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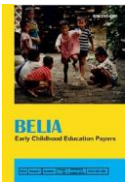

Improving Children's Fine Motor Skills Through Free Drawing Activities Using Dusel Techniques in Group B in Kindergarten North SeGroup, Ngambol District, Purworejo Regency

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Abstract

This research was conducted by looking at the high sensitivity level received by children. The personality and character of a child is supplied by the level of early childhood education. Fine motor development is needed to support children's creativity and mentality. There are several factors related to fine motor development in early childhood. One of the techniques that can be used in developing children's fine motor skills is free drawing with the dusel technique. This is because the small muscles in children are used to the fullest. However, in the field the free drawing technique with dusel has not been implemented in schools. For artistic development, they were only asked to color pictures in magazines. So this makes the researcher choose the technique. The purpose of this study was to determine the improvement of children's fine motor skills through free drawing activities with the dusel technique. This research method uses quantitative research with researchers giving directions to class teachers in conducting research. The results showed that there was an increase in fine motor skills in children through free drawing activities using the dusel technique.

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INTRODUCTION

A human's developmental abilities are formed when entering early childhood. During this period, a person's development can be maximized because it is during this period that a child's development enters the Golden Age or golden age. A period where all treatments will have a big impact on further developments. Early childhood has a period of sensitivity which is the beginning of development of cognitive, motoric, language, social-emotional, religious moral values and artistic aspects (Hermoyo, 2014 in Panda et al., 2019). Bloom stated that 80% of children's mental development and intelligence takes place during early childhood (Maznuni M., 2018). Therefore, young children need stimulation from various surrounding environments in order to develop their abilities to the maximum, so that creativity in developing gross and fine motor skills in early childhood can grow and develop in a balanced way.

The results of Indonesia's participation in measuring education quality through PISA (The Program for International Student Assessment) in 2018 placed Indonesia in 74th place out of 79 participating countries (Schleicher, 2018 in Hewi & Shaleh, 2020). These results show that Indonesia needs to improve itself in improving its education level. Improving the level of education in Indonesia as recommended by PISA (The Program for International Student Assessment) lies in the quality of the educational curriculum. Therefore, improving education in Indonesia must start from early childhood education (PAUD). A child's personality and character are supplied by the level of early childhood education. Children's development has an important role in the future depending on early childhood education which is the basis for forming their personality (Yuliati & Hente, 2021).

Needs that are not met in a child's development and growth at an early age will influence the child's subsequent development pattern. Early childhood children who have access to good quality education have an impact on children's growth and development patterns from all aspects (Wahyuni & Erdiyanti, 2020). Early childhood education (PAUD) is education provided to children aged 0-6 years. Educational efforts for early childhood aged between 0-6 years are the aim of Law Number 20 of 2003 concerning the National Education System Chapter 1 Article 1 Point 14. This is done because early childhood has an age range between 0-6 years are classified as golden age (Yuliati&Hente, 2021). Early childhood children have extraordinary absorption capacity if they continue to be given stimulation injections according to their stage of development. So that various aspects of early childhood such as cognitive, language, physical motor, moral, religious and social emotional values can develop optimally (Fadhilah, 2014).

Fine motor development in early childhood is very much needed to support children's creativity and mental health. This is in accordance with Minister of Education and Culture Regulation Number 137 of 2014 concerning National Standards for Early Childhood Education in Article 10 which explains that fine motor skills include the ability and flexibility to use fingers and tools in the process of children's exploration and self-expression (Purtikayeni et al., 2022). One form of fine motor skills in early childhood includes sticking, cutting, drawing, coloring, writing and erasing movements. So early childhood education needs to be carried out in an integrative manner to meet their essential needs. There are several factors related to fine motor development in early childhood. According to Dewi, (2019) said that a mother's education is one of the factors in improving a child's fine motor skills. Furthermore, according to Fitriyanti & Rosidah, (2017) said that the mother's knowledge and the child's nutritional status are related to the child's fine motor skills.

Children's fine motor skills are not only influenced by stimulation factors but also factors before birth (Muarifah & Nurkhasanah, 2019). Apart from that, learning methods and media are factors that influence children's fine motor skills (Sutini & Rahmawati, 2018). Fine motor skills in early childhood through free drawing can be done using the Dussel technique. The Dussel technique or commonly known as the rubbing technique is easy for young children to practice. Children only need to scratch the pencil on the paper to form the desired image and then rub it to fill the image. Drawing using the dussel technique requires cotton or fingers directly as an eraser (Mubaroh & Prajitno, 2018). This technique is suitable for use in early childhood because it can train the flexibility of children's fingers when drawing or painting. The development of early childhood education can be seen in non-formal school environments.

BerdaAccording to the results of the researcher's observations at the North Sewisata Kindergarten, there were activities carried out by the school, namely gathering with teachers and educators at the North Sekumpul Kindergarten. In this meeting, teachers stay in touch with

each other and exchange stories about problems at school. As a result of this meeting, the teacher received input from colleagues regarding the problem. One of the problems obtained from this meeting was that there were still many kindergarten students who still experienced problems with fine motor development and felt bored during drawing lessons.

This research aims to determine the improvement of children's fine motor skills through free drawing activities using the dusel technique in North Segroup Kindergarten, Ngambol District, Purworejo Regency. The benefits expected in this research are (1) this research is expected to be able toenrich the treasures of knowledge in the field of child development in the world of education.(2)The results of this research can be used as information in further research. (3) The results of this learning development can be used to increase teacher insight regarding improving fine motor skills. (4) The results of this learning development can be used as an evaluation and correction tool, especially in increasing the effectiveness and efficiency of the learning process so that optimal child development is achieved.

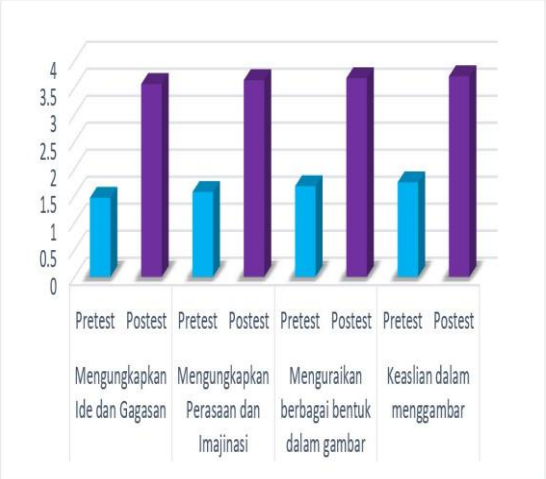
METHOD

The approach in this research uses a quantitative approach with an experimental method. a causal relationship between two factors that is deliberately elicited by the researcher. Experimental research is a quantitative research method used to determine the effect of independent variables (treatment) on dependent variables (outcomes) under controlled conditions. Conditions are controlled so that no other variables (other than the treatment variable) influence the dependent variable. The population in this study was Kindergartens in North SeGroup, Ngambol District, Purworejo Regency, totaling 7 Kindergarten schools with the criteria being children who could not draw freely using the dussel technique with different backgrounds of experience, intelligence, upbringing and environment. The research sample at ABA Tanjung Kindergarten consisted of 30 students from the existing population, consisting of 16 male students and 14 female students. Data collection by observation, statistical data sets and documentation. In this research, quantitative data analysis was carried out by comparing the pre-test and post-test results that had been obtained and collected by the researcher. The purpose of this comparison is to see significant differences between the pre-test and post-test treatments. The difference test was carried out using the –t test (test).

RESULTS AND DISCUSSION

Results of research conducted at ABA Tanjung Kindergarten. This research is quantitative in nature where the data produced will be in the form of numbers. From the data obtained, analysis was carried out using SPSS software. This research aims to determine the improvement in children's fine motor skills through free drawing activities using dusel techniques in kindergartens in the northern group of Ngambol District, Purworejo Regency. With this aim, observations and research were carried out on the learning carried out at the ABA Tanjung Kindergarten. From the initial results of the research subjects, 30 children became 28 children because there were 2 children who did not want to take part in the lesson until it was finished. The child only wants to play outside the classroom because he is not interested in holding the stationery he is using. Learning is carried out by class teachers assisted by accompanying teachers. Researchers only see the learning process that takes place without directly engaging with the children. In the research process, the researcher collects data by directly observing the experimental activities that have been planned by the researcher. Assessment in this study was carried out using pretest (H-1) and posttest (H12). From these results, a comparison of the results is carried out.

From the results of research on each aspect of free drawing and fine motor skills, activity graphs were created. The graph for the difference between pretest and posttest assessments is made as follows



Graphic 1. Free Drawing Activity

In the Free Drawing Graph above, it was found that expressing pretest thoughts and ideas had a pretest rating of <1.5 and a posttest of 3.5. Expressing feelings and imagination has a pretest rating of 1.5 and posttest 3.5. Describing various shapes in pictures has a pretest rating of >1.5 and a posttest of 3.5. Then the assessment of authenticity in drawing has a pretest level of >1.5 and posttest >3.5.

Graph 2. Fine Motor Ability

In the Fine Motor Graph above, it was found that the child's pretest media grasping skills had a pretest rating of <1.5 and a posttest of 3.5. Finger skills have a pretest rating of <1.5 and a posttest of 3.5. Then wrist skills have a pretest assessment of 1.5 and posttest > 3.5.

From the research, the results obtained are as follows:

Table 1. Paired Samples Fine Motor Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRETEST MH	4.61	28	,994	,188
	POSTEST MH	11.07	28	,900	,170

From the table above it can be concluded that there is a significant difference in the level of children's fine motor skills before being given treatment and after being given treatment. The average before being given treatment was 4.61 and after being given treatment was 11.07. Meanwhile, the average standard error for ideas before being given treatment was 0.188 and after being given treatment was 0.170.

Table 3. Paired Samples Fine Motor Test

Paired Samples Correlations

		N	Correlation One-Sided p	Significance Two-Sided p	
Pair 1	PRETEST MH & POSTEST MH	28	-.009	,482	,964

Table 2. Paired Samples Fine Motor Correlations

Paired Samples Test

		Paired Differences					t	df	Significance One-Sided p	Significance Two-Sided p
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper				
Pair 1	PRETEST MH - POSTEST MH	-6,464	1,347	,254	-6,986	-5,942	-25,400	27	<.001	<.001

From the table above, it is found that there is an average difference before and after treatment of 6.464. Based on the calculated t = 25,400 it is greater than the t table of 2,052. In conclusion, reject Ho. With a significance level of 0.001, it is smaller than the significance level of 0.05, meaning that there is a significant difference between children who have not been given treatment and children who have been given treatment.

Table 4. Paired Samples Effest Sizes Fine Motor

Paired Samples Effect Sizes

			Standardizera	Point Estimate	95% Confidence Interval	
			Lower	Upper		
Pair 1	PRE-TEST MH - POST-EST MH	Cohen's d	1,347	-4,800	-6.121	-3,470
		Hedges' correction	1,386	-4,665	-5,949	-3,373

Early Childhood Fine Motor

This section describes the analysis of data obtained through research carried out based on predetermined assessment criteria. Before this research was carried out, the results showed that children's media grasping skills were 1.464 (MB = Starting to Develop), Finger Skills were 1.536 (MB = Starting to Develop), wrist skills were 1.607 (MB = Starting to Develop). As for fine motor skills, after being given research, the results of the assessment of children's media grasping skills were 3.679 (BSH = Developing According to Expectations), Finger Skills were 3.643 (BSH = Developing According to Expectations), wrist skills were 3.750 (BSH = Developing According to Expectations). Based on the results of the research above, it was found that there was an increase in the assessment criteria for children's fine motor skills.

The results for the 12 days carried out on this research sample were:

- Based on the results of the daily fine motor skills assessment, data showed that in H2 there was an increase in the assessments of Adifa, Adurrahman, Ahnaf, Anindya, Annisa, Arsaka, Bunga, Faqih, Farkhan, Mufasirul, and Milta.

- Based on the results of the daily fine motor skills assessment, data showed that in H3 there was an increase in the assessments of Adifa, Arsaka, Arshila, Desta, Devanka, Fahmi, Fahrudin, Farhan, Farkhan, Gibran, Naifa, Nuril, and Reva.

- Based on the results of the daily fine motor skills assessment, data showed that in H4 there was an increase in the assessment of Adurrahman, Ahnaf, Anindya, Annisa, Chika, and Melania, however, in the H4 assessment there was also a decrease in the assessment of Adifa, Arsaka, Desta, Fahrudin, and Farkhan. . This is because they are not interested in learning that day.

- Based on the results of the daily fine motor skills assessment, data showed that in H5 there was an increase in the assessments of Devanka, Fahrudin, Faqih, Farhan, Farkhan, Helmi, Melania, Nafisah, and Milta. However, in the H5 assessment there was also a decrease in the assessment of Ahnaf, Anindya, Annisa, and Chika. This is because their focus is divided between the games in the corner of their class.

- Based on the results of the average fine motor skills assessment every day, data was obtained that in H6 there was an increase in the assessments of Anindya, Annisa, Arsaka, Chika, Fahmi, and Reva. However, in the H6 assessment there was also a decrease in the assessment of Fahrudin. This is because they feel bored with the day's learning.

- Based on the results of the average assessment of fine motor skills every day, data was obtained that in H7 there was an increase in Arshila and Fahrudin's assessments. However, in the H7 assessment there was also a decrease in the assessment of Anindya, Annisa, Arsaka, Chika, Devanka, Fahmi, Faqih, Farhan, Farkhan, Helmi, Melania, and Nafisah. This is because they feel tired from the day's learning.

- Based on the results of the average assessment of fine motor skills every day, data showed that in H8 there was an increase in the assessment of Adifa, Adurrahman, Ahnaf, Anindya, Annisa, Arsaka, Bunga, Chika, Desta, Devanka, Fahmi, Faqih, Farha, Farhan, Farkhan, Gibran , Hafiz, Helmi, Maryam, Melania, Mufasirul, Nafisah, and Nuril.

- Based on the results of the average fine motor skills assessment every day, data was obtained that in H9 there was an increase in the ratings of naivea and reva. However, in the H9 assessment there was also a decrease in the assessment of Adurrahman. This is because Adurrahman is sick.

- Based on the results of the average fine motor skills assessment every day, data was obtained that in H10 there was an increase in the assessments of Adifa, Adurrahman, Anindya, Arshila, and Melania.

- Based on the results of the daily fine motor skills assessment, data showed that in H11

there was an increase in the assessments of Annisa, Arsaka, Desta, Fahrudin, Farhan, Gibran, Nafisah, and Nuril. However, in the H11 assessment there was also a decrease in the assessment of Arshila. This was because Arshila was sick that day.

- Based on the results of the daily fine motor skills assessment, data showed that in H12 there was an increase in the assessments of Chika, Devanka, Faqih, Farkhan, Hafiz, Helmi, Maryam, Mufasirul and Milta. However, in the H12 assessment there was also a decrease in the assessment of Melania and Nuril. This is because they are bored with learning that day.

For the percentage of free drawing assessments, the following results were obtained:

- Pretest Percentage 38.39286% 43/84 x 100%=%, then it can be rounded up to 38%(Starting to Thrive assessment criteria).

- Posttest Percentage 43/84 x 100%= 92.2619%, then it can be rounded to 92%(Very Well Developed assessment criteria).

From the results above, it was found that free drawing before being given treatment had 38%and after being given treatment it became 92%.

Free Drawing with Dussel Technique

This section describes the analysis of data obtained through research carried out based on predetermined assessment criteria. Before carrying out this research, the results were: Expressing Ideas and Thoughts, namely 1.464 (MB = Starting to Develop), Expressing Feelings and Imagination, namely 1.536 (MB = Starting to Develop), Describing various shapes in pictures, namely 1.607 (MB = Starting to Develop), and Authenticity in drawing. i.e. 1.75 (MB = Starting to Develop) . As for free drawing using the dussel technique, after being given research, the results of the assessment were: Expressing Ideas and Thoughts, namely 3.571 (BSH = Developing According to Expectations), Expressing Feelings and Imagination, namely 3.643 (BSH = Developing According to Expectations), Describing various shapes in the drawing, namely 3.679 (BSH = Developing According to Expectations), and Authenticity in drawing, namely 3.714 (BSH = Developing According to Expectations). Based on the results of the research above, it was found that there was an increase in the assessment criteria for free drawing using the dussel technique for children.

The results for the 12 days carried out on this research sample were:

- Based on the results of the average assessment of free drawing every day, data was obtained that in H2 there was an increase in the assessments of Annisa, Bunga, Desta, and Fahrudin.

- Based on the results of the average assessment of free drawing every day, data was obtained that in H3 there was an increase in the assessment of Farhan, Melania, Mufasirul. However, in the H3 assessment there was also a decrease in the assessment of Anindya and Annisa. This is because Anindya and Annisa feel their hands are tired.

- Based on the results of the average daily free drawing assessment, the data showed that in H4 there was an increase in the assessments of Adurrahman, Annisa, and Nuril.

- Based on the results of the average daily free drawing assessment, the data showed that in H5 there was an increase in the assessments of Ahnaf, Anindya, Arsaka, Arsshila, Bunga, Desta, Fahmi, Faqih, Farhan, Farkhan, Hafiz, Helmi, Maryam, Nafisah, and Nuril.

- Based on the results of the average daily free drawing assessment, data was obtained that in H6 there was an increase in the assessments of Adifa, Annisa, Chika, Devanka, and Reva. However, in the H6 assessment there was also a decrease in the assessment of ahnaf, arsaka, bunga, desta, fahmi, faqih, farkhan, helmi, Maryam, nafisah, and nuril. This is because they feel bored with the day's learning.

- Based on the results of the average assessment of free drawing every day, data was obtained that in H7 there was an increase in the assessments of Ahnaf, Arsaka, Desta, Farhan, Helmi, and Melania. However, in the H7 assessment there was also a decrease in the assessment of Adifa, Annisa, Chika, Farha, Gibran, Mufasirul. This is because they feel tired from the day's learning.

- Based on the results of the average daily free drawing assessment, the data showed that in H8 there was an increase in the assessments of Adurrahman, Anindya, Annisa, Bunga, Chika, Fahmi, Faqih, Farha, Farkhan, Gibran, Hafiz, Maryam, Mufasirul, Nafisah, and Nuril.

- Based on the results of the average daily free drawing assessment, data was obtained that in H9 there was an increase in Adifa's assessment.

- Based on the results of the average daily free drawing assessment, the data showed that in H10 there was an increase in the assessments of Anindya, Annisa, Arsaka, Devanka, Faqih, Farkhan, Hafiz, Maryam, Nafisah, and Milta. However, in the H10 assessment there was also a decrease in the assessment of fahmi. This is because Fahmi is sick.

- Based on the results of the average daily

free drawing assessment, data was obtained that in H11 there was an increase in the assessments of Adurrahman, Melania, Naivea and Reva. However, in the H11 assessment there was also a decrease in the assessment for Annisa, Maryam, Nafisah, and Milta. Because they are less focused on following the lesson and more focused on telling stories when the learning is carried out.

- Based on the results of the average assessment of free drawing every day, data was obtained that in H12 there was an increase in the assessments of Ahnaf, Farha, Helmi, and Nuril. However, in the H12 assessment there was also a decrease in the assessment of Naifa. This was because Naifa felt dizzy that day.

For the percentage of free drawing assessments, the results are as followsfollowing:

- Pretest Percentage 40.40179 43/84 x 100%=%, then it can be rounded up to 40%(Starting to Develop assessment criteria)

- Posttest Percentage 43/84 x 100%= 91.29464%, then it can be rounded to 91%(Very Well Developed assessment criteria)

From the results above, it was found that free drawing before being given treatment had 40%and after being given treatment it became 91%.

CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that children's fine motor skills have improved through free drawing activities using the Dusel technique in the North Segroup Kindergarten, Ngambol District, Purworejo Regency. This can be known based on the comparison of the pretest and posttest of fine motor skills and free drawing with a percentage of 40%to 91%and from the percentage of 38%to 92%. The percentage of pretest and protest from the results of this research can be seen that there was a significant increase in assessments by children.

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