



The Utilization of Salt Painting Media to Develop Children's Fine Motor Skills

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Abstract

Fine motor development is one of the developments that can be honed in early childhood. Salt painting media is a medium that can develop children's fine motor skills. However, the fine motor skills of children at the IT Baitusshalihin Ulee Kareng Kindergarten in Banda Aceh are not yet fully developed. Most children still have difficulty using writing tools, imitating shapes, forming patterns, and cutting out patterns, and they even still have difficulty exploring various tools/media. This research aims to determine whether salt painting media can develop children's fine motor skills at the IT Baitusshalihin Ulee Kareng Kindergarten, Banda Aceh. The research sample was children aged 4-5 years which involved children from group A2 as the control class and A3 as the experimental class, totaling 15 children. This type of research is experimental using quasi-experimental analysis. This research used a pre-test-post-test control group design. Based on calculations using t-test statistics. Then using salt painting media can develop children's fine motor skills as obtained by $t \text{ count} > t \text{ table}$, namely $3.89 > 1.70$ so that the alternative hypothesis H_a is accepted and the hypothesis H_0 is rejected. Therefore, it can be concluded that the use of salt painting media can develop children's fine motor.

Keywords: Children, Motor Skill, Salt Painting Media.

Introduction

Children's motor development can be well coordinated along with their physical growth. Every child's physical movement is in harmony with his needs or interests. Children move their body parts with clear goals, such as (1) moving their hands to write, draw, take food, throw a ball, and so on, and (2) moving their feet to kick a ball, run after friends while playing cat and mouse, and so on (Sugandhi, 2011). Physical-motor development is the process of acquiring skills and movement patterns that children can carry out. Motor skills are needed to control the body. There are two motor skills, namely: fine motor skills and gross motor skills (Moeslichatoen, 1999). Fine muscle coordination skills are usually used in indoor learning activities. Fine motor skills are activities that use the fine muscles of the feet and hands. This movement requires speed, accuracy, and movement skills. Meanwhile, gross muscle coordination skills are carried out outdoors. Gross motor skills include movements of the whole body or large parts of the body. By using various coordination groups of certain muscles, children can learn to crawl, throw, or jump. Coordination of balance, dexterity, flexibility, strength, speed, and endurance are gross motor activities. The motor skills that we want to discuss in full here focus on children's fine motor skills.

Fine motor development is a development that involves fine muscles and their movements. This muscle functions to carry out movements of specific body parts, such as writing, folding, stringing, buttoning clothes, editing, and so on. The competencies and learning

outcomes to be achieved in the physical development aspect are the ability to manage and skill the body, fine movements, and gross movements, as well as receiving stimulation from the five senses (Mansur, 2011). Children's fine motor skills can be summed up as movements that use fine muscles or certain parts of the body that are carried out by small muscles, such as skills in using the fingers and proper wrist movements. Therefore, fine motor skills do not require a lot of energy, but these movements require coordination between the eyes and hands, and these movements affect the flexibility of the child's fingers.

As stated by Sujiono (2010) motor development is the development of the element of maturity in controlling body movements, whereas according to Zulkifli (Rahyubi, 2014), motorism is everything that is related to body movements. In developing fine motor skills, teachers must choose appropriate learning media that attract children's attention during the learning process, therefore teachers need creativity in analyzing children's needs in learning (Latip et al., 2021).

Sujiono in the journal Pratiwi Dian Afrina stated that in general there are three stages of motor skill development in early childhood, namely (Pratiwi Dian Afrina, n.d.): 1) Cognitive stage: Children try to understand motor skills and what is needed to carry out certain movements. At this stage, with mental awareness, the child tries to develop certain strategies to remember similar movements that have been carried out in the past. 2) Associative Stage: Children learn a lot by trying to correct their appearance or movements to be corrected so they don't make mistakes again in the future. This stage is a change in strategy from the previous stage, namely from what must be done to how to do it. 3) Autonomous Stage: The movements displayed by the child are more efficient responses with fewer errors. The child has displayed movements systematically.

To Hurlock's opinion expressed in Ai Teti Sukaeti's research, several classifications of the function of children's motor skills are: (1) Self-Help Skills: Children should do activities that hone their fine motor skills so that in daily activities children can carry out their activities to fulfill their needs. For example getting your food and drink, wearing your school uniform, and so on. (2) Social helping skills: Being a social creature means not being able to live alone and needing help from other people and in return you have to help other people if children want to be accepted in the family and society, children must also be able to help other people. (3) Play skills: When children play, children will develop their motor skills so that children can entertain themselves to gain pleasure. Play activities, for example, when children can play with dolls, throw and catch balls, and other movements, most children develop through play activities. Playing is considered an activity that can guide children to experience development. Fine motor skills appear when children are four years old and will end when children are six years old. (4) School skills Children's motor skills can help them adapt to the school environment. At preschool age (Kindergarten) or early school age, children do a lot of activities using hand movement skills such as drawing, coloring, and writing, the more motor skills a child has, the more developed the child will be and the more experience the child will gain. , as well as more provisions being prepared for other academic activities (Sukaeti, 2021).

Salt painting media is drawing using glue sprinkled with salt and coloring with poster paint (Hul, 2013). Salt painting activity is a visual and hands-on activity for children to learn about absorption when they turn white glue into colorful designs and make it a unique and creative work. Salt is a fun experimental tool to use when painting with watercolors. The salt painting also called the salt technique is very easy to do and the results can be very beautiful. Salt painting can be said to be a fun way to combine art with science while practicing fine motor skills. Salt painting is a type of media that uses glue and salt as the main ingredients and is further enhanced using watercolor (poster) as the coloring. By using this media, children's excitement in training their motor skills will be even higher (Hul, 2013).

Wina Sanjaya in her book on integrated thematic learning analysis states that learning media are everything such as tools, environments, and all forms of activities that are conditioned to increase knowledge, change attitudes, or instill skills in everyone who uses them (Prastowo, 2012). The tools and materials used in Salt Painting media, namely: Salt, small/large bottles of glue, books/drawing paper, watercolors (posters), palettes/water plots, and watercolor brushes/pipettes (Hul, 2013).

The steps for making salt painting are as follows: 1) prepare the tools and materials first. 2) Pour the salt into a pan/other place. 3) Distribute a dotted design on the paper/drawing book provided then draw the design using the glue provided. 4) Next, sprinkle salt over the glue design that has been drawn. Repeat until the glue lines are completely covered with salt. 5) Dip the dropper into the paint and gently touch it to the glue line covered in salt. Pay attention to the paint. Repeat with different colors at different points until the design is covered in paint. 6) Dry (this may take one to two days) (Hul, 2013).

Salt painting activities are a fun way to combine art and science while practicing fine motor skills in children. This activity is also a visual and hands-on way for kids to learn about absorption as they turn white glue into colorful designs. Therefore, developing fine motor skills through salt painting is an activity that can develop and train eye coordination and hand muscles as well as children's concentration. This art activity is also one of the best ways for children to tap into their imagination, deepen children's creativity, and explore new materials for all aspects of children's development while strengthening children's fine motor skills and developing children's self-confidence.

Based on initial observations at the IT Baitusshalihin Kindergarten in Banda Aceh, researchers found several problems in children aged 4-5 years, namely that there were children who still had difficulty using writing instruments, children still had difficulty imitating shapes, children were still not perfect at forming patterns, children They are still not perfect at cutting according to the pattern given and children still have difficulty exploring with various tools/media.

A hypothesis is a temporary answer to the problem being researched (Muhammad Idrus, 2019). A hypothesis is a suggestion for scientific research because a hypothesis is a working instrument of a theory and is specific and ready to be tested empirically. In formulating a hypothesis, the statement must reflect the existence of a relationship between two or more variables. Hypotheses that are relational or descriptive are called working hypotheses (Hk, often

also called alternative hypotheses/ H_a), whereas for statistical testing a comparative hypothesis is needed and the working hypothesis is usually an inverse formulation of the working hypothesis. Such a hypothesis is called the null hypothesis (H_0). Based on the explanation above, the hypothesis that emerged in this research is that the use of salt painting media can develop children's fine motor skills at the Baitussalihin Ulee Kareng IT Kindergarten, Banda Aceh.

The problem formulation in this research is: Can the use of salt painting media develop children's fine motor skills? Based on this problem formulation, the research aims to determine whether the use of salt painting media can develop fine motor skills in children at Baitussalihin Ulee Kareng IT Kindergarten Banda Aceh. It is hoped that this research can develop knowledge in the field of education, especially by using Salt Painting Media in developing children's fine motor skills, and can be a reference for teachers in choosing media or games as new knowledge in learning and adding insight and encourage teachers to always create more creative media.

Literature Review

Previous research was conducted by Effi Kumalasari with the title "Improving Children's Fine Motor Development through Collage Activities from Used Materials at Aisyiyah Simpang IV Agam Kindergarten". This research shows positive results and an increase in children's motor development through pattern-filling activities (Kolase) (Effi Kumalasari, n.d.). Similar research was conducted by Warnida with the title "Efforts to Improve Fine Motor Skills through Coloring Activities in Group B1 Kindergarten Berkah Jambi City 2016/2017". This research also found that there was an increase in fine motor skills in coloring activities. In this study, children reached the criteria of 75% and were in Very Well Developed (BSB) abilities, namely being able to hold a coloring tool using two index fingers and a thumb with the fingers positioned in the middle and a skilled way of holding, being able to move the wrist in an upward direction. Right and left, up and down, and in circles, and can color without going out of line, full and neat (Warnida, n.d.).

In research conducted by Rati Juliati, it was stated that salt painting media as a learning medium can make it easier for teachers to introduce letter symbols to children, and also salt painting media can attract children's attention in learning (Rati Julianti Sahu, 2022). Research conducted by Faridah Andayani proves that: Based on the observations made during the ongoing research, it can be concluded that implementing imagination-based plasticine play activities can improve children's fine motor skills at the Dharma Wanita Persatuan Pangkemiri Kindergarten (Andayani & Wijayanti, 2022). The salt painting activity is expected to provide opportunities for children to get to know new learning methods and media in letter recognition activities. Salt painting media is a learning medium that can make it easier for teachers to introduce letter symbols to children and can be an alternative for teachers to improve their development (Rati Julianti Sahu, 2022).

Salt painting involves active participation from students and teachers. In learning activities, children are given a theme around them, then children explore paintings or drawings according to the theme. Children's fine motor skills are carried out by providing opportunities

for children to explore learning resources, and active involvement in learning activities, as well as being allowed to carry out interesting and varied activities. This learning activity is also carried out in an atmosphere of play and fun for children according to the age and stages of early childhood development (Kurniasih, 2022).

Methods

The research design used in this research is experimental research to determine the use of salt painting media to develop children's fine motor skills. The approach used in this research is quantitative. Meanwhile, the type of research used in this research is quasi-experimental research. The quasi-experimental research method is a method that controls one variable.

This research was conducted on two classes, namely the experimental class and the control class. The design used in this research was a pre-test-post-test control group design. In this design, researchers use two classes selected randomly from a homogeneous population. Both classes were given the same initial test (pre-test), the experimental class was the class that was given treatment using salt painting media, while the control class did not use salt painting media during learning. After a while, both classes were tested with the same test as the final test (post-test).

Table 1. Pre-test-Post-test Control Group Design Research Design.

Class	<i>Pre-test</i>	Treatment	<i>Post-test</i>
Eksperimen	O ₁	X _a	O ₂
kontrol	O ₁	X ₀	O ₂

Source: *Educational Research Methods Quantitative, Qualitative, and R&D Approaches* (Sugiyono, 2017)

Information:

O₁ = initial test results (pre-test)

O₂ = posttest value (post-test)

X_a = initial test results (pre-test)

X₀ = final test results (post-test)

This research was conducted at the IT Baitussalihin Kindergarten located in Ulee Kareng Banda Aceh. The samples in this research were group A children at the Baitussalihin IT Kindergarten who were taken from class A3 as the experimental class and class A2 as the control class taken from each group. Each group of 15 children. The data collection techniques used are observation and documentation. The instrument for this research is an observation sheet of children's activities.

In this research, researchers used several data to be analyzed, including the following:

- 1) Normality Test, aims to determine the normality of data regarding salt painting media and children's fine motor skills. Sugiyono, to test the normality of data, the basic Chi-Square formula can be used as follows:

$$Xh^2 = \frac{(f-fh)^2}{fh}$$

Information :

Xh2: Chi-Square price

fo: observed frequency

fh: expected frequency

- 2) Homogeneity test, carried out by calculating the Fcount value and then comparing it with Ftable. According to Sudjana, homogeneity testing can be carried out using the following formula:

$$F = \frac{\text{biggest variant}}{\text{smallest variant}}$$

The criteria for testing homogeneity are accepting H0 if Fcount \leq Ftable meaning both data are homogeneous and conversely accepting Ha if Fcount $>$ Ftable then the two data are declared not homogeneous. The Ftable value can be seen by calculating the dk of the numerator and denominator, namely using the formula Ftable = (n1-1, n2-1) with a significance level of 0.05.

3) Hypothesis Testing, After testing the normality and homogeneity of the data, hypothesis testing is then carried out. Hypothesis testing is carried out to test the truth of the hypothesis being carried out. Sudjana in the book on statistical methods states that to test hypotheses the statistical test equation can be used as the t-test.

Result/Findings

This research was carried out at the Baitusshalihin Ulee Kareng IT Kindergarten in Banda Aceh. The sample used in this research consisted of two classes, namely the experimental class and the control class. The results of previous research show that tcount $>$ ttable, namely 3.89 $>$ 1.70, so Ha is accepted and H0 is rejected. This concludes that the use of salt painting media can develop children's fine motor skills at the Baitusshalihin Ulee Kareng IT Kindergarten in Banda Aceh.

This research was carried out in two classes, namely class A3 with 15 children as the experimental class, and class A2 with 15 children as the control class. The description of the results of this research looks at the use of salt painting media to develop children's fine motor skills at the Baitusshalihin Ulee Kareng IT Kindergarten, Banda Aceh. Where the assessment is carried out using a child observation sheet which consists of 5 assessment indicators.

The list of pre-test and post-test scores of children in the experimental class and control class can be seen in the following table:

Table 2: List of Children's Scores in Experimental Class Group A3

No	Children	<i>Pre-test</i>	<i>Post-test</i>
		Scores	Scores
1	AQZ	5	9
2	AAN	7	16
3	AZ	6	14
4	AKA	5	13
5	CAR	8	17
6	AS	5	13
7	KA	6	14
8	KS	10	20
9	MIM	6	8
10	MR	5	10
11	NR	5	14
12	SA	5	17
13	SRA	5	15
14	ZHF	6	15
15	ZD	9	19
Total		93	214
Average		6,2	14,26

Based on the pre-test and post-test assessments for the experimental class above, it can be seen that the pre-test assessment for the experimental class was 6.2 and the post-test was 14.26, which means that when carried out on salt painting media, it can develop fine motor skills in early childhood.

Table 3: List of Children's Grades in Control Class Group A2

No	Children	<i>Pre-test</i>	<i>Post-test</i>
		Scores	Scores
1	AN	5	9
2	ADT	6	8
3	CAS	8	12
4	FIS	6	9
5	MNF	5	10
6	LAA	10	15
7	NKW	6	9
8	MR	5	11
9	MZR	7	13
10	QQL	8	10
11	RH	7	8
12	RAB	8	11
13	SN	9	8
14	SMW	6	10
15	TZA	9	15
Total		102	158
Average		6,8	10,53

Based on the control class pre-test and post-test assessments above, it can be seen that the control class pre-test score is 6.8 and the post-test score is 10.53. Based on the steps that have been completed above, we get $t_{count} = 3.89$. Then look for the t_{table} with $dk = (15+15-2) = 28$ at the significance level $\alpha = 0.05$, so from the t distribution table we get $t(0.95)(28) = 1.70$. Because $t_{count} > t_{table}$, namely $3.89 > 1.70$.

The results of the data analysis above show that the use of salt painting media can develop children's fine motor skills at the Baitusshalihin Ulee Kareng IT Kindergarten in Banda Aceh, so it can be stated that the H_a hypothesis is accepted and H_o was rejected.

Apart from the results of the hypothesis, the results of the observational assessment of the use of salt painting media in the form of butterfly images which made children enthusiastic about playing with them can also be seen from Meetings I to III, both in the control and experimental classes. As is known, the control class is the class without treatment, while the experimental class is the class with treatment. This phenomenon so far shows that the use of APE or inappropriate media will cause children to be less able to master their fine motor skills and will not attract children to continue to develop.

The results of this research show that the use of salt painting media can develop children's fine motor skills as seen from the assessment of children's activities in drawing using salt painting media. Assessment of children's drawing activities can prove that using salt painting media can develop fine motor skills in young children.



Fig. 1. The following is a photo during the research process, you can see the child carrying out the salt painting process and the final results obtained.

Discussion

This research was carried out at the Baitusshalihin Ulee Kareng IT Kindergarten in Banda Aceh. The sample used in this research consisted of two classes, namely the experimental class and the control class. The results of the research that has been carried out are: previously pointed out that $t_{count} > t_{table}$ is $3.89 > 1.70$, then H_a accepted and H_0 rejected. This concludes that the use of salt painting media can develop children's fine motor skills at the Baitusshalihin Ulee Kareng IT Kindergarten in Banda Aceh.

Apart from the results of the hypothesis, the results of the observational assessment of the use of salt painting media in the form of butterfly images which made children enthusiastic about playing with them can also be seen from Meetings I to III, both in the control and experimental classes. As is known, the control class is the class without treatment, while the experimental class is the class with treatment. This phenomenon so far shows that the use of APE or inappropriate media will cause children to be less able to master their fine motor skills and will not attract children to continue to develop.

Based on research conducted at the Baitusshalihin Ulee Kareng IT Kindergarten in Banda Aceh, it can be concluded that the $t_{count} = 3.89$. Then look for the t_{table} with $dk = (15+15-2) = 28$ at the significance level $\alpha 0.05$. So from the t distribution table, we get $t(0.95)(28) = 1.70$. Because $t_{count} > t_{table}$, namely $3.89 > 1.70$, the action hypothesis H_a is accepted, and H_0 is rejected. Based on this data, the hypothesis is declared accepted because the use of salt painting media can develop children's fine motor skills at the Baitusshalihin Ulee Kareng IT Kindergarten, Banda Aceh.

Providing salt painting learning media can improve children's fine motor skills. This is in line with research conducted by Holda Sari, according to the explanation she gave in her research. Providing activities related to art can improve children's motor skills, this is because children feel happy in the learning process (Sari, 2023). In line with the research above, research conducted by SitiKurniasih also states that providing painting learning media can improve children's motor skills (Kurniasih, 2020).

Conclusion

The results of this research show that the use of salt painting media can develop children's fine motor skills as seen from the assessment of children's activities in drawing using salt painting media. Assessment of children's drawing activities can prove that using salt painting media can develop fine motor skills in young children. The results of this research show that the use of salt painting media can develop children's fine motor skills as seen from the assessment of children's activities in drawing using salt painting media. Assessment of children's drawing activities can prove that using salt painting media can develop fine motor skills in young children.

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