PAPERCRAFT METHOD AS STIMULATION OF THE DEVELOPMENT OF FINE MOTOR SKILLS IN EARLY CHILDHOOD

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ABSTRACT

One of the efforts to create a quality generation is by providing stimulation from an early age (4-6 years) to optimize children's golden age so that they grow into individuals who are cognitively intelligent, affectively capable and psychomotor skilled. One aspect of development that needs to be stimulated is the motor aspect. Fine motor skills are the ability to move small muscles such as fingers, especially those that require precision, eye and hand coordination. One interesting way of stimulating fine motor skills is the papercraft method. This research aims to determine the effectiveness of the papercraft method on the development of fine motor skills in early childhood. The research design uses a quantitative experimental one group pre-post test method. The sampling technique is purposive sampling. The sample was 23 group A kindergarten students (4-5 years). The research instrument used papercraft media and fine motor assessment sheets. The research stages consisted of 3 stages, namely stage I pretest, stage II providing intervention and stage III posttest. The data analysis used was the t-test. The results of the research before being given intervention on children's fine motor skills were in the majority in the Starting to Develop category (65.2%), and after being given the intervention the majority were in the Very Well Developing category (47.8%). The results of data analysis t-Count > t-Table means that there is a significant difference in children's fine motor skills before and after being given papercraft stimulation. Conclusion: The papercraft stimulation method is effective in improving the fine motor skills of young children.

KEYWORDS Fine Motor Skills; Papercraft; Stimulation

INTRODUCTION

One of the efforts to create a quality generation is by providing stimulation from an early age (4-6 years). This stimulation is aimed at optimizing children's golden age, so that children grow into individuals who are cognitively intelligent, affectively capable and psychomotor skilled. Efforts aimed at children from birth to six years are carried out by providing stimulation to help the growth of physical and spiritual development so that children are ready to enter the next stages of life. Early childhood is a very important and valuable stage so it is called a formative period in human life. The aim of stimulation is to develop children's various potentials from an early age in preparation

for life and to adapt to their environment. One aspect of development that needs to be stimulated is the motor aspect (Mulyani, 2019).

Basic abilities for the motor aspect have basic competencies so that children are able to carry out physical activities in a coordinated manner in terms of flexibility and preparation for writing, balance, agility and training courage. The development of motor aspects aims to introduce and train children's gross and fine motor skills. Motor aspects are divided into two, namely gross motor skills and fine motor skills. Gross motor movements are various movements that involve large muscles and joints, such as: jumping, climbing, throwing, standing, squatting, running and so on. Meanwhile, fine motor movements are various movements that involve the fingers, such as writing, painting, drawing, cutting, folding, sewing, weaving and weaving (Angginingsih et al, 2021).

The development of fine motor skills in early childhood in accordance with the level of developmental attainment, namely children can draw according to their ideas, children can imitate shapes, children are able to explore with various media and activities, children can use writing tools correctly, children are able to cut according to patterns, children can stick the picture correctly, and children are able to create themselves through detailed drawing movements. Fine motor skills are the organization of the use of a group of small muscles such as fingers and hands which often require precision and hand-eye coordination, skills which include the use of tools for work and small objects or control of machines such as typing, sewing, etc. (Padilah & Rahmah, 2019). Fine motor skills of the hands develop children's ability to use their fingers, especially the thumb and index finger. Fine motor skills are the ability to move small muscles such as the fingers, especially the thumb and index finger, which often require precision and hand-eye coordination so that children can carry out activities such as cutting, writing, drawing and so on.

Efforts to improve children's fine motor development require effective and interesting methods. Effectiveness is a measure that states how far the target (quantity, quality and time) has been achieved. Meanwhile, interesting is something that is liked, unique, beautiful, so there is no pressure to do it. An interesting way of stimulation will be preferred by children so that efforts to improve children's fine motor development will be achieved effectively. Children will happily and enthusiastically do something interesting (Ifalahma et al, 2022). An interesting way of stimulation includes the papercraft method. Papercraft or papertoy is a craft art that uses paper as the basic material in three-dimensional shapes by folding, cutting (using scissors or cutter) and gluing. In contrast to Origami (the Japanese art of paper folding), papercraft requires additional cutting (using scissors or cutter) and gluing (Ifalahma et al, 2023).

The intervention of playing papercraft on children's fine motor skills was studied by Nurjannah (2018) with the results of the percentage increase in fine motor skills of children in Kindergarten A group through papercraft activities reaching a success indicator of more than 75%, so playing papercraft activities is very effective in improving children's fine motor skills. Similar research was also conducted by Kuswanto & Ardiani (2022) who recommended further research to provide papercraft intervention for 4 meetings and then observe fine motor development. The results showed that 35 children (90%) had normal fine motor development. significant influence on fine motor development in preschool children aged 4-6 years. The aim of this research is to determine the effectiveness of the papercraft method on the development of fine motor skills in young children.

RESEARCH METHOD

The research design uses a quantitative experimental one group pre-post test method. The independent variable is the papercraft method, the dependent variable is the

child's fine motor skills. The population in this study were group A kindergarten students. The sampling technique used in the research was purposive sampling technique. The sample used was 23 group A kindergarten students (4-5 years). This research instrument uses papercraft media (paper, scissors, glue) and children's fine motor assessment sheets with the categories Developing Very Well, Developing According to Expectations, Starting to Develop, and Not Yet Developing. The research stages consisted of 3 stages, namely stage I was a pretest before the intervention was given, stage II was the provision of a papercraft method stimulation intervention with a frequency of 4 meetings, stage III was a posttest after the intervention was given. The data analysis used was the t-test.

RESULT AND DISCUSSION

Result

Table 1. Recapitulation of children's fine motor skills before being given papercraft method stimulation

Criteria	Score Range	Frequency	%
Developing Very Well	90-100	-	-
Developing According to Expectations	70-89	5	21,8
Starting to Develop	50-69	15	65,2
Not Yet Developed	20-49	3	13,0
Amount		23	100

Table 1 shows that the fine motor skills of children before being given the papercraft method stimulation were mostly in the Starting to Develop category, namely 15 children (65.2%).

Table 2. Recapitulation of Children's Fine Motor Skills after being given Papercraft Method Stimulation

Criteria	Score Range	Frequency	%
Developing Very Well	90-100	11	47,8
Developing According to Expectations	70-89	8	34,8
Starting to Develop	50-69	4	17,4
Not Yet Developed	20-49	-	-
Amount		23	100

Table 2 shows that the fine motor skills of children after being given the papercraft method stimulation were mostly in the Very Well Developed category, namely 11 children (47.8%).

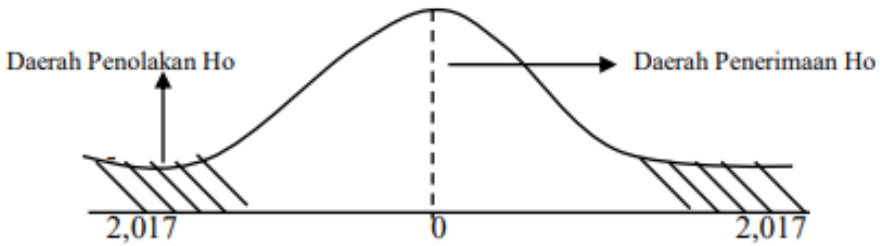

Figure 1. Curve of data analysis results using the t-test

From the results of data analysis, t-count = 7.39 and t-table = 2.017. Based on these data, t-Count > t-Table is 7.39 > 2.017, which means there is a significant difference in children's fine motor skills before and after being given papercraft stimulation.

Discussion

1. Children's fine motor skills before being stimulated by the papercraft method

   The results of research on children's fine motor skills before being given papercraft stimulation were mostly in the Starting to Develop category, namely 15 children (65.2%). Fine motor skills are a child's ability to use small muscles, such as wrist muscles and fingers with hand-eye coordination. Examples include drawing, writing, cutting, putting together a puzzle, or inserting blocks according to their shape.

   Factors that influence child development are determined by internal and external factors. Internal factors are factors that originate from the individual himself which includes character, potential, psychology, enthusiasm for learning and special abilities. Meanwhile, external factors are factors that come from the child's external environment in the form of peer experiences, health and the environment. In the development of fine motor skills in early childhood, stimulation is needed from the family, school and peer environment (Qurrota & Padilah, 2023).

2. Children's fine motor skills after being given the papercraft method

   The results of research on children's fine motor skills after being given papercraft stimulation were mostly in the Very Well Developed category, namely 11 children (47.8%).

   Motor learning can be interpreted as the process of learning movement skills and refining motor skills, as well as variables that support or hinder motor skills and skills that are used continuously from highly skilled movements. The motor learning aspect in education is an aspect related to the actions or behavior displayed by students after receiving certain material from the teacher. Motor learning at school is also learning to control body movements through coordinated activities between the nervous system, muscles, brain and spinal cord. Meanwhile, motor learning carried out in schools is also interpreted as a series of processes related to training or providing experiences that cause changes in the ability of individuals (students) to be able to perform highly skilled movements. When a student learns motor skills at school, the real change that occurs is that the quality of motor skills improves. This can be measured in several ways, one of which is by looking at a student's success in carrying out movements that he or she had not previously mastered (Lestariningsih & Parmiti, 2021).

   Early childhood learning of fine motor skills can be done through various opportunities and various activities that involve the child's eye and hand coordination. To train fine motor skills in children, this can be done by drawing, writing, folding paper, playing papercraft, playing puzzles, and other activities that use hands. Apart from increasing intelligence, these activities also train children's fine motor coordination. The benefits of training children's fine motor skills include training their fingers, hand-eye coordination and concentration. In preschool children, when their brains are developing rapidly, activities that hone fine motor skills can stimulate myelination in the child's brain (Lestariningsih & Parmiti, 2021).

3. The effectiveness of the papercraft method of stimulation on children's fine motor skills

   The results of the study showed differences in children's fine motor skills before the intervention (variable X1) and children's fine motor skills after the papercraft method stimulation intervention (variable X2). Data testing was carried out by calculating t-count using the t-Test. From the calculation results, t-count = 7.39 then t-table = 2.017, then t-count > t-table, namely 7.39 > 2.017, which means

the difference between variables X1 and X2 is a significant difference. In other words, there is a significant difference in children's fine motor skills between before and after stimulation activities with papercraft.

Fine motor skills need to be trained because they play an important role in the child's learning process and future independence. Lack of fine motor skills training can cause children to have difficulty carrying out activities that involve small muscles, including eating, dressing, writing, drawing, or typing. Fine motor skills are a very important factor in children's growth and development because they are related to muscle, brain and nerve development. Good fine motor skills will make it easier for children to carry out various important activities in their daily lives. For example, writing, brushing teeth, opening doors, and opening and closing buttons on clothes. Just like gross motor skills, fine motor skills also develop according to the child's age (Anggelita et al, 2021).

The results of this study show that papercraft stimulation method can improve the fine motor skills of children (aged 4-5 years). Proven by the assessment before being given the papercraft method stimulation, the fine motor skills of the majority of children were in the Starting to Develop category, then after being given the papercraft method stimulation the fine motor skills of the majority of children were in the Very Well Developing category. According to Angginingsih & Wirabrata (2021) fine motor skills of children aged 4-5 years include finger and eye coordination, finger muscle strength, wrist flexibility can be increased through stimulation of the art activities of drawing, painting, figer painting, coloring, merging, printing, and cutting. This is also in line with the opinion of Budiwaluyo & Muhid (2021) that activities that can train children's fine motor physical abilities are cutting, folding, squeezing, sticking, thickening pictures, doodling, arranging blocks, and placing objects.

Fine motor skills are the organization of the use of a group of small muscles such as fingers and hands which often require precision and hand-eye coordination. These skills include the use of tools or media for learning activities, for example cutting, sticking, folding, writing, drawing and so on. Learning by playing papercraft (folding, cutting, gluing) is the teacher's way of teaching children fine motor skills, so that they can improve fine motor skills which include independence, accuracy and neatness. During ongoing learning, the teacher involves students in learning and actively participating in playing papercraft. This learning should be carried out in a pleasant situation so that children will be active and the learning process can run optimally (Karmila, 2022).

Every student in early childhood education schools can reach optimal motor development stages by getting the right stimulation from teachers and the school environment. Teachers in motor learning activities are required to be able to go through the learning phases well and perfectly. In each phase, students need stimulation from the teacher to develop mental and fine motor skills. The more students see, hear and experience motorbike learning at school, the more they want to know.

CONCLUSION

The papercraft method is effective as a stimulation to improve the fine motor skills of young children.

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