

Sugiyono. (2005). *Administrative Research Methods*. Bandung: CV. Alfabeta.

Sumah, A. S. W., & Kusumadinata, A. A. (2020). Increasing Capacity of Kindergarten Teachers in The Learning of Preservation Butterfly . *Indonesian Journal of Social Research (IJSR)*, *2*(1), 94-99. https://doi.org/10.30997/ijsr.v2i1.22.

Velders T., de Vries S., Vaicaityte L. (2007). Visual Literacy and Visual Communication for Global Education : Innovationsin teaching E-learning in Art, Design and Communication. https://www.researchgate.net/publication/237290250_Visual_Literacy_and_Visual_Comm unication_for_Global_Education_Innovations_in_teaching_E-learning_in_Art_Design_and_Communication.

Zaenal, M., Rusdiana, A. (2017). *Communication and Information Technology Education: Philosophy, Concepts, and Applications*. Bandung (ID): CV. Pustaka Setia.