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Development of Fine Motor and Visual Motor Skills in Preparing Early Childhood Writing

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ABSTRACT

This research aimed to examine the process of fostering fine motor and visual motor skills in early childhood education. The study was conducted at PAUD Mambaul Ulum Bata-bata Pamekasan and employed a qualitative research approach using a combination of interviews, observations, and document analysis. The subjects of the research were managers, teachers, and assistants. The findings revealed that the development of fine motor skills was facilitated through the use of various media such as scissors, origami paper, blocks, and pencils. Additionally, the learning strategy was implemented through various methods such as lectures, demonstrations, assignments, and projects, utilizing media that was suited to the nature of each activity. The research also identified several key factors that supported the development of these skills, including the professionalism of educators, adequate infrastructure, and students' interest and enthusiasm for learning. However, the lack of sufficient numbers of accompanying teachers, an imbalance between the number of students and educators, and the absence of complete media and learning facilities were found to be inhibiting factors.

Keywords
Fine Motor Skills
Visual Motor Skills
Writing Skills

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Introduction

Education is a conscious and planned effort to create a learning environment and process to enable students to actively develop their potential to have spiritual and religious strength, self-control, personality, intelligence, noble character, and the required skills for themselves, society, nation, and the country [1]-[3]. In early childhood, there are several aspects of development that need to be stimulated, including fine motor development. A lot of stimuli are needed for children who have not yet developed their fine motor skills to avoid difficulties in coordinating hand and finger movements. In Islam, Early Childhood Education also receives special attention. One of the reasons why Islam places importance on Early Childhood Education is that it came into the world in a chaotic state in terms of social, economic, political, cultural, legal, and so on. This situation sometimes repeats itself, so there is a need for a solution to overcome it. Early childhood refers to children who are undergoing rapid growth and development, both physically and psychologically, and children under the age of 6 years old [4]. Thus, from the time a child is born until he reaches the age of 6, he is classified as an early childhood. Some people refer to this phase or period as the "golden age" because this period determines what they will be like later in life. In line with the National Education Law, education is a conscious and planned effort to realize a learning environment and process so that students can actively develop their potential [5]. On the one hand, education should allow participants to naturally and creatively develop their potential in an environment of freedom, togetherness, and responsibility. Education should produce graduates who can understand their society with all the factors that can support success or cause failure in social life [6]. One alternative that can be taken is to develop education with a global perspective.

The goal of education is for humans to be able to process and use all the wealth in the sky and on earth for the welfare and happiness of life in the world and in the hereafter [7]. Based on this goal, students are directed and educated to achieve happiness and become people who are pious to Allah SWT, have noble character, toughness, creativity, independence, and professionalism in their fields. In early childhood, fine motor development needs to be stimulated as children are rapidly growing and developing [8]. A lot of stimuli are needed to avoid difficulties in coordinating hand and finger movements.

Among many factors that cause difficulties for children in school, one of them is the visual perception as the causes [9]. Problems with visual perception cause difficulty in learning, such as a child who has difficulty writing due to a lack of coordination between the eyes and hands (eye-hand coordination). Children who struggle to recognize words may have trouble perceiving basic shapes (figure-ground). Children who cannot recognize letters or words written in different sizes or colors, or written in capital letters while they are used to seeing in

small letters, may have low form constancy. Children who often write letters backward (mirror writing) indicate difficulty in capturing the shape in space (position in space). The exchange of letter order in words done by children is due to difficulties in analyzing space (spatial relationship).

Learning media is a suitable stimulus for developing fine motor skills and visual motor skills of children so that they can develop perfectly. Learning can use various media, including electronic media such as radio, internet, television, and others, as well as mass media such as books, newspapers, magazines. Collage refers to the art technique of sticking materials together. However, in this context, collage refers to a creation made using painting (hand painting) techniques by sticking certain materials. Based on the analysis of these problems, this study explains the development of fine motor skills and visual motor skills in preparing early childhood writing.

Method

In this research, the researcher uses a qualitative research approach. The focus of attention is on various methods, which include interpretive and naturalistic approaches to the study subjects. This method is intended to understand the behavior of the actors' reference frame and to interpret the activities from their perspective, which is commonly referred to as the emic perception. The phenomena experienced by the research subjects include behavior, perception, motivation, and others in a holistic manner, and by describing them in words and language in a specific, natural context, using various natural methods. The research focuses on measuring and the cause-and-effect relationship between various variables. Through this research, it is hoped that it can describe the development of fine and visual motor skillsThe source of data in the research is the subject from which the data is obtained. If the researcher uses a questionnaire in collecting data, then the source of data is called the respondent, which is the person who responds or answers the researcher's questions. If using observation techniques, the source of data can be an object, movement, or process of something.

The main or primary source of data in this research is the Head of PAUD (early childhood education), class teacher, Supporting Teacher, and some students. Meanwhile, secondary data sources are in the form of agency documents, such as PAUD profiles, activity programs, and documentary data. The data collection techniques used in this research are Interview, Observation, and Documentation. The object and target of the research is the Early Childhood Education (PAUD) institution Mambaul Ulum Bata-Bata, Pamekasan Regency.

Results and Discussion

A. Development of Fine Motor Skills in Preparing for Writing

The development of motor skills is the process of a child learning to skillfully move their body parts. They learn from teachers about some movement patterns that can be practiced to improve agility, speed, strength, flexibility, as well as hand-eye coordination. There is a development of fine motor skills in preparing early childhood writing at Paud Mambaul Ulum Bata-Bata, and it is carried out in the learning process by incorporating it into the Daily Learning Implementation Plan. The fine motor skill development that is implemented takes the form of activities such as coloring, folding paper, cutting, practicing scribbling on blank paper, pasting pictures, playing puzzles, shredding paper, and so on. See Fig. 1 for the results. The implementation of these skills is divided into two groups of classes at Paud Mambaul Ulum, first the rose class consisting of children under the age of 4, and the jasmine class consisting of children aged 4 to 6. Therefore, the approach used is also adjusted to the students' conditions. The use of media in developing fine motor skills is also very important, such as scissors, blank paper, picture paper, pencils, origami paper, colored pencils, picture cardboard cut into pieces, and laced shoes.

The methods used in developing fine motor skills are varied, such as lecturing, demonstration, question and answer, assignments, projects. Teachers are expected to use the right methods and approaches in developing the creativity and skills of children. Teachers must be able to appreciate the uniqueness and diverse talents of children. The same is true of encouragement from the environment in the form of appreciation, praise, and also giving children opportunities to actualize their skills. This will result in products that meet the expectations of education itself.



Fig. 1. Creating sandal to improve the motoric skills

According to educational research, it is crucial for teachers to appreciate and recognize the diverse talents of their students [10]. Teachers who acknowledge and understand the unique strengths of each child are more likely to foster a positive learning environment that

encourages growth and development [11]. Furthermore, positive reinforcement in the form of appreciation and praise is essential for children's motivation and self-esteem [12]. When teachers give children opportunities to showcase their skills and talents, they not only provide a platform for personal growth and development but also contribute to the creation of quality education products that meet the expectations of the educational system [13]. In conclusion, teachers who appreciate the uniqueness and diverse talents of their students and provide opportunities for growth and development will not only positively impact the students but also create a quality learning environment that meets educational standards.

B. Development of Visual Motor Skills in Preparing for Writing

The development experienced by students, especially young children, includes motor skills in both fine and visual aspects. This development is crucial for their future as it determines their ability to be active in life. A child's visual ability to prepare writing is the first step in producing an activity that eventually leads to the creation of their work, such as written form.

The Development of Visual Motor Skills includes recognition of different types of pictures, similarities and differences, recognition of geometric shapes, recognition of symbols or letters, recognition of colors, transportation tools, fruits, recognition of big and small objects, and long and short objects. Media that can be used includes pictures on the classroom wall, geometric shapes such as triangles, squares, circles, blocks or colorful balls, illustrated letters, and objects that show size such as beads, marbles, long or short items such as sticks, nails, colored pencils.



Fig. 2. Making number and put it on the wall

According to educational research, teachers should take into consideration the different learning styles of their students, including visual learners. To cater to the needs of visual learners, teachers should use appropriate and suitable learning aids such as visual aids, diagrams, images, and videos to facilitate their learning [14]. Providing observation opportunities such as field trips or bringing in real-life objects can also help visual learners understand abstract concepts [15]. Moreover, the use of colorful paper or images can also help visual learners in the retention and recall of information [16]. It is also important for teachers

to use various methods of instruction depending on the theme of the day. For instance, Q&A sessions can help engage students and encourage participation, while lectures can provide a structured and organized presentation of information. Demonstrations, assignments, and projects can be used to apply and reinforce the concepts learned [17]. In conclusion, teachers should use a variety of methods and learning aids to cater to the diverse learning styles of their students, including visual learners. By doing so, teachers can create a positive and effective learning environment that facilitates the acquisition and retention of knowledge.

C. Supporting and Hindering Factors in Skill Development

The development of fine motor and visual motor skills can be undertaken through various development activities, such as those carried out in the learning process and are an integral part of the development of other abilities. The role of developing fine motor and visual motor skills in preparing young children for writing at Mambaul Ulum Bata-Bata Kindergarten cannot be separated from the supporting and hindering factors, both internal and external.

The factors that support the development include: first, the capability of the educators and education managers, which refers to the ability of school administrators and teachers to manage and implement the teaching and learning activities so as to produce outputs that meet the educational goals. Second, supporting facilities, known as infrastructure facilities, must be equipped in education to facilitate the implementation of the teaching and learning activities. Third, the internal aspect of students, namely, the interest and enthusiasm for learning.

On the other hand, factors that hinder the development of fine motor and visual skills in preparing young children for writing include: first, the lack of sufficient accompanying teachers in proportion to the number of students, especially in the accompaniment of children with delayed development of motor skills. Second, the incomplete availability of learning media and facilities that is inadequate for the number of students. Third, the lack of maximum support from parents in the implementation of the development of fine and visual motor skills, especially when the child is outside the school environment.

According to educational research, there are various factors that can support or hinder the development of students. One factor that supports development is the capability of educators and education managers. This includes the ability of teachers and school administrators to manage and implement teaching and learning activities effectively to meet educational goals [18]. Another factor is the availability of supporting facilities or infrastructure, which should be equipped to facilitate the implementation of teaching and learning activities [19]. The internal aspect of students, such as their interest and enthusiasm for learning, is also a critical factor in their development [20].

On the other hand, factors that hinder the development of fine motor and visual skills in young children for writing include the lack of sufficient accompanying teachers in proportion to the number of students, especially for those with delayed motor skill development. Additionally, the incomplete availability of learning media and facilities that are inadequate for the number of students can also hinder development. Finally, the lack of maximum support from parents in the implementation of the development of fine and visual motor skills, especially when the child is outside the school environment, can also hinder development [21].

In conclusion, the development of students is influenced by various factors, including the capability of educators and education managers, the availability of supporting facilities, and the internal aspect of students. However, factors such as the lack of sufficient accompanying teachers, incomplete availability of learning media and facilities, and the lack of parental support can hinder the development of fine and visual motor skills in young children.

Conclusion

In conclusion, the development of fine and visual motor skills has been carried out with good results. Supporting factors include the professionalism of educators and educational personnel, the availability of adequate facilities and infrastructure, and interest and enthusiasm for learning. The hindrances to the development of fine and visual motor skills include the imbalance of supporting teacher to student ratio, insufficient learning materials and resources, and the lack of maximum support from parents when children are outside of the school environment. Addressing these hindrances and strengthening the supporting factors can further enhance the development of fine and visual motor skills among children in early education.

Conflict of Interest

The authors declare that there is no conflict of interest.

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