

Improving Fine Motor Skills Through Patterned Paper Media in Group A of Bunda Pertiwi PAUD

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ABSTRACT

This research is motivated by the low fine motor skills of children aged 4-5 years in Group A of Bunda Pertiwi PAUD, Tengah Tani District, Cirebon Regency, especially in cutting activities. Based on initial observations, approximately 70% of the 13 children still have difficulty in coordinating eye and hand movements. This study aims to improve children's fine motor skills through the use of pattern paper media. The method used is the Classroom Action Research (CAR) model of Kemmis and McTaggart which was carried out in two cycles. Data collection techniques include observation, interviews, and documentation, with descriptive quantitative and qualitative data analysis. The results of the study showed an increase in children's fine motor skills, from 30% in the pre-cycle to 55% in cycle I, and reaching 85% in cycle II. The improvement was seen in children's ability to cut according to the pattern, eye and hand coordination, and the neatness of the cut results. Thus, pattern paper media is effective in improving fine motor skills in early childhood.

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INTRODUCTION

Early childhood education is a crucial stage in a child's development because during this period, children experience the golden age, a period of rapid growth and development. During this phase, a child's brain development reaches an optimal level, so the stimulation provided will significantly impact the development of other aspects in the future. At the age of 4-5 years, children experience significant development in various aspects, one of which is

physical motor development, particularly fine motor skills. Fine motor skills involve the coordination of small muscles, especially the fingers, integrated with hand-eye coordination in activities such as drawing, writing, folding, pasting, and cutting. Optimal fine motor development is crucial as a foundation for a child's readiness to participate in learning activities at school (Rosalianisa et al., 2023). Fine motor skills play a crucial role in supporting a child's learning readiness, particularly in basic academic activities and daily activities that require precision and motor coordination (Salim & Samad, 2020; Samad & Muhammad, 2018). Children with good fine motor skills tend to be more able to participate in learning activities that involve the use of writing tools, scissors, and other manipulative media. Furthermore, these skills also contribute to children's cognitive development and independence in completing tasks. Research shows that using appropriate learning media can significantly enhance the stimulation of fine motor development in early childhood (Bachtar et al., 2025; Maspupah et al., 2024).

However, based on the results of initial observations conducted in group A of Bunda Pertiwi early childhood education center, Tengah Tani district, Cirebon regency, it was found that children's fine motor skills were still relatively low, especially in cutting activities. Of the 13 children, approximately 70% still had difficulty in optimally coordinating eye and hand movements, resulting in untidy cuts and patterns. Furthermore, some children also showed a lack of control in using scissors and were unable to follow pattern lines consistently (Nurjannah, 2018; Sari et al., 2023). One medium that can be used to improve fine motor skills is pattern paper. This medium allows children to practice cutting along certain lines or shapes, thereby developing finger muscle strength, hand-eye coordination, concentration, and accuracy. Furthermore, the use of pattern paper also provides a hands-on learning experience (learning by doing), so that children can be more actively involved in the learning process. Previous research shows that activities involving paper-based media, such as paper craft, cutting, and sticking, are effective in improving fine motor skills in early childhood (Supriyatin et al., 2026).

Although various studies have discussed the development of fine motor skills through various media, research specifically using pattern paper media in the context of classroom action research in children aged 4–5 years at PAUD Bunda Pertiwi, Tengah Tani district, Cirebon regency is still limited. In addition, there are not many studies that directly link the use of simple media with the gradual improvement of fine motor skills through the learning action cycle. Therefore, this research is important to be conducted to provide alternative effective learning strategies in improving children's fine motor skills. Based on the description, the purpose of this study is to improve the fine motor skills of children aged 4–5 years through the use of pattern paper media in group A PAUD Bunda Pertiwi, Tengah Tani district, Cirebon regency.

RESEARCH METHODS

This research uses classroom action research with a model developed by Kemmis and McTaggart. This model consists of four stages in each cycle, namely planning (*planning*), implementation of actions (*acting*), observation (*observing*), and reflection (*reflecting*). The selection of this method is based on the characteristics of classroom action research, which are reflective and cyclic, thus enabling researchers to make continuous improvements to the learning process in the classroom. Through the implementation of planned and systematic actions, it is expected that children's fine motor skills can experience optimal improvement. In this study, the researcher acted as both the class teacher and the action implementer. The study was conducted at PAUD Bunda Pertiwi, Tengah Tani district, Cirebon regency, in the even semester of the 2025/2026 academic year. The research subjects were group A children aged 4–5 years with a total of 13 children, consisting of 9 boys and 4 girls. The selection of research subjects was based on the results of initial observations which showed that most children still had difficulty in cutting skills as an indicator of fine motor skills, such as in holding scissors, following patterns, and producing neat cuts.

This research was conducted in two cycles, where each cycle consisted of two learning meetings. Each cycle was designed to provide a gradual and continuous learning experience, so that children have the opportunity to practice and improve their fine motor skills optimally. In the planning stage, the researcher prepared a daily learning implementation plan (RPPH) tailored to the research objectives, prepared pattern paper media, observation sheets, and documentation instruments. The pattern paper media used included straight lines, curves, zigzags, and other simple shapes adapted to the child's developmental level. In the implementation stage of the action, learning activities were carried out by first providing examples of how to hold scissors correctly and cutting techniques according to the pattern. Next, children were given the opportunity to practice cutting activities using pattern paper media independently with teacher guidance. In this process, the teacher also provided direction, motivation, and reinforcement so that children were more confident in completing tasks.

The reflection stage is conducted at the end of each cycle to evaluate the results of the actions that have been implemented. This reflection aims to identify successes and obstacles encountered during the learning process, so that it can be used as a basis for designing improvements in the next cycle to achieve more optimal results. Data collection techniques in this study included observation, interviews, and documentation. Observation was used as the primary technique to obtain data on the development of children's fine motor skills during the cutting activity. Interviews were conducted with the accompanying teacher to obtain additional information regarding the children's initial conditions and the implementation of the learning. Documentation in the form of photographs of activities and children's work was

used as supporting data to strengthen the research results. Data analysis was conducted using descriptive quantitative and qualitative methods. Quantitative analysis was used to calculate the percentage increase in children's fine motor skills in each cycle using the formula:

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

Note:

P = percentage of completion

f = number of children who achieve the indicator

N = total number of children

Meanwhile, qualitative analysis was used to describe changes in children's behavior, participation levels, and fine motor skill development during the intervention. The study was defined as successful if at least 75% of children achieved the developing according to expectations (BSH) category, demonstrated by their ability to cut according to patterns more neatly, with direction, and independently.

RESULTS AND DISCUSSION

This research was conducted in two cycles aimed at improving the fine motor skills of children aged 4–5 years through the use of pattern paper media in group A of Bunda Pertiwi PAUD, Tengah Tani district, Cirebon regency. Each cycle consisted of two meetings designed in stages to provide continuous learning experiences to children. Based on the results of initial observations before the action was carried out, children's fine motor skills were still in the low category. Of the 13 children, only 4 children (30%) were able to cut according to the pattern quite well, while 9 children (70%) still had difficulty holding scissors, following the pattern lines, and producing neat cuts. In addition, some children appeared to lack confidence and still needed intensive teacher assistance during the activity.

In the implementation of cycle I, learning was carried out using simple pattern paper media with straight and curved lines. The researcher as the class teacher provided examples of how to hold scissors correctly and accompanied the children during cutting activities, then the children were given the opportunity to practice directly. The results of the observation showed an increase in children's fine motor skills. A total of 7 children (55%) were able to cut according to the pattern with better results compared to the pre-cycle stage. However, there were still some children who had difficulty in maintaining the neatness of the cut results and following the pattern consistently. As a form of documentation of activities in cycle I, the following is presented the activities of children when doing cutting activities using pattern paper media.



Figure 1. Children's cutting activity using pattern paper media in cycle I

Based on the picture, it can be seen that some children still need teacher assistance in holding scissors and following the pattern. The results of the cuttings obtained are also not completely neat, but children have begun to show interest and involvement in learning activities. In cycle II, improvements were made to the action by using more varied patterns that are more interesting and challenging, such as zigzags, waves, and simple shapes that attract children's interest. The researcher also provided more intensive guidance and motivation during the activity. In addition, the teacher provided more intensive guidance and motivation to the children during the activity. The results in cycle II showed a significant improvement. A total of 11 children (85%) have reached the category of developing according to expectations (BSH). Children were able to hold scissors more neatly, follow the pattern more precisely, and demonstrate independence in completing tasks. Documentation of activities in cycle II is shown as follows:



Figure 2. Improvement in the neatness of children's cutting results in cycle II

Based on the image, the child's cutting skills are evident. He is now able to hold the scissors correctly, follow the pattern more precisely, and produce neater, more focused cuts than in the previous cycle. Details of the child's fine motor skill improvement can be seen in the following table:

Table 1. Percentage of improvement in children's fine motor skills

Level	Number of children completed	Percentage
Pre-Cycle	4	30%
Cycle I	7	55%
Cycle II	11	85%

The table shows a gradual increase from pre-cycle to cycle II. The completion rate increased by 25% from pre-cycle to cycle I and again by 30% from cycle I to cycle II. This indicates that the interventions provided through the use of pattern paper media can have a positive impact on the development of children's fine motor skills.

The results of this study indicate that the application of patterned paper media is effective in improving fine motor skills in children aged 4–5 years. The gradual improvement that occurs in each cycle indicates that the learning process is systematically designed, carried out repeatedly, and accompanied by appropriate guidance is able to provide optimal stimulation for child development. In the pre-cycle stage, the low fine motor skills of children are thought to be caused by the lack of opportunities for children to do structured practice and the limited use of learning media that support manipulative activities. Children are not yet accustomed to doing activities that require coordination between the eyes and hands, so they have difficulty in cutting according to the given pattern. This condition is in line with the opinion that states that children's fine motor development is greatly influenced by the intensity of practice and opportunities to do activities that involve fine motor coordination (Grissmer et al., 2010).

The improvements in cycle I indicate that the use of pattern paper media is starting to have a positive impact on children's fine motor development. Children are beginning to understand how to use scissors correctly and are able to follow the provided patterns, although they still need guidance from the teacher. This demonstrates that learning that involves direct practice (*learning by doing*) can help children develop fine motor skills gradually. Manipulative activities such as cutting have also been shown to be effective in training hand-eye coordination and improving children's basic skills (Dinehart & Manfra, 2013). Furthermore, more optimal improvements in cycle II are inseparable from improvements in learning strategies, such as the use of more varied and interesting patterns and increased intensity of mentoring. The variety of media used can increase children's interest and motivation in participating in learning activities (Herlina et al., 2022; Puspitarini & Hanif, 2019). Children appear more active, enthusiastic, and confident in completing the assigned tasks. This is in line with the opinion that interesting learning media that are appropriate to the characteristics of early childhood can increase children's engagement and learning outcomes (Masupah et al., 2024).

Furthermore, cutting using pattern paper provides children with the opportunity to repeatedly practice coordination between sight and hand movements. This consistent practice allows children to optimally develop fine motor skills while also fostering precision and concentration in their work. Thus, the use of patterned paper media can be considered effective as a learning strategy in improving fine motor skills in early childhood. This is demonstrated by the increasing percentage of learning completion and positive changes in children's abilities and independence during the learning process. The findings of this study

also reinforce previous research that simple but appropriately designed learning media can have a significant impact on child development (Bachtiar et al., 2025).

CONCLUSION

Based on the research results, it can be concluded that the use of pattern paper media is effective in improving the fine motor skills of children aged 4-5 years in group A of Bunda Pertiwi PAUD, Tengah Tani district, Cirebon regency. The increase occurred gradually, indicated by the percentage of completion which increased from 30% in the pre-cycle to 55% in cycle I, and reached 85% in cycle II with the category of developing according to expectations (BSH). This increase was seen in the children's ability to cut according to the pattern, increased eye-hand coordination, and neater and more independent cutting results. This shows that the use of pattern paper media is able to provide a concrete, interesting learning experience, and is in accordance with the characteristics of early childhood. Thus, pattern paper media can be used as an alternative effective learning strategy to develop children's fine motor skills, and can be applied by teachers in learning activities in PAUD.

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