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Teacher's Strategies in Developing 5-6 Years Old Kindergarteners' Fine Motor Skills: A Study in Pesisir Selatan, West Sumatra, Indonesia

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Abstract

This study aims to describe the development of fine motor skills in a kindergarten in district of Pesisir Selatan, Province of West Sumatra, Indonesia, where the average age of the students is 5-6 years. By using a qualitative approach. The data collection that the researcher uses is observation, interviews, and documentation. This research showed that the teachers implemented the fine motor development strategies well. The teacher prepared plans, including compiling a semester program (PROSEM) in fine motor development. Teachers also always prepare the Daily Learning Plan Weekly Plan (RPPM) and Daily Learning Plan (RPPH) at the beginning of the school year. The method used by the teacher is also appropriate, and the media used is varied enough so that it can be interesting for kindergarten children to hone students abilities in developing fine motor skills.

Keywords: *teacher's strategy, fine motor skills, early childhood*

Abstrak

Penelitian ini bertujuan untuk mendeskripsikan bagaimana perkembangan motorik halus di sebuah taman kanak-kanak di Kabupaten Pesisir Selatan, Provinsi Sumatera Barat, Indonesia, yang rata-rata berusia 5-6 tahun. Dengan menggunakan pendekatan kualitatif. Pengumpulan data yang peneliti gunakan adalah observasi, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa strategi pengembangan motorik halus guru dilaksanakan dengan baik. Hal ini terlihat dari perencanaan yang disusun oleh guru, diantaranya dengan menyusun Program Semester (PROSEM) bidang pengembangan motorik halus. Guru juga selalu menyiapkan Rencana Pembelajaran Harian Rencana Mingguan (RPPM) dan Rencana Pembelajaran Harian (RPPH) di awal tahun ajaran. Metode yang digunakan guru juga sudah sesuai dan media yang digunakan cukup bervariasi sehingga dapat menarik minat anak-anak untuk mengasah kemampuan dalam mengembangkan motorik halusnya.

Kata kunci: strategi guru, keterampilan motorik halus, anak usia dini

A. Introduction

Early childhood is a period in which children experience grows rapidly. Therefore it is also known as the golden age. Monica and Mayar stated that early childhood is a group of individuals who are at the age of up to 6 years. In that period, a person has advantages and experiences a crucial pattern of growth and development based on the process he is going through.[1]

One aspect that is very important to stimulate in the early childhood education process is fine motor skills.[2] According to Rakimahwati et al., fine motor skills are movements that mobilize smooth muscles or specific body parts, which learning opportunities influence.[3] Meanwhile, Hartinah, Mayar, and Suryana revealed that fine motor skills are related to more specific movements than gross motor skills regarding the coordination of finger movements in various activities, such as arranging, coloring, assembling, and holding paper with one hand.[4]

Pitchford et al. stated that fine motor integration is conceptualized as a manual ability that requires synchronized hand-eye movements and processing of a visual stimulus to produce adequate motor output.[5] Fine motor skills are defined as the ability to control small muscle movements to accomplish a task using hand-eye coordination, fine motor precision, and integration.[6] The hand-eye coordination has a solid contribution to anyone's fine motor skills. Hand-eye coordination is significant for normal child development and academic success but is also an essential skill that adults use in countless activities daily. Children need good hand-eye coordination

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[1] Mici Ara Monica and Farida Mayar, "Strategi Guru PAUD Dalam Mengembangkan Kreativitas Anak Usia Dini," *Jurnal Pendidikan Tambusai* 3, no. 3 (2019): 1217–21, https://doi.org/https://doi.org/10.31004/jptam.v3i3.345.

[2] Tatik Ariyanti, "Pentingnya Pendidikan Anak Usia Dini Bagi Tumbuh Kembang Anak," *Dinamika Jurnal Ilmiah Pendidikan Dasar* 8, no. 1 (2016): 50–58, https://doi.org/10.30595/dinamika.v8i1.943.

[3] Rakimahwati, Nora Agus Lestari, and Sri Hartati, "Pengaruh Kirigami Terhadap Kemampuan Motorik Halus Anak Di Taman Kanak-Kanak," *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini* 2, no. 1 (2018): 102–10, https://doi.org/10.31004/obsesi.v2i1.13.

[4] Ulfa Hartinah, Farida Mayar, and Dadan Suryana, "Efektivitas Mencetak Percikan Daun Terhadap Perkembangan Motorik Halus Anak Di Taman Kanak-Kanak Aisyiyah Suayan," *Jurnal Usia Dini* 4, no. 2 (2018): 55–66, https://doi.org/https://doi.org/10.24114/jud.v4i2.12093.

[5] Nicola J. Pitchford et al., "Fine Motor Skills Predict Maths Ability Better than They Predict Reading Ability in the Early Primary School Years," *Motor Skills and Their Foundational Role for Perceptual, Social, and Cognitive Development*, 2016, https://doi.org/https://doi.org/10.3389/fpsyg.2016.00783.

[6] Stephanie Klupp et al., "Relations between Fine Motor Skills and Intelligence in Typically Developing Children and Children with Attention Deficit Hyperactivity Disorder," *Research in Developmental Disabilities* 110 (2021), https://doi.org/https://doi.org/10.1016/j.ridd.2021.103855.

to do things such as feed themselves, handle a toy, and catch a ball.[7] Fine motor skills are the strongest predictor of special education referral and the second strongest predictor of kindergarten retention controlling for vocabulary, auditory and visual skills, and sociodemographic factors.[8]

Cameron et al. stated "fine motor tests typically include multiple tasks with visual, cognitive, and manual dexterity demands (e.g., drawing with a pencil to either copy an external image or spontaneously generate a picture) and spatial organization (e.g., building with blocks)".[9] There are many early childhood and curricula professionals who have emphasized the importance of motor development for along time.[10] As Hofsten said, "motor development is at the heart of development and reflects all its different aspects, including perception, planning, and motivation."[11] Indeed, the experts characterized fine motor skills as a critical aspect of an early children school readiness.[12]

The fine motor development strategy is a series of plans which include using methods and several resources or strengths in learning. Strategy is something that is structured to achieve specific goals. According to Felayati & Mahyuddin, teacher strategy is part of a series of activities designed to achieve an educational purpose.[13] Meanwhile, according to Rosdiana, teacher strategy is an activity carried out by a teacher in educating, guiding, and motivating children in the classroom and outside the school to achieve specific learning goals and discover the development and potential of students.[14] According to Fimansyah, a learning strategy is a set of activities

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[7] "Fine Motor Skills and Hand-Eye Coordination," n.d.

[8] Mary Ann Roth, Edward McCaul, and Karoldene Barnes, "Who Becomes an 'At-Risk' Student? The Predictive Value of a Kindergarten Screening Battery," *Exceptional Children* 59, no. 4 (1993): 348–58, https://doi.org/doi:10.1177/001440299305900407; Claire E. Cameron et al., "Fine Motor Skills and Executive Function Both Contribute to Kindergarten Achievement," *Child Development* 83, no. 4 (2012): 1229–44, https://doi.org/https://doi.org/10.1111/j.1467-8624.2012.01768.x.

[9] Cameron et al., "Fine Motor Skills and Executive Function Both Contribute to Kindergarten Achievement."

[10] S. Bredekamp and C. Copple, *Developmentally Appropriate Practice in Early Childhood Programs* (Washington DC: National Association for the Education of Young Children, 1997); Angeline S. Lillard, *Montessori: The Science behind the Genius*, ed. 3 (Oxford: Oxford University Press, 2017).

[11] Claes Von Hofsten, "An Action Perspective on Motor Development," *Trends in Cognitive Sciences* 8, no. 6 (2004): 266–72, https://doi.org/https://doi.org/10.1016/j.tics.2004.04.002.

[12] Onofre Ricardo Contreras Jordán and Álvaro Infantes-Paniagua, "Fine Motor Skills and Academic Achievement: Special Consideration to Graphomotor Skills," in *Physical Education Initiatives for Early Childhood Learners* (IGI Global, 2021), 55–69.

[13] Felayati and Nenny Mahyudin, "Strategi Pembelajaran Character Activity Card (CAC) Sebagai Pengembangan Perilaku Berkarakter Peserta Didik Di PAUD Harapan Bunda Pasaman Barat," *VISI : Jurnal Ilmiah Pendidik Dan Tenaga Kependidikan Pendidikan Non Formal* 15, no. 1 (2020): 89–94, https://doi.org/https://doi.org/10.21009/JIV.1501.9.

[14] Elva Rosdiana, "Strategi Guru Dalam Mengembangkan Konsentrasi Berpikir Dan Berbuat Anak Usia Dini Di TK Muslimat NU 001 Ponorogo" (Institut Agama Islam Negeri Ponorogo, 2021), http://etheses.iainponorogo.ac.id/15529/1/SKRIPSI_211117014_ELVA ROSDIANA.pdf.

and experiences presented to the child to make learning effective and efficient.[15]

While the essential fine motor aspect is the ability to hold hands properly, which is needed for writing, fine motor development is necessary. However, in practice, there are various problems in developing fine motor skills in early childhood. Motor ability is a movement ability that a child needs in doing any activity.

Children's fine motor development must be well planned and implemented by an early childhood education institution and following the stage of child development. For this reason, an early childhood education teacher must prepare learning activity plans. Focusing on fine motor development should be a priority starting from the planning, implementation, to evaluation stages of learning. That is why the lesson planning stage is so essential to begin. In the context of fine motor development, planning aims to ensure that the application of learning that focuses on developing children's fine motor skills can run effectively and efficiently and achieve the desired results.

B. Method

This research uses a qualitative approach with a descriptive type of research. That study seeks to describe a fact, phenomenon, event, or event that exists in the field as it is, not artificial, and without making additions to the research objectives. Descriptive research aims to describe, describe, or describe the condition of the object under study as it is, according to the situation and requirements when conducting the research.[16]

This research was conducted in a kindergarten in West Sumatra, Indonesia. The average age of the students is 5-6 years. Determination of the sample using a purposive sampling technique to select informants tailored to the researcher's objectives. Data collection techniques used are observation, interviews, and documentation. The instrument involved in extracting the data was an unstructured interview instrument. While the data validity test technique used is source triangulation and technical triangulation.

The data from the researchers' observations were grouped and sorted to find the most relevant. After collecting and condensing field notes in the form of comments, interviews, and documents, an analysis of the data related to strategies and planning for developing children's fine motor skills is carried out.

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[15] Dani Fimansyah, "Pengaruh Strategi Pembelajaran Dan Minat Belajar Terhadap Hasil Belajar Matematika," *JUDIKA (JURNAL PENDIDIKAN UNSIKA)* 3, no. 1 (2015).
[16] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif Dan R&D* (Bandung: Alfabeta, 2017).

C. Result and Discussion

The observations show that the teachers use several varied activities in learning to make children interested and enthusiastic, especially any actions can stimulate children's fine motor skills, such as making houses from sticks, children peeling eggshells or cotton for making a collage, cutting, making patterns, drawing, graffito, shading, etc.

In adjusting the learning on that day, the teacher changes the theme and sub-theme. Teachers carry out activities to help develop children's fine motor skills by using some strategies, such as one of the teachers making the activity of sticking words on pictures, the teacher motivating children so that children can carry out instructions from the teacher. With the development of fine motor skills, children are skilled in using their right and left hands in various activities such as making houses from sticks, collages, folding, pasting, etc. Here is the explanation.

a. Lesson Planning

In planning learning, kindergarten teachers choose and determine the suitable learning media and can develop children's fine motor skills. They use exciting learning media, easy to find and see in children's environment, and are also natural. In growing children's fine motor skills, teachers also pay attention to safety for children in learning activities and playing.

Based on interviews and observations results, it was found that teachers always develop several teaching programs such as Semester Programs (Prosem), Weekly Learning Performance Plans (RPPM), Daily Learning Performance Plans (RPPH), and learning evaluation programs. The plan is essential to prepare a variety of children's learning activities for the following year. Weekly Learning Plans (RPPM) and Daily Learning Plans (RPPH) are equipped with the 2013 curriculum and detailed in terms of topics and sub-topics.

The weekly learning implementation plan (RPPM) is an elaboration or derivative of the semester program plan (Prosem). Then daily lesson plans are prepared in a daily activity plan (RPPH) format. RPPH is a description of the weekly activity unit (RPPM). The RKKH contains the desired learning activities, whether carried out individually, in groups, or classically. Usually, in one day, daily activities can consist of components: initial activities, core activities, rest-time, eating-time, and final activities. The explanation of these stages will appear in the discussion on the implementation of learning below after this section.

This finding is under what was stated by Haryadi, Rohita, & Fitria that the lesson plans that the teacher must prepare before carrying out learning are the Semester Program (Prosem), Weekly Learning

Performance Plan (RPPM), and Daily Learning Performance Plan (RPPH).[17] Parapat also stated that learning planning is a design made at the beginning before starting learning activities that are prepared based on the collaboration of teachers and students to achieve predetermined goals.[18]

b. Learning Implementation

As described in the previous section, the implementation of learning includes initial activities, core activities, rest periods, meal times, and closing activities. The daily plan consists of each part of the activity.

The initial activity is a stage of exercise to warm up, and usually, it is carried out classically. In this stage, the teacher and students carried out actions, including example, praying/greeting, and discussing themes or sub-themes. This activity is an activity that can activate the attention of children's social and emotional abilities. Then the possible action to develop fine motor skills at this stage is to sing together while clapping. After reading the prayer together, they can sing a song related to good manners, noble values, or something else while clapping their hands. They can also use other body parts and move them while imitating animal characters and so on.

This activity aims to provide opportunities for children to explore and experiment to bring up children's initiative, independence, and creativity. Core activities are activities carried out individually/in groups. It includes various activities that can improve understanding and concentration and develop good work habits.

The teacher's strategy in developing children's fine motor skills must align with programs stated in the previously prepared plan. The planning determined what materials children needed, the media required, the time allocated, and what evaluation techniques were appropriate. Some planned activities include drawing, coloring, clapping, collage, folding, and shading. The teacher and the children also carry out activities that can stimulate children to use their right and left hands in various activities, such as buttoning clothes, tying shoelaces, curling/meronce, sticking, and cutting. It is in line with what was stated by Dewi and Surani that visual art activities to apply to early childhood include coloring, drawing, painting, tracing, shaping, pasting, curling (meronce),

[17] Rohita, Nila Fitria, and Dody Haryadi, "Pemanfaatan Aplikasi Penyusunan Perencanaan Pembelajaran (AP3) Dalam Penyusunan Perencanaan Pembelajaran Bagi Guru Taman Kanak-Kanak Di Jakarta," *JURNAL PENGABDIAN KEPADA MASYARAKAT* 24, no. 2 (2018): 644–54, https://doi.org/https://doi.org/10.24114/jpkm.v24i2.10168.

[18] Asmidar Parapat, *Strategi Pembelajaran Anak Usia Dini* (Tasikmalaya: Edu Publisher, 2020).

and finger painting.[19] Meronce/curling is an excellent treatment to train children's hands, as Elihami and Suparman found in their research that meronce using beads can improve children's fine motor skills.[20]

The method used by the teacher in learning that aims to develop fine motor skills is the question and answer method, conversing, demonstration and assignment. The teacher tries to invite the children to communicate actively, so there is a two-way relationship. In this process, the teacher attempts to throw bait so that the children are interested in talking or telling what things they know about the teacher's trick. The teacher can choose several methods by considering the planned learning activities. In line with these findings, Tirtayati said that the ways to develop children's fine motor skills are giving assignments, demonstrations, questions and answers, and direct practice.[21] In addition to active communication between kindergarten teachers and children, demonstration methods and hands-on practice are very important to be used as a place to show children's creativity in coloring, drawing or forming objects.

In implementing the learning strategy, the teacher first explains the type and variety of materials used. After the children understand the teacher's explanation, he distributes the media for the specified activities, such as paper for folding, collage-making materials, coloring tools, shading tools, and so on.

It is in line with what Syafrimen Syafril et al. conveyed in their findings. Their research showed that "fine motor skill development to carry out using the method of assignment in four ways: (i) Providing tools and materials, (ii) providing direction and opportunities for practice, (iii) observing children individually and in groups, (iv) evaluate their fine motor skill development on an ongoing basis".[22] Providing opportunities for children to practice can encourage them to move their hands with the help of visual stimuli. But there is one thing that also plays a role. Careful observation and monitoring by the teacher are essential in understanding the extent to which students' fine motor skills are developing and what problems they are still experiencing.

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[19] Nurul Kusuma Dewi and Surani, "Stimulasi Kemampuan Motorik Halus Anak Usia 4-5 Tahun Melalui Kegiatan Seni Rupa," *Jurnal Pendidikan Anak* 7, no. 2 (2018): 190–95, https://doi.org/https://doi.org/10.21831/jpa.v7i2.26333.

[20] Elihami and Suparman, "Improving the Skills of Children Mozaik through Meronce in Medina," *JURNAL EDUKASI NONFORMAL* 1, no. 1 (2019): 29–32.

[21] Ni Putu Eka Tirtayati, Ni Ketut Suarni, and Mutiara Magta, "Penerapan Metode Pemberian Tugas Untuk Meningkatkan Kreativitas Anak Melalui Kegiatan Menggambar Bebas" 2, no. 1 (2014), https://doi.org/https://doi.org/10.23887/paud.v2i1.3520.

[22] Syafrimen Syafril et al., "Four Ways of Fine Motor Skills Development in Early Childhood," *INA-Rxiv*, October 2018, https://doi.org/https://doi.org/10.31227/osf.io/pxfkq.

Then, break times fill children's abilities and skills with matters related to eating and drinking: for example, introducing them to hygiene and health, the importance of a nutritious and balanced diet, and how to practice good eating habits—starting with washing hands and praying before eating, as well as reading prayers and washing hands after eating or drinking. Children also learn how to hold a spoon properly and behave when eating. Following this stage, the last activity is a calming phase. The last activity they could do is, for example, reading a story from a book, dramatizing a story, discussing activities they have carried out for one day, or providing information on activities they will carry out the next day.

c. Learning Evaluation

Learning evaluation, according to Iftitah, is a process of collecting, analyzing, and making decisions about learning that has been carried out based on appropriate methods and instruments.[23] The evaluation also aims to determine how students understand the concept of learning they are doing.

To monitor the success of learning, teachers usually record their students' responses during the activity. It is crucial to evaluate the treatment given and the success of the strategy used. The teacher carefully observes the children's performance from beginning to end while preparing informal notes containing the child's learning progress. The teacher follows based on indicators of children's growth and development in the learning activities. Based on the teacher's evaluation, children tend to be more enthusiastic and active in collage making, pasting, folding paper, or coloring activities.

According to Iswantiningtyas and Wulandari, the assessment that the teacher can apply is observing the children's activities while they are doing an exercise, recording the children's development and keeping it as a physical evidence.[24] The results of this study indicate that teachers assess children's work through observation and assessment after preparing a rating scale device. The teacher executed an evaluation when the child's fine motor development activities are ongoing until they are finished. The instruments used during the assessment include observation sheets, rating scales, assignment sheets, notes from children's work, anecdotal notes, and performance sheets.

But it turns out this is not much. Previously, a group of researchers found a technique using technology to measure aspects of children's fine

[23] Selfi Lailiyatul Iftitah, *Evaluasi Pembelajaran Anak Usia Dini* (Pamekasan: Duta Media Publishing, 2019).

[24] Veny Iswantiningtyas and Widi Wulansari, "Pentingnya Penilaian Pendidikan Karakter Anak Usia Dini," in *International Consortium of Education and Culture Research Studies*, vol. 1 (Sidoarjo: Universitas Muhammadiyah Sidoarjo, 2018), 3, https://doi.org/https://doi.org/10.21070/picecrs.v1i3.1396.

motor skills development. Polsley et al., in their work, introduced a machine-based learning approach to analyze elements of the development of children's fine motor skills. They started by studying 60 young children aged 3 to 8 years. Then they applied the classification to determine the age categories of children based on features related to fine motor skills, especially the skill of drawing curvature and angles. They conducted a statistical test using the sketch recognition feature to improve fine motor assessment automatically.[25]

It is an exciting and helpful thing to practice in early childhood education institutions in Indonesia. For now, the use of technology to detect and evaluate the children's fine motor skills development is still rare to find. Teachers commonly still rely on manual recording facilities with assignment sheets and so on to assess children's progress in their fine motor development.

D. Conclusion

The research results showed that teachers' has implemented fine motor development strategies well. One of the indications is the plans prepared by the teacher, including compiling a semester program (PROSEM) in fine motor development. Teachers also always prepare the Daily Learning Plan Weekly Plan (RPPM) and Daily Learning Plan (RPPH) at the beginning of the school year. The method used by the teacher is also appropriate, and the media used is varied enough so that it can be interesting for kindergarten children to hone students abilities in developing fine motor skills. However, it is also important to reveal in subsequent studies related to early childhood education teacher innovations in developing learning activities that focus on developing children's fine motor skills. Teacher's innovations are new things teachers create to increase the effectiveness of learning methods or increase children's experiences with activities that are different from usual. Research related to teacher innovation will become more exciting and essential so that it becomes a new source of knowledge for educators in kindergarten and other types of early childhood education institutions, as well as academics and observers in the field of early childhood education.

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[25] Seth Polsley et al., "Detecting Children's Fine Motor Skill Development Using Machine Learning," *International Journal of Artificial Intelligence in Education*, 2021, https://doi.org/https://doi.org/10.1007/s40593-021-00279-7.

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