



Analysis of the Relationship between Fine Motor Skills and Montage Activities in Early Childhood

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Abstract

This study aimed to determine the fine motor skills of kindergarten children through montage activities. The method used in this study is pre-experimental with a one-group pretest-posttest design. The subjects in this study were children aged 5–6 years. The study involved all children, consisting of 8 children. In this study, all children participated in the pre-test to determine the initial condition of fine motor skills, then were given treatment using montage activities. A post-test was conducted to determine the final condition of the children before and after being given treatment. The data collection techniques used are observation, documentation, and tests. The data obtained is in the form of scores and is then processed using statistical methods. The data analysis techniques used in this research are the normality test and the t-test. It is proven that montage activities affect children's fine motor skills based on the paired sample t-test with a significance level of 0.05.

Keywords: *Early Childhood, Montage Activities, Fine Motor Skills.*



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INTRODUCTION

Children aged 0–6 years are in the golden age, when the brain is experiencing rapid development, because it is important at this time to provide a conducive environment that must be prepared by educators, parents, and other adults who are in the child's environment. The results of the study stated that the intelligence capability of children aged 4 years and older would increase by 50%, that of those aged 8 years by 80%, and that of those aged 10 years and older by 20%. According to Law Number 20 of 2003 concerning the national education system, which states that early childhood education is an effort to foster children from birth to the age of six years to provide educational stimulation in assisting physical and spiritual growth and development so that children are ready to enter further education (Sari et al., 2019).

The purpose of early childhood education in general is to develop children's abilities to prepare for life and adapt to the environment. In addition, the goals of early childhood education are: 1) forming quality children by growing and developing according to their level of development; 2) helping to achieve learning readiness; 3) providing stimulation by cultivating hidden potentials such as language, social-emotional, motor, interest, and talent; and 4) self-concept and intellectual; 4) Perform early detection to find out the occurrence of disturbances in the growth and development of children (Komaini, 2018).

Aspects of child development begin to form while in the womb, namely, cognitive, artistic, language, social-emotional, motor, religious, and moral values. One important aspect is physical-motor development (Ferdian Utama, 2017). The Ministry of National Education in Anton explains that motor is a translation of the word motor," which is the process by which a movement occurs (Susiloningsih et al., 2023). The motor process involves coordinated movements involving the brain, nerves, muscles, and skeleton (Elvika et al., 2016). These movements cannot work independently; they must be coordinated with each other. If someone experiences a disturbance, the movement will be disrupted because the movement is affected by stimuli from the environment through information such as speech, pictures, and others. The aspect of motor development is divided into two, namely gross motor and fine motor. Gross motor development is movement resulting from gross muscles (Lukman, 2020). The task of the gross muscles is to carry out coordinated body movements such as training balance, flexibility, and agility. Fine motor skills are movements produced by small muscles (Rachmi & Herdana, 2018). Small muscles are tasked with carrying out specific movements such as writing, folding, buttoning clothes, sticking, cutting, and others (Huda & Hayati, 2019). This study only discusses the fine motor development of children aged 5–6 years because children's fine motor development must be developed to train hand muscles and eye coordination (Wahab et al., 2022).

According to Ahmad Susanto in Munawara, the development of fine motor skills is a part of the body that only small muscles do because it doesn't require a lot of energy. However, this subtle movement requires careful coordination between the eyes and hands. The resulting movements are: 1) the movement of picking up an object using the thumb and forefinger; 2) the movement of inserting a small object into the hole; 3) making works; 4) drawing, coloring, and writing; 5) tearing paper,

crumpling, and more. In the development of fine motor skills, it is very important for children because they do not yet have skills that are suitable for them, so it is necessary for them to learn new skills that are both appropriate and easier. At a young age, children are more confident and dare to develop their fine motor skills (Virawanti & Sugiarto, 2022). Naibaho and Indarto in Yuvi, et al. said examples for developing fine motor skills are cutting, pasting, drawing, writing, montage, and others. From this opinion, it confirms that montage is one way to train fine motor development (Yesi et al., 2020).

Various fine motor developments for children aged 5-6 years, namely, a) throwing, b) catching a ball using their hands, c) increasing the development of small muscles; coordination between eyes and hands that can develop properly, d) increased fine motor mastery such as using a hammer, pencil, scissors, and others, e) tracing geometric shapes, f) cutting lines, g) playing pasta and glue, h) hand skills are getting better (Jenki, 2016). According to Permendiknas No.58 of 2009 concerning standards for the level of developmental achievement of children aged 5-6 years with the scope of fine motor development, namely drawing according to thoughts or ideas, imitating a shape, exploring with various media and activities, holding stationery correctly, cutting out patterns with appropriate precision, pasting the image appropriately, expressing feelings through motion, and drawing in detail (Roadatul, 2011).

Montage, which means montage, comes from English, which means to stick. Montage is an art that is applied in the form of pasting or clippings of pictures or photographs and affixed to the base or other areas of the image. Muharrar and Verayanti in Yesi Karela et al. said montage is a work that is done by cutting image forms from various sources and then pasting them on a field and becoming a work. In this montage play activity, the aim is to develop children's creativity to create a work by assembling pieces of images from various sources, which are then arranged into new images in a field. This montage activity trains children's skills such as cutting and pasting. In these activities, sometimes children lack interest in doing them; in sticking activities, sometimes children are not careful in applying glue; it can be too little or too much, which results in the paper tearing easily; sometimes children are also reluctant to flatten or hold glue if it is messy; or sometimes, if pasting the image upside down, it doesn't work. according to the image attached, which cannot be removed, resulting in an error in the activity (Muliadi, 2022).

In cutting activities, children often do it not neatly and correctly; usually, they do it by crossing the lines of the images that are made (Sujiono, 2012). This happens because the child is not careful, impatient, and lacks concentration between the eyes and hands (Rini, 2018). According to Suratno, cutting activity is a process of moving the muscles of the hands and fingers so that they can cut as desired, such as cutting patterns, cutting out the folds of images, and others (Muthiakanza, 2018). Pamadhi said cutting can train and shape children to use tools and skills for cutting images. Through this activity of cutting and pasting, a child can train the strength of his or her hands. In fine motor development, it is very important for children because they do not yet have the appropriate skills (Luturmas et al., 2022). It is necessary for them to learn new skills that are appropriate and easier (Luturmas, 2022). When children are still at an early age, they will be more confident and dare to develop their fine motor skills. Previous researcher said examples for developing fine motor skills are

cutting, pasting, drawing, writing, montage, and others. This opinion strengthens montage as a way to train fine motor development (Muhammadiyah et al., 2023).

In the cutting and pasting activities, there are also other activities or terms in the technique of artwork in order to distinguish this montage research from other cutting and pasting activities when teaching early childhood, namely as follows: first is collage, which is an activity done by gluing objects such as shells, leaves, rocks, twigs, seeds, flowers, etc. to the area provided to create a work of art. The difference with this montage activity is that the attached part of the material used in the collage does not need to be cut, and the material used in the collage is also larger, cited in the Previous research, collage can also improve children's fine motor skills in group A. In the pre-action, the percentage increase was only 40.45% and then increased in cycle I to 51.59% and in cycle II to 80.68%¹⁴. Second, there is mosaic, which is an art activity that attaches smaller and more dangerous objects, such as broken glass, ceramics, and pieces of wood, using only one material. The difference between montage and mosaic activities is that this activity is more dangerous and must be monitored by the teacher.

METHODOLOGY

The type of research used in this study is the pre-experimental method. The research design used the one-group pretest-posttest design. From the research obtained, the results of the tests given before and after being given treatment will be compared to see if there is a significant effect on children's fine motor skills before and after being given montage activities. The population in this study consisted of eight kindergarten children. The researchers collected data using observation techniques, documentation, and tests. Obtaining data through the pre-test and post-test is the result of measuring the understanding aspect in the form of a score. The quantitative analysis steps are the normality test and the t-test.

RESULTS AND DISCUSSION

The initial process in this observation is also known as the pre-test, or before being given treatment by the researcher for one day. This pre-test was carried out to find out the initial state of the sample regarding its fine motor skills. This is assessed in terms of aspects of the child's fine motor skills before being given treatment. This pre-test activity was also assisted by the class teacher, who conducted questions and answers regarding various types of plants. The teacher also gives pictures about the structure of the tree, and the children are asked to mention again what the teacher has said; then the teacher gives a kind of test regarding the missing letters in that part of the tree's structure. After the debriefing was finished, the children were asked by the researcher to cut and arrange flowers starting from pots, stems, flowers, and leaves, then paste them on the paper provided. The results of the researchers observations are that there are still children who ask for help from teachers and researchers in cutting and pasting activities. However, some children can do it on their own. This can be seen in other findings, such as the pretest of children's fine motor skills before being given montage activities, namely the task of going to the front of the singing class. The researchers saw that there were many children who were not enthusiastic about teaching and learning activities. There are still many children who do not complete their fine motor tasks.

In the first treatment, the activities are carried out by the teacher, who gives the initial and closing activities, and then in the core activities, the researcher enters. After all the children enter the class, the children immediately read, read, and read their iqro, and if the teacher has called everyone, it means that the sign has started to make circles with distance. Then the teacher gives a greeting, asks about today, and greets the children. After that, a question-and-answer session on today's theme began. After the initial activities have been given by the teacher, the teacher gives full trust to the researcher to provide activities today. In this core activity, the children looked happy and happy when the researcher brought books and magazines; after that, the researcher explained that today's activity was a montage activity with the theme of animals, where we would cut, paste, color, and so on. When starting the activity, some children had difficulty cutting up their books or magazines because they were confused about where to start. Furthermore, in the pasting activity, there are still children who have an excess or deficiency in applying glue to the paper, which causes the paper to become wet because of the glue. If there is not enough glue, the image will open. And when doing drawing and coloring activities, the child looks very confused about doing them. It can be seen in this case, this first treatment, that the children's responses still look confused, and the class teacher assumes that at this stage it is still an introduction process. In this first process, the children are still trying to recognize this activity because usually the class teacher rarely uses scissors in activities.

This second treatment is not much different from the previous treatment. Where children still carry out montage activities, however, different from the previous theme, the theme of this second treatment is fruit. In this treatment, the researchers deliberately made it easier than before so that children could concentrate and be more creative. When the children's activities have started to relax and they can work independently, even though there are still children who cut inappropriately and stick with excess or less, In this treatment, children begin to understand their activities, and their confusion is no longer visible. This can be described by the classroom teacher as progress in teaching and learning activities. Although there is still dirty paper.

This treatment is still the same as the first and second; it's just that the theme is always different. In this third treatment, the success of this montage activity can be seen in the increasing number of children who have started to tidy up by cutting, pasting, and coloring it, but there is still one child who is quite bored because this activity continues. This treatment was said to be successful by the class teacher because, before carrying out the activity (posttest), the child still looked confused. However, after the treatment, the child, who previously looked stiff using scissors, became more flexible in using them, and when he put the glue on the paper, he was stable in using them.

Post-test activities carried out aim to measure the final state after being given treatment (treatment). This post-test is carried out only on core activities, which last for 30 minutes. At the beginning of the activity, as usual, the teacher asked questions about today's theme. After that, the core activity with the children was initially told by the researcher to choose a story book and prepare tools for the activity. The taking of post-test scores was assisted by a researcher friend who was doing research as well, and the activities carried out by children were observed according to the criteria of the observation instrument. This is done in order to maintain the objectivity of

measurement results. In other findings, montage activities were carried out by all children, and after participating in the game, the researcher gave assignments to children about fine motor skills using the same observation sheet as the pre-test. In the previous results of the pre-test, it was known that the fine motor skills of children before using montage activities were at a low level. Then, after being given montage activities, the fine motor skills of more than half of the sample were in the high category.

Before being given treatment, the experimental group was given a pre-test with the aim of knowing the initial abilities of each child. The results of this study showed that the average initial ability of children was 17.25. After being given a pre-test, the next day the child is given treatment, namely montage activities. In another study, based on the results of the pre-test, the fine motor skills of children aged 5-6 years at Kindergarten Kemala Bhayangkari I were categorized as starting to develop (MB). In this study, researchers conducted a pre-test up to four times with the aim of getting an overview of children's fine motor skills before they were given montage activities. After the treatment is given, the child is given a post-test aiming to find out the child's final ability after the treatment. Based on the results that have been done, it shows that montage activities can be shown from the results of paired sample t-test calculations (2-tailed) of 0.000, which means that there is a significant difference between the average values before and after being given treatment. Based on a comparison of the difference in pre-test and post-test values. Other studies have concluded that there is a very significant effect on speaking ability after using montage activities in teaching and learning. Judging from the value of $t\text{-count} = 8.687$ $t\text{-table} = 2.446$, it means that H_0 is rejected and H_a is accepted.

After doing the research, the average result for the pre-test was 17.25, and the post-test was 21.88. This description shows that there are changes in children's fine motor skills before and after being given treatment. Prior to this montage activity, the child appeared stiff when holding the scissors and applying glue to the paper, as evidenced by the way the child held the scissors. The child was still hesitant to use finger to finger, confused to start from the lack of giving it. After the montage activity was carried out, the children's progress was very good in cutting and pasting. At first it looks stiff, but the child can hold the scissors with his three fingers and give them enough glue.

This montage activity is one of the activities that can help children develop fine motor skills, which at the very least can help children improve their fine motor skills and many other aspects such as cognitive, emotional, artistic, and of course, motor skills. From the results of the analysis and testing of the data and previous research, it can be concluded that the results of this montage activity have an effect on improving children's fine motor skills. This is evident from the results of the research conducted. This montage activity has a positive impact on improving fine motor skills because it trains children's patience to carry out cutting activities with various other forms that are exemplified, and children are more creative in creating the image they want.

CONCLUSION

Based on the results of research conducted by researchers for two weeks and data analysis, it can be concluded that montage activities affect children's fine motor skills. It can be interpreted that in the experiments that have been carried out, there is

an influence on the fine motor skills of children before and after the montage activities are given. The fine motor skills of the children before being given treatment obtained the results of the pre-test with an average value of 17.25, and after being given the treatment, the results of the post-test were 21.88. The difference between before and after the treatment was given was 4.63. On the results of the paired sample t-test, the sig. (2-tailed) result is $0.00 < 0.005$, which means that H_0 is rejected and H_a is accepted. Based on the results of the study, it was found that the normality test results for the pretest and posttest results on children's fine motor skills had significant values of 0.081 and 0.200. The significant value in the pretest and posttest data results is > 0.05 , so it can be concluded that the pretest and posttest data results are normally distributed.

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