



Optimizing Finger Painting to Enhance Painting Skills in Early Childhood

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Abstract:

This study aimed to improve the painting skills of children aged 5–6 years through finger painting activities at TK Alam Jabal Nur Gunung Jati Cirebon. The classroom action research was conducted in two cycles, consisting of planning, implementation, observation, and reflection stages. Data were collected through observation and assessment of children's ability to draw various shapes and paint with diverse objects. The findings indicated a significant improvement from the pre-cycle, which showed a low interpretation, to the second cycle, which reached a high category. Children who were initially hesitant and afraid of making mistakes became more confident, willing to experiment, and able to combine colors and shapes more creatively. Providing examples of techniques and teacher demonstrations proved to be key factors of success, consistent with literature emphasizing the importance of guidance and creative exploration. These findings highlight that finger painting is an effective pedagogical strategy to foster fine motor skills, creativity, and self-expression in early childhood, while also contributing to innovative practices in early childhood art education.

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INTRODUCTION

The period from birth to six years of age is a crucial stage of child development, during which brain growth occurs rapidly and opportunities for optimal learning are at their peak (Gual & Peñafiel, 2020; Sanusi et al., 2023). Early engagement in educational stimulation has been shown to provide long-term impacts on children's cognitive, language, motor, socio-emotional competencies, and readiness for formal schooling (Agarwal & Sharma, 2024; Maenner et al., 2023; Umiarso et al., 2021). Early childhood education (ECE) is regulated through laws and policies, including Law No. 20 of 2003 and Ministry of Education and Culture Regulation No. 137 of 2014, which mandate that education from birth to six years must encompass activities that stimulate both physical and mental development, among which artistic activities play an important role.

Art in early childhood education is widely believed to contribute to holistic child development. Painting, in particular, supports the development of imagination, self-expression, and fine motor skills. Recent literature highlights that creative media in art—such as free painting, collage, and especially finger painting—significantly enhance preschoolers' fine motor skills and creativity (Hefniy et al., 2022). Studies also emphasize that painting with fingers helps improve hand–eye coordination, finger strength, wrist flexibility, and fine motor regulation (Octavianti & Tama, 2023; Rohali & Sitorus, 2025; Rosdiana & Pratiwi, 2023). Despite the importance of art and finger painting in early

childhood education, there is still variation in methods, media, and implementation that influence how effectively children benefit from these practices.

The main challenge observed in ECE practice arises when children's painting abilities at ages 5–6 do not develop adequately. Observations at TK Alam Jabal Nuur Jatimerta, Cirebon, revealed that children often lacked courage in visual expression through drawing, showed fear of making mistakes, and experienced limited freedom of expression and boredom during painting activities. These barriers restricted their creative potential, imagination, and fine motor development. Literature suggests that using more engaging learning media, creative methods, and freer art approaches may enhance children's motivation and expressive capacity.

Specific solutions previously explored include the development of finger painting as a more direct and expressive learning medium (Biney, 2023; Kalim & Bibi, 2024). Kalamak et al. (2023) demonstrated that systematically developed finger painting media effectively improved motor skills in kindergarten children. Bungge et al. (2025) showed that charcoal-based finger painting for children aged 4–5 significantly enhanced hand-eye coordination, finger strength, and wrist flexibility across cycles. These findings are promising models for local settings facing similar challenges in children's painting expression and confidence.

However, research gaps remain. While several studies have examined finger painting media and techniques in general, few have focused on specific local contexts such as TK Alam Jabal, where children display unique challenges including fear of mistakes, low motivation, and limited visual expression. Moreover, studies on finger painting's psychological impacts—such as confidence and freedom of expression—are relatively scarce compared to research emphasizing motor and technical creativity. Furthermore, although product-based media development research exists, few studies have examined in an integrated manner how such media influence painting ability that involves imagination and expression in real classroom contexts where children often lack courage and become easily bored.

The present study aims to explore and measure the extent to which finger painting can improve the painting abilities of children aged 5–6 at TK Alam Jabal Nuur Jatimerta, Gunung Jati, Cirebon. The study focuses not only on technical aspects (fine motor skills and visual outcomes), but also on children's creativity, confidence, and freedom of expression. The novelty of this study lies in its combined quantitative and qualitative measurement of painting abilities, expressive and psychological aspects within a specific local context, and the use of finger painting media designed to address the actual needs of children in this kindergarten. The scope of the study includes the 5–6 age group, focusing on finger painting as an intervention, and examining changes in painting ability, creative expression, and confidence throughout and after the intervention.

RESEARCH METHOD

This study employed a Classroom Action Research (CAR) approach. This study was carried out in four stages: planning, implementation, observation, and reflection (Semathong, 2023). These stages are interconnected within a cyclical framework. The research consisted of two cycles, each comprising four meetings. The planning stage involved preparing lesson plans, finger painting media, research instruments, and observation sheets. During the implementation stage, the teacher introduced finger painting activities, provided instructions, and guided students in expressing their ideas

through painting. The observation stage focused on recording learning processes, interactions, and children’s skills based on an assessment rubric. Finally, the reflection stage was used to evaluate the effectiveness of the actions, identify weaknesses, and formulate improvements for the subsequent cycle.

The study was conducted at TK Alam Jabal Nur, located in Gang Empang RT/RW 02.01, Jatimerta Village, Gunung Jati Subdistrict, Cirebon Regency. The subjects were 13 children from Group B, aged between 5 and 6 years. The research took place during the odd semester of the 2023/2024 academic year, from September 25 to October 6, 2023. Data were collected using observation, documentation, and children’s portfolio works. Observation was carried out directly by the researcher using an observation sheet designed around artistic development indicators, such as the ability to draw shapes and paint objects. Observation is a systematic technique for recording phenomena that appear in the research object. Documentation was used to complement observational data, including photos of activities, teacher notes, and children’s artwork archives (Lee, 2022). The assessment instrument was structured as a rubric with four developmental categories: Not Yet Developed (BB), Beginning to Develop (MB), Developing as Expected (BSH), and Very Well Developed (BSB). Table 1 presents the rubric used in assessing children’s painting activities.

Table 1. Rubric for Assessing Children’s Painting Activities

| Indicator | BB (1) | MB (2) | BSH (3) | BSB (4) |
|--|------------------------------|------------------------------------|--|---|
| Ability to draw shapes | Unable to draw varied shapes | Beginning to draw with assistance | Able to draw independently with fair ability | Very capable of drawing varied shapes without assistance |
| Ability to paint with various tools and objects | Unable to paint objects | Beginning to paint with assistance | Able to paint various objects independently | Very capable of painting various objects without assistance |

Data analysis employed both qualitative and quantitative descriptive approaches. The analysis involved data reduction, data presentation, and conclusion drawing. Quantitative data were derived from assessment scores based on the BB–BSB categories, then converted into percentages using the following formula,

$$P = \frac{N}{F} \times 100\%$$

where:

- P = percentage score,
- F = total score obtained by the child,
- N = maximum score

The classification criteria for children’s painting achievement are presented in Table 2.

Table 2. Classification of Achievement Levels in Painting Ability

| Percentage | Criteria |
|------------|---------------------------|
| 86–100% | Very Good / Very High |
| 76–85% | Good / High |
| 60–75% | Fairly Good / Fairly High |
| 55–59% | Poor / Low |
| <54% | Very Poor |

This analysis allowed the researcher to determine the extent to which finger painting contributed to improving the painting ability of children aged 5–6 years. Qualitative data from teacher observations and reflections complemented the numerical analysis by providing a comprehensive picture of the learning process. Thus, the findings not only measured skill improvement in numerical terms but also explored the learning process and children’s creative expression.

RESULTS AND DISCUSSION

Cycle Results

Pre-Cycle

The pre-cycle findings indicated that children’s painting skills were still at a very low level. Observational data showed that the mean score for the indicator of drawing various shapes was 0.38 (38.46%), while the ability to paint using different techniques and objects obtained a mean score of 1.30 (32.69%). Overall, the average painting skill reached only 2.84 (35.57%), which falls into the low category. Most children were unable to create varied forms, combine colors meaningfully, or experiment with different painting techniques. Their work tended to be repetitive and lacked exploration.

These results suggest that children had not yet received sufficient creative stimulation and multisensory learning experiences. Learning activities prior to the intervention were relatively limited in terms of media variation and opportunities for free expression. Early childhood artistic development requires rich sensory engagement and open-ended exploration. Therefore, the introduction of finger painting was considered an appropriate strategy to stimulate imagination, enhance fine motor coordination, and provide a more engaging artistic experience.

Cycle I

Cycle I was implemented in five meetings under the theme “My Environment,” covering subthemes such as “My School” and “My Home.” Children were introduced to basic finger painting techniques, including dots, waves, palm prints, and five-finger marks. The results showed improvement compared to the pre-cycle stage. The mean score for drawing various shapes increased to 2.15 (53.84%), and painting using different techniques and objects reached 2.07 (53.84%). Although there was measurable progress, the overall achievement remained within the very low category.

Reflection on Cycle I revealed that children were still adapting to the new media and techniques. The teacher’s role was relatively dominant in directing activities, which may have limited children’s independent exploration. Early childhood creativity develops optimally in responsive and flexible learning environments rather than through rigid instruction. Nevertheless, the improvement observed in Cycle I demonstrated that finger painting began to stimulate children’s interest and engagement, providing a foundation for further refinement in Cycle II.

Cycle II

Cycle II was conducted over four meetings under the same overarching theme, with a focus on the subtheme “My Home.” In this cycle, the instructional strategy was improved by combining demonstrations with storytelling, video stimulation, and greater freedom for children to express their ideas. Children were encouraged to explore a wider range of finger painting techniques and to create more complex visual representations.

The results showed a significant increase in achievement. The mean score for drawing various shapes rose to 3.61 (90.38%), categorized as very high, while painting using different techniques and objects reached 2.46 (61.53%), categorized as fairly high.

The substantial improvement in Cycle II indicates that children became more confident and independent in expressing their creativity. Exposure to varied stimulation and reduced teacher dominance enabled them to experiment more freely with color, texture, and form. Children’s artistic development progresses as they gain experience with diverse media and opportunities for self-expression.

The classroom action research demonstrated a progressive and systematic improvement in children’s painting skills across the three stages. The transition from low performance in the pre-cycle to significant achievement in Cycle II reflects the effectiveness of iterative planning, action, observation, and reflection. Each cycle contributed to refining instructional strategies, particularly by shifting from teacher-centered guidance to a more child-centered, exploratory approach.

Finger painting serves as an effective medium for enhancing early childhood artistic development. The activity integrates sensorimotor experience, creativity, and emotional expression within a supportive learning environment. Art activities grounded in sensory exploration can significantly improve children’s visual representation skills and creative confidence. Therefore, the implementation of finger painting within a structured Classroom Action Research framework not only improved painting skills but also strengthened broader developmental domains in early childhood education.

Comparison Across Cycles

This section presents a comparative analysis of children’s painting skills across the three stages of the Classroom Action Research, namely the Pre-Cycle, Cycle I, and Cycle II. The purpose of this comparison is to identify the pattern of development that occurred after the implementation of the finger painting method and to evaluate the effectiveness of the intervention in improving children’s artistic abilities. By examining the progression of scores and performance categories at each stage, the analysis provides a comprehensive overview of how systematic instructional improvements contributed to the enhancement of children’s creativity and painting skills.

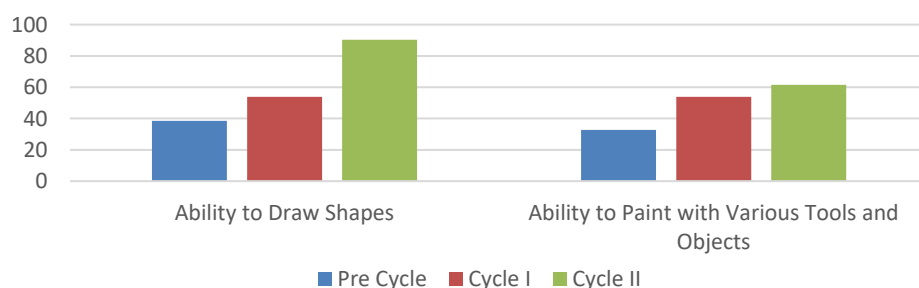


Figure 1. Summary of Painting Skills across Cycles

Figure 1 presents a comparative summary of children’s painting skills across the three stages of the Classroom Action Research: Pre-Cycle, Cycle I, and Cycle II. The data demonstrate a consistent upward trajectory in children’s performance following the implementation of finger painting activities. This comparison highlights not only numerical improvement but also qualitative changes in children’s engagement and creative expression.

In the Pre-Cycle stage, most children were categorized in the “very low” level, with an average score of 2.84. Their artworks showed limited variation in shapes, minimal exploration of techniques, and a lack of confidence in expressing ideas visually. These findings indicated that prior learning activities had not sufficiently stimulated creativity or provided adequate opportunities for sensory-based artistic exploration.

Following the implementation of finger painting in Cycle I, the average score increased to 4.72. Although this achievement was still classified within the low category, it reflected measurable progress compared to the initial condition. Children began experimenting with simple techniques such as dots, lines, and handprints. However, teacher guidance remained relatively dominant, and children were still adapting to the new learning medium.

A more substantial improvement was observed in Cycle II, where the average score rose significantly to 7.63, placing children in the “high” to “very high” category. At this stage, children demonstrated greater independence, creativity, and technical variation in their paintings. They were more capable of combining shapes, exploring textures, and expressing personal ideas visually. The improved instructional approach—integrating demonstrations, storytelling, and greater freedom of expression—contributed significantly to this progress. The comparison across cycles confirms that finger painting provides meaningful and developmentally appropriate learning experiences for early childhood learners.

Discussion

The three stages of this Classroom Action Research demonstrate a gradual yet significant improvement in children’s painting skills after the implementation of finger painting activities. In the pre-cycle stage, children’s abilities were categorized as very low, indicating limited exposure to varied artistic techniques and insufficient opportunities for creative exploration. This condition reflects the importance of providing stimulating and developmentally appropriate art experiences in early childhood settings. Young children require rich sensory engagement and open-ended artistic opportunities to develop their creative potential (Grieshaber & Hunkin, 2023; Heikka et al., 2021; Utamimah et al., 2025). Without such stimulation, children’s artistic expressions tend to remain repetitive and undeveloped.

The improvement observed in Cycle I confirms that introducing finger painting as an alternative medium can begin to stimulate children’s creativity and fine motor coordination. Although the results in Cycle I were still categorized as low, there was a clear increase in children’s willingness to experiment with shapes, lines, and textures. The learning occurs through guided interaction within a supportive environment (Feliana et al., 2024), where children gradually internalize new skills through social engagement (Masnan et al., 2024; Rad et al., 2022). Thus, the teacher’s demonstrations and structured guidance in Cycle I functioned as scaffolding that prepared children for greater independence in the subsequent cycle.

The more substantial improvement in Cycle II highlights the importance of refining instructional strategies to promote autonomy and exploration. When children were given greater freedom to express ideas, supported by storytelling and audiovisual stimulation, their creativity expanded significantly (Hasbiallah et al., 2024). The children’s artistic development progresses as they gain broader experiences with diverse media and opportunities for self-expression (Ataman & Safitri, 2024; Masykuroh et al., 2024;

Suryaningsih & Aisyah, 2024). The shift from teacher-dominated instruction to child-centered exploration proved essential in maximizing learning outcomes.

Furthermore, the consistent upward trend across cycles indicates that iterative reflection and improvement—core principles of Classroom Action Research—effectively enhanced classroom practice. The cyclical process of planning, acting, observing, and reflecting enabled the teacher to identify limitations in Cycle I and implement necessary adjustments in Cycle II. The strength of action research lies in its systematic and reflective nature, which allows educators to continuously refine pedagogical approaches (Esmailzadeh, 2023; Syasmita et al., 2019; Zhao et al., 2023). Such reflection contributed directly to the optimization of finger painting activities.

In addition to improving technical painting skills, the intervention also fostered broader developmental aspects, including confidence, imagination, and emotional expression. Finger painting engages children in direct tactile interaction, stimulating both cognitive and affective domains simultaneously. Sensorimotor-based art activities have been shown to enhance creativity and visual representation skills in early childhood learners (Snyman et al., 2023; Subhan et al., 2025). Therefore, the improvement observed in this study should be interpreted not merely as technical skill development, but as holistic growth in multiple developmental domains. The implications of this study are significant for early childhood education practice. Teachers are encouraged to integrate sensory-based and child-centered art activities into daily learning routines to foster creativity and fine motor development. Educators should apply reflective and cyclical evaluation methods to continuously improve instructional strategies.

CONCLUSION

This study concludes that finger painting effectively improved the painting skills of children aged 5–6 years at TK Alam Jabal Nur, Gunung Jati, Cirebon, as shown by the clear progression from the low category in the pre-cycle to the high category in Cycle II through two cycles of Classroom Action Research. The success was supported by technique demonstrations, structured guidance, and affective support, which helped children overcome fear, low self-confidence, and hesitation to explore tactile media. The findings confirm that creative and exploratory art strategies not only enhance fine motor skills but also foster creativity and self-expression. Therefore, finger painting can be considered a simple yet impactful pedagogical approach, and future research may integrate it with cross-disciplinary themes to strengthen holistic early childhood learning.

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