Folding Paper: An Effective Effort to Improve Fine Motor Development in Group B Children

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Abstract:*The fine motor development of group B children at RA Asy-Syuhada' Pamekasan is still very low. This is caused by the child's lack of interest in the learning methods provided by the teacher. This research aims to improve children's fine motor development through paper folding activities. This type of research is classroom action research. The research sample was group B students aged 5-6 years, totaling 38 children. Research data was obtained through observation, documentation and tests. The research uses the Kemmis and Taggart model which consists of four stages, namely planning, implementation, observation and reflection. The results of the research show that paper folding activities can improve children's fine motor development after being tested for two cycles. In the pre-cycle, children who had developed reached a percentage of 44.7%. In cycle I, children who had developed reached a percentage of 60.5%. In cycle II, children who had developed reached a percentage of 84.2%. The increase in this percentage between pre-cycle and cycle II shows that the child's fine motor development has developed very well and is in line with the researchers' expectations, who want the percentage of children to have developed to reach 80%. This research shows that paper folding activities can be used as an effective learning strategy in developing fine motor skills in young children.*

Kata Kunci:
Melipat kertas, pengembangan motorik halus

Abstrak: Perkembangan motorik halus anak kelompok B di RA Asy-Syuhada' Pamekasan masih sangat rendah. Hal ini disebabkan oleh kurangnya minat anak terhadap metode pembelajaran yang diberikan guru. Penelitian ini bertujuan untuk meningkatkan perkembangan motorik halus anak melalui kegiatan melipat kertas. Jenis penelitian ini adalah penelitian tindakan kelas. Sampel penelitiannya adalah siswa kelompok B usia 5-6 tahun yang berjumlah 38 anak. Data penelitian diperoleh melalui observasi, dokumentasi dan tes. Penelitian menggunakan model Kemmis dan Taggart yang terdiri dari empat tahapan yaitu perencanaan, pelaksanaan, observasi dan refleksi. Hasil penelitian menunjukkan bahwa kegiatan melipat kertas dapat meningkatkan perkembangan motorik halus anak setelah dilakukan pengujian selama dua siklus. Pada pra siklus, anak yang sudah berkembang mencapai persentase 44,7%. Pada siklus I anak yang sudah berkembang mencapai persentase 60,5%. Pada siklus II anak yang sudah berkembang mencapai persentase 84,2%. Peningkatan persentase tersebut antara pra siklus dan siklus II menunjukkan bahwa perkembangan motorik halus anak telah berkembang dengan sangat baik dan sesuai dengan harapan peneliti yang menginginkan persentase perkembangan anak mencapai 80%. Penelitian ini menunjukkan bahwa kegiatan melipat kertas dapat dijadikan sebagai strategi pembelajaran yang efektif dalam mengembangkan keterampilan motorik halus pada anak usia dini.

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INTRODUCTION

Early childhood education is a level of education that is of concern to the government, which includes kindergartens (TK), raudhatul athfal (RA), play groups (KB), and other types of PAUD. Based on Law Number 20 of 2003 Article 1 Point 14 states that early childhood education is a coaching effort given to children from birth to the age of six which is carried out through providing stimulation to help physical and spiritual growth and development so that children are ready. to enter further education(Indonesian Government Regulation, 2003).

Saiyem et al.(2018)states that the importance of education in the early stages of a child's life is very significant because it is the main foundation in developing a child's potential from birth to the age of six. Therefore, education for young children must be given according to their developmental stages by providing habituation so that they can stimulate aspects of their growth and development well. This early childhood period is also called the golden age, which is a very important period in a child's development. Montessori in(Sujiono, 2011)revealed that it is during this period that children more easily receive stimulation from their environment, whether intentionally or unintentionally, which is also called the sensitive period. At this time, children are ready to do and imitate everything in their environment. During this period, the growth and development of early childhood will develop very rapidly. Therefore, proper development stimulation is a determinant for the child's further development.

Child development is a change experienced by early childhood which can be seen from various aspects such as body movements. Body movements that utilize small muscles have a very important role in achieving the fine motor development of children this age. Fine motor skills involve the use of small muscles and can be taught gradually to children. This frequent activity can help children gradually improve their finger coordination(Claudia et al., 2018). Fine motor skills are movements that involve finger movements that function small muscles, coordinate hand speed with the eyes, and are also able to control emotions. In line with Andri's opinion, fine motor skills refer to the activity of small or fine muscles, which involves coordination between the eyes and hands as well as good movement control abilities. This allows a person to perform fine muscle movements with precision and precision. Apart from that, this activity requires concentration so that children can carry out the activity optimally(Ningsih, 2015).

In developing children's fine motor skills, children can be stimulated by providing paper folding activities. The activity of folding paper is a branch of various games that use very simple tools, namely paper. Playing is a very important activity in children's physical, intellectual, creative and social development. Folding/origami comes from the Japanese word "orugami" which means "oru" means folding while "gami" means paper, so "orugami/origami" means folding paper.(Marselyna, 2016). According to Hajar Parmadi and Evan

Sukardi S(2021), origami is the art of creating three-dimensional shapes by folding paper, where the paper is bent and reshaped to create interesting experimental works. Early childhood fine motor development is an element of early childhood nerve and muscle maturity. The development of children's fine motor movements is an increase in body movement coordination that involves much smaller or more detailed muscles and nerves(Pohan, 2020). The most important fine motor skill is holding correctly, which in future is very necessary in writing activities for advanced school preparation.

Folding paper is an activity that can improve the ability to remember, observe, train hand and finger muscles, as well as eye muscles, including coordination and hand skills. Apart from that, folding can also stimulate the development of children's imagination and creativity. In this context, children's imaginations continue to be enriched because they continue to fantasize about the resulting folds(Alifya et al., 2022).

The results of research conducted by Theresia, et al show that teachers can use various used materials for folding activities that can be reused. With creativity in creating various media and educational teaching aids (APE), teachers can make learning more interesting for children(Sum et al., 2021). Adelin, et al revealed thatOrigami paper folding activities can improve children's fine motor skills as proven by the results of cycle II research. Evaluation in cycle II showed that fine motor skills through origami paper folding activities had reached the expected level of development, namely BSH (Developing According to Expectations), for a total of 10 children. A total of 9 children have reached the completeness level, which means reaching 90% of the total number of children who have successfully achieved the completeness indicator(Tanos et al., 2022).

Research conducted by Puput and Sri showed that paper folding activities had a significant impact on the fine motor skills of children in group A at RA Bina Insan An-Najiyah Punggul Gedangan Sidoarjo. This finding is supported by the results of the Wilcoxon test data analysis with a 2-tailed significance value = 0.000(Sari & Widayati, 2019). Another opinion by Sukma also suggests that the application of origami paper folding to young children can have a positive impact on their creativity, intelligence and fine motor skills. Through origami paper folding activities, children can improve their abilitiesin developing creativity at an early age(Sukma, 2022).

The results of other research by Reni aimed to determine the

achievement of fine motor skills in paper folding activities in Group B children of Kindergarten in Cluster VI, Galur District, Kulon Progo, which was carried out using a descriptive quantitative approach. The results showed that the majority of children reached the "starting to develop" (MB) criteria with a frequency of 40 out of a total of 60 children. The total score obtained was 144 out of 240 scores, equivalent to 60%, which indicates a good assessment category. Influencing factors include the level of stimulation, encouragement or motivation, environmental conditions, and the type of folding being taught(Kipdriyah, 2020). From the explanation above, it can be seen the importance of fine motor development in children. However, from the results of observations, researchers still found problems in the fine motor development of group B children at RA Asy-Syuhada' Pamekasan, namely the lack of children's fine motor skills in paper folding activities. There are some children who already understand how to fold paper and there are still many children who cannot fold paper well. When the teacher demonstrated how to fold paper so that it had the desired shape, problems were still found in the children, such as a lack of concentration, neatness, accuracy and children's independence. So that children's fine motor skills through paper folding activities can be improved, it is necessary to carry out classroom action research. Based on the results of these problems, the researchers took the initiative to try to improve fine motor skills through paper folding activities in group B at RA Asy-Syuhada' Pamekasan.

RESEARCH METHODS

This research method is a classroom action research method. Classroom action research (PTK) is a type of practical research carried out by teachers in the classroom with the aim of improving the learning process or improving the quality of learning. PTK is a very efficient approach for identifying obstacles in the learning process, formulating appropriate solutions, and directly testing their effectiveness in the classroom environment(Ferdiansah, 2023).

The sample in this study was 38 group B children aged 5-6 years at RA Asy-Syuhada' in the 2023/2024 academic year. Data collection instruments use observation, documentation and tests. During the observation, the researcher observed and recorded events related to the origami paper folding activities that the children had carried out to see children who had not yet developed and who had developed. The documentation that researchers used was children's worksheets, assessment sheets, photos, and also contact books. Documentation

is used to strengthen observation results so that the data becomes valid. Meanwhile, researchers use tests to find out the results of what students have done. The test used was a direct paper folding activity guided by the researcher and after that the researcher asked the children to fold the paper themselves.

The data analysis technique uses descriptive analysis. This classroom action research uses the Kemmis and Taggart model. There are four components in this model, namely planning, implementation, observation and reflection(Dimyati, 2013).

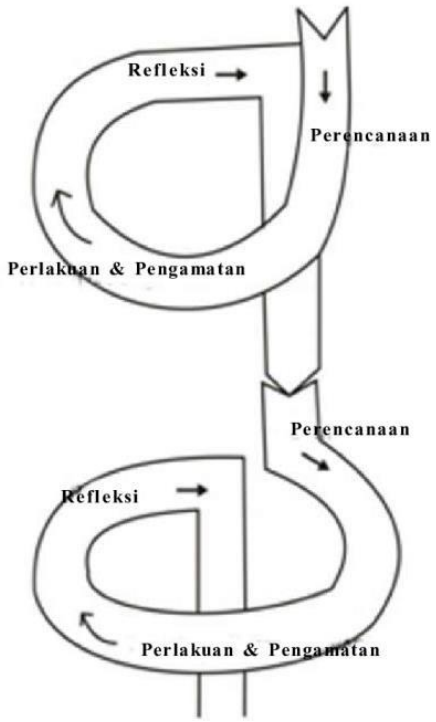

Figure 1. Kemmis and Taggart Spiral Model

Furthermore, during the learning process, the data collected is analyzed using percentage techniques to evaluate improvements in children's fine motor development. The formula used in this analysis is (Suryono, 2014)

$$P = \frac{F}{N} X\,100$$

Information:

P = Percentage yield

F = Number of students who have not/have progressed

N = Number of individuals/ frequency

100% = Fixed number

Classroom action research is carried out using cycles. If cycle I is not as expected, then cycle II will be carried out, and so on. If the learning objectives have been achieved, there is no need to continue the next cycle. The learning objectives in this research are said to be successful if the percentage of children who are in developed status reaches 80%. This research used two cycles, namely cycle I and cycle II.

RESULTS AND DISCUSSION

The goals of fine motor development for children aged 5-6 years are as follows: a) Develop fine motor skills involving both hands; b) Able to control emotions when carrying out fine motor activities; c) Moving body parts associated with finger and toe movements, such as preparation for writing, drawing, and manipulating objects; and d) Coordinate the use of eyes and hand activities through activities such as forming or manipulating objects from clay, wax, or other dough, coloring, sticking, cutting, folding, and assembling objects using thread orstring.(Harahap & Seprina, 2019).

To determine the development of children's fine motor skills, researchers carried out pre-cycle actions by observing during learning. With this, researchers can find out the number of children who appear to have developed and who have not yet developed. Based on pre-cycle observations, there were 17 children who were able to complete the tasks given by the teacher and 21 other children seemed passive in carrying out activities so it can be concluded that the children's fine motor development was still low. After the pre-cycle activities, researchers also carried out cycle 1 and cycle 2 activities to find out the extent to which children's fine motor skills improved through paper folding activities.The author will carry out a classroom action research method consisting of two cycles. Each cycle consists of four stages, namely (1) planning, (2) implementation, (3) observation, and (4) reflection(Faizatin, 2018).

1. Pre cycle data

At this stage, researchers have not yet taken action by using origami paper to form folds to develop children's fine motor skills. Researchers only observed the fine motor development of group B children at RA Asy-Syuhada'. Pre-cycle activities are carried out when children carry out paper folding activities independently. The pre-cycle

is carried out so that researchers can find out the extent of fine motor development before action is taken and researchers determine what things or activities should be given to children so that their fine motor development is properly stimulated. The results obtained in the pre-cycle can be seen in the following table:

Table 1. Fine Motor Development of Children in the Pre-Cycle Stage

Fine Motor Indicators	Number of children	Percentage
It's developed	17	44.7 %
Undeveloped	21	55.3 %

Based on the results of the data table above, it can be seen that there are more children who have not yet developed than those who have developed. There are 21 children who have not yet developed, while only 17 have developed.

2. Cycle DataI

a. Cycle I planning

This cycle 1 activity planning has several procedures, including:

1) prepare what activities will be given to students by making plans based on objectives, materials, methods, media and tools that will be used to collect data and create learning plans (RPPH) based on curriculum references at RA Asy-Syuhada'.
2) provide tools and materials that will be used by students, in the formof equipment that will be used when sawing paper.
3) provides tools that will be used for documentation.

b. Implementation of cycle I

In developing children's fine motor skills, researchers carried out cycle I actions by determining methods that were able to develop children's fine motor skills. The method chosen is paper folding. The researcher prepared a learning plan that refers to aspects of fine motor development by implementing folding activities. The researcher preparedthe media that will be used in the lesson. The implementation of the action was carried out during two meetings with the school tools sub-theme bags as the theme. With this, the teacher demonstrates the folding steps which the

child then imitates step by step. Children need the teacher's help to fold the paper into the desired origami shape. In folding paper, the teacher has provided children with basic folding techniques first(Kipdriyah, 2020). In this case, the teacher introduces paper folding activities to improve children's fine motor skills by providing direction and instructions on how to fold correctly. Through this activity, children are given an understanding of the correct types of folds. During the learning process, the teacher also provides examples of good and correct folds to provide direct experienceto children(Fitriani & Ridhwan, 2019). The first meeting began with reading prayers together, reading short letters, hadiths, clapping and singing together. Then the main activity continued with the theme of school tools, the sub-theme of bags. At this meeting, the researchers prepared the media that would be used, namely origami paper, then explained to the children the activity that would be carried out today, namely, folding origami paper into the shape of a school bag. After carrying out the paper looking activity, children areasked to say what is in the bag.

The second meeting is the same as the first meeting. Students aretold what they will do today. Researchers prepare origami paper to be used. The researcher started the activity by explaining and demonstratinghow to fold. After the folding activity, the researcher asked the students to mention again what was in the school bag. Then the researcher carried out an evaluation of the activities carried out today.

c. Action Observation

From the results of the implementation of cycle I, researchers were able to see and record the development of children's fine motor skills. From the results of these notes, researchers can conclude that thelevel of achievement in cycle I was at least 60.5% developed. The results obtained in cycle I can be seen in the following table:

Table 2. Table of Fine Motor Development for Cycle I Conditions

Fine Motor Indicators	Number of children	Percentage
It's developed	23	60.5 %
Undeveloped	15	39.5 %

From the results of observations made starting from the initial conditions with cycle I, the increase in development can be seen in the graph below:

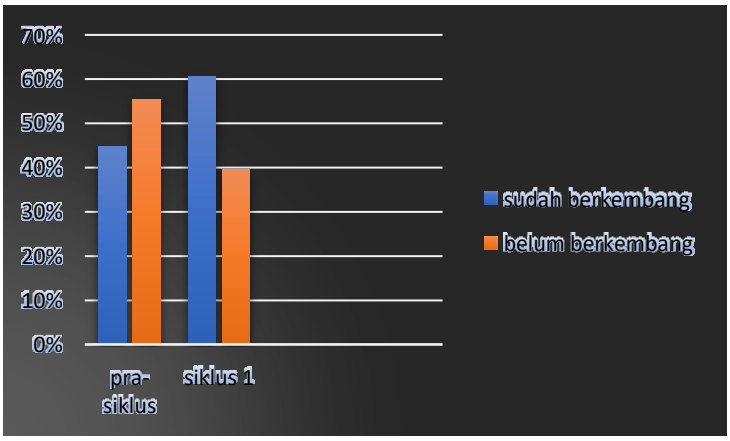

Figure 2. Comparison Graph between Pre-Cycle and Cycle I Conditions

d. Action Reflection

The researcher carried out a reflection in order to find out how far the child's fine motor development had been achieved after carrying out the first cycle of actions. It could be seen that after carrying out the first cycle of actions there was an increase of 60.5%. From the results of classroom actions carried out during cycle I, researchers were still not satisfied with the number of children who had developed. The number of children who have not yet developed is still at 39.5%. Because the results expected by the researcher have not reached the target, the researcher will continue with the next action with the hope of achieving at least 80% of the results of the actions taken. Therefore, researchers still need to develop fine motor skills with folding activities which will be continued in cycle II actions.

The indicator of the success of this research is the completeness of the results of learning to fold paper in improving fine motor skills if thevalue obtained from the test results meets the minimum value determined by the researcher. Silkus I cannot be said to be successful because it has not reached the expected percentage value, so the next silkus is still needed, namely Silkus II(Maliasih et al., 2017).

3. Cycle II Data

a. Cycle II planning

Cycle II actions are prepared from analysis of the results of reflection on cycle I actions. In the planning stage of cycle II, the researcher makes a learning plan using the same materials as cycle I, but with more interesting methods or activities. Cycle II planning includes:

1) Create a learning implementation plan (RPPH) which will be areference in implementing cycle II actions.
2) Provide origami paper to be used in paper cutting activities.
3) Provide assessment sheets and observation sheets.
4) Providing tools for documenting such as a camera.

b. Implementation of cycle II

In carrying out classroom actions in cycle II, the implementation procedures are the same as cycle I activities, the difference is that in cycle II the researcher prepares folded media using colorful paper and carries out activities in a more interesting way so that it can increase children's interest in participating in learning and can increase interest. children to imitate what the teacher demonstrates. This action was carried out in two meetings. The first meeting began with reading prayers, short suras, hadiths, and clapping together. After that, proceed to the main activity, namely the activity of folding paper in the shape of a pencil. In this activitythe researcher explains how to fold paper into a pencil shape with a moreinteresting explanation. After the paper folding activity was completed, the researcher asked the children to say what the benefits of pencils were. The second meeting remained the same as

the first meeting. The researcher told the children about today's activities. The researcher prepared the media to be used, namely origami paper, then explained how to make origami paper into a pencil shape with more interesting explanations and activities. After the folding activity was completed, the researcher asked the students to show their work. Then the researcher carried out an evaluation of today's activities.

c. Action observation

Based on the results of observations of children's activities carried out during cycle II, children appeared to be more active in carrying out folding activities, so that the fine motor development of children in RA Asy-Syuhada' group B could develop as expected by teachers and researchers. This can be seen from the thoroughness, neatness andresponsibility in completing the assigned tasks. The results obtained in cycle II can be seen in the following table:

Table 3. Data on Fine Motor Development Conditions in Cycle II

Fine Motor Indicators	Number of children	Percentage
It's developed	32	84.2 %
Undeveloped	6	15.8 %

A comparison of the success of pre-cycle activities, cycle I and cycle II can be seen in the following graph:

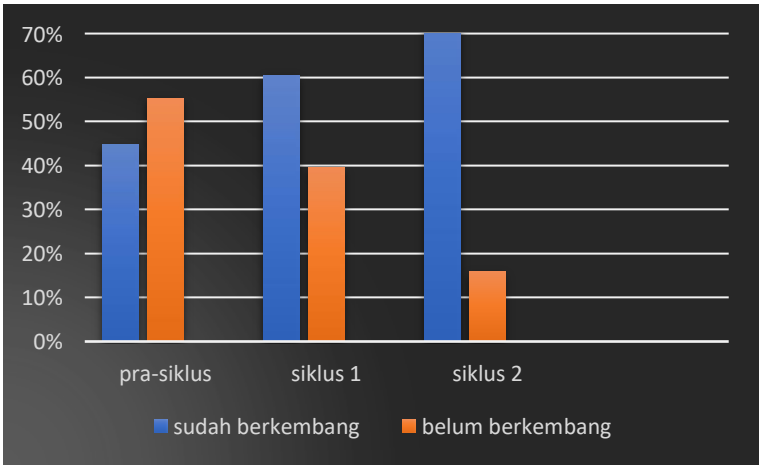

Figure 3. Comparison graph between pre-cycle, cycle I and cycle II condition

Based on the comparison graph above, it is known that the implementation of cycle II experienced a very good increase with a percentage reaching 84.2%. Meanwhile, those who have not developed are 15.8%. From the results of this percentage, the implementation of cycle II was declared successful. The success of the learning process in cycle II shows that the cyclecan be stopped because it has met the target of 80%, where the development of children's fine motor skills through paper folding activities has developed.(Qomariah & Khotimah, 2016).

It can be concluded that the paper folding activity in RA Asy-Syuhada' Pamekasan group B in cycle II showed very good progress and had achieved development as expected. Thus, it can be stated that the paper folding activity can improve the fine motor development of group B children at RA Asy-Syuhada' Pamekasan. Thus, it does not need to be repaired again in cycle III and beyond.

CONCLUSION

From the results and discussion, it can be concluded that paper folding activities can improve the fine motor development of children aged 5-6 years in group B at RA Asy-Syuhada' Pamekasan. By using the classroom action method in two cycles, there was a significant increase in the development of children's fine motor skills. In cycle I, there was an increase in the number of children whose fine motor skills developed to 60.5%. Meanwhile, in cycle II, the percentage of childrenwhose fine motor skills developed reached 84.2%, exceeding the target set at 80%. This research shows that the learning method using paper folding activitieshas a positive impact on the fine motor development of young children. The learning process carried out through origami paper folding activities allows children to develop their fine motor skills in an interesting and interactive way. Through the use of colorful paper and more interesting learning, children's interest in learning increases, which contributes to increased learning success. Thus, this research shows that paper folding activities can be used as an effective learning strategy in developing fine motor skills in young children. This can be a reference for teachers and educators to design learning activities that focus on developing fine motor skills in early childhood through a creative, effective and fun approach.

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