

Utilization of Imagination-Based Plasticine Media in Improving Fine Motor Skills in Kindergarten

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Abstract:

The purpose of the study was to determine efforts to improve students' fine motor skills through plasticine play activities. The research subjects of the students of TK Dharma Wanita Persatuan Pangkemi Sidoarjo East Java, totaling 15 people. The focus of the study was fine motor and plasticine play activities. This study used a classroom action research approach with descriptive data analysis to display data using student observation sheets. The results of data analysis showed that plasticine play activities were able to improve children's fine motor skills. The improvement appears in the ability to form eye and hand coordination and the smoothness of the child's hands. The analysis data of the results showed an increase from cycle I with the completeness of learning outcomes of 23% with an average score of 1.80 to 40% of the totality of learning outcomes and the average score of students of 2.47 in cycle II and continued to increase in cycle III with the acquisition of completeness of learning outcomes reaching a maximum of 100% with an average score of students of 3.27.

Keywords: physical development of motor; fine motor; plasticine.

Abstrak:

Tujuan penelitian adalah untuk mengetahui upaya meningkatkan keterampilan motorik halus anak didik melalui aktivitas bermain plastisin. Subjek penelitian anak didik TK Dharma Wanita Persatuan Pangkemi Sidoarjo Jawa Timur, yang berjumlah 15 orang. Fokus penelitian adalah motorik halus dan kegiatan bermain plastisin. Penelitian ini menggunakan pendekatan penelitian tindakan kelas, dengan analisis data deskriptif, untuk menampilkan data menggunakan lembar observasi anak didik. Hasil analisis data menunjukkan bahwa kegiatan bermain plastisin mampu meningkatkan keterampilan motorik halus anak. Peningkatan tersebut muncul pada kemampuan membentuk koordinasi mata dan tangan serta kelancaran tangan anak. Data analisis hasil penelitian menunjukkan peningkatan dari siklus I dengan ketuntasan hasil belajar 23% dengan nilai rata 1.80 menjadi 40% ketuntasan hasil belajar dan nilai rata-rata anak didik 2.47 pada siklus II dan terus meningkat pada siklus III dengan perolehan ketuntasan hasil belajar mencapai angka maksimal yaitu 100% dengan nilai rata-rata anak didik 3,27.

Kata Kunci: perkembangan fisik motorik; motorik halus; plastisin.

INTRODUCTION

According to The National For The Educational Of Young Children (NAEYC), early childhood education is a service aimed at children from birth to 8 years through the provision of activities for the development of their potential to the maximum (Suryana, 2016). At that time, it is the right time to develop cognitive, affective, and skill aspects of children because early childhood is the initial period of early growth and development, which is the most appropriate time for children to be given a stimulus so that children grow and develop optimally so that by providing the correct behavior will have an impact on maximum development results (Rosiyannah et al., 2020). Therefore, the study results show that children's development in the first four years is comparable to the action that arises in the next 14 years. Therefore, this golden age is a critical period for the child, where the development achieved has a significant influence on the development of the next period to adulthood (Nurlaili, 2019).

Aspects of early childhood development do not develop singly but complement each other; these developments support each other. Likewise, motor development needs attention as well, both gross motor and fine motor. Activities related to physical movements do not always focus on physical development alone but can have a positive influence on improving cognition abilities. One of the impacts of motor stimulation, such as grasping activities, can be made to reduce the risk of autistic symptoms. (Winarsih, 2021).

Motor skills can stimulate other developments as stated by Wulandari & Bachtiar (2021) motor skills will teach children to be able to adapt themselves to the surrounding environment. In the pre-school period to the initial level of primary education, children are expected to be trained in various motor activities such as line-marching, writing, drawing, and painting. The development of aspects of good motor development for children facilitates interaction with the environment and develops their self-confidence. Among the motor developments given to children in childhood is the provision of games oriented towards their fine motor development.

Dewi et al. (2014) suggest that fine motor ability is using small muscles, including careful coordination between eyes and fingers. Children's fine motor skills require the provision of stimulus, so they must be developed and always trained (Nabila Fahira, 2021). Similarly, Faizatin (2018) stated that fine motor is an ability that focuses on developing small muscles and coordinating quickly to minimize energy use. Good fine motor skills can support children's skills in various ways, as well as train coordination between the small muscles of the hands and eyes (Elihami, et al, 2018).

Decaprio (2016) said fine motor is one of the learning process activities for preschool children about physical abilities that use small muscles and hand-eye coordination, which is continuously developed through activities and stimuli which include writing, squeezing, drawing, stacking blocks, and folding paper. Meanwhile, according to Rahmawati et al. (2020) fine motor ability is the ability to control movement through activities that align with coordination between muscles and the nervous system, such as finger and hand activity. Fine motor ability is an activity carried out by the use of fine muscles in the legs and hands that are moved with speed and precision; the improvement of fine motor ability is stimulated through the activity of practicing folding, doodling, folding, making shapes, drawing randomly on paper or other media (Janice, 2013).

The development of fine motor skills becomes an ability that focuses on developing small muscles and coordination between the eyes and hands through various activities so that all aspects of the child's development can develop and complement each other. There are several principles in developing fine motor abilities explained by Bambang (2008)

children's fine motor skills, namely: 1) motor development focuses on the maturity of muscles and nerves; 2) stimulating children's motor skills can be done early; 3) motor development completes the pattern that has been designed; 4) allows the determination of norms in the process of development of motor skills; 5) The presence of individual differences can affect the level of development of motor skills. The child's ability to coordinate movements on fine motor shows low activity. This is shown through how the child has great difficulty in aligning the eyes and hands and controlling the actions of the hands and arms so that producing work related to the fine motor is challenging for the child to do, such as making shapes from plasticine media. It can be done through play activities. Play is a way for children to learn. Developing children's motor skills through play activities will create very well, which can positively impact other aspects of the development (Kokasih, 2008). One form of play in developing fine motor skills is plasticine media.

Ra et al. (2017) the use that plasticine media can be used in play activities for early childhood. This activity is characterized by various characteristics: training and freedom of movement, experimentation, competition, communication, and so on. Einon (2006), children also explain another thing feel happy to arrange various forms according to their thoughts and imaginations. Playing plasticine is very popular with children because plasticine-based media is easy to make independently. Indira (2009) suggests that plasticine is a night wax liquid processed by children in play and can be used many times because the mixture of ingredients is not quickly dry and hard.

Another opinion was also expressed by Kartini & Sujarwo (2014), plasticine media is the primary material for children's games, besides plasticine can gain new experiences for children. This plasticine has a soft texture and can be pressed, kneaded, and shaped according to the color it wants. According to Sari, et al. (2016), plasticine media is a medium made from a mixture of flour, oil, salt, food coloring, and water so that it is straightforward to obtain because it has soft elements that can be kneaded, separated, pulled, pressed, rolled and can be formed according to the wishes of the child and his inspiration. Plasticine is a soft dough that can be formed according to children's imagination and desires to stimulate children's motor development (Rohmah & Gading, 2021). Meanwhile, Wardani (2017) said that plasticine media is a material that has a soft texture that does not harm children in carrying out various activities in the learning process to form miniatures through the creativity and inspiration of multiple forms that want to be included. Plasticine also has many benefits that can be felt directly, for example, when children make shapes and touch parts of the media plasticine.

This research is developing the use of plasticine media to improve children's fine motor skills based on imagination. Implementing learning provides opportunities for children to develop their creativity before designing work from plasticine media. Providing activities oriented towards class actions will provide teaching strategies that can develop children's fine motor skills through the proper and effective use of plasticine media. Thus, in addition to fine motor development, educators can maximize plasticine media as an alternative in training children's creativity, imagination, and self-confidence.

METHOD

The approach used in this study uses a classroom action research approach to deepen information and reflect in-depth on several parts of the implementation of learning, communication between children that can be able to provide feedback on problems experienced by teachers in their performance. The design of this study is divided into four plots, namely 1) Action design, 2) Follow-up taking, 3) Observation 4) Repetition (Muslihuddin, 2009). The population in this study was students at Dharma Wanita Persatuan Pangkemi Kindergarten, and sample dancers were as many as 15 students in group B of

Dharma Wanita Persatuan Pangkemiri Kindergarten. Observation sheet data collection and data were analyzed using simple percentages. The data collection instrument uses the observation sheets of students. To calculate the completeness of students' learning outcomes, data analysis is used to obtain percentage scores based on the achievement of student learning outcomes.

RESULTS AND DISCUSSION

In the first cycle of activities, the teacher provides activities aimed at developing students' fine motor skills with plasticine play activities with the ability developed by the coordination of children's hands and eyes in compiling plasticine and the smoothness of the child's arm in making shapes from plasticine based on the scenario that has been formed. Develop activities aimed at improving fine motor skills in students through various dough playing activities With the following steps a) The teacher conveys to the student information related to the activities to be held; b) Teachers provide opportunities for students to develop ideas through their respective immanence; c) Prepare media to be used in plasticine play activities; d) Provide colorful plasticine wax to be used; e) Provide an exam board/board or a place to place the results of forming plasticine wax; f) Provide a device for cutting plasticine wax or used to form plasticine wax; g) Before starting work, you should not forget to wear an apron; h) As a start in carrying out plasticine play activities, the teacher naturally shows objects so that they can be shown in front of children, for example, bowls and plates, then the child is directed to create works through clay materials according to the actual objects shown. This activity can be carried out later by providing freedom for children to express themselves through their work. i) Start working on forming plasticine wax according to the desired theme.

The next stage after the learning process is completed field observation. During the implementation of learning at this stage, the observer records the results of comments on the child's development during the plasticine play stage. In cycle I, observations on aspects of children's abilities related to fine motor abilities with indicators 1) coordination of children's hands and eyes in compiling plasticine; 2) the smoothness of the child's arm in making a shape of plasticine material. The results of the observation of children's abilities can be as follows:

Table 1. The results of the observation of learning outcomes in the first cycle I

No	Indicators	Observations				Sum	Average value	%
		BB	MB	BSH	BSB			
1	Coordination of the child's hands and eyes in composing plasticine	8	3	3	1	27	1,80	27 %
2	The smoothness of the child's arm in making shapes from plasticine material	7	5	2	1	27	1,80	20 %

Information:

BB : Undeveloped
 MB : Starting to Grow
 BSH : Develop as Expected
 BSB : Very Well Developed

From the data above, an overview of 15 students who participated in the learning was obtained. Where in the aspect of coordination of the hands and eyes of the child in compiling plasticine, the average value of 3 children is in the categorization of development according to expectations, and one protégé is included in the categorization of action very well. In the

aspect of the smoothness of the child's arm in making a shape of plasticine material, two children are in the category of developing according to expectations, and one child is included in the category of developing very well. Meanwhile, in the aspect of learning completion, it is explained in the table below:

Table 2. Data on learning completion results in students during cycle 1

No	Description	Cycle Results I
1	The average value of the child's fine motor abilities	1,80
2	Percentage of learning completion of students	23%

The data in Table 2 illustrates that the average learning completion result of children reaches a value of 1.80, with the percentage of the completeness value of learning outcomes in students at a rate of 23%. Based on the data described, the incomplete learning outcomes desired, namely students totaling 15 children participating in the implementation of actions, can get an achievement percentage of 75%, including in the categorization of developing as expected. Based on the observations made in cycle I, it shows that teachers still have many weaknesses and shortcomings in carrying out constructive learning through plasticine media.

This includes the teacher's explanation is too abstract so that students do not understand it, the media used is still lacking so that there are still many children who disturb their friends who are playing, the interaction between teachers and students in doing plasticine games is still lacking where the teacher only supervises without having conversational interactions with students. In students, it can be seen that children are still hesitant and rigid in carrying out constructive play activities, where children still make things without meaning from the form compiled by the child. There are still children who are confused by the teacher's commands, and there are still children who do not carry out activities ordered by the teacher. From the results of the reflection, it can be concluded that the improvement of children's fine motor abilities can be made through playing plasticine is still not achieved. Therefore it needs to be continued on the second cycle. The results of observations in cycle II can be described in the following table:

Table 3. The results of observations on the achievement of learning outcomes in the cycle II

No	Indicators	Observations				Sum	Average value	%
		BB	MB	BSH	BSB			
1	Coordination of the child's hands and eyes in composing plasticine	0	0	4	1	36	2,40	33%
2	The smoothness of the child's arm in making shapes from plasticine material	0	8	6	1	38	2,53	47 %

Information:

BB : Undeveloped
 MB : Starting to Grow
 BSH : Develop as Expected
 BSB : Very Well Developed

The data in Table 3 shows the picture of the completeness of learning outcomes from 15 students who participated in the implementation of learning on the aspects of coordination of children's hands and eyes in compiling plasticine. Four students were included in the category of developing according to expectations, and one was included in the category of

developing very well. The aspect of the smoothness of the child's arm in making a shape of plasticine material, six children are included in the category of developing as expected, and one child shows excellent development results. Meanwhile, aspects of learning completion can be explained in the following table:

Table 4. Results of The Recapitulation of The Completeness of Student Learning in the Cycle II

No	Description	Cycle Results II
1	The average value of the child's fine motor abilities	2,70
2	Percentage of learning completion of students	40%

Table 4 shows data on the acquisition of learning outcomes, with the average score of student learning outcomes being an average of 2.70 with a percentage of learning completion scores of 40%. The data that has been presented shows that the learning objectives to be achieved are not realized, namely obtaining a percentage achievement of 75% with the category developing according to the expectations of the 15 children in the implementation of the learning. Based on the observations in cycle II, satisfactory results from these data show that there has been a good improvement in fine motor abilities. Plasticine games can provide an improvement in a child's fine motor skills. Based on the data obtained during cycles I and II implementation, it can be concluded that the learning objectives that have been set have not been achieved. Although there has been an increase, it has not yet reached the indicator of success. So it needs to be continued in the next cycle of activities. The implementation of cycle III is carried out by correcting the shortcomings of processes I and II, especially in teacher and student interaction. In cycle III, the results of the observation of children's abilities can be described as follows:

Table 5. Description of The Results of Observation of the Level of Achievement of Learning Outcomes in the Cycle III

No	Indicators	Observations				Sum	Average value	%
		BB	MB	BSH	BSB			
1	Coordination of the child's hands and eyes in composing plasticine	0	0	13	2	47	3,13	100%
2	The smoothness of the child's arm in making shapes from plasticine material	2	0	11	4	51	3,40	100%

Information:

BB : Undeveloped
 MB : Starting to Grow
 BSH : Develop as Expected
 BSB : Very Well Developed

An overview of the acquisition of learning outcomes in cycle III from 15 students who participated in the learning. Where in the aspect of coordination of children's hands and eyes in compiling plasticine, 13 students obtained results to develop as expected, and two students were included in the category of developing very well. The aspect of the smoothness of the child's arm in making a shape made of plasticine, 11 children grew as expected, and four children showed excellent development results. While the aspects of learning completion can be described in the following table:

Table 6. Data on the Results of the Recapitulation of Student Learning Completion in the Cycle III

No	Description	Cycle Results III
1	The average value of the child's fine motor abilities	3,27
2	Percentage of learning completion of students	100%

The data described in the table of learning completion results in cyclone III obtained learning outcomes data with the average achievement score at 3.27 with the percentage of students' learning completion value of 100%. Based on this data, it can be seen that the learning objectives to be achieved, namely that at least 12 out of 15 students present reached 75% in the BSH category. The data in the table shows that the percentage of children's learning completion is achieved.

According to Bambang (2008), fine motor movement skills always include movements on the body of certain parts carried out by small muscles, namely the craft of motion of the fingers with directions on the right wrist. Therefore, the coordination between the eyes and the hands has shown an increasingly coordinated ability that can be interpreted to mean that the child has been able to be alone but still under the supervision of the older person. The fine motor development of children ages 4-5 years is increasing. Still, it requires a stimulus to develop appropriately to improve fine motor skills, which are carried out by playing while learning through indoor or outdoor activities such as digging sand and soil, pouring water, uniting small stones into piles, using leaves or other small objects, playing marbles, cutting paper, sewing, weaving. While Aisyah S. (2011) mentions that can develop fine motor skills are stacking blocks, cutting, dancing, painting, sticking, matching, and constructive play activities.

Practicing fine motor skills from early childhood requires patience. It requires challenging exercises to improve fine motor skills, the child's primary capital for writing, and activities on gross motor performance by school-age children. Fine motor activities have a particular risk of accidents. But to do so, children must be calmer and more focused on controlling their movements, so the risk is expected to be smaller. Practicing fine motor skills from an early age requires patience and challenging exercises to improve the child's fine motor skills, which is the child's initial grip in writing. One of them is activities carried out by gross motor in school-age children, and activities on the fine motor have a relatively low risk of accidents; children can do it calmly and focus more on controlling their movements.

CONCLUSION

Based on the observations made during the ongoing research, it can be concluded that implementing imagination-based plasticine play activities can improve children's fine motor skills at the Dharma Wanita Persatuan Pangkemi Kindergarten. These changes are inferred from the data resulting from the ability to coordinate the hands and eyes of children in compiling plasticine and the flexibility of the child's finger and arm muscles when making shapes or works from plasticine media. The data shows that the acquisition of cycle I with the completion of learning outcomes is only 23% with an average score of 1.80, cycle II is 40% of the average score of students 2.47, and cycle III has reached a learning completion of 100% with an average score of 3.27 students.

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