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THE ROLE OF VIDEO MEDIA: STIMULATING EARLY CHILDHOOD VISUAL SPATIAL INTELLIGENCE

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Abstract

Children intelligences cannot be judged by their ability to read and count alone, each child has a unique pattern of development and growth, as an educator we must be able to maximize the child's golden period to stimulate all the intelligence possessed by children, one of which is a spatial visual intelligence where this intelligence centered on the right brain, so that later the child's creative power and imagination can grow and develop optimally. This study aims to determine the role of video media in stimulating early childhood visual spatial intelligence. Video media is one of the visual media that can be developed and become an alternative solution in early childhood learning so that in-depth studies can be input for observers and education practitioners.

Keywords: *Visual Spatial, Video Media, Early childhood*

I. INTRODUCTION

Children are a gift from God entrusted to us, the main obligation that must be done to our children is to provide good stimulation for their growth and development. Educating is a leading children, surely with patience, love and affection so that children feel that they are an important part of family life. An empirical follower John Locke named his theory Tabula Rasa where an individual was still "empty" at the time of his birth. This theory is based on the principle that a child's character is formed by his environment and parents. Many things lie behind the formation of children's character.

Early childhood education is a fostering effort aimed at newborn children up to the age of 6 years and as a mean of creating golden generations who are ready to compete in the global arena, the government has compiled a large framework of the development of PAUD Indonesia as a gift for 100 years of Indonesia's independence then a careful and sustainable planning is needed. To achieve all of this, the synergy between human resources, the using of natural resources and technology is needed.

The role of technology in education, especially in terms oflearning causes a shift in learning methods. Traditional learning began to be combined withmore effective and efficient learning methods. One of currently and widely used is learning

using media as a support of learning process. Technology presenting computerized based media one of which video media.

According to Heinich, Molenda, Russel, et al, (2002: 198) the advantages of video: "Video can take learners almost anywhere and extend students' interest beyond the classroom. Object which is too large to bring into the classroom can be studied as well as those too smal to see with the naked eye. Even too diverse to observe, such as an eclipse of the sun, can be studied safely. The time and expense of a field trip can be avoided. many companies and national parks provide video tours to observe assembly lines, services, and the features of nature.

The explanation above explains the advantages of learning by video media that can be presented learning resources which are difficult to present in the learning process in classroom, such the size that is too big or too small, or as safety reasons, and the cost which my unaffordable.

Early childhood education is an education which aims to facilitate the growth and development of children as a whole or emphasize the development of all aspects of the children's personality. In order to achieve the goal of facilitating early childhood development, one of which is through the use of instructional media. The use of instructional media has become a necessity at various levels of education, even in early childhood education the use of media as learning has been more advanced taps along with technological developments.

The current pattern of education still emphasizes uniformity and the measurement of intelligent students is only limited to IQ. Exploring the intelligence of students is still rarely done as the main basis to initiate each learning designs, strategies and approaches used, and set of evaluations. The tendency of interests, talents and basic skills has not become an integral part.

Gardner in Armstrong (2005: 15) defines that intelligence is "the ability to solve problems, or create products that are valued by one or more cultural settings". According to him intelligence is divided into 8 types of intelligence such as;

(1) verbal / linguistic intelligence;
(2) logical-mathematical intelligence;
(3) visual / spatial intelligence;
(4) musical intelligence;
(5) bodily / kinesthetic intelligence; (6) interpersonal intelligence;
(7) intrapersonal intelligence;
(8) spiritual intelligence.

Most people think that a smart child is a child who can write and read well. It is not entirely wrong but if we judge the intelligence of children by the ability to read and write only and ignore others is unwise. One of intelligence whic is often ignored in providing stimulus is visual spatial intelligence, ability to understand more deeply the relationship between object and space.

Individuals have the ability, for instance to create imaginative forms in their minds or to create three-dimensional forms as found in adults who are sculptors or architects of a building. The ability to imagine a real form then solve various problems in connection with this ability is something that stands out in the type of visual spatial intelligence. If it is managed well and balanced, this intelligence will be useful for children. One effort to stimulate this intelligence is to introduce the forms of objects where are around the children and ask the children to spawn their imagination into a picture. This will be interesting if it's done with games and appropriate learning media.One alternative the use of instructional media is video media. Through this media, we can stimulate children through various interesting

animations and various forms of objects. This video media can be utilized from an early age to adulthood, depending on how educators arrange the content and design. If it's for early childhood, it's certainly use an interesting design which is liked by children.

Based on this rationality and reality, researcher is interested in examining how the application of the video media actually to stimulate childhood visual spatial intelligence and improve learning achievement. To find out the answer, the researcher conducts a research entitle *"The Role of Video Media: Stimulating Early Chilhood Visual Spatial Intelligence"*.

II.DISCUSSION

2.1 Visual Spatial Intelligence

Intelligence already exists and is rooted in the human nerve, especially in the brain which is the center of all human activities Surya (2007: 1). All children are basically smart, but with different levels in each child. Based on the results of Gardner's research in Sujiono and Sujiono (2010: 48) claims that there are various kinds of intelligence in children which are related to learning and teaching. Gardner in Sujiono (2009: 182) puts forward a theory called multiple intelligence in his book Frames of Mind. This theory says, there are many ways of learning and children can use different intelligence to learn a skill or a concept.

The Multiple Intelligence Theory put forward by Gardner (2003) describes seven human intelligences, namely:

1) Linguistic / language intelligence is intelligence in word processing or the ability to use words effectively both spoken and written.

2) Logical-mathematical intelligence is intelligence in terms of numbers and logic. This intelligence involves skill to process number and logical or common sense.

3) Visual-spatial intelligence is intelligence that is closely related to the ability to visualize images in a person's mind or where children think in the form of visualization and picture to solve a problem or find out an answer.

4) Musical intelligence is the ability to handle musical forms, by perceiving, distinguishing, changing and expressing.

5) Kinesthetic / motion intelligence is intelligence where included in doing good movements, running, dancing, building things, arts and cubits of works.

6) Interpersonal intelligence is the ability to communicate with others, lead, social sensitivity, cooperation and empathy.

7) Intrapersonal intelligence is the ability to think reflectively, which refers to reflective awareness of feelings and the process of thinking oneself.

8) Natural Intelligence Children love to learn by way of classification, categorization, and sequence. This intelligence is related to the ability to recognize the natural forms around us with all its contents.

Based on the description above, it can be concluded that intelligence is not something that is material, it's science fiction which describes an individual behavior related to intellectual abilities. Intelligence is the ability to understand complex ideas, to adapt effectively to their environment, to learn from experience,to carry out tasks in a variety of situations, to overcome obstacles by using his mind.

Visual-spatial intelligence is related to the ability to capture color, direction, and space accurately. Spatial visual intelligence includes a collection of interrelated abilities, including visual differences, visual recognition, projections, mental images, space considerations, image manipulation and duplication of internal or external images, any or all which can be expressed (Campbell, Cambpell and Dickinson, 2010 : 108). Spatial visual is

the ability to accurately capture the world of visual space, imagine the space and make changes to that perception. This intelligence includes sensitivity to colors, lines, shapes, spaces and relationships which exist between these elements, as well as describing them in a form (Martuti, 2012: 73). According to Armstrong (2013: 7) visual spatial intelligence is the ability to understand the spatial visual world accurately and make changes to these perceptions. This includes the ability to visualize, represent visual or spatial ideas graphically and correctly orientate to the intelligence expressed by Gardner which can be owned by individuals in different stages. Based on the description above, it can be concluded that intelligence is not something that is material, but rather a science fiction to describe individual behavior related to intellectual abilities. Intelligence is the ability to understand complex ideas, to adapt effectively to their environment, to learn from experience, to carry out tasks in a variety of situations, overcome obstacles by using mind.

According to Stanford (2003: 81) in the journal Multiple Intelligence For Every Classroom states Visual / spatial intelligence: visual arts, navigation, map-making, architecture, and games required the ability to visualize objects from different perspectives and angels. This opinion means that spatial visual intelligence is needed in visualizing objects from different perspectives on visual arts, navigation, map-making, buildings and games. Spatial visual intelligence can be stimulated through various programs such as painting, forming something with plasticine, tasting, and arranging pieces of the picture. Educators need to provide various facilities which support children in developing their imagination, such as constructive play tools (Legos, puzzles, lasie), blocks of geometric shapes of various colors and sizes, drawing equipment, coloring, decorative tools (colored paper , scissors, glue, thread), and various picture books.

According to Gardner (2003: 43) the right brain is proven to be the most important place for space processing. Damage in the back of the right brain may cause damage to the ability to find a way to a place, recognize faces, look or pay attention to find details. Spatial visual intelligence located in the back of the right hemisphere. This intelligence is closely related to the children's imagination ability. The topological mindset (which breaks down parts of an object) in early childhood allows them to master the euclidean mindset at the age of 9-10 years. Artistic sensitivity to this intelligence persists until someone is mature.

Children in 4 years are familiar with binary spatial two directions (pairs) such as the front-back, top-bottom, here-there. Although sometimes confused still with the right and left. Children have no idea to understand the direction of the compass, although some of them can name the eyes of the compass. According to Beredekamp and Copple in Musfiroh (2004: 86) 4-year-old children can arrange the blocks into high rather complex shapes. Those who show limited spatial ability to predict, and tend to damage the position or object. Children tend to change toys which parts are still good. Spatial visual intelligence of children aged 5-6 years can be seen in their pleasure and ability to use colored pencils to draw or color as well as using crayons. They can also explore with paints including watercolors (Bronson in Musfiroh, 2004: 196). According to Rustu and Ozgen (2010: 12) in the journal Reability and Validity Analysis of the Multiple Intelligence Perception Scale states that spatial intelligence involves the potential to recognize and use the patterns of wide space and more confined areas. This opinion means that spatial intelligence involves the ability

of children to recognize an understanding of broad space patterns and limited areas. Yusuf and Nurihsan in Agustin, (2006: 36) argues spatial intelligence as a collection of abilities is related to the selection, understanding, visual projections, mental imaginations of spatial understanding, manipulation of imagination, and the acquisition of real or imagined imaginations in self / abstract.

Based on the description above, it can be concluded that the visual-spatial ability is the ability to capture the visual appropriately, including imagining , as well as the ability to absorb, change, and re-create various aspects of the spatial visual world such as images, numbers, colors, and lines, and the ability to observe and understand three-dimensional shapes. Where these abilities can help children in learning process and recognize the surrounding environment. For example the ability of spatial relationships is an important part in learning mathematics, as well as the ability to distinguish letters and words visually is an essential part in learning to read.

2.2 Video Media

The term video comes from Latin Language which is from the word vidi or visum means to see or to have the power of vision. Video provides a very interesting and direct way to channel information. Video is the most meaningful media compared to other media such as graphics, audio and so on. The use of video in interactive multimedia will provide a new experience. According to Munir (2012: 289), "Video is a technology of capturing, recording, processing, and storing, transferring, and reconstructing sequences of still images by presenting scenes in motion electronically". Video provides rich and lively resources for multimedia applications. Video is a moving image. If the object in the animation is artificial, the object in the video is real.

2.3 Use of Video Media

Plural videos are used as a media for delivering information and messages. Many people take advantage the use of this media for both commercial and other purposes so that the usefulness of this media becomes very dominant for its users. However, the wild spread and the lack of a maximum filter make this media feels bland and only be a means of entertainment which could make the audience unable to take benefit at all.

Early childhood is the biggest asset in human life. Children are the generation will represent in the future. Number of hope should be directly proportional to the effort to stimulate children's growth and development. Video can be the biggest contributor to children's growth and development if it's packaged properly and continuously. Visual and spatial children's intelligence according to Gardner is an intelligence that can be stimulated since early, so that limitations children's might have in growing up can be minimized early. Children are able to master many things just by watching, doing good deeds by imitating a scene in a video about exemplary for example and practicing it in real life.

2.4 Videos on Early Childhood

Video programs have been used as a learning media. If it's designed properly, the media will play an effective role in conveying information and knowledge to the audience. Many advantages of video programs can be explored in order to provide optimal benefits for its users. The use of video programs usually aims to achieve specific needs which include:

a. Developing Knowledge and Skills

Instructional video programs can be used to teach specific knowledge and skills to the audience. For example, video program The Discovery Channel and The Animal Planet is used to convey

natural and environmental knowledge. Video programs can be used to teach someone to have certain skills. Soccer videos, for instance, can be used to train someone to have basic soccer skills and techniques.

In addition, through watching video, we could also analyze the occurrence of an event which took place in the past. We can study the lives of important figures who have achieved success in their fields. Video programs are able to bring viewers to visit hard-to-reach places, such as nuclear reactors or mining activities in the form of recorded events.

b. Generating Motivation and Appreciation

Drama programs broadcast through video programs can be used to motivate or arouse emotions for those who watch. Apart from arousing emotions, video programs could also be used to appreciate an event that is being broadcast. The instructional video program can be used to motivate someone who like to take an action.

c. Giving Real Experience

Video programs can be used to present footage which could give the audiences a real or realistic experience. For example, through performing a video program, audiences will be able to go on a safari and get to know more about the behavior and life of rare animals in the wild in Africa. Many people think that showing video learning programs often causes boredom. This view is not always correct, this program is well designed to attract the attention and interest of audiences to learn its contents.

The description of previous studies findings that support the study are as following:

First, a research was conducted by Fadhli (2014) entitled *"Pengembangan Media Video Untuk Anak IV SD"*. The researcher concluded that discussed the use of video shows which make children are more enthusiastic and able to communicate. This study showed the level of children significance when taught with or without using video, most of them were able to show their expertise and skills just by looking at it.

Second, Krismanto (2016) entitled *"Pengembangan Media Pembelajaran Berbasis Video Tutorial Gerak Dasar Tenis Lapangan Untuk Anak Tingkat Sekolah Dasar Di Sekolah Tenis Kabupaten Temanggung".* The researcher concluded that assessment of the media was the learning media video tennis court basic motion tutorial for elementary school level children was very usefull for the learning process or practice basic movements of tennis court especially for beginner athletes elementary school on grip, groundstroke and servicing materials.

Third, Romadhona (2017) entitled *"Pengembangan Video Animasi Pembelajaran "SALUT" pada Substema Transportasi untuk Anak Kelompok B TK Marsudi Siwi Sawit".* The researcher concluded that the entire media eligibility procedure performed, the results of the learning animation video "Salut: Sadar Lalu Lintas (Traffic Conscious)" got a category which was eligible for its use in learning process.

The development of video utilization is now entering the era of the 21st century, where the challenges are greater and more sustainable. Early childhood who are equipped with natural talent should be able to be stimulated by their intelligence, intelligent children are usually able to be independent and not depend on others, as a means of learning this media should be an alternative in learning in the classroom.

2.5 Stimulating Early Childhood Visual Spatial Intelligence by Using Video

According to Heinich, Molenda, Russel, et al. (2006) reveals in detail and specifically the advantages that can be

obtained from the video media as a learning tool which includes:

a. Drawing attention

Video technology is very advanced, through this technology producers can combine audio and visual elements to create messages and information that can attract viewers' attention. *The Jalan Sesama* children's program or the local program *Laptop Si Unyil* or *Si Bolang* (the adventurous boy) can be used as examples of how an audio-visual program can attract children's attention as viewers.

b. Showing Movement

Video is a media that has the ability to present elements of movement. Instructional video programs in sports, for example, are widely used by instructors or coaches to streamline a movement or learn strategies in certain sports competitions. Not only in sports, learning video programs are also often used to train dance and drama movements in learning arts.

c. Revealing which is not fully visible

Video recordings can be used to show images which are difficult to observe directly. In sciencefor example, audiences can see how a shy daughter plant defends itself against attacks from outside species.

d. Repeating scenes or events accurately

Important events that must be learned and can be repeated using slow motion techniques. With this technique audiences will be able to accurately study movements, processes and events. Movement in sports, for example, will make it easier to learn through repetition displayed in slow motion.

e. Displaying visual elements realistically

The latest development of video media as a digital device is its ability to display images and sound with a high level of clarity. This is known as picture and sound display in high definition format. The rapid development of video technology, both software and hardware, has provided advantages for this medium to be used as a learning medium.

f. Displaying color and sound

The video media has the advantage of presenting a dynamic combination of moving picture elements and sound in color. With this capability, the images seen in the video program can be shown real or realistically. Therefore, the learning experience presented through the video program should be designed to increase the viewer's interest and knowledge.

g. Evoking emotions

Video media can be used to convey messages of a dramatic nature. This ability can be used for learning in the affective or attitude aspects.

In this research, the writer will use a cartoon illustrated story video which contains learning in behavior and character building so that students can more easily understand and be interested in the characters and storylines. For example, this video is approximately five minutes long entitled “The Lion and The Mouse”. The story tells about two characters, a lion and a mouse who have a conflict until they finally reconcile and become friends. This video is set in the middle of a forest where there is no a single human being in it.

The teacher can play the video for beginner from the first minute to the end while explaining the storyline of the video. After the end of the video the teacher can ask to the students, communicate and conclude what is the video about starting from the character, place, event, and storyline. With this, the teacher can assess how is students’ understanding about students’ character at an early age and could also provide a good advice in accordance with the content of the video. In order to be able to practice it in daily life. So with the visualization of the video can stimulate visual and spatial Intelligence of early childhood very well.

III. CONCLUSION

Learning by using video media to stimulate the visual and spatial intelligence of early childhood refers to the theory of Multiple Intelligences which is valid both in content and construct. Learning by using video media is also effective in increasing multiple intelligence and mastery of early childhood concepts in understanding the learning material provided.

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