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Motoric Ability Survey in Kindergarten with Calligraphy Method

I. Irmawati, I. Ibrahim*

UIN Sunan Kalijaga Yogyakarta, Indonesia

Correspondence: E-mail: 20204032017@student.uin-suka.ac.id

ABSTRACT

The purpose of the study was to determine the level of fine motor skills at the age of five to six years. The population in this study were students in group B with a total of 55 students devided into group B1 with 28 students, and B2 with 22 students. The research design used in this study is a survey method. The data collection technique was carried out by testing the flexibility of hand movements and testing the eyes and hands coordination. The results of the study show the percentages of motoric skill are very well developed (BSB) 5%, developing according to expectations (BSH) 20%, starting to develop (MB) 40%, and not yet developed (BB) 25%. Fine motor skills in group B1 with the percentage of BSB 4.35%, BSH 26.09%, MB 34.78%, and BB 26.09%. While the B2 group with a percentage of BSB 9.68%, BSH 25.81%, MB 32.26%, and BB 25.81. From the result of research at Pertiwi Kindergarten 26-13 Bogares Kidul, it can be concluded that in both groups which using the calligraphy method to improve fine motor skill are starting to develop.

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1. INTRODUCTION

Kindergarten is one of the educational institutions that deliver growth and development in early childhood (AUD) (Hidayati et al., 2017). AUD does not escape the growth and development of fine and gross motor skills (Yanti et al., 2020). Gross motor skills in early childhood include children who can jump using both feet, ride a climbing iron, run, ride a bicycle (Widiyanti, 2020). Meanwhile, the child's fine motor skills can hold small objects using the thumb and forefinger, cut and hold a pencil correctly, and paint (Agustina et al., 2018).

Evaluation of fine motor development using the Developmental Pre-screening Questionnaire or KPSP (Purnami, 2020). KPSP is used to find out the development of good students or students who experience obstacles (Mantu et al., 2019). Barriers to fine motor development are the cause of obstacles to the learning process at school (Haryanti et al., 2019). These obstacles cause a lot of lazy writing behavior, reduced interest in learning, their personality is also affected, for example, students are not confident when they are in their environment (Muarifah, 2018).

Fine motor skills develop slowly, meaning that fine motor skills do not develop according to the standard level of achievement of child development (STPPA) in the motor aspect. The impact is that at a certain age children cannot carry out developmental tasks according to STPPA motor (Wandi and Mayar, 2019). This delay is due to the lack of opportunities for children to learn motor skills, parents who are too overprotective, and the lack of stimulus provided (Hurlock, 1978).

Early childhood will develop gross motor skills first (Suriati et al., 2019). The first age is the age of one or two years of gross motor skills that develop so much (Novitasari et al., 2019). Entering the age of three, a child's fine motor skills will develop rapidly (Istiqomah and Suyadi, 2019). It can be seen from students starting to be interested in holding a pencil even though the position of the fingers is still close to the pencil point, besides that students are still stiff in doing hand movements to write (Suseni et al., 2021).

Stimulation for fine motor development should be given from an early age (Darmiatun et al., 2019). The importance of children's fine motor development needs to be increased because fine motor skills involve the wrists, ankles, and fingers (Dewi, 2021). Fine motor skills greatly affect the results, quality, and speed of doing daily tasks (Maitre et al., 2020).

Lack of stimulation from an early age on children's fine motor development can cause obstacles to teaching and learning activities (Winarsih, 2011). Barriers also cause children to become lazy in participating in learning activities in class and lack interest in learning. To avoid obstacles using the calligraphy method.

The calligraphy method is one solution that can improve students' creativity and fine motor skill (Maujud, 2018). Students with calligraphy activities can express themselves and be creative through many ideas, imagination, and use many media to become works of art (Auliya, 2019). Early childhood calligraphy activities become a tool for ideas, imagination and skills that have occurred in students. Calligraphy activities have a very important role (Ariesta, 2020).

Calligraphy is a simple effort through many media (Andreastya and Almuhtadin, 2019). Children's fine motor skills can be improved by using the calligraphy method. Which states that through calligraphy students can express and broad imagination (Fauzi and Thohir, 2021). This method can develop ideas to express imagination and increase artistic power and creativity (Sumiyati, 2018).

Judging from the initial observations carried out at Pertiwi Kindergarten 26-13 Bogares Kidul, it was found that several obstacles were found in the including the ability to move the

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fingers, wrist abilities, and coordination abilities. eye by hand. This can be seen when students learning activities feel more bored and have difficulty. During the coloring activity, they use the thumb, index, and middle finger (opposition) while the other finger is used for stabilization, but there are still students who are not right in practice. For this reason, in this research, the researcher uses the calligraphy method.

From that background, the researcher conducted this research. This study aims to determine the description of fine motor progress through the calligraphy method at Pertiwi Kindergarten 26-13 Bogares Kidul. The benefits that can be taken from improving children's fine motor skills through the calligraphy method are for students to have direct implications for change and improvement.

2. METHODS

The research design used a survey method about the fine motor skills of students in grades B1 and B2 Pertiwi Kindergarten 26-13 Bogares Kidul. This study uses one independent variable, namely the fine motor skills of group B students of Pertiwi Kindergarten 26-13 Bogares Kidul. The population is all research subjects. The sample is part of the population under study. The subjects in the study were students of group B1. This is because the variable to be studied is that many motor skills have not yet developed. The total population in group B1 is 28 and group B2 is 22 students. The total of all group B is 50 students or under 100. For this reason, the study uses the entire population as a sample, or is called population research. If the subject is less than 100, then it is better to take all so that the research is a population study.

3. RESULT AND DISCUSSION

The results of the research shows that fine motor skills using the calligraphy method of group B1 are as follows in **Table 1.**

Table 1. Motor Ability Group B1.

Description	The flexibility of hand movement	Eye and hand coordination	Total
	(Second)	(times/second)	(T- Skor)
Mean	14,65	6,30	200
Std	1,27	3,66	24,18
Maks	17,67	15	240,63
Min	18,29	2	154,83
Kategori	MB	MB	MB

From the table it can be explained that the results of measuring the flexibility of hand movements as measured by using a brush motion test when making calligraphy were obtained as follows: the average time was 14.65 seconds, the standard deviation was ± 1.27 seconds, and the fastest period was 12.89 seconds. and 17.67 seconds late. It can be said that the level of movement flexibility of B1 students can be categorized as Starting to Develop (MB).

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The results of eye-hand coordination measurements were measured using a simple calligraphy test which was carried out for 30 seconds, obtained an average of 6.30 times, with a standard deviation of ± 3.66 times, and a maximum catch range of 15 times and a minimum of 2 times. It can be said that the level of eye-hand coordination of group B1 students can be categorized as Beginning to Develop (MB).

Seeing the results of the deviation between the measurement of the flexibility of hand movements and different eye-hand coordination, the results of the measurement of hand movements are more homogeneous than the results of hand-eye coordination in group B1

The results of the overall fine motor ability measurement were calculated using the T-Score, which was an average score of 200, with a standard deviation of ± 24.18 and a minimum score range of 154.83, and a maximum score of 240.63. It can be said that the motor skills of group B1 students can be categorized as Starting to Develop (MB).

As follows in **Table 2** it can be explained that the results of measuring the flexibility of hand movement components are measured using a test when making calligraphy are obtained as follows the average time is 13.73 seconds, with a standard deviation of ± 1.15 seconds, and the fastest period is 11.46 seconds and the late time is 16.32 seconds. It can be said that the flexibility of hand movement of group B2 students can be categorized as Starting to Develop.

Table 2. Motor Ability Group B2.

Description	The flexibility of hand movement	Eye and hand coordination	Total
	(Second)	(times/second)	(T- Skor)
Mean	13,75	6,94	200
Std	1,15	0,68	20,25
Maks	16,32	7,85	233,94
Min	11,46	5,42	168,14
Kategori	MB	BB	MB

The results of the eye-hand coordination measurement as measured using a simple calligraphy test which was carried out for 30 seconds, obtained an average of 6.94 times, with a standard deviation of ± 1.35 times, and the maximum catch range of 10 and the minimum catch is 15. It can be said that the level of eye and hand coordination of group B2 is categorized as Undeveloped.

Seeing the deviation results between the measurement of the flexibility of hand movements and eye-hand coordination which are different, the results of the measurement of hand-eye coordination are more homogeneous than the results of measuring the flexibility of hand movements in group B2.

The results of the measurement of overall motor skills were calculated using the T-Score, namely, the average score was 200, with a standard deviation of ± 20.25, and a minimum score range of 168.14, and a maximum score of 233.94. It can be said that the fine motor skills of B2 students can be categorized as Starting to Develop.

The following is a diagram of the difference in fine motor skills in groups B1 and B2 in terms of the average acquisition as follows in **Figure 1.**

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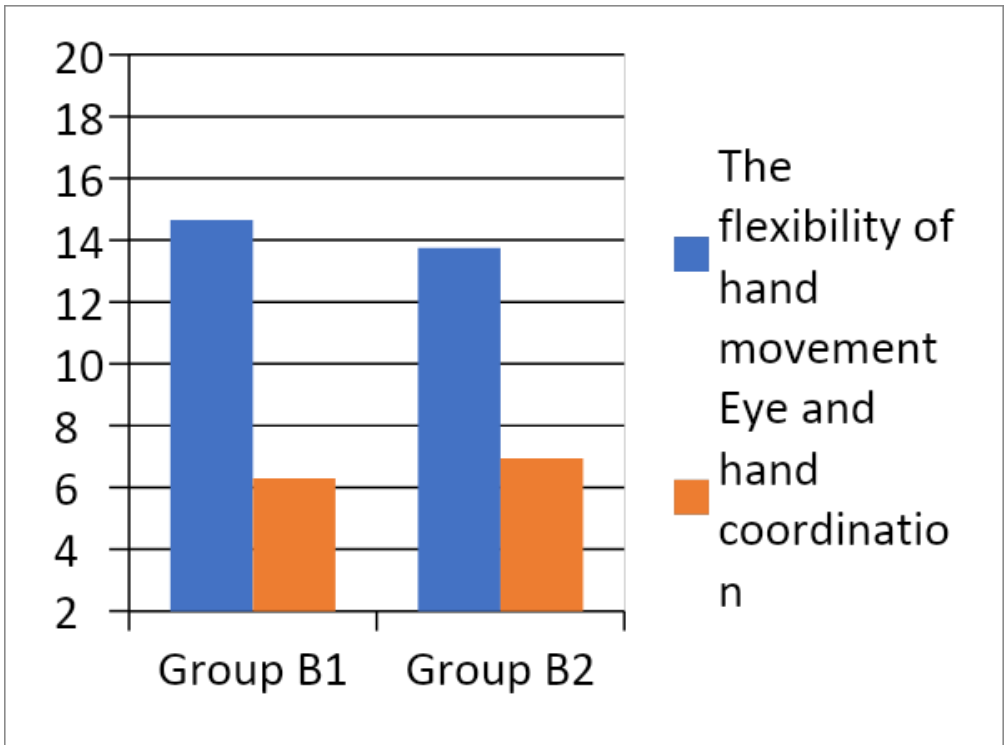

Figure 1. Chart Level of Fine Motor Ability between groups.

The results of the study of fine motor skills measured in children aged in the form of the ability to move their fingers and hands through the calligraphy method. The ability to move students' fingers and hands while actively making calligraphy will be stimulated and encourage them to do the same with other respondents.

Meanwhile, the ability to coordinate eye and hand movements can be explained through research conducted by Irmawati and Ichsan (2021) who found that through weaving activities with banana leaves, children's fine motor skills are trained in coordinating eye and finger movements. In addition to the fine motor skills of children by aligning the movements of the good eye and hand coordination, it will foster children's creativity. Using the calligraphy method for students in this study, children can move their fingers and hands to make calligraphy according to their imagination and are aligned with eye coordination so that children's motor skills can be developed properly.

Next is the ability to make simple calligraphy. In this study, all respondents were able to grip a brush well and most were able to move their fingers and hands to make simple calligraphy. Learning calligraphy by writing the pronunciation of Allah starts with making all letters, which is a straight line, then continues by making a curved line like the letter U, making the last curved line, and then giving the vowels using a brush.

Complex hand movements are needed in calligraphy skills for child development and these skills take longer to master. The use of the calligraphy method can provide stimulation for complex hand movements which can facilitate exploration of respondents because the hand movements carried out are very varied. This explanation is sufficient to explain that students can explore their hand movements in making calligraphy.

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4. CONCLUSION

The results of the research on the survey of fine motor skills using the calligraphy method at Pertiwi Kindergarten 26-13 Bogares Kidul can be concluded as follows: The motor abilities of group B1 as measured by using the flexibility of hand movement and eye and hand coordination can be categorized as starting to develop with an average score of 200. The general description of the results of the level of fine motor skills using the calligraphy method can be categorized as starting to develop with an average score of 200.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

6. REFERENCES

Agustina, S., Nasirun, M., and Delrefi, D. (2018). Meningkatkan keterampilan motorik halus anak melalui bermain dengan barang bekas. *Jurnal Ilmiah Potensia*, *3*(1), 24-33.

Andreastya, V. H., and Almuhtadin, I. F. (2019). Korelasi kegiatan ekstrakurikuler seni kaligrafi dengan bakat seni rupa siswa MI Miftahul Huda Tanjunganom Diwek Jombang. *BADA'A: Jurnal Ilmiah Pendidikan Dasar*, *1*(2), 54-64.

Ariesta, O., and Maulana, I. (2020). Pelatihan seni kaligrafi islam di pesantren thawalib gunuang. *Batoboh: Jurnal Pengabdian Pada Masyarakat*, *5*(2), 113-123.

Auliya, N. N. F. (2019). Etnomatematika kaligrafi sebagai sumber belajar matematika di madrasah ibtidaiyah. *Jurnal Pendidikan Matematika (Kudus)*, *1*(2).

Darmiatun, S., and Mayar, F. (2019). Meningkatkan kemampuan motorik halus anak melalui kolase dengan menggunakan bahan bekas pada anak usia dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *4*(1), 247-257.

Dewi, M. S. (2021). Profil perkembangan motorik halus pada pembelajaran anak kelompok a (usia 4-5 tahun) di sentra bahan alam. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, *2*(1), 108-115.

Fauzi, M., and Thohir, M. (2020). Pembelajaran kaligrafi arab untuk meningkatkan maharah al-kitabah. *EL-IBTIKAR: Jurnal Pendidikan Bahasa Arab*, *9*(2), 226-240.

Haryanti, D., Ashom, K., and Aeni, Q. (2019). Gambaran perilaku orang tua dalam stimulasi pada anak yang mengalami keterlambatan perkembangan usia 0-6 tahun. *Jurnal Keperawatan Jiwa*, *6*(2), 64-70.

Hidayati, S., Fahruddin, F., and Astawa, I. M. S. (2018). Peningkatan kreativitas anak melalui eksplorasi menggunakan koran bekas di TK Mutiara Hati Mataram Nusa Tenggara Barat. *Yaa Bunayya: Jurnal Pendidikan Anak Usia Dini*, *1*(2), 65-76.

Hurlock, E. B. (1950). Child development. Ratna Sagar.

DOI: https://doi.org/10.17509/cd.v13i1.41914
p- ISSN 2087-1317 e- ISSN 2621-8321

Irmawati, I., and Ichsan, I. (2021). The effect of weaving activities with banana leaves on fine motor ability early of childhood. *Cakrawala Dini: Jurnal Pendidikan Anak Usia Dini*, *12*(2), 125-135.

Istiqomah, H., and Suyadi, S. (2019). Perkembangan fisik motorik anak usia sekolah dasar dalam proses pembelajaran (studi kasus di SD Muhammadiyah Karangbendo Yogyakarta). *El Midad*, *11*(2), 155-168.

Maitre, N. L., Jeanvoine, A., Yoder, P. J., Key, A. P., Slaughter, J. C., Carey, H., Amy, N., Micah, M., Murray, M., Heathock, J and BBOP group Stephanie Burkhardt Lelia Emery Kaleigh Hague Katelyn Levengood Dennis J. Lewandowski Mary Ann Nelin Caitlin Pennington Lindsay Pietruszewski Jessica Purnell Briana Sowers. (2020). Kinematic and somatosensory gains in infants with cerebral palsy after a multi-component upper-extremity intervention: a randomized controlled trial. *Brain Topography, 33*, 751-766.

Mantu, M. R., Setiawan, A., and Handayani, N. (2018). Hubungan antara pemberian asi eksklusif dengan perkembangan anak berdasarkan kuisioner pra-skrining perkembangan (KPSP) di Rumah Sakit Tarakan Jakarta. *Jurnal Muara Sains, Teknologi, Kedokteran dan Ilmu Kesehatan*, *2*(2), 512-517.

Maujud, F. (2017). Pembinaan keterampilan menulis Al-quran bagi anak usia sekolah di Desa Pakuan Kecamatan Narmada Kabupaten Lombok Barat. *El-Tsaqafah: Jurnal Jurusan PBA*, *16*(1), 23-32.

Muarifah, A., and Nurkhasanah, N. (2019). Identifikasi keterampilan motorik halus anak. *Journal of Early Childhood Care and Education*, *2*(1), 14-20.

Novitasari, R., Nasirun, M., and Delrefi, D. (2019). Meningkatkan kemampuan motorik kasar anak melalui bermain dengan media hulahoop pada anak kelompok b PAUD Al-Syafaqoh Kabupaten Rejang Lebong. *Jurnal Ilmiah POTENSIA*, *4*(1), 6-12.

Purnami, L. A. (2020). Kesioner pra skrining perkembangan (KPSP) sebagai penilaian tumbuh kembang balita: Pelatihan kader Desa Girimas: Pre-screening development questionnaire as an assessment of childhood growth: Cadre training in Girimas Village. *Jurnal Pengabdian Masyarakat Kesehatan*, *6*(2), 71-74.

Sumiyati, S. (2018). Metode pengembangan motorik kasar anak usia dini. *AWLADY: Jurnal Pendidikan Anak*, *4*(1), 78-97.

Suriati, S., Kuraedah, S., and Erdiyanti, E. (2019). Meningkatkan keterampilan motorik halus anak melalui mencetak dengan pelepah pisang. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *4*(1), 211-223.

Suseni, M., Arini, N. M., and Dewi, N. P. S. (2021). Implementasi metode kolase dalam meningkatkan motorik halus anak usia dini. *Kumarottama: Jurnal Pendidikan Anak Usia Dini*, *1*(1) 1-8.

Wandi, Z. N., and Mayar, F. (2019). Analisis kemampuan motorik halus dan kreativitas pada anak usia dini melalui kegiatan kolase. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *4*(1), 351-358.

Widiyanti, D. (2018). Upaya meningkatkan keterampilan motorik kasar melalui tari. *Al Fitrah: Journal of Early Childhood Islamic Education*, *1*(2), 73-89.

DOI: https://doi.org/10.17509/cd.v13i1.41914
p- ISSN 2087-1317 e- ISSN 2621-8321

Winarsih, W. E. (2021). Perkembangan fisik anak, problem dan penanganannya. *Atthiflah: Journal of Early Childhood Islamic Education*, *8*(1), 55-68.

Yanti, E., and Fridalni, N. (2020). Faktor yang mempengaruhi perkembangan motorik anak usia prasekolah. *Jurnal Kesehatan Medika Saintika*, *11*(2), 225-236.

DOI: https://doi.org/10.17509/cd.v13i1.41914
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