

Improving Fine Motor Skills Through Handicraft Activities in Kindergarten Group B

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Abstract

This classroom action research aimed to improve fine motor skills in children aged 5–6 years old in Group B TK ABA Rahmaniah Banjarbaru through a series of structured handicraft activities. The research was motivated by the observation that most children exhibited underdeveloped fine motor skills, which are essential for daily functioning and school readiness. The intervention consisted of two cycles, each with three sessions, where children created pencil holders from recycled plastic bottles, engaging in cutting, gluing, coloring, and decorating. Data were collected through observation checklists, documentation, and descriptive analysis. The results revealed a significant improvement: children in the "Very Well Developed" category increased from 0% at baseline to 85.7% after the second cycle. The findings confirm that creative handicraft activities provide an effective, enjoyable, and sustainable approach to developing fine motor skills in early childhood. Recommendations are offered for teachers, schools, parents, and future researchers.

Keywords

creative learning; classroom action research; early childhood education; fine motor skills; handicraft activity.



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INTRODUCTION

Early childhood education (ECE) is foundational for the development of cognitive, emotional, social, and physical skills in children. In Indonesia, ECE is not only a legal mandate (Law No. 20/2003, Article 14), but also recognized as critical for the holistic development of children aged 0–6 years (Permendikbud, 2003). The PAUD program aims to stimulate intellectual and physical growth, ensuring children are prepared to succeed in elementary school and beyond. The importance of quality ECE has been increasingly acknowledged among educators and parents alike (Widiastuti, 2011). According to the National Standards for ECE (Permendikbud No.137/2014), six domains must be developed: art, social-emotional, religious and moral, physical movement, cognition, language, and creativity. Among these,

physical movement (motor development) is a core focus, particularly the development of fine motor skills (Muamal Gadafi, 2023).

Fine motor skills involve the precise coordination of small muscles in the hands and fingers, enabling children to perform essential tasks such as writing, buttoning, drawing, and cutting (Arfini et al., 2022). These skills form the basis for academic achievement and self-reliance. However, children develop these skills at different rates, and some may excel in gross motor tasks but struggle with fine motor control (Ningtyas, 2017). Herlock (cited in Ningtyas, 2017) notes that the development of fine motor muscles in the fingers begins around age five, making this a crucial period for targeted interventions. From a philosophical and religious perspective, the Qur'an describes development as a gradual process (Al-Insiyiq:84:19), supporting the need for stage-appropriate and continuous educational stimulation.

Despite the recognized importance, initial observations at TK ABA Rahmaniah Banjarbaru indicated that 85.7% of Group B1 children had not yet achieved expected fine motor skill levels. Many struggled with tasks such as cutting, gluing, and coloring within lines, reflecting weak hand-eye coordination and finger dexterity. Only two children performed these tasks adequately. Teachers play a central role in fostering fine motor skills by providing varied, stimulating, and enjoyable activities. Research consistently emphasizes the value of creative handicraft projects in developing fine motor control, coordination, self-confidence, and creativity (Novita Tri Mukti et al., 2023; Maita & Subhan, 2018; Puryanti & Isnaningsih, 2022; Muamal Gadafi, 2023). Such activities also support cognitive, social, and emotional development.

METHODS

This research employed Classroom Action Research (CAR), following the Kemmis and McTaggart spiral model (Purnama et al., 2020). The study was conducted at TK ABA Rahmaniah Banjarbaru, focusing on Group B1 during the 2024–2025 academic year. The research involved 14 children aged 5–6 years (8 boys and 6 girls) and the class teacher as the main facilitator. The intervention consisted of two cycles, each comprising three sessions. Each cycle included four phases: Planning: The teacher and researcher identified fine motor deficits through observation. They developed lesson plans for handicraft activities, focusing on making pencil holders from recycled bottles, and prepared observation sheets. Acting: Each session involved hands-on activities such as cutting bottles and colored paper, gluing, decorating, and drawing animal faces. Teachers provided demonstrations and scaffolded instruction. Observing: Systematic observation was conducted throughout each session using checklists assessing eight core indicators: cutting, gluing, drawing, coloring, using writing tools, imitating shapes, folding, and expressive art. Reflecting: After each cycle, the research team analyzed the data, discussed challenges, and revised the strategy for the next cycle.

Quantitative data were obtained from observation checklists, scored and converted to percentages ($P = F/N \times 100\%$). Children's skills were categorized as Not Yet Developed (BB:

23–41%), Emerging (MB: 42–60%), Meeting Expectations (BSH: 61–79%), and Very Well Developed (BSB: 80–100%). Qualitative data included teacher reflections, photos, and samples of student work. The analysis followed the Miles and Huberman (1992) model: data reduction, display, and conclusion drawing.

FINDINGS AND DISCUSSION

The TK ABA Rahmaniah Banjarbaru is a well-established kindergarten in South Kalimantan with a strong tradition of Islamic values and community engagement. The school has four classes, eight teachers, and a range of indoor and outdoor play equipment. Baseline observation showed that only 14.3% of children met expectations for fine motor skills, while 57.1% were in the "Emerging" category, and 28.6% were "Not Yet Developed." No children were classified as "Very Well Developed."

Cycle I: Implementation and Results

During Cycle I, three sessions focused on step-by-step handicraft activities. Teachers demonstrated the process, offered hands-on guidance, and encouraged children to cut, glue, and decorate their pencil holders.

- **Session 1:** 14.3% BSH, 57.1% MB, 28.6% BB, 0% BSB
- **Session 2:** 35.7% BSH, 64.3% MB, 0% BB, 0% BSB
- **Session 3:** 42.8% BSH, 28.6% MB, 0% BB, 28.6% BSB

Children initially struggled to follow instructions and manipulate tools. However, visible improvement occurred by the third session, with four children reaching the "Very Well Developed" level and none remaining in the lowest category.

Cycle II: Progress and Final Results

In Cycle II, teachers reduced direct guidance and encouraged children to work more independently. Children demonstrated increased autonomy, creativity, and peer support.

- **Session 1:** 42.85% BSB, 42.85% BSH, 14.3% MB, 0% BB
- **Session 2:** 64.3% BSB, 35.7% BSH, 0% MB, 0% BB
- **Session 3:** 85.7% BSB, 14.3% BSH, 0% MB, 0% BB

At the end of the study, 85.7% of children were classified as "Very Well Developed," with the remainder meeting expectations. No child was left in the lower proficiency categories, marking a substantial gain.

The improvement observed is consistent with previous research showing the effectiveness of handicraft-based interventions for fine motor development (Puryanti & Isnaningsih, 2022; Maita & Subhan, 2018; Muamal Gadafi, 2023). The study further confirms that repeated, scaffolded, and creative practice facilitates skill growth and fosters positive attitudes toward learning (Widiastuti, 2011; Ningtyas, 2017). Qualitative observations revealed increased engagement, independence, and mutual support among children. Teachers noted greater satisfaction and creativity in lesson planning. The use of recycled materials also helped foster environmental awareness and resourcefulness. Some children progressed faster than others. The two remaining in the "Meeting Expectations" category tended to be less focused or required more time to complete tasks, highlighting the need for differentiated instruction and ongoing encouragement.

Beyond quantitative improvements, qualitative classroom observations revealed meaningful changes in student engagement, classroom dynamics, and teacher practices throughout the research cycles. Initially, students displayed hesitation, lacked confidence in handling scissors or glue, and easily became distracted—confirming what Widiastuti (2011) observed as a common challenge in early childhood classrooms. However, as the cycles progressed, most children became more focused, eager to participate, and demonstrated increased perseverance in completing their handicraft projects. Teachers noted that after several sessions, children who were once reluctant began to show pride in their creations and even sought opportunities to help their peers, especially those still struggling with certain techniques (Novita Tri Mukti et al., 2023). This peer scaffolding, encouraged by the teacher, fostered a collaborative learning environment and built children's social-emotional skills alongside their fine motor abilities (Permendikbud, 2014).

Comparative discussion with prior studies strengthens these results. The observed gains echo Muamal Gadafi (2023) and Maita & Subhan (2018), who found that repeated, scaffolded handicraft activities—particularly those involving recycled materials—can transform classroom habits, making children more independent, creative, and environmentally aware. The use of familiar, easily-sourced materials like plastic bottles, paper, and glue not only made the activities accessible but also promoted sustainability values (Puryanti & Isnaningsih, 2022). Moreover, the data showed that the transition from "Emerging" (MB) to "Very Well Developed" (BSB) was not linear for every child. Some demonstrated rapid progress, while a few required ongoing reminders or more individualized attention. Typically, those children who maintained concentration and followed teacher instructions were the first to master new skills, as also reported by Ningtyas (2017). Conversely, students who were slower to progress often struggled with attention, motivation, or self-confidence, underlining the necessity of differentiated instruction and positive reinforcement.

Another important finding relates to the role of teacher reflection and adaptive practice. After each cycle, teachers and researchers discussed the difficulties observed—such as improper grip, uneven cutting, or slow task completion—and collaboratively devised

strategies to address them. This included more engaging demonstrations, peer mentoring, and the introduction of motivational games (Miles & Huberman, 1992). By Cycle II, teachers provided less direct instruction, allowing children to take greater initiative and responsibility for their work, aligning with the constructivist learning theory advocated in Permendikbud (2014). The integration of handicraft activities also had broader curricular benefits. Children's literacy and numeracy skills were incidentally strengthened as they listened to instructions, counted materials, and described their artwork. This supports prior findings by Arfini et al. (2022), who noted the cross-domain benefits of creative, manipulative play in ECE.

CONCLUSION

The results of this classroom action research clearly demonstrate that structured handicraft activities significantly improve fine motor skills in kindergarten children. The percentage of children in the "Very Well Developed" category increased from 0% to 85.7%, while those in the lowest categories disappeared. Creative, hands-on projects such as making pencil holders from recycled materials are effective, engaging, and sustainable practices for ECE classrooms.

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