

Improving Fine Motor Development Of Children In Group B3 Through Collage Activities At Satya Prawira PAUD

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Abstract

This research is motivated by the low fine motor development of group B3 children at PAUD Satya Prawira. This is evident from the children's difficulty in performing activities involving eye-hand coordination, such as holding writing instruments, cutting, and pasting. This study aims to describe and analyze the improvement of children's fine motor development through collage activities. The type of research used is Classroom Action Research (CAR) with the Kemmis and McTaggart model, conducted in two cycles. Each cycle consists of four stages: planning, implementation, observation, and reflection. The subjects of the research were 7 children from group B3 at PAUD Satya Prawira. Data collection techniques used observation, documentation, and performance. The results showed that collage activities could significantly improve children's fine motor skills. In the pre-cycle stage, classical learning completeness only reached 28.5% (2 children). After the action in Cycle I, completeness increased to 57.1% (4 children). Because it had not reached the success indicator, the research continued to Cycle II with improved learning strategies, such as using more varied collage materials (dry leaves, cotton, colored paper). Cycle II results showed an excellent improvement, where classical learning completeness reached 85.7% (6 children), exceeding the success indicator of 80%. It is concluded that the application of varied and interesting collage activities is proven effective in stimulating and improving early childhood fine motor development. These findings offer a practical contribution for early childhood education practitioners by providing a tested, cycle-based strategy for selecting and progressively varying collage materials that teachers can directly adopt in the classroom to accelerate children's fine motor skill development.

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1. INTRODUCTION

Early Childhood Education (PAUD) is the level of education before primary education and is a developmental effort aimed at children from birth to six years of age (Suryana, 2021). This education is carried out through the provision of educational stimulation to support physical and spiritual growth and development, ensuring children are prepared for further education. Early childhood is often referred to as the golden age, a period during which children's brain and physical development occur very rapidly (Fadlillah, 2023). During this period, children are highly sensitive to stimuli from their environment, so appropriate education is essential to optimize their potential.

One aspect of development that is crucial to stimulate from an early age is physical motor development, particularly fine motor skills (Wahyuni & Rahmawati, 2022). Fine motor skills involve the organization of small muscles, such as those in the fingers and hands, which often require precision and hand-eye coordination (Sujiono, 2022). Fine motor skills play a vital role because they are directly related to a child's ability to perform daily activities (life skills) and their readiness for academic activities in elementary school, such as holding a pencil, writing, drawing, cutting, and pasting (Novianti, 2023).

According to Khadijah & Amelia (2021), children's fine motor development is influenced by nerve and muscle maturity, as well as training and experience. If children are not provided with sufficient stimulation, they may experience delays in their fine motor development. This will undoubtedly impact their self-confidence and ability to complete tasks requiring precision (Pertiwi, 2024).

Based on initial observations conducted by researchers in Group B3 of Satya Prawira Early Childhood Education in the 2025/2026 Academic Year, problems were found related to children's fine motor development. Of the total of 7 children in the class, most still experienced difficulty in coordinating their eyes and hands. This was seen when the children were asked to do coloring activities, which often went outside the lines, had difficulty holding scissors correctly, and the results of the paste were not neat and not in the right place. Based on pre-cycle data, only 2 children (28.5%) had fine motor skills developed as expected, while the rest were still in the category of not yet developed or starting to develop.

This low level of fine motor skills is thought to be caused by several factors, including a lack of variety in learning media used by teachers and activities that tend to be monotonous, leading children to quickly become bored (Utami, 2022). Classroom learning is often dominated by the use of Children's Worksheets (LKA) and free-form drawing with crayons. Activities involving the manipulation of various materials and developing finger flexibility are still rare.

To address these issues, engaging, enjoyable, and effective learning methods or activities are needed to stimulate children's fine motor skills (Aisyah, 2023). One such activity is collage. Collage is a two-dimensional work of art that utilizes a variety of materials, such as paper, cloth, glass, metal, wood, and others, attached to the surface of the image (Mulyadi, 2025). Through collage, children are encouraged to hold, tear, cut, and attach these materials. This process directly trains the flexibility of the finger muscles and eye-hand coordination (Lestari & Nurhayati, 2024).

Previous relevant research has demonstrated the effectiveness of collage. For example, research by Sari (2023) showed that pasting collages with natural materials can improve fine motor skills in children aged 5-6 years. Similarly, research by Rahayu (2022) confirmed that collages made from waste materials are highly effective in developing children's creativity and motor skills. However, in this study, researchers used a more varied approach by combining various materials such as dried leaves, cotton, colored paper, and glue to provide different textures and sensory experiences for children at Satya Prawira Preschool (PAUD) (Hidayah, 2025).

Collage activities not only develop physical motor skills but also develop children's cognitive and aesthetic aspects. When creating collages, children learn about shape, color, texture, and composition (Putri, 2021). They learn problem-solving skills by matching pieces of material to the pattern (Yanti, 2026). Furthermore, because collages produce tangible works, they provide a sense of satisfaction for children and boost their self-confidence (Susanti & Handayani, 2022).

Based on the description of the background of the problem above, the researcher feels the need to conduct classroom action research (CAR) with the title 'Improving Fine Motor Development of Group B3 Children Through Collage Activities at Satya Prawira PAUD'. This research is expected to provide practical solutions for teachers in creating innovative and enjoyable learning, and is actually able to improve children's fine motor development optimally.

2. RESEARCH METHOD

The type of research used in this study is Classroom Action Research (CAR). According to Arikunto (2021), CAR is a careful observation of learning activities in the form of actions that are intentionally presented and occur simultaneously in a classroom. This research aims to improve and enhance the quality of classroom learning, particularly related to children's fine motor development through collage activities.

The research design used refers to the model developed by Kemmis and McTaggart (in Sugiyono, 2022), where the implementation includes interrelated spiral cycles. Each cycle consists of four main stages: (1) Planning, (2) Acting, (3) Observing, and (4) Reflecting. If the success

indicators have not been achieved in Cycle I, then it will proceed to Cycle II with a revised strategy based on the results of the reflection (Fitriani, 2023).

This research was conducted at Satya Prawira Early Childhood Education (PAUD) during the odd semester of the 2025/2026 academic year. The subjects were all seven children in Group B3. Children in this group are typically between 5 and 6 years old, at which age their fine motor skills should begin to mature and they should be ready to perform complex tasks (Khadijah & Amelia, 2021).

The research procedure began with a pre-cycle to determine children's initial fine motor skills. Next, in Cycle I, the researcher designed a Daily Learning Implementation Plan (RPPH) with a collage activity using colored paper. In Cycle II, the researcher increased the challenge and appeal of the activity by using natural materials and different textures such as dried leaves, cotton, and Fox glue, in accordance with the Assessment Plan, which includes the shapes of mountains, the sun, clouds, the sky, trees, flowers, and grass (Novianti, 2023).

The data collection techniques used in this study included observation, performance, and documentation. Observations were conducted by the researcher and the class teacher using an observation sheet containing indicators of fine motor development, such as the ability to stick neatly, the ability to hold materials and glue, and the accuracy of placing materials on the pattern. The content validity of this observation sheet was established through expert judgment by an early childhood education lecturer prior to its use in the field, and each observation was conducted jointly by the researcher and the class teacher to reduce subjectivity in the assessment. Performance was a direct assessment of the collage work created by the children (Hidayah, 2025). Documentation consisted of photographs of the children's activities during the learning process and their work.

Data analysis was conducted using both quantitative and qualitative descriptive methods. Quantitative data were obtained from the percentage of children who achieved the completion criteria, while qualitative data were obtained from field observation notes regarding changes in children's behavior and enthusiasm (Utami, 2022). The success indicator for this study was determined when at least 80% of the total number of children had achieved the minimum developmental level of 'Developing as Expected (BSH)' or 'Developing Very Well (BSB)' in their fine motor skills. To strengthen the validity of the analysis, the quantitative percentage of completion in each cycle was cross-checked against the qualitative field notes and the class teacher's observations (data triangulation), so that the improvement reported at each stage reflects a convergent measurement rather than a single subjective assessment.

3. RESULTS AND DISCUSSION

3.1 Initial Conditions (Pre-Cycle)

Before implementing the collage activity, researchers conducted initial observations (pre-cycle) to determine the actual state of fine motor development in children in Group B3 of Satya Prawira Early Childhood Education. Based on the pre-cycle observations, it was apparent that most children were still stiff in moving their fingers (Sujiono, 2022). When given a simple pattern-gluing activity, the children appeared to have difficulty controlling the amount of glue used, resulting in wet and dirty paper. Many of the pasted paper pieces also went outside the pattern lines.

Quantitative data from the pre-cycle showed that out of a total of 7 children, only 2 (28.5%) achieved the criteria for Developing According to Expectations (BSH) and Developing Very Well (BSB). Meanwhile, the other 5 children were still at the Starting to Develop (MB) criteria. Based on this data, the percentage of classical completion only reached 28.5%. This figure is still far from the research success indicator of 80%. Therefore, concrete action is needed through the implementation of the collage method, which will be applied in Cycle I (Wahyuni & Rahmawati, 2022).

3.2 Results of Cycle I

Cycle I was implemented through a series of planned meetings. During the planning stage, the researcher developed an RPPH (Resume-Based Learning Outcome) with a related theme. The media prepared included patterned pictures, cut-up colored paper, and natural materials. During the Acting stage, the teacher invited the children to sing to raise their spirits. Next, the teacher demonstrated how to neatly attach the collage materials to the patterned pictures (Fitriani, 2023).

The children began working on their respective assignments. During the observation process, it was apparent that some children were becoming more enthusiastic and had improved their hand coordination. They were trying to hold the paper and glue it more carefully than in the pre-cycle. However, some children were still impatient (Putri, 2021).

Based on the results of the Cycle I evaluation, data showed that 4 children (57.1%) had successfully achieved the BSH and BSB criteria, while 3 others remained at the MB stage. Although this represented a 28.6% increase from the pre-cycle level, this result did not reach the classical success indicator of 80%. Reflection revealed that this was due to the need for intensive individual guidance and a variety of engaging materials.

3.3 Results of Cycle II

Considering the shortcomings of Cycle I, the researchers made improvements in Cycle II. During the planning stage, they prepared a wider variety of natural materials with varying textures, including dried leaves, cotton, and colored paper combined with Fox glue. The drawing patterns used were more complex, including natural landscapes (Aisyah, 2023).

During the activity, the teacher begins by asking who created the universe. The children are then invited to feel the texture of dry leaves and cotton. They are asked to attach cotton to the cloud pattern, dry leaves to the tree pattern, and colored paper to the flower pattern (Sari, 2023).

During Cycle II observations, the classroom atmosphere became very active and focused. Their hand-eye coordination was noticeably improved. They took small amounts of Fox glue using their fingertips or a stick, smeared it on leaves or cotton wool, and then precisely applied it to the pattern. The children's patience and accuracy improved dramatically (Yanti, 2026). This finding is consistent with Lestari & Nurhayati (2024), who reported that varied-texture collage media accelerate pre-writing skill acquisition; however, the data in this study further indicate that the sharpest gain in patience and accuracy emerged specifically after the introduction of tactile natural materials in Cycle II rather than from repeated practice of the same activity, suggesting that sensory variation, rather than repetition alone, is the more critical driver of the fine motor improvement observed in this research.

The results of the performance evaluation in Cycle II showed a very significant improvement. A total of 6 children (85.7%) has achieved the completion criteria (BSH and BSB). The neatness of the children's work is very satisfactory, and the flexibility of their fingers when pinching the material and sticking is very good. Because the classical completion has reached 85.7% (exceeding the 80% indicator), this class action research is declared successful (Rahayu, 2022).

3.4 Table and Graph of Improvement

To clarify the increasing trend that occurred from the Pre-Cycle, Cycle I, and Cycle II stages, the following table and graph of classical completion of fine motor development of children in group B3 are presented:

Stages	Number of Students Completed	Completion Percentage	Improvement
Pre Cycle	2 people	28,5%	-
Cycle I	4 people	57,1%	+28,6%
Cycle II	6 people	85,7%	+28,6%

Table 1. Distribution of Improvement in Children's Fine Motor Skills

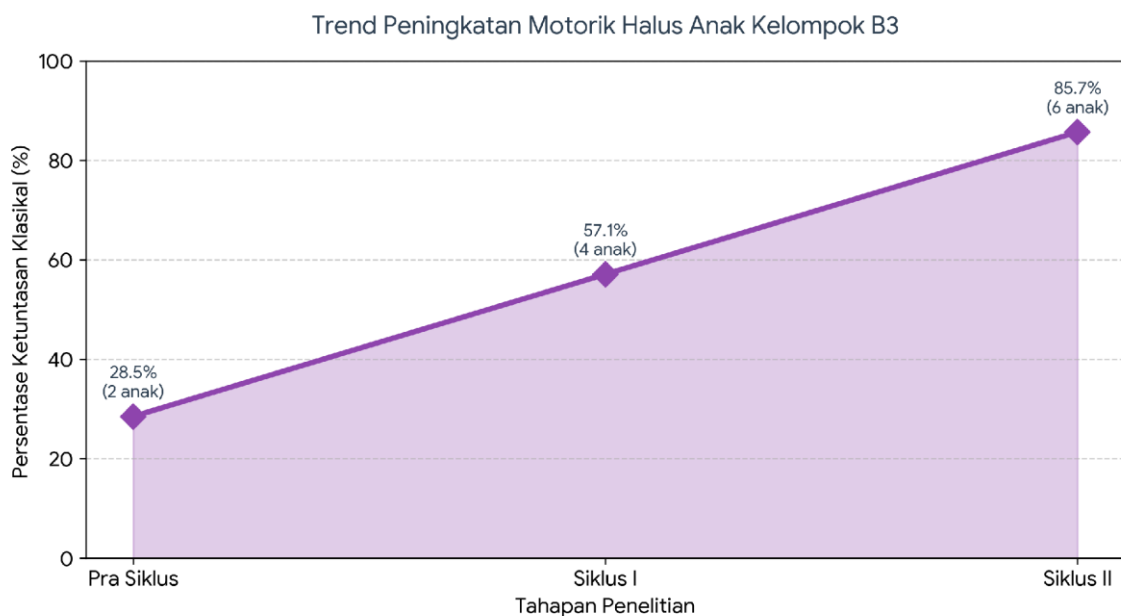


Figure 1. Fine Motor Improvement Trend Graph (Area Chart)

3.5 Discussion

The results of the study showed that the use of collage activities was able to make a positive and significant contribution to improving the fine motor development of children at Satya Prawira Early Childhood Education (PAUD). During the pre-cycle, completion was only 28.5%. However, after intervention through Cycles I and II, there was an increase to 57.1% and finally reached a peak of 85.7%. This increase confirms the theory put forward by Fadlillah (2023) that play-while-learning activities involving direct manipulation of physical objects are the best stimulation for the development of motor nerves in early childhood.

The activities of pinning cotton, applying Fox glue, and attaching dried leaves or colored paper to a drawing pattern require complex synchronization between the eyes and fingers. According to Mulyadi (2025), the repetitive activities in collage art serve to train the phalangeal muscles (fingers) and visual-motor coordination, which are crucial as the basis for children's pre-writing skills.

Furthermore, improvements in Cycle II, which introduced natural materials (dried leaves and cotton), provided a rich sensory experience for children. Susanti & Handayani (2022) stated that the more senses involved in the learning process, the stronger the synaptic connections in the child's brain. Touching the soft texture of cotton and the rough texture of leaves allows children to focus more carefully and be more careful when performing collage activities.

During Cycle II, the teacher also implemented a recall and reinforcement system in the closing activity, discussing children's feelings and displaying their work. This appreciation of their work has been shown to increase children's intrinsic motivation (Pertiwi, 2024). Children felt proud of their natural landscape creations, which then encouraged them to perform fine motor activities more neatly and diligently. This demonstrates that psychological factors (motivation and appreciation) go hand in hand with children's physical motor development (Suryana, 2021).

Thus, the research problem formulation has been answered. Collage activities, especially those varied with various materials and textures, are highly suitable and effective for integration into the Early Childhood Education (PAUD) curriculum as a primary means of developing fine motor skills in Group B children.

4. CONCLUSION

Based on the results of the classroom action research conducted in two cycles, it can be concluded that the application of collage activities can improve the fine motor development of Group B3 children at Satya Prawira PAUD. This improvement is evidenced by the increase in the percentage of classical learning completion at each stage. In the initial condition (pre-cycle), the children's fine motor completion only reached 28.5% (2 children). After being given action in Cycle, I using colored paper collage, there was an increase to 57.1% (4 children).

Then, after improvements were made to the learning process in Cycle II by using more varied materials such as natural materials (dried leaves), cotton, colored paper, and the use of Fox glue on the natural scenery pattern, learning completion jumped significantly to 85.7% (6 children). This achievement has exceeded the established success indicator of at least 80%.

Through collage activities, children are trained to coordinate eye and hand movements, develop finger muscle flexibility (pinching, applying glue, sticking), and cultivate patience and precision. Therefore, it is recommended that early childhood educators optimize the use of fine arts activities, particularly collages using a variety of natural and waste materials, as an effective and enjoyable medium for stimulating fine motor skills in preschool children.

This study is not without limitations. The sample was limited to 7 children in a single class at one PAUD institution, so the findings cannot yet be generalized to other early childhood education settings, and the classroom action research design used does not fully control for external factors, such as differences in children's stimulation at home, that may also influence fine motor development. Future research is recommended to involve a larger number of children across several schools, to employ comparative or experimental designs to strengthen causal claims about the effect of collage activities, and to explore other fine motor stimulation activities, such as playdough modeling or beading, in order to enrich the variety of innovative learning strategies available for early childhood education.

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