

Application Of The Collage Method In Stimulating Fine Motor Skills And Creativity Of 4-5 Year-Old Children At Majidi Pkk Kindergarten

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Abstract

This study aims to determine improvements in fine motor skills and creativity in children aged 4–5 years through the collage method in group A2 of PKK Majidi Kindergarten. The study used the Classroom Action Research (CAR) model of Kemmis and McTaggart, which was implemented in two cycles. The research subjects were 15 children, consisting of 7 boys and 8 girls. Data were collected through observation, documentation, and field notes. The results showed that the collage method improved children's fine motor skills and creativity. In Cycle I for Fine Motor Skills, 8 children (53.33%) achieved the BSH and BSB categories. In Cycle II, it increased to 14 children (93.33%), or an increase of 40 percentage points. In Cycle I for Creativity, 8 children (53.33%) achieved the BSH and BSB categories. In Cycle II, it increased to 13 children (86.66%), or an increase of 33.33 percentage points. Improvements were seen in eye-hand coordination, the ability to hold and stick materials, select materials, combine colors and shapes, and develop ideas in producing works. Thus, the collage method can support the improvement of fine motor skills and creativity in children aged 4–5 years in the A2 group of the Majidi PKK Kindergarten.

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1. INTRODUCTION

Early Childhood Education (PAUD) is a stage of education that plays an important role in providing the foundation for a child's overall development (H. Fitriani, 2025). Early childhood is often referred to as the golden age (*golden age*) because during this period, various aspects of child development, such as physical-motor, cognitive, language, social-emotional, and creativity, develop rapidly (Erviana et al., 2024). Learning is not only oriented towards results, but also provides opportunities for children to gain direct experience through fun, active activities that allow children to explore their surroundings (Suhayati et al., 2024).

One aspect of development that requires attention in early childhood education is fine motor skills. Fine motor skills relate to a child's ability to control small muscle movements, particularly those involving eye-hand coordination. These skills are necessary for various activities, such as holding and using writing instruments, cutting, folding, drawing, coloring, applying glue, and sticking (Nurkamelia Mukhtar, 2018). Good fine motor development can support children's independence in carrying out daily activities and help prepare them for learning activities at the next stage of their education (L. Fitriani et al., 2025).

In addition to fine motor skills, creativity is also an aspect of development that needs to be stimulated from an early age. Creativity is related to children's ability to generate ideas, try various methods, explore materials, and produce works based on their ideas and imagination (Ni Ketut

Suarmani et al., 2022). Children need opportunities to experiment and make choices in learning activities to foster creativity. Learning that overly emphasizes imitating teacher examples can limit children's exploration. Therefore, teachers need to use activities that provide opportunities for children to develop ideas and produce works according to their abilities and imagination (S. Hamzah et al., 2025).

This situation is serious to consider in learning at the Majidi PKK Kindergarten. During the learning process, the activities provided do not fully provide children with the opportunity to explore various materials and produce works independently. Therefore, children's experiences in activities involving hand-eye coordination and creativity development still need to be improved. Furthermore, children's opportunities to explore materials, choose colors and shapes, and express ideas through their creations are still limited. This situation indicates that stimulation of children's fine motor skills and creativity needs to be carried out through more varied, interesting activities that directly involve children.

These issues also highlight the need for learning strategies that provide children with hands-on experiences through activities involving the use of small muscles. Teachers should not simply provide instructions or examples; they should also provide activities that allow children to hold, select, arrange, apply, and attach materials directly (A. Badriyah, 2023).

One activity that can be used to provide this stimulation is the collage method. Collage is an art activity carried out by arranging and attaching various materials to a surface to create a work of art (Aini et al., 2024). In collage activities, children perform several activities sequentially, such as picking up materials, holding them, applying glue, determining the position of the materials, and attaching them to a predetermined surface. This series of activities involves hand-eye coordination and small muscle movements, so it can be used as an activity to stimulate children's fine motor skills (Rismayanthi, 2013).

Collage activities also contribute to the development of children's creativity. Using a variety of materials allows children to learn about different shapes, colors, sizes, and textures. Children are also given the opportunity to choose materials, determine their placement, and arrange their work according to their own ideas (K. Lutfi Diyaalya, 2025).

Previous research has shown that collage activities can be used in early childhood learning to develop fine motor skills and creativity. Several studies have shown that the activities of cutting, picking, gluing, arranging, and sticking materials can develop children's hand-eye coordination and fine motor skills. Other research has shown that collage activities can provide opportunities for children to explore materials and create works based on their own ideas. These findings suggest that collage has the potential to be used as a learning activity that fosters more than one aspect of child development (N. Fahira et al., 2021).

However, there is still room for further research. Much of the previous work cited above examined fine motor skills and creativity as separate outcomes, typically using activities designed around a single developmental target, cutting and pasting exercises aimed mainly at motor precision, or open-ended art tasks aimed mainly at self-expression, and reported on those outcomes after a single round of intervention rather than tracking how the same group of children changed across successive, reflection-driven cycles. What has received less attention is whether one integrated activity, evaluated cycle by cycle within a single classroom action research design, can be shown to stimulate both domains together and whether improvement in one domain tracks improvement in the other as the activity is refined. This study addresses that gap by examining fine motor skills and creativity as two outcomes of the same collage activity within a two-cycle Classroom Action Research design at the Majidi PKK Kindergarten, so that any change in one domain can be read alongside the change in the other across Cycle I and Cycle II. Its contribution is therefore twofold: empirical evidence on whether a single, materials-based activity can move both outcomes together, and a documented, cycle-by-

cycle account of which specific adjustments between Cycle I and Cycle II were associated with further gains, information that a single-cycle or single-outcome study cannot provide.

Based on the initial conditions at the Majidi PKK Kindergarten and the problems encountered in the learning activities, an action is needed that can provide direct learning experiences while simultaneously stimulating children's fine motor skills and creativity. Classroom Action Research (CAR) is considered appropriate because this research not only aims to determine the children's condition but also to take corrective action through the application of the collage method in the learning process. This action can be carried out through several stages, namely planning, action implementation, observation, and reflection. The results of the reflection in each cycle are used as a basis for improving actions in the next cycle.

The application of the collage method in this study is expected to bring about changes in the learning process at the Majidi PKK Kindergarten, particularly in providing opportunities for children to engage in activities involving hand-eye coordination and exploring various materials to produce works. Children's ability improvements will be observed through indicators of fine motor skills and creativity as determined in the study (Damayanti & Aini, 2020). Thus, the success of the action is not only seen from the implementation of the collage activity, but also from the improvement in children's abilities after the action is given in each cycle.

Based on the description, this research was conducted with the title "Application of the Collage Method to Improve Fine Motor Skills and Creativity of 4–5-Year-Old Children at PKK Majidi Kindergarten."

2. RESEARCH METHODS

This study used the Classroom Action Research (CAR) method with the Kemmis and McTaggart model. According to Kemmis and McTaggart, classroom action research is a form of reflective research conducted to continuously improve learning practices through the stages of planning, action implementation, observation, and reflection (T. Muah, 2015).

The research was conducted at the Majidi PKK Kindergarten in Majidi Village. The location was chosen due to the identified problems related to low fine motor development in children aged 4–5 years. The study was conducted in group A2 with 15 students, consisting of 7 boys and 8 girls. Because the population was relatively small and accessible, the entire population was used as the research sample (N. Suriani et al., 2023).

The research procedure was carried out in two cycles. Each cycle consisted of planning, action implementation, observation, and reflection. Prior to Cycle I, the researcher conducted initial observations to determine the condition of children's fine motor skills and creativity before the intervention. Before the intervention was administered, the researcher observed the fine motor skills and creativity of children in group A2 (Ramadhani et al., 2026). The initial observations aimed to obtain an overview of the children's abilities before the collage method was implemented. The results of the initial observations were used as a basis for developing action plans. The initial conditions also served as a comparison to determine changes in children's abilities after the interventions in Cycles I and II.

In Cycle I, the planning stage consisted of designing collage sessions around simple, single-material tasks using pre-cut shapes, preparing the learning media and tools needed for those sessions (paper, glue, and pre-cut shapes), and finalizing the observation sheet covering the fine motor and creativity indicators used throughout the study. In the action implementation stage, the teacher first demonstrated the core collage sequence, picking up a piece, applying glue, positioning it, and pressing it onto the paper, after which children carried out the same sequence independently, with the teacher providing verbal or hand-over-hand assistance whenever a child could not complete a step unaided. During the observation stage, the researcher and the class teacher jointly used the observation sheet to record each child's performance on every indicator across the Cycle I sessions,

supported by photographs of the children's work and field notes describing notable behaviors such as hesitation, difficulty controlling the amount of glue applied, or reduced interest partway through a session. In the reflection stage, the researcher and the class teacher reviewed the Cycle I observation data together; the results in Table 1 and Table 3 show that only about half of the children had reached the BSH/BSB categories, and the accompanying field notes pointed to three recurring issues: children applying too much or too little glue, which affected how well materials adhered; the reliance on a narrow set of pre-cut shapes, which left little room for children to make their own compositional decisions; and a drop in engagement in sessions that repeated the same type of material.

These reflection findings directly shaped the planning stage of Cycle II. Three specific adjustments were made: glue application was simplified so that children could control the amount used more precisely, rather than relying solely on the glue-stick technique used in Cycle I; the range of available materials was widened beyond the original pre-cut shapes so that children had more opportunity to choose and arrange materials according to their own ideas; and session pacing and teacher scaffolding were adjusted, with the teacher stepping back earlier once a child showed the ability to complete the sequence independently, to keep sessions engaging rather than repetitive. In the action implementation stage of Cycle II, these adjustments were put into practice directly in the classroom, with the teacher demonstrating the revised glue-application technique and introducing the expanded material choices before children worked with greater independence than in Cycle I. The observation stage of Cycle II followed the same procedure and used the same instrument as Cycle I, which kept the two cycles' scores directly comparable, while field notes specifically tracked whether the glue-control and material-variety adjustments reduced the problems identified after Cycle I. In the Cycle II reflection stage, the researcher and the class teacher compared the Cycle II results in Table 2 and Table 4 against Cycle I and found that glue control had visibly improved, that children produced more varied and self-directed compositions once given a wider choice of materials, and that engagement remained consistent across sessions; because both fine motor skills and creativity had reached the targeted improvement criteria by the end of Cycle II, the researcher and the class teacher agreed that the action research could be concluded after two cycles.

Data collection techniques include observation, documentation, and field notes (Lubis, 2015). The research instrument consists of observation sheets for children's fine motor development and creativity, compiled based on early childhood development indicators. Instrument validity is conducted through content validation by seeking expert opinions and class teachers regarding the appropriateness of the indicators used.

The analysis technique in this study used quantitative descriptive analysis by comparing the results of observations in cycles I and II (N. Irma Cintia et al., 2018). The analysis was conducted to determine the improvement in children's fine motor skills and creativity after participating in collage activities. The results of the analysis were then interpreted to determine the level of success of the given actions. The use of quantitative descriptive analysis was chosen because it aligns with the objectives of the PAUD research, which emphasizes changes in children's abilities as a result of learning experiences through collage activities.

3. RESULTS AND DISCUSSION

A. RESULTS

Based on the results of the Classroom Action Research conducted with children in Group A2 of the Majidi PKK Kindergarten, it was found that the collage method can improve fine motor skills and creativity in children aged 4-5 years. This improvement is evident in changes in children's development outcomes in Cycles I and II.

Table Cycle I Fine Motor Skills

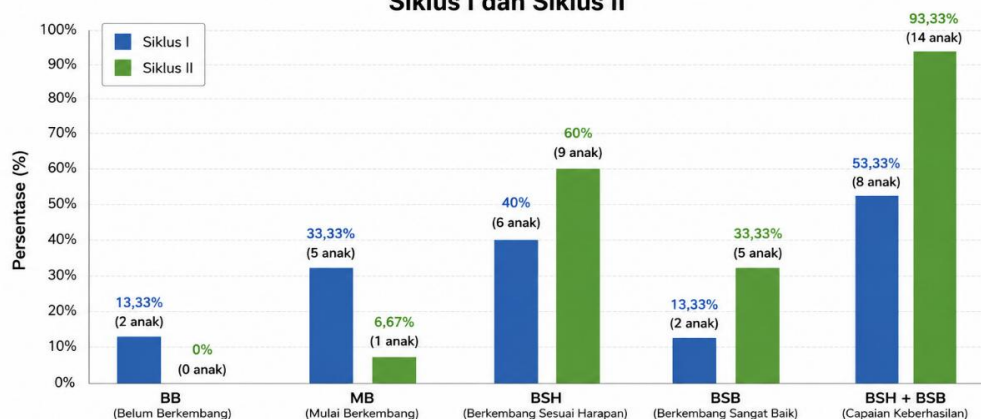
No.	Category	Number of children	Percentage
1.	BB (Undeveloped)	2	13,33%
2.	MB (Starting to Develop)	5	33,33%
3.	BSH (Developing According to Expectations)	6	40%
4.	BSB (Best Developing)	2	13,33%
	Total	15	100%

Table 1. Cycle I Fine Motor Skills

Table Cycle II Fine Motor Skills

No.	Category	Number of children	Percentage
1.	BB (Undeveloped)	0	0%
2.	MB (Starting to Develop)	1	6,67%
3.	BSH (Developing According to Expectations)	9	60%
4.	BSB (Best Developing)	5	33,33%
	Total	15	100%

Table 2. Cycle II Fine Motor Skills

Comparison of Results of Cycle I and Cycle II of Fine Motor Skills**Perbandingan Hasil Kemampuan Motorik Halus
Siklus I dan Siklus II**

Kategori	Siklus I		Siklus II	
	Jumlah Anak	Persentase (%)	Jumlah Anak	Persentase (%)
1. BB (Belum Berkembang)	2 anak	13,33%	0 anak	0%
2. MB (Mulai Berkembang)	5 anak	33,33%	1 anak	6,67%
3. BSH (Berkembang Sesuai Harapan)	6 anak	40%	9 anak	60%
4. BSB (Berkembang Sangat Baik)	2 anak	13,33%	5 anak	33,33%
BSH + BSB (Capaian Keberhasilan)	8 anak	53,33%	14 anak	93,33%

Based on the results of observations of children's fine motor skills in Cycle I and Cycle II, there was an increase in development after the implementation of collage activities. In Cycle

I, 2 children (13.33%) were in the Not Yet Developing (BB) category, 5 children (33.33%) were in the Starting to Develop (MB) category, 6 children (40%) were in the Developing According to Expectations (BSH) category, and 2 children (13.33%) were in the Very Well Developing (BSB) category. Thus, 8 children or 53.33% achieved the BSH and BSB categories.

In Cycle II, there was an increase in fine motor skills as indicated by the absence of any children in the Not Yet Developing (BB) category. One child (6.67%) was in the Beginning to Develop (MB) category, nine children (60%) were in the Developing as Expected (BSH) category, and five children (33.33%) were in the Very Well Developing (BSB) category. The number of children achieving the BSH and BSB categories increased to 14 children, or 93.33%.

Creativity Cycle I Table

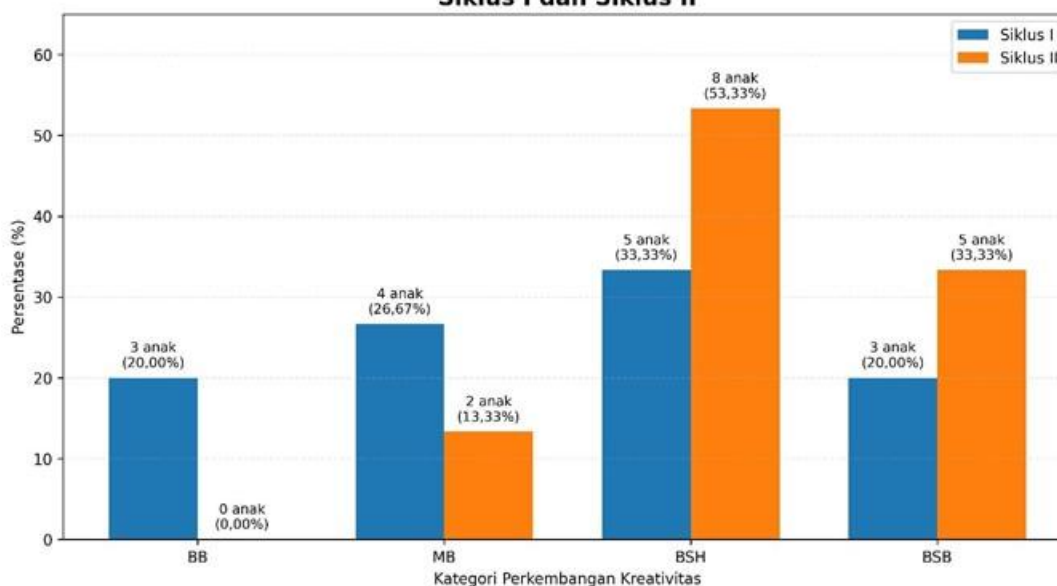
No.	Category	Number of children	Percentage
1.	BB (Undeveloped)	3	20%
2.	MB (Starting to Develop)	4	26,67%
3.	BSH (Developing According to Expectations)	5	33,33%
4.	BSB (Best Developing)	3	20%
	Total	15	100%

Table 3. Cycle I Creativity

Cycle II Creativity Table

No.	Category	Number of children	Percentage
1.	BB (Undeveloped)	0	0%
2.	MB (Starting to Develop)	2	13,33%
3.	BSH (Developing According to Expectations)	8	53,33%
4.	BSB (Best Developing)	5	33,33%
	Total	15	100%

Diagram Perbandingan Hasil Kreativitas Anak Siklus I dan Siklus II



Based on the results of observations of children's creativity in Cycle I and Cycle II, there was an increase in development after the implementation of collage activities. In Cycle I, there were 3 children (20%) who were in the Not Yet Developing (BB) category, 4 children (26.67%) were in the Starting to Develop (MB) category, 5 children (33.33%) were in the Developing According to Expectations (BSH) category, and 3 children (20%) were in the Very Well Developing (BSB) category. Thus, the number of children who had reached the BSH and BSB categories was 8 children, or 53.33%.

In Cycle II, changes occurred indicating an improvement. There were no longer any children in the BB category, resulting in 0 children (0%). The MB category decreased to 2 children (13.33%). Meanwhile, the BSH category increased to 8 children (53.33%), and the BSB category increased to 5 children (33.33%). Thus, the number of children achieving the BSH and BSB categories increased to 13 children, or 86.66%.

B. DISCUSSION

The results indicate that the collage method improved children's fine motor skills across the two cycles (Table 1 and Table 2), with most children moving into the Developing According to Expectations (BSH) and Developing Very Well (BSB) categories by Cycle II. Rather than restate those figures here, what is worth emphasizing is why this activity produced that shift: collage gives children repeated, self-paced practice in eye-hand coordination, finger dexterity, and controlled movement every time they pick up, glue, and attach a piece, in a way that a single demonstration or worksheet exercise does not.

This pattern is consistent with Aripin et al. (2022), who found that picking, arranging, and pasting activities function as direct fine-motor stimulation for young children, and it supports collage as an activity that develops fine motor skills through repeated, hands-on practice rather than through instruction alone.

A similar pattern was observed for creativity (Table 3 and Table 4). The gain across Cycle I and Cycle II was most visible in children's growing willingness to choose their own materials and colors and to arrange them into compositions that were not modeled by the teacher, consistent with Y. Khasanah et al. (2019), who reported that open-ended collage tasks support creativity precisely because they do not prescribe a single correct outcome.

Taken together, these results suggest that collage functioned as a single activity capable of addressing two developmental domains at once: the physical actions of picking, gluing, and attaching supported fine motor development, while decisions about materials, color, and composition supported creativity. This has two practical implications. First, for teachers with limited instructional time, collage can serve as an efficient core activity rather than an occasional supplementary craft, since it does not require a separate session for each developmental goal. Second, gains only became clearly visible after the Cycle II adjustments described in the Research Methods section, not after a single round of collage activities, which suggests that the benefit depends on iterative refinement based on reflection rather than on exposure to collage alone; teachers intending to use collage for this purpose should plan to observe, adjust, and repeat the activity rather than treat one session as sufficient.

The application of the collage method in this study can therefore be said to be successful in improving the fine motor skills and creativity of children in group A2 of the Majidi PKK Kindergarten.

4. CONCLUSION

Based on the results of Classroom Action Research on children in group A2 of PKK Majidi Kindergarten, it can be concluded that the application of the collage method can improve fine motor skills and creativity of children aged 4 to 5 years. Fine motor skills increased from 53.33% in Cycle I to 93.33% in Cycle II. Children's creativity increased from 53.33% in Cycle I to 86.66% in Cycle

II. This improvement can be seen from the children's ability to coordinate eye and hand movements, use collage materials, complete activities more independently, and produce works according to their own ideas and creativity. This improvement shows that collage activities are able to stimulate fine motor skills through the activities of picking up, holding, applying glue, arranging, sticking, and pressing materials. In addition, collage activities also provide opportunities for children to develop creativity through the selection of materials, colors, shapes, and arrangement of works based on their own ideas and imagination.

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