



Developing Fine Motor Skills Through Calligraphy Art in Early Childhood

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Abstract

Fine motor skills are an important aspect of early childhood development that is often overlooked. This study aims to describe the effect of calligraphy art activities on the development of fine motor skills in early childhood in a mosque environment. This qualitative study with a descriptive observation method involved children aged 4-6 years in three calligraphy activity sessions. Data collection was carried out through field notes, documentation, and informal interviews with parents and caregivers. The results showed a significant increase in children's ability to control writing tools, drawing accuracy, and eye-hand coordination. In addition, calligraphy activities also provide space for children to develop creativity and self-expression. The calm and supportive mosque environment has been shown to have a positive impact on children's concentration and patience. This study concludes that calligraphy activities can be a creative learning method based on religious values to develop fine motor skills in early childhood.

Keywords: Fine motor skills, calligraphy, early childhood, creativity development, mosque environment.

1. Introduction

Early childhood is a golden age of growth and development, where all stimuli given can affect their development in the future. One important aspect that needs to be developed in early childhood is fine motor skills. This ability involves the coordination of small muscles, such as fingers and hands, with vision to carry out activities that require precision, such as writing, drawing, or holding small objects (Sutapa et al., 2021). Optimal fine motor development is very important as a foundation for children to carry out learning activities and daily life.

Fine motor skills are not only related to physical abilities, but also to children's academic readiness and independence. Children who have good fine motor skills tend to be more ready to learn to write, draw, and hold writing instruments correctly (Saparahayuningsih and Badeni, 2019). However, at an early age, not all children get enough stimulation to develop their fine motor skills. This is often caused by a lack of activities that actively involve the hands, especially in the family environment and formal education.

One effective method in developing fine motor skills is through calligraphy art activities. Calligraphy not only trains fine motor skills, but also provides aesthetic and religious values, especially in the context of the mosque environment. In calligraphy activities, children can learn to draw beautiful letters with various shapes and colors (Salsabila et al., 2023). This activity also provides a fun learning experience, because children are invited to explore their creativity while practicing accuracy in drawing and writing.

The mosque environment is often the center of religious learning for children. In this place, children not only learn about Islamic values, but are also involved in various useful activities (Hikmawati and Asyhari, 2024; Gularso et al., 2021). Integrating calligraphy art activities in the mosque environment can provide dual benefits. In addition to introducing Arabic writing to children, this activity can also be a medium to strengthen the relationship between children and religious values.

Although important, the development of fine motor skills in early childhood is often overlooked. Some children may only engage in passive play activities, such as watching television or using gadgets, which do not provide enough stimulation for their motor skills. On the other hand, activities such as calligraphy offer an interactive and stimulating approach to practicing these skills in a fun way (Artemova et al., 2023).

In addition to training fine motor skills, calligraphy also instills self-confidence in children. When children successfully complete a work of calligraphy art, they feel proud of their work. This can increase children's motivation to continue learning and trying new things. Thus, calligraphy not only provides physical benefits, but also psychological benefits for early childhood (Zhang, 2023).

In the mosque environment, teachers or educators can design a structured calligraphy art program. Children can be invited to learn about the hijaiyah letters through interesting color and shape games. In this process, teachers can use aids, such as colored paper, markers, or brushes, to increase the appeal of the activity (Meilina, 2022).

Research shows that children's involvement in art activities, including calligraphy, can improve problem-solving skills and creativity. Through calligraphy art, children also learn to appreciate the process as well as the end result. This is important to form a positive mindset in facing future challenges.

Calligraphy art in the mosque environment can be a means to integrate religious education with art. Children not only learn about Arabic letters, but also about the messages contained in the writing. Thus, this activity can be a foundation for holistic religion-based character education.

This study aims to describe how calligraphy art activities affect the development of fine motor skills in early childhood. In addition, this study also seeks to provide recommendations regarding the implementation of calligraphy art activities in the mosque environment as a creative learning method based on religious values. Calligraphy is a bridge that connects art, religion, and child development as a whole.

2. Literature Review

Fine motor ability is an ability that requires the movement of small muscles of the body such as the skill of using the fingers, moving the hands to be flexible and good eye and hand coordination (Priyantor and Hasanah, 2023). Fine Motor Skills (FMS) are defined as the coordination of small muscle movements that typically involve synchronizing the fingers with eye movements. The fine coordination of small muscle groups, above all those in the hand, is essential for a variety of activities (Brychta et al., 2016).

Józsa et al., (2023) argue that fine motor skills (FMS) are very important for children's growth, which affects their writing progress and daily activities. From the results of their study, differences emerged across age groups, indicating that older age groups showed more advanced FMS compared to younger age groups.

Stephani et al., (2019) argue that fine motor skills are equally important for children. Pencil control skills such as writing lines and circles are very important to prepare them for future academic achievement. From the results of their research, it shows the difference between gross and fine motor skills in children aged four and five years. Both fine and gross motor skills are very important for children's health and future academic achievement.

In the results of the study conducted by Basa et al., (2020), the development of gross motor skills and fine motor skills in children in the two kindergartens tended towards the criteria for starting to develop for gross motor skills in the indicators of using the right and left hands, while fine motor skills in the indicators of self-expression through drawing movements.

Fine motor development needs to be understood especially in the early stages of development, namely childhood, so that fine motor skills can be considered important to determine the extent of a child's development. One activity that can be done to develop fine motor skills is finger painting. Finger painting activities can be useful for stimulating the child's fine motor aspects because by doing finger painting activities, children can move their fingers so that they involve the movement of small muscles and nerve maturity (Maelany and Widyaningsih, 2022).

3. Research Methods

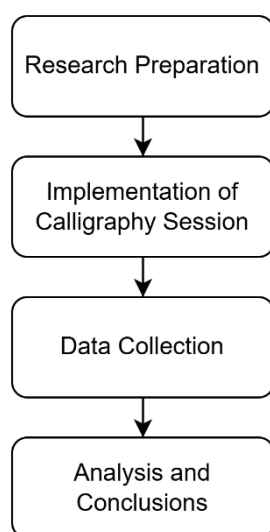


Figure 1: Flow diagram

The following is a more detailed explanation of the steps taken during this research.

3.1. Research preparation

This study began with thorough preparation, including selecting a location, namely a mosque that has an education program for early childhood. The children who became participants were selected from the age group of 4–6 years, who were considered to be at the stage of fine motor development. The researcher also prepared the necessary tools and materials, such as paper, colored pencils, markers, and other aids. In addition, a schedule of activities was set, and direction was given to the facilitator to understand the objectives and methods of the study. This step is important to ensure that the implementation of the study runs smoothly and according to plan.

3.2. Calligraphy activity implementation

The implementation of the activity was divided into three sessions to provide structured stages in the development of children's fine motor skills. In the first session, children were invited to create basic calligraphy patterns, which train their eye-hand coordination. The second session was carried out by thickening the pattern using the guidance of a facilitator, which aims to train children's accuracy and consistency in drawing. The third session gave children the freedom to decorate their work according to their creativity, which involved choosing colors, additional patterns, and other decorative elements. These three sessions were designed to provide a fun learning experience while supporting fine motor development.

3.3. Data collection

Data collection was carried out through three main methods, namely field notes, documentation, and informal interviews. Field notes were used to record direct observations of how children held writing tools, drew, and completed tasks during the activity. Documentation in the form of photos and videos was taken to support observation data and record children's work as evidence of their development. In addition, informal interviews were conducted to explore children's experiences and responses to the activity, including the difficulties they faced or things they liked during the activity.

3.4. Data analysis and conclusion drawing

The collected data were analyzed descriptively to see patterns of changes in children's fine motor skills after participating in the calligraphy activity. Children's work was compared from session to session to evaluate the development of their skills, such as accuracy, line consistency, and creativity in decorating. Field notes were used to assess the activity process, including children's responses to the guidance of the mentor. Informal interviews helped provide an overview of children's emotional experiences during the activity. The conclusions of this study include the effectiveness of calligraphy activities in improving fine motor skills as well as recommendations for implementing similar activities in early childhood education environments.

4. Results and Discussion

4.1. Observation results

Observations were conducted during three calligraphy activity sessions, focusing on children's fine motor skills, namely control of writing tools, accuracy in drawing patterns, and control of hand pressure when drawing or writing. In the first session, most children had difficulty holding writing tools correctly and drawing straight lines. Some children tended to grip the pencil too tightly, which resulted in their hands getting tired quickly and having difficulty drawing with precision.

In the second and third sessions, significant improvements were seen. Children began to show progress in drawing straight lines and following patterns prepared by the assistant. They also became calmer and more patient in drawing, and were able to control hand pressure better. In the third session, almost all children were able to thicken the patterns more neatly and produce clearer and more regular calligraphy shapes. This shows that calligraphy activities can help improve children's eye-hand coordination, which is an important aspect in fine motor development.

Several children showed developments in terms of creativity. They began to add decorative elements to their calligraphy works, such as adding color and drawing simple shapes as complements. This shows that in addition to training fine motor skills, calligraphy activities also provide space for children to express their creativity, which is important for children's cognitive and emotional development.

4.2. Documentation results

The documentation of the children's work in the form of photos taken in the last session showed positive developments. At the beginning of the activity, many of the children's works looked untidy, with irregular lines and blurry calligraphy letters. However, in the following sessions, their work became more clearly structured. Some

children who initially had difficulty drawing simple calligraphy letters can now write more precisely and add additional details to each letter.



Figure 2: Results of the work in the last session

Figure 2 shows the results of the children's work in the last session which shows an increase in fine motor skills and creativity. In the photo, it can be seen that the calligraphy patterns drawn by the children are smoother and more regular compared to their work in the first session. In addition, some children also began to add decorative elements around their calligraphy letters, which shows developments in creativity and eye-hand coordination skills.

4.3. Parent and chaperone responses

Informal interviews with parents and chaperones showed that they felt that the calligraphy activities had a positive impact on their children. Parents reported that their children were more focused and more patient in carrying out activities that required precision. One parent revealed that her child who was previously not interested in drawing now showed greater enthusiasm for art activities, especially calligraphy. Other parents also noted that their children became more confident after successfully completing their calligraphy work.

Chaperones also reported that children who were initially less able to hold writing instruments properly were now able to hold pencils or markers more stably. Several children who initially appeared to have difficulty writing or drawing neatly were now able to produce straighter lines and clearer letters. This indicates that the calligraphy activities were effective in improving children's fine motor skills, while also training their concentration and patience.

4.4. Discussion

Calligraphy activities have been proven effective in improving fine motor skills in early childhood. Based on the results of observations and documentation, it can be concluded that this activity helps children develop hand control skills, eye-hand coordination, and the ability to hold writing tools correctly. Improving fine motor skills is very important for the development of early childhood, because good fine motor skills support better writing and drawing skills in the future.

In addition, calligraphy activities also provide benefits in terms of developing children's creativity and self-expression. Although the main purpose of this activity is to improve fine motor skills, children are also given the opportunity to add creative elements to their work, such as additional color decorations or images. This enriches children's learning experiences and provides opportunities for holistic development.

This study also revealed that a calm and caring mosque environment can support children's concentration during activities. The mosque as a place that has an atmosphere that supports peace and tranquility has been shown to have a positive impact on children in completing their tasks patiently and attentively. With the presence of a companion who supports and provides clear directions, children can learn more optimally.

5. Conclusion

Calligraphy activities have been proven to be effective in developing fine motor skills in early childhood. This study shows that through calligraphy activities, children experience significant improvements in hand control skills, eye-hand coordination, and how to hold writing instruments correctly. This activity not only helps develop fine motor skills, but also provides space for children to express their creativity. A calm and supportive mosque environment has been shown to have a positive impact on children's concentration and patience in completing tasks that require

precision. This study emphasizes the importance of appropriate stimulation to develop fine motor skills in early childhood through fun and meaningful activities such as calligraphy.

6. Recommendations

Based on the findings and conclusions of this study, the following recommendations are proposed:

6.1. For Educators

Educators are encouraged to integrate calligraphy art activities into early childhood education programs as a valuable part of creative and skill-based learning. These activities can provide young children with an opportunity to enhance their fine motor skills and artistic expression. To ensure progressive skill development, educators should design structured stages within the activities, starting from basic pattern creation and gradually advancing to more creative forms of decoration. Additionally, using a variety of materials such as colored paper, brushes, and markers can help maintain children's engagement, fostering both their creativity and interest in the activity.

6.2. For Parents

Parents play a crucial role in supporting their children's development of fine motor skills, and they can do so by encouraging participation in art-based activities, including calligraphy, at home. These activities not only help improve motor coordination but also allow children to explore their creativity in a hands-on way. Parents should also aim to reduce screen time and replace it with activities that engage small muscles, such as drawing, crafting, or even calligraphy. By involving children in such activities, parents provide them with opportunities to develop essential skills while enhancing their overall growth.

6.3. For institutions (e.g., mosques)

Institutions, including mosques, are encouraged to develop regular calligraphy programs for children, incorporating both religious and artistic education. These programs can offer children a calm and supportive environment where they can focus on their work and cultivate patience. The institution should ensure that the atmosphere is conducive to creativity and concentration, allowing children to engage deeply in the activity. Additionally, it is important to train facilitators or teachers who can guide children effectively, encouraging them to explore their creative potential while ensuring the completion of tasks with care and attention.

6.4. For future researchers

Future researchers should aim to conduct further studies to explore the long-term impact of calligraphy on children's cognitive and emotional development. It would be beneficial to investigate how calligraphy, and similar art-based activities, influence other aspects of child development, such as problem-solving skills and social interactions. Researchers could also analyze the differences in fine motor development between children who engage in calligraphy activities and those who participate in other forms of artistic expression, helping to provide a deeper understanding of how various art forms contribute to overall child development.

References

- Artemova, L., Zahorodnia, L., & Marieieva, T. (2023). The choice of toys by early childhood children. *Amazonia Investiga*, 12(67), 173-184.
- Brychta, P., Sadílek, M., & Brychta, J. (2016). The influence of motor skills on measurement accuracy. *Technological Engineering*, 13(1), 19-21.
- Gularso, D., Febrianto, A., & Rahmawan, A. D. (2021). Mosque: As Aplace to Educate Truth, Passionate and Beauty to The Society of Kawruh Pamomong Ki Ageng Suryomentaram in Yogyakarta. *Komunitas*, 13(2), 119-131.
- Hikmawati, H., & Asyhari, Y. (2024). Character Formation and Moral Development in Children Through Mosque Engagement Programs. *Communautaire: Journal of Community Service*, 3(2), 217-227.
- Józsa, K., Oo, T. Z., Borbélyová, D., & Zentai, G. (2023). Exploring the growth and predictors of fine motor skills in young children aged 4–8 years. *Education Sciences*, 13(9), 939.
- Maelany, I., & Widyaningsih, T. S. (2022). Application of Finger Paint to Stimulate Fine Motor Development in Preschool Children. *Journal of Language and Health*, 3(2), 55-60.

- Meilina, D. (2022). Improving Ability to Recognize Hijaiyah Letters through Flash Cards in Early Childhood. *Journal of Childhood Development*, 2(2), 149-161.
- Priantoro, D. E., & Hasanah, U. (2023). Implementation of coloring activities early childhood in developing fine motor skills. *Journal of Childhood Development*, 3(1), 1-12.
- Salsabilla, A., Nurrohim, A., & Syakira, S. (2023). Development of Teaching Materials to Improve Asmaul Husna's Calligraphy Writing Skills based on Rainbow Scratch Note Media for TPQ Baitul Haq Students. *Proceeding ISETH (International Summit on Science, Technology, and Humanity)*, 1197-1202.
- Saparahayuningsih, S., & Badeni, B. (2019, April). Improving Children's Fine Motor Skills through Pencil Skills. In *International Conference on Educational Sciences and Teacher Profession (ICETeP 2018)* (pp. 119-122). Atlantis Press.
- Stephani, M. R., Sumarno, G., & Wibowo, R. (2019, September). Early Childhood Motor Development: Descriptive study in moslem kindergarten school. In *3rd International Conference on Sport Science, Health, and Physical Education (ICSSHPE 2018)* (pp. 243-245). Atlantis Press.
- Sutapa, P., Pratama, K. W., Rosly, M. M., Ali, S. K. S., & Karakauki, M. (2021). Improving motor skills in early childhood through goal-oriented play activity. *Children*, 8(11), 994.
- Zhang, X. (2023). Bringing Calligraphy Art Back to Writing—An Exploration of Calligraphy Education for Chinese Beginners. *Chinese Language Teaching Methodology and Technology*, 6(2), 10.