

STRATEGY TO IMPROVE FINE MOTOR ABILITIES THROUGH ORIGAMI PAPER FOLDING ACTIVITIES IN CHILDREN OF GROUP “B” AT RA MASYITOH V PROBOLINGGO

Musdhalifah Kahar¹, M Jadid Khadavi²

Institut Ahmad Dahlan Probolinggo, Indonesia

¹kaharmusdhalifah@gmail.com ²jadid.boyz@gmail.com

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ABSTRACT: This study aims to improve children's fine motor skills through origami paper folding activities in Group B children at RA Masyitoh V Karanganyar, Probolinggo. The approach used is qualitative with a case study method to explore in depth the process and impact of origami activities on children's fine motor development. The main focus of this study is on hand-eye coordination, accuracy, and muscle strength of children's fingers. Data collection techniques used include participatory observation, in-depth interviews with teachers and parents, and documentation of children's activities when folding paper. Data analysis was carried out using a qualitative descriptive method that includes data reduction, data presentation, and drawing conclusions. The results of the study showed that origami activities were able to significantly improve children's concentration, perseverance, and fine motor skills. Children showed an increase in their ability to grip, fold with precision, and regulate finger pressure when folding paper. So that origami paper folding activities can be used as an effective and fun method to stimulate the development of fine motor skills in early childhood, and can be applied routinely in learning at the Raudhatul Athfal level.

Keywords: *Fine Motor, Origami, Early Childhood, RA Masyitoh*

ABSTRAK: Penelitian ini bertujuan untuk meningkatkan kemampuan motorik halus anak melalui kegiatan melipat kertas origami pada anak Kelompok B di RA Masyitoh V Karanganyar, Probolinggo. Pendekatan yang digunakan ialah kualitatif dengan metode studi kasus untuk menggali secara mendalam proses dan dampak kegiatan origami terhadap perkembangan motorik halus anak. Fokus utama penelitian ini pada koordinasi tangan-mata, ketelitian, dan kekuatan otot jari anak. Teknik pengumpulan data yang digunakan meliputi observasi partisipatif, wawancara mendalam dengan guru dan orang tua, serta dokumentasi kegiatan anak saat melipat kertas. Analisis data dilakukan dengan metode deskriptif kualitatif yang mencakup reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa kegiatan origami mampu meningkatkan konsentrasi, ketekunan, dan keterampilan motorik halus anak secara signifikan. Anak menunjukkan peningkatan kemampuan dalam menggenggam, melipat dengan presisi, dan mengatur tekanan jari saat melipat kertas. Sehingga kegiatan melipat kertas origami dapat dijadikan metode yang efektif dan menyenangkan untuk menstimulasi perkembangan motorik halus anak usia dini, serta dapat diterapkan secara rutin dalam pembelajaran di jenjang Raudhatul Athfal.

Kata kunci: *Motorik Halus, Origami, Anak Usia Dini, RA Masyitoh*

INTRODUCTION

Education experts view that pre-school age is a golden age for preparing children to undergo further development and learning processes. At this age there is also a "sensitive period" which is very potential to be developed optimally as a demand for child development. The golden age in motor development is the age of children aged 4-5 years. This period is a period for laying the first foundation in developing physical, cognitive, language, social emotional, self-concept, discipline, independence, art, morals, and religious values (Herawati & Yulia, 2023). Therefore, conditions and stimulation are needed that are in accordance with the child's needs so that the child's growth and development are achieved optimally. At this age, the child's physical health begins to stabilize and does not experience illness like at previous ages. This causes physical development to be more optimal than at previous ages.

According to international research presented by Robert J. Lang who has studied origami for more than 40 years The Fourth International Meeting on Origami in Science (40SME), September 2006 at the Institute of Technology Pasadena, California that there is a very close relationship between origami and mathematics, technology, education, and computer programs. Learning origami is beneficial for children to improve fine motor skills and coordination between hands and eyes (Masrifah et al., 2024). For teachers, origami can be used to work on various mathematical concepts. Making origami also has a positive effect on memory, imagination, attention and increases self-esteem. Origami is an activity for parents and children. This is because origami is an activity for parents, then children try to make their own origami. Therefore, origami activities can improve fine motor skills, and can also encourage children to more easily or have a positive effect on logical and emotional learning. Motor development includes gross and fine motor skills. This will later be needed by children in academic activities. These academic activities include writing, cutting, tracing, coloring, folding, drawing lines and drawing.

Kindergarten is a form of pre-school education that involves early childhood between 4 and 6 years old (Ilyas, 2024). Early Childhood Education in Kindergarten is a vehicle that can stimulate children's growth both physically and mentally. The physical and mental growth and development of kindergarten children should be done by playing

while learning. These physical motor training activities include walking, running, jumping, playing with balls, using simple equipment, dancing, rhythmic exercises, and coordinated movements. These motor training activities can be divided into two, namely gross motor training and fine motor training. Given that children's fine motor skills are very important, increasing origami activities can provide children with pleasure, foster a creative soul and be the basis for other skills. With the potential for creativity, children will always need activities that are full of creative ideas, while constructivist experts assume that children basically have the ability to build and create knowledge (Sugrah, 2019).

Paper folding in Indonesia is identical to origami. Based on this, playing origami is an activity of folding paper. In general, origami paper folding refers to folding paper whose folds form a certain object such as flowers, clothes, birds, etc.) from simple shapes to three-dimensional shapes. Folding activities require eye coordination, hand skills and visual spatial skills. This origami activity involves elements of muscles, nerves, brain, and fingers. Children should be given motivation, encouragement that can arouse children's interest in the activity. Children are trained to hold paper correctly when folding a paper in a certain shape, so that it can increase the flexibility of children's fingers (Fitriani & Ridhwan, 2019). This is where the elements will be coordinated if done intensively. There is no child who cannot fold paper, but it requires patient, diligent and routine learning. The activity of folding origami paper has an effect on improving fine motor skills in children. The activity of folding paper aims to train eye coordination and hand muscles as well as concentration (Lestari et al., 2024). Having paper folding skills can be a child's initial capital as a provision for him/her later in taking care of himself/herself. Starting from paper folding activities will greatly help children to be able to fold their own clothes, or fold objects that are easy to fold. In addition, paper folding activities can also improve children's ability to recognize shapes, from folded paper will become the shape of an object.

Paper folding (origami) activities need to be introduced to children as early as possible, because this activity can train muscles, nerves, brain, and fingers. In order to arouse children's interest in this paper folding activity, there needs to be encouragement from teachers and parents. In this origami activity, children are trained to hold paper correctly to produce certain shapes such as fish, houses, birds, cars and so on, so that the

flexibility of the child's fingers can be formed. If the child's hands are accustomed to origami activities, then the child's imagination will also be easily formed. He will be able to increase the child's creativity. Creativity is a mental process of a person that produces new ideas, processes, mechanisms or products that are useful, imaginative, beautiful, flexible, integrative, in various fields to find the best solution (Mutiah & Srikandi, 2021).

From several aspects of the development above, researchers are interested in researching the development of fine motor skills in children using origami paper folding media. What is meant by fine motor skills and origami is: the development of fine motor skills in kindergarten children is emphasized on the coordination of the brain, nerves, eyes, hands in this case related to placing or holding an object using the fingers. origami is: the art of paper folding originating from Japan. Derived from the word "ori" which means to fold, and "gami" which means paper. Based on a survey conducted on July 15-17, 2024, several of the developments in children's fine motor skills above are still not visible and can be realized by students at RA Masyitoh V who do not use giving children assignments using paper folding. This is in line with the statement of Nur Cholifah, as the homeroom teacher for Group B, who stated that so far teachers have not been able to provide creative, innovative and interesting lessons for children so that children often feel bored and bored and even want to go home early during class hours, so teachers have the initiative to develop children's fine motor skills through this origami paper folding game.

Specifically, in Group B children of Raudlotul Athfal (RA) Masyitoh V Karanganyar aged 4-5 years, they are not yet able to use writing tools properly and correctly, their fine motor skills are very weak/lacking, especially paper folding skills. Children who experience delays in fine motor development have difficulty coordinating the movements of their hands and fingers flexibly, especially paper folding activities (origami). Of the 35 students, Group B has 27 or around 80% of students who are late in their fine motor skills, while only 8 or around 20% of students are able.

Based on these facts, as a solution to solve the problem of children's fine motor skills, origami activities are carried out as a learning medium. The basic considerations for choosing origami to improve children's fine motor skills are as follows: first, origami activities, children can make something from basic methods, namely, imitating, being creative and imagining. Second, children learn to appreciate art and beauty. This means learning the beauty of the soul. Third, learning to make their own models and games.

Fourth, children learn to see pictures, learn to find solutions so that they succeed in forming an origami model, and children also learn the concept of comparing shapes: all of which require fine motor skills. Therefore, the author is interested in conducting research on origami activities that can be used as learning media to facilitate improving fine motor skills. This classroom action research is entitled "*Strategy to Improve Fine Motor Skills Through Origami Paper Folding Activities in Group B Children at Ra Masyitoh V Karanganyar Probolinggo*".

METHODS

This research is an action research that focuses on classroom situations or is commonly called Classroom Action Research, which is a type of action research carried out by teachers to develop the quality of learning in the classroom (Purwanto, 2023). This study uses a qualitative method, with the type of Classroom Action Research (CAR), which is a form of reflective study by the perpetrators of the action through the play method at RA Masyitoh V Karanganyar with a total of 35 children consisting of 18 girls and 17 boys. This Classroom Action Research is participatory or action in the sense that the researcher is involved in the research. It is also collaborative because it involves other people (teacher educators) in their research, and is qualitative because the researcher interacts with the research subjects naturally, in the sense that the research runs according to the teaching and learning process, by conducting observations, conducting research systematically, and drawing conclusions as is appropriate for qualitative researchers (Firdaus et al., 2023).

The implementers of classroom action research are researchers and teachers who are agents of change who must always make changes and improve their professionalism (Pohan, 2023). Thus, this research effort was conducted to find answers to the problems faced by teachers in their daily tasks in the classroom, with the aim of classroom action research conducted to improve and or improve learning practices that should be carried out by teachers. Data collection techniques in this study were carried out by means of observation and documentation. Observation activities were carried out collaboratively by involving a collaborative team to observe student activities during paper folding (origami) learning. The instruments used were teacher activities, children's activities, and

fine motor skills instruments. Observations were carried out during the activity. The data analysis technique used was descriptive analysis. Data management in the study was adjusted to the assessment technique in PAUD, namely by using the following signs: (BB) Not Developing, (MB) Starting to Develop, (BSH) Developing According to Expectations, (BSB) Developing Very Well.

RESULTS AND DISCUSS

General Description of RA Masyitoh Karanganyar Probolinggo

RA Masyitoh V Karanganyar was established on June 14, 1964, founded by Zulaiha Masrutoh. The background to the establishment of RA Masyitoh V was because she saw children in the surrounding environment only playing and singing old songs or old poems that were considered less useful for students. So Zulaiha had the initiative to establish an educational institution for early childhood with the aim that children could be taught daily prayers or children's songs that were more useful for them. The school's vision is "To create students who are Islamic, polite in language, disciplined and independent". The mission includes: realizing students who excel in morals, improving students' understanding and behavior according to the Qur'an and hadith, and realizing a sincere and disciplined soul.



Figure 1. Researcher's Interview with Teacher RA Masyitoh V

RA Masyitoh V Karanganyar is located on Jl. PP. Nurul Jadid Karanganyar Paiton Probolinggo. The location of the school is not far from the highway and the transportation that can be used is public transportation, cars and private vehicles. In an agency or institution, there needs to be a clear organizational structure. With a clear organizational structure, all members know their respective positions and responsibilities. In this regard, to facilitate the running of education in RA Masyitoh V Karanganyar, a structure is formed as attached with the following details:

The Foundation's President : Drs. KH. Mulabbi Cholili
 Committee Chair : Bambang, M. Kom
 Head of RA : Dian Anastasia, S. Pd
 Operators : Andiana Priastuti,S. Pd
 Treasurer : Nur Cholifah, S. Pd
 Teacher A1 : Dian Anastasia, S. Pd dan Faiqotul Himmah, S. Pd
 Teacher A2 : Masadah,S. Pd dan Immatul Hamimah, S. Pd
 Teacher B1 : Nur Cholifah,S. Pd dan Musdhalifah Kahar,S. Pd
 Teacher B2 : Andiana Priastuti,S.Pd dan Sayyidati

Table 1. Condition of Teachers of RA Masyitoh V Karanganyar in 2024/2025

No	Name	L/P	Education final	Position	Get Started
1.	Dian Anastasia,S.Pd	P	S1 PGMI	Head of RA	2024
2.	Masadah,S.Pd	P	S1 PAUD	Teacher	1986
3.	Nur Cholifah,S.Pd	P	S1 PAUD	Teacher	2002
4.	Andiana Priastuti,S.Pd	P	S1 PAUD	Teacher	2011
5.	Faiqotul Himmah,S.Pd	P	S1 PAI	Teacher	2017
6.	Immatul Hamimah,S.Pd	P	S1 PAI	Teacher	2021
7.	Musdhalifah Kahar,S.Pd	P	S1 PAI	Teacher	2021
8.	Sayyidati	P	SMA	Teacher	2024

The facilities and infrastructure available at RA Masyitoh V Karanganyar are one of the supporting factors for implementing learning activities. Teaching and learning activities will be less than optimal if the facilities and infrastructure are not supportive. Moreover, learning in Kindergarten must use methods, strategies and other supporting media such as APE (educational teaching aids) that are not dangerous and function to stimulate and stimulate the development of students, and are expected to provide comfort so that the teaching and learning process can run well. The facilities and infrastructure available at RA Masyitoh V include the following:

- a. RA Masyitoh V has its own building with a very good physical condition, including: there are 4 (four) classrooms, namely one classroom A1, A2, B1 and class B2, one office (Principal's room), library, UKS and 2 bathrooms.
- b. RA Masyitoh V provides various facilities that can support and facilitate teaching and learning activities such as children's tables, chairs, bookshelves, whiteboards, markers, teacher's desk erasers, teacher's chairs, attendance boards, semester 1 and 2 programs, panel boards, building blocks, puzzles, mats, trash cans, hand towels, washing places. For learning activities outside the classroom, various facilities are provided including the following: swings, slides, seesaws, basketballs and soccer balls.

Improving Students' Fine Motor Skills Through Origami Activities

Based on the results of the author's interview with Bunda Dian, the principal of RA Masyitoh V, that the quality and quality of good education and learning comes from potential educators, resourced in the learning process based on new discoveries and experiences from the field, including experience and education taken to improve the quality of educational services and how to prepare themselves in dealing with their students. Bunda Dian added again that teachers should not lack knowledge in front of their students, able to create a fun learning process not only for students but also for teachers who teach in the class. One of them is involving teachers in seminars and training. Fine motor skills are movements that only involve certain parts of the body and are carried out by small muscles. Therefore, fine motor movements do not require much energy, but require careful coordination and precision. Examples of fine motor movements are: the movement of picking up an object with the thumb and forefinger, cutting, driving a car, writing, sewing, drawing and so on. According to Trube, the development of fine motor skills involves small muscles in the extremities of the body. Most often, fine motor development refers to a child's developmentally appropriate use of the small muscles of the hands and feet. Fine motor movements include grasping, reaching, holding, pushing, and buttoning.



Figure 2. Learning to Fold Origami Paper

Motor development is defined as the development of elements of maturity and control of body movements (Gallahue, 2010). In the process of child development, gross motor skills develop first compared to fine motor skills. This is proven by the fact that children can already use their leg muscles to walk before they are able to control their hands and fingers to draw or cut. Gross motor skills begin with play which is a rough movement. At the age of 3 years according to the development stage, children generally have mastered most of the gross motor skills. Motoric is a translation of the word "motor" which according to Samsudin is a biological or mechanical basis that causes movement. In other words, movement is a reflection of an action based on the motor process. Because motoric causes movement, every use of the word motor is always associated with movement. In everyday use, there is often no distinction between motor and movement. However, what must always be noted is that the movement in question is not solely related to movement as we see it every day, namely the movement of body parts (hands, arms, feet and legs) through the body's motor apparatus (muscles and skeleton), but motor skills are movement apparatus which involve motor functions such as the brain, nerves, muscles and skeleton .

Sumantri said that fine motor skills are the organization of the use of a group of small muscles such as fingers and hands that often require precision and coordination with the hands, skills that include the use of tools to work on an object. The same thing

was stated by Yudha and Rutyanto as quoted by Imam Musbikin, stating that fine motor skills are the ability of children to be active using fine (small) muscles such as: writing, squeezing, drawing, stacking blocks, and inserting marbles. Uyu Wahyudin and Mubiar Agustin, stated that fine motor skills are the ability of children to show and master beautiful muscle movements in the form of coordination, dexterity and agility in using the hands and fingers (Kamaruddin et al., 2023).

Based on several opinions above, the author can explain that fine motor skills are movements that only involve certain parts of the body and are carried out by small muscles, such as the skill of using fingers and precise wrist movements. Therefore, this movement does not require much energy, but this movement requires careful eye and hand coordination. The better the child's fine motor skills, the more creative the child can be, such as cutting paper, drawing, coloring, and weaving. However, not all children have the maturity to master this ability at the same stage (Hunt, 1970).

Physical development in childhood is marked by the development of motor skills, both gross and fine (Gilpin et al., 2023). Around the age of three, children can start to walk well, and around the age of four, children almost master the way adults learn. Motor development is divided into two, namely gross and fine motor skills. Early childhood motor development according to Robertson and Halverson includes Age/Year 2.5 - 3.5 Gross Motor Walking well; running straight ahead; jumping. Fine motor skills Imitating a circle; chicken scratch writing, can eat, use a spoon, arrange several boxes. Age/Year 3.5 - 4.5 gross motor skills Walking with 80% of adult steps, running 1/3 of adult speed, fine motor skills Buttoning clothes, imitating simple shapes, making simple pictures. Fine motor skills develop the ability to develop fingers, especially the thumb and index finger. There are various types of fine motor skills, including:

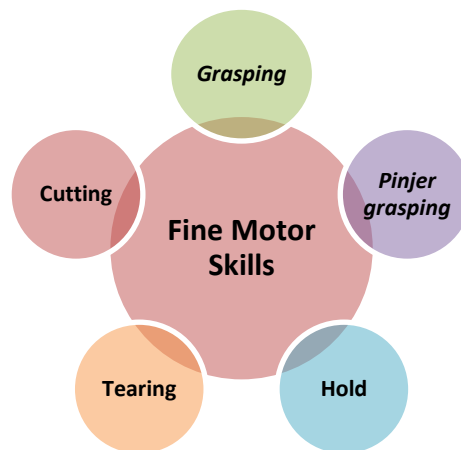


Figure 3. Types of Fine Motor Skills

Every movement made by the child will involve hand and eye coordination as well as gross and fine motor movements. The more movements the child makes, the more coordination is needed (Randjelović et al., 2019). Therefore, the child will get many activities that support fine and gross motor skills, which of course are well designed according to the child's developmental age. Motor development is one of the most important factors in the overall development of an individual. Some of the influences of fine motor development on individual development according to Hurlock are as follows:

- a. Through motor skills, children can entertain themselves and gain feelings of pleasure, such as. Children are happy to have the skills to play with dolls, throw and catch balls or play with toys.
- b. Through motor skills, children can move from a helpless condition in the first months of their lives to an independent condition. Children can move from one place to another and can do things for themselves. This condition will support the development of self-confidence..
- c. Through motor development, children can adapt to the school environment. At preschool age or early elementary school age, children are trained to write, draw, paint, and line up.
- d. Through normal motor development, children can play or socialize with their peers, while abnormal development will prevent children from socializing with their peers, and they will even be isolated or become marginalized children.

The steps for developing fine motor skills in early childhood can be seen in the chart below:

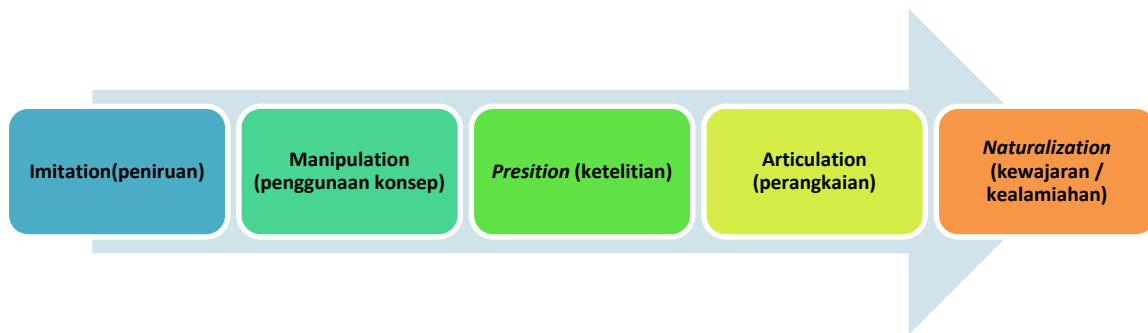


Figure 4. Stages of Fine Motor Development

Origami learning has been proven to provide a significant contribution in strengthening the fine motor skills of early childhood. Through paper folding activities, children are trained to use small muscles in the fingers and hands in a coordinated manner, increasing precision of movement, and forming accuracy and concentration. Origami is not only a means of creative expression, but also functions as a fun fine motor therapy medium. In the process, children learn to follow instructions, recognize shapes, and repeat movements with certain patterns, all of which support the development of neuromuscular function. The uniqueness of origami lies in the combination of aspects of art, motor skills, and visual-spatial abilities, making it a holistic and fun learning method for children. The implementation of origami learning in the context of early childhood education, especially at RA Masyitoh V Karanganyar, shows positive results not only in the motoric aspect, but also in the emotional and social development of children. Children become more confident, patient, and able to work independently or in groups. With the right strategy and consistent teacher guidance, origami activities can be an important part of the life skills-based learning curriculum. Therefore, origami learning deserves to be continuously developed as an effective educational approach in strengthening fine motor skills while fostering the character and creativity of early childhood.

CONCLUSION

The strategy of improving fine motor skills through origami paper folding activities has proven to be effective in Group B children at RA Masyitoh V Karanganyar, Probolinggo. Through a fun approach that is in accordance with the child's developmental

stage, origami activities can stimulate hand-eye coordination, finger muscle strength, accuracy, and children's concentration in completing tasks. The learning process that focuses on direct practice and active involvement of children encourages a gradual and measurable increase in fine motor skills. Teacher support in providing clear instructions, choosing age-appropriate folding shapes, and creating a fun learning atmosphere are key factors in the success of this strategy. Therefore, origami paper folding can be used as an innovative and applicable learning strategy in the development of fine motor skills in early childhood education environments in PAUD.

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