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The Influence Of Animated Video Media On The Development Of Spatial Visual Intelligence In Children Aged 4-5 Years At Al Hidayah Bakung Kindergarten, Blitar Regency In 2023

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ABSTRACT

Spatial visual intelligence is intelligence related to visual (vision) and the use of space and making models or images based on the results of observations made before. According to a survey found by researchers in March, 13 children had delayed spatial visual intelligence and 11 were able to recognize images but still needed stimulation. This study aims to determine the influence of animated video media on the development of spatial visual intelligence in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Blitar Regency in 2023. This research uses a pre-experimental design of one group pre test post test design technique carried out at Al Hidayah Bakung Kindergarten, Blitar Regency. The study population of all students aged 4-5 years was 24 respondents. With the technique of sampling the total population. The independent variable of the study was animation media, while the dependent variable of spatial visual intelligence development was measured by the Stanford Binet test. The data were then analyzed by testing Wilcoxon's hypothesis with $\alpha = 0.05$.The results of the development of spatial visual intelligence before the provision of animation media from 24 respondents, most of the 13 respondents in the category of children need to get more intensive stimulation and after being given animation media almost all of them, namely 22 respondents are categorized as intelligent children and can develop quite well. The results of the Wilcoxon test show ρ value = $0.000 \leq \alpha = 0.05$ so that H1 is accepted. In conclusion, there is an influence on the development of spatial visual intelligence in children aged 4-5 years. So mothers are expected to be able to maximize the use of animation media as a facility to develop spatial visual intelligence in children aged 4-5 years. Animation media can be given every day for 15 – 20 minutes.

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I. Introduction

Children who are smart, have creativity and high enthusiasm, and are a superior generation that every parent's dream does not create by itself. The surrounding environment and the role of parents are very influential on the birth of future generations who are superior, intelligent, creative and ready to compete in the era of globalization like today. All children are basically intelligent, but with different levels in each child (Surya, 2017). As for various kinds of intelligence, one of them is spatial visual intelligence where visual means vision, while spatial means space, in simple terms spatial visual intelligence is related to vision and space. There are also those who interpret this intelligence related to images (picture) or making models or designs based on the results of observations made previously (Sefrina, 2013).

Based on the UNESCO Report in the Education For All Global Monitoring Report (EFA-GMR), the Education Development Index for All Indonesia in 2014 was ranked 57 out of 115, at the Asian level Indonesia is currently ranked 34th. Child growth and development in Indonesia still needs serious attention, the rate of delay in growth and development is still quite high, which is around 5-10% experiencing general developmental delays. Two out of 1,000 babies have impaired motor development and 3 to 6 out of 1,000 babies also have hearing loss and one in 100 children have less intelligence and speech delays The child population in Indonesia shows around 33% of the total population which is around 83 million and every year the number of child population will increase (Sugeng, 2019).

Based on a survey found by researchers in March 2023 from 10 children aged 4-5 years, it was found that 6 children (60%) had delays in spatial visual intelligence such as the ability to interpret the contents of images. The child also cannot distinguish shapes such as squares, ovals, rectangles, and triangles in pictures of objects. While 4 (40%) other children are familiar with pictures, but are unable to group the pictures, and are unable to distinguish the shape of an object. This shows that the incidence of delay in spatial visual intelligence is quite high, this is an important thing so research needs to be carried out at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023.

In theory, the development of spatial visual intelligence is influenced by several factors, including factors driving intelligence growth, hereditary factors, environmental factors, nutritional intake factors and psychiatric factors. The ability and understanding of parents in providing stimulation to children varies depending on parental circumstances such as educational, cultural, and economic background. Experts also say that the provision of stimulation is included in environmental factors. The environment has a major influence on producing the functional ability of intelligence organs in children (Surya, 2017). Meanwhile, according to the results of the survey conducted, the cause of visual spatial delays is caused by home environmental factors which include association with peer neighbors, parents' ability to provide stimulation, insufficient stimulation such as opportunities to play, restrictions on children to explore.

The development of spatial visual intelligence in preschool children is important because this intelligence is related to other intelligences such as in the ability to master several subjects in school, namely mathematics and geography. Although logical-mathematical intelligence plays the most role in solving mathematical problems, when it comes to geometry or spatial planning, spatial visual intelligence plays a role. If this is left alone, it will certainly cause very serious problems with the development of children's spatial visual intelligence, because spatial visual intelligence affects mathematical intelligence related to geometry or spatial planning (Sefrina, 2013).

To improve spatial visual intelligence in children, many ways can be done, namely introducing objects or objects around children, giving children a variety of pictures, giving games in the form of puzzles or stacking blocks / legos, taking children to galleries or art museums, when children are starting to be able to hold stationery, giving colored pencils, drawing books, and coloring books, involving and facilitating children in competitions related to spatial visuals, Take children to explore to various places to develop their spatial skills, if children already understand computers provide games related to visuals (Susanto, 2011).

So based on the background above, researchers are interested in conducting a study entitled The Influence of Animation Media on the Development of Spatial Visual Intelligence in Children Aged 4-5 Years at Alhidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023.

II. Methods

A. Design and Samples

The research design used in this study is Pre-Experiment using the type of research one group pre test post test design, which is a type of research that reveals causal relationships by involving one group of subjects. The subject group was observed before the intervention, then observed again after the intervention. Based on the method of data collection is an observational study, based on data sources including primary data types.

B. Data Collections

The population in this study is all children aged 4-5 years in Alhidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023, as many as 24 children. Sampling uses a total population technique that takes samples according to the population of 24 children.

C. Data Analysis

The bivariate test used in this study was the Wilcoxon test. All tests are done by using SPSS for Windows 24.

III. Results and Discussion

A. General Data

The results of research on the influence of animation media on the development of spatial visual intelligence in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023 are presented in the form of frequency distribution tables as follows: The age of mothers is known from 24 respondents, most (58%) have mothers aged 20-35 years as many as 14 respondents. Maternal education is known from 24 respondents, most (63%) have mothers with elementary / junior high school education levels as many as 15 respondents. The work of mothers can be known from 24 respondents, most of whom (58%) have mothers with housewives jobs as many as 14 respondents. Maternal income can be known from 24 respondents, most of whom (67%) have parents with income of 1-2 million as many as 16 respondents. The age of the children is known from 24 respondents, most (67%) are 4 years old, as many as 16 respondents. Gender can be known from 24 respondents, most of whom (58%) are male as many as 14 respondents. The distribution can be seen in table 1 below:

Table1. Frequency distribution of respondents

No	Characteristic	Category		
			f	%
1	Age	< 20 year	7	29
		30-35 year	14	58
		>35 year	3	13
		Total	24	100
2	Education	Basic	15	63
		Intermediate	6	25
		Hight	3	12
		Total	24	100
3	Work	IRT	14	58
		PNS	2	8
		Wiraswasta	5	21
		Farmer	2	8
		Swasta	1	5
		Total	24	100
4	Income	<1 juta	6	25
		1-2 juta	16	67
		>2 juta	2	8
		Total	24	100
5	Age of child	4 year	16	67
		5 year	8	33
		Total	24	100
6	Gender	Man	14	58
		Women	10	42
		Total	24	100

Source : Primary Data for Research 2023

B. Costum Data

Table 2 Tabulation of the distribution of spatial visual intelligence development in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023 before providing animation media

Development of spatial visual intelligence	*Pre Test*	
	Frequency	Prosentase
Well developed	0	0
Developed quite well	0	0
Develops quite well and needs stimulation	11	46
Children need to get more intensive stimulation	13	54
Total	24	100

Source : Primary Data for Research 2023

Based on table 2, it can be seen that of the 24 respondents before the provision of animation media (pre-test), most (54%), namely 13 respondents categorized as children, need to get more intensive stimulation.

Table 3 Tabulation of the distribution of spatial visual intelligence development in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023 after providing animation media

Development of spatial visual intelligence	***Post Test***	
	Frequency	Prosentase
Well developed	0	0
Developed quite well	22	92
Develops quite well and needs stimulation	2	8
Children need to get more intensive stimulation	0	0
Total	24	100

Source : Primary Data for Research 2023

Based on table 3, it can be seen that of the 24 respondents after the provision of animation media (post-test), almost all (92%) namely 22 respondents were categorized as intelligent children and developed quite well.

C. Analysis of the influence of animation media on the development of spatial visual intelligence in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023 Before and after the provision of animation media.

Table 4 Tabulation of the distribution of spatial visual intelligence development in children aged 4 – 5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023 before and after the provision of animation media

Development of spatial visual intelligence	*Pre Test*		*Post Test*	
	Frequency	%	Frequency	%
Well developed	0	0	0	0
Developed quite well	0	0	22	92
Develops quite well and needs stimulation	11	46	2	8
Children need to get more intensive stimulation	13	54	0	0
Total	24	100	24	100

ρ *value* = 0,000 ≤ α = 0,05

Source : Primary Data for Research 2023

In table 4, it is known that before being given animation media, most of the 13 respondents (54%) in the category of children need to get more intensive stimulation and after being given animation media almost all of them, namely 22 respondents (92%) in the category of intelligent children and can develop quite well. Based on the results of analysis through the Wilcoxon test with SPSS 20, ρ value = 0.000 ≤ α = 0.05, then H0 is rejected and H1 is accepted. This means that there is an influence of animation media on spatial visual intelligence in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023.

Based on table 2.9 of the results of the study, it is known that there was an increase in the development of children's spatial visual intelligence, namely intelligent and developed quite well from 0 respondents to 22 respondents (92%), based on the results of the Wilcoxon test obtained ρ value = 0.000 ≤ α = 0.05, then H0 was rejected and H1 was accepted. This means that there is an influence of animation media on spatial visual intelligence in children aged 4-5 years at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023.

Each intelligence is related to other intelligences as well as spatial visual intelligence that can affect the child's learning process at school. Generally, children who are visually spatially intelligent

have a method of learning visualization based on their vision. This intelligence also helps him in the process of memorization. So many methods are believed to increase infant intelligence (Widya, 2018). What children learn from seeing will be their intelligence, one of which is how they recognize an image in animation, the more children recognize images in animation, the more knowledge they get so that their spatial visual intelligence will increase (Dwi, 2011).

The animation media in this study has a simple component that can make children interested, and easy to understand from what they see, so that in the end they can develop their spatial visual intelligence. Generally, every mother is familiar with the pictures in this simple animation, so they can easily introduce the images in the animation to their children. The animated videos used in this study mostly consist of color animations, fruit animations and vegetable animations that will make children more imaginative so that they feel happy when they see the animation given. After this research, it is hoped that mothers will be better able to stimulate their preschool children so that their children's spatial visual intelligence can develop properly according to the child's growth and development age stage.

IV. Conclusion

There is an influence of animation media on children aged 4-5 years before the provision of animation media at Al Hidayah Bakung Kindergarten, Udanawu District, Blitar Regency in 2023.

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