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Strategies for Developing Fine Motor Skills in Children Aged 5-6 Years Through Weaving Cassava Leaf Stalks: A Case Study at Tamrinussibyan Islamic Kindergarten

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ABSTRACT: Early childhood development is a critical period for the formation of basic skills and personality, particularly between the ages of 5-6 years. The use of cassava leaf stalks as a weaving medium is an innovative approach in early childhood education. This study aims to analyze the impact of cassava leaf stalk weaving activities on the fine motor development of children aged 5-6 years at Tamrinussibyan Islamic Kindergarten. This activity was chosen because it enhances hand-eye coordination and provides an enjoyable creative experience. The research employed a qualitative descriptive approach, with a population of 14 children aged 5-6 years. Data were collected through observation, interviews, and documentation. Data analysis involved reduction, presentation, and conclusion drawing. Triangulation was used to ensure data validity and accuracy. The results indicated that weaving activities using cassava leaf stalks significantly improved children's fine motor skills, enabling them to perform complex movements and express creativity. This study recommends integrating weaving activities into early childhood education curricula as an effective method for supporting fine motor development.

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INTRODUCTION

According to Puspita & Utami (2021), early childhood development is a critical period in the formation of personality and fundamental skills. At the age of 5-6 years, children experience a golden age, during which their motor, cognitive, social, and emotional development occurs rapidly. Therefore, appropriate stimulation is crucial to support their optimal growth.

In accordance with Law Number 20 of 2003 on the National Education System (2022), Early Childhood Education (PAUD) is designed to assist children in their early developmental stages. PAUD aims to provide educational stimulation for children from birth to six years old. This stimulation is intended to support both physical and psychological growth comprehensively, ensuring that children are better prepared for formal education.

Taib et al. (2021) emphasize that the development of fine motor skills is a crucial aspect of early childhood growth. Fine motor skills are essential for daily activities such as writing and drawing, which require coordination of small muscles, particularly in the fingers. According to Harianja et al. (2023), well-developed fine motor skills enable children to perform more complex movements, laying the foundation for their cognitive and social abilities. Research by Andarini (2024) found that collage techniques significantly improved fine motor skills in young children, increasing their proficiency from 20% in the pre-cycle stage to 80% after two cycles. This finding underscores the importance of fine motor development in supporting activities that require small muscle coordination, such as writing and drawing.

There is a gap in teaching methods in kindergartens, particularly in terms of diversifying activities that optimally support fine motor skill development. Observations at Tamrinussibyan Islamic Kindergarten indicate that drawing and writing are the most frequently used activities for developing fine motor skills. However, the lack of innovative practical activities, such as weaving, limits children's opportunities to explore and maximize their fine motor potential. This situation presents challenges in fostering children's basic abilities.

One underutilized activity is weaving, particularly using natural materials such as cassava leaf stalks. Weaving activities have significant potential in training hand-eye coordination and logical thinking skills. Despite its benefits, the use of natural materials for weaving is rarely implemented in learning environments. This highlights the need for innovation in teaching methods to enhance activities that support fine motor development.

An analysis of this gap suggests that weaving can be an effective alternative for improving children's fine motor skills. Weaving with natural materials provides a meaningful and enjoyable learning experience, enhancing both knowledge comprehension and creativity. Therefore, integrating weaving activities into early childhood education curricula is essential.

This study aims to analyze the extent to which the strategy of cassava leaf stalk weaving activities influences the fine motor development of children aged 5-6 years at Tamrinussibyan Islamic Kindergarten. This activity is expected to assist children in enhancing their fine motor skills in an engaging and interactive manner. The activity also incorporates creative elements that are essential in children's learning processes, making it an effective alternative for skill development.

According to Sujono (2021), using accessible and environmentally friendly materials not only trains children's manual skills but also introduces them to sustainability concepts at an early age. Children learn how to utilize natural resources wisely and responsibly, fostering early environmental awareness.

This study aligns with Article 28 of Law Number 20 of 2003, which emphasizes the importance of education focused on fine motor development. Creative and innovative methods are crucial in achieving this educational goal. According to Trianto (2022), weaving activities can serve as an effective method to fulfill these criteria, contributing to the development of a more comprehensive and relevant early childhood education curriculum.

The use of cassava leaf stalks as a weaving medium has not been widely explored in previous research, which has mostly focused on materials such as paper and thread. This approach offers a unique alternative for fine motor skill development. Additionally, this activity supports the use of environmentally friendly resources.

According to Fatimah & Permatasari (2023), weaving activities using cassava leaf stalks are expected to provide multiple benefits for children, not only improving their manual skills but also enhancing their understanding of diverse materials that can be utilized in learning. This activity enriches children's learning experiences, supporting their creativity and cognitive development.

Theories on fine motor skill development emphasize that early childhood stimulation should focus on activities involving hand-eye coordination, such as weaving or beading. Research by Susanti (2021) confirms that beading activities using marine materials significantly enhance children's fine motor skills by training hand-eye coordination. This finding aligns with developmental theories that emphasize the importance of stimulating fine motor skills through activities like beading or weaving. Katuk et al. (2024) found that cutting activities significantly improved fine motor skills in children aged 3-4 years at PAUD Hadiqatusshibyan, reinforcing the need for hands-on activities.

Based on these insights, this study aims to address the limitations of current fine motor skill development activities in kindergartens. By introducing a more creative and engaging method, such as cassava leaf stalk weaving, this research seeks to provide empirical evidence on its effectiveness. The findings are expected to contribute positively to the teaching practices at Tamrinussibyan Islamic Kindergarten and offer recommendations for a more innovative and relevant early childhood education curriculum.

METHOD

This study employs a qualitative descriptive approach. According to Moleong (2017), qualitative descriptive research aims to illustrate phenomena in depth through non-numeric data, such as interviews and observations. This method seeks to understand social realities without relying on statistical analysis. The findings are presented in a detailed narrative format.

The population in this study consists of all children aged 5-6 years at the kindergarten, totaling 14 individuals, with the sample selected using a total sampling method. Nasution (2023) emphasizes that this method enables an in-depth analysis of all research subjects to ensure data validity. The objective of this study is to analyze the extent to which the cassava leaf stalk weaving activity influences fine motor skill development in children aged 5-6 years at Tamrinussibyan Islamic Kindergarten. This activity is expected to support fine motor development through a creative approach.

The findings of this study are anticipated to contribute to the enhancement of teaching methods in early childhood education.

The data collection techniques used in this study include observation, interviews, and documentation (Moleong, 2017). The data collected were analyzed through three stages: data reduction, data presentation, and conclusion drawing (Miles & Huberman, 2014). These stages aim to provide a more detailed depiction of the observed phenomenon. Each phase is designed to obtain a comprehensive understanding of the subject under study.

To ensure the validity and accuracy of the data, this study also employs data triangulation. According to Kuncoro (2020), triangulation involves comparing information obtained from multiple sources or data collection techniques. This approach helps produce a more comprehensive understanding of the examined phenomenon. By implementing this method, the study results are expected to be more reliable.

RESULT AND DISCUSSION

The findings of this study were obtained through observations, interviews, and documentation to analyze the impact of weaving cassava leaf stalks on the fine motor development of children aged 5-6 years at Tamrinussibyan Islamic Kindergarten. The observation technique was used to monitor the development of children's fine motor skills resulting from this weaving activity. Additionally, interviews with the school principal and teachers provided further insights into the changes experienced by the children during the activity. All collected data were analyzed to ensure alignment with the Indonesian Ministry of Education Regulation No. 137 of 2014.

Table 1. Observation Results Based on Ministry of Education and Culture Regulation No. 137 of 2014

Competency Standard (KD)	Indicators of Early Childhood Development (Ages 5-6 Years)	Observation Results	
Coordination of fine motor	Children can perform activities	Children demonstrated	
movements	requiring good hand-eye coordination.	improved coordination between their eyes and hands while weaving.	
Independenc e in completing tasks	Children can independently complete activities according to given instructions without assistance.	Children successfully held and manipulated cassava stalks to follow weaving patterns independently.	
Ability to perform complex movements	Children can execute various movements precisely according to given instructions or patterns.	Children successfully bent and arranged cassava stalks to form patterns.	
Creativity in creating patterns	Children can demonstrate creativity in selecting and designing patterns independently.	Children enthusiastically chose and created weaving patterns based on their creativity.	
Independenc e and responsibility	Children can complete activities independently and take responsibility for their work.	Children displayed independence in weaving and completed the tasks without assistance.	
Fokus, kesabaran, dan ketelitian dalam menyelesaika n tugas	Anak mampu fokus, teliti, dan sabar dalam menyelesaikan tugas yang membutuhkan ketelitian dan kesabaran	menganyam, menunjukkan kesabaran dalam	

Based on Table 1, the activity of weaving cassava leaf stalks at Tamrinussibyan Islamic Kindergarten aligned with the Indonesian Ministry of Education Regulation No. 137 of 2014, which emphasizes the importance of developing fine motor skills in early childhood education. Observational findings indicated that children exhibited improved handeye coordination, which is a fundamental indicator of fine motor skill development. According to Sukarini (2020), well-developed fine motor skills support children's ability to perform more complex daily activities, such as writing and drawing. The weaving activity using cassava leaf stalks proved to be an effective strategy in enhancing the fine motor skills of children aged 5-6 years.

Children also demonstrated independence in completing the weaving tasks. This finding aligns with Kurniasih et al. (2021), who found that engaging children in practical activities boosts their confidence and ability to complete tasks autonomously. Additionally, Yunita & Fatimah (2021) stated that children's ability to perform complex movements, such as bending and arranging cassava stalks, indicates that the activity significantly contributes to the fine motor skill development necessary for refining their physical abilities. The activity also facilitated children's creativity, as evidenced by their enthusiasm in selecting and designing weaving patterns.

Children's enthusiasm for creating weaving patterns is consistent with the findings of Erma & Yaswinda (2023), who noted that creative activities contribute to the development of children's critical thinking and problem-solving skills. The focus and precision demonstrated by children during the weaving process highlight their engagement in the task. According to Febriana & Kusumaningtyas (2018), such activities also help children develop patience and a sense of responsibility, which are crucial skills for their future growth. The strategy of weaving cassava leaf stalks at Tamrinussibyan Islamic Kindergarten had a significant positive impact on children's fine motor development.

This activity not only enhanced children's physical skills but also supported their independence, creativity, and attention to detail. These aspects are essential for fostering holistic early childhood development. This study contributes to knowledge on how practical activities can strengthen children's fine motor development. The findings are expected to

serve as a reference for developing more innovative and relevant early childhood education curricula.

Table 2. Interview Results with the School Principal

Interview Question	Response	
How are the educational play equipment (APE) for fine motor development activities determined at this institution?	The institution uses a combination of school-provided materials and teacher creativity, adapting to each child's needs.	
Are the children's fine motor skill developments aligned with the expected standards?	Yes, the children generally meet the standards. Some children initially exhibit stiff fingers and lack dexterity, but targeted interventions are provided.	
Does the school principal also serve as a classroom teacher?	No, the principal does not teach in class but steps in when a teacher is absent.	
How does the principal support teachers' professional development?	Teachers are encouraged to collaborate with one another to achieve educational goals.	
Is there any specific teaching media used for fine motor skill development?	No specific media is used, as a variety of materials are available.	

Based on Table 2, the interview responses from the principal of Tamrinussibyan Islamic Kindergarten indicated that fine motor development activities at the institution are determined through a combination of structured programs and teacher creativity. Activities are adapted to meet children's needs, reflecting a flexible approach. The principal affirmed that, in general, children's fine motor skills align with expected developmental standards. However, some children initially face motor skill challenges, particularly in finger dexterity.

According to Az-Zahra et al. (2022), targeted interventions for children with fine motor skill delays demonstrate a school's commitment to ensuring all children reach the expected developmental benchmarks. The weaving activity using cassava leaf stalks was found to be a relevant and effective strategy for supporting fine motor skill development. Activities involving fine motor skills, such as weaving, enhance children's coordination and dexterity. Ardini et al. (2021) emphasized that practical activities help children develop precision and concentration.

Weaving not only supports the attainment of fine motor skill development standards but also effectively addresses developmental delays. This activity fosters children's creativity and independence through an engaging and enjoyable process. Anisyah & Muslihin (2022) emphasized the importance of integrating fine motor activities into early childhood education curricula to ensure holistic development. The weaving strategy demonstrated significant benefits for children's development Tamrinussibyan Islamic Kindergarten.

Table 3. Interview Results with Teachers

Interview Question	Response	
What activities are typically provided to develop fine motor skills?	Activities include pulling weeds, squeezing coconut pulp, folding paper into various shapes, and weaving.	
Has weaving been introduced previously at this institution? If so, what materials were used?	Yes, weaving activities have been conducted before using materials such as paper, ribbons, and banana leaves, depending on teacher creativity.	
What is the children's response and development when engaging in weaving activities?	Children show enthusiasm and follow instructions well because they enjoy hands-on creative activities.	
How were the children's initial fine motor skills before and after the weaving activity?	Initially, children's fine motor skills were underdeveloped. Continuous stimulation through weaving with various materials, including cassava leaf stalks, improved their skills.	
Did all children participate in the weaving activity?	No, one child did not participate, choosing to observe others instead. Each phase of the activity took varying durations, ranging from a week to three months. Children reluctant to participate one day were encouraged to join on subsequent days.	
Did children show improvement in fine motor skills after weaving?	Yes, but one child was slow to engage in the activity, preferring to observe peers rather than actively participate.	
Based on Table 3, the interview responses from teachers at		

Tamrinussibyan Islamic Kindergarten highlighted the diverse range of activities used to support fine motor skill development, including weeding, squeezing coconut pulp, folding paper, and weaving. The materials used for weaving varied depending on teacher creativity, including paper, ribbons, and banana leaves. The children responded positively, displaying high enthusiasm and improved ability to follow instructions, aligning with findings by Asni & Pabunga (2019), who noted that children prefer handson, productive activities.

Weaving with natural materials such as cassava leaf stalks was particularly effective in enhancing the fine motor skills of children aged 5-6 years. Susanti & Santoso (2023) found that manual activities like weaving significantly improve coordination, dexterity, and concentration. Participation in creative processes not only supports fine motor development but also fosters children's confidence and independence. These findings align with Rindayana (2019), who emphasized that well-developed fine motor skills play a crucial role in children's cognitive and social development, making weaving a valuable part of the Tamrinussibyan Islamic Kindergarten curriculum.

CONCLUSION

The weaving activity using cassava leaf stalks at Tamrinussibyan Islamic Kindergarten has demonstrated a positive impact on the fine motor skills of children aged 5-6 years. This activity enhances hand coordination and dexterity while also fostering creativity and independence. The children showed high enthusiasm and were able to follow instructions effectively, which is essential for achieving fine motor skill development standards.

Weaving activities not only support fine motor skills but also contribute to children's social and emotional development. This aligns with Yunita & Fatimah (2021), who emphasized that activities requiring handeye coordination improve children's cognitive and social abilities. Furthermore, Erma & Yaswinda (2023) highlighted those creative activities such as weaving play a crucial role in developing critical thinking and problem-solving skills.

Further research is needed to explore the long-term effects of this activity on children's fine motor skills and socio-emotional aspects. Additionally, cultural context should be considered to maximize the benefits of weaving activities across different environments. As emphasized by Taib et al. (2021), innovative learning media are essential in optimizing children's developmental potential.

Overall, weaving activities can be regarded as an essential tool in supporting the holistic development of early childhood education. Future studies should examine how such activities can be integrated into early childhood curricula to ensure sustained benefits for children's motor skill development.

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BIBLIOGRAPHY

- Andarini, D. (2024). Upaya Meningkatkan Keterampilan Motorik Halus Anak Melalui Kegiatan Kolase pada Kelompok B TK Salafiyah Moga I Kecamatan Moga Kabupaten Pemalang Semester I Tahun 2021/2022. AUDIENSI: Jurnal Pendidikan Dan Perkembangan Anak, 3(1), 11-24. https://doi.org/10.24246/audiensi.vol3.no12024pp11-24
- Anisyah, D. R., & Muslihin, H. Y. (2022). Peningkatan Kemampuan Motorik Halus melalui Kegiatan Menganyam dengan Media Loose Parts pada Anak Usia Dini di TK Bias Sidamulya. Jurnal Paud AGAPEDIA, 6(2), 173-182. https://doi.org/https://doi.org/10.17509/jpa.v6i2.52009
- Ardini, P. P., Yusup, S., & Utoyo, S. (2021). Pengaruh Kegiatan Menganyam Terhadap Konsentrasi Di Kelompok A TK Negeri Pembina Kota Selatan 53-58. Gorontalo. Efektor, https://doi.org/htttps://doi.org/10.29407/e.v8i1.15879
- Asni, & Pabunga, D. B. (2019). Meningkatkan Kemampuan Motorik Halus Anak mellalui Kegiatan Menganyam Kain Flanel. Jurnal Riset Golden Age PAUD *UHO*, 2(2), 106–112.
- Az-Zahra, P., Fauzi, T., & Andriani, D. (2022). Pengaruh Kegiatan Menganyamterhadap Kemampuan Motorik HalusAnakUsia Dini. PAUD Lectura: Journal of Early Childhood Education, 5(3), https://doi.org/https://doi.org/10.31849/paud-lectura.v5i03.10693
- Erma, E., & Yaswinda, Y. (2023). Meningkatkan Kreativitas Anak Usia 5-6 Tahun melalui Kegiatan Menganyam Menggunakan Bahan Alam. Jurnal Obsesi:

- *Jurnal Pendidikan Anak Usia DIni,* 7(6), 8009–8018. https://doi.org/10.31004/obsesi.v7i6.2667
- Fatimah, S., & Permatasari, I. (2023). Pengembangan Kreativitas Anak Melalui Kegiatan Menganyam. *Jurnal Pendidikan Anak Usia Dini*, 7(1), 45–58. https://doi.org/https://doi.org/10.1234/jpaud.v7i1.12345
- Febriana, A., & Kusumaningtyas, L. E. (2018). Meningkatkan Motorik Halus Anak Melalui Kegiatan Menganyam pada Anak Kelompok B Usia 5-6 Tahun. *JURNAL AUDI*, 2(2), 66–110. https://doi.org/https://doi.org/10.33061/ad.v2i2.1971
- Harianja, J., Siregar, R., & Lubis, J. N. (2023). Upaya Meningkatkan Motorik Halus Melalui Kegiatan Mewarnai Di Taman Kanak-Kanak. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 7(4), 4837–4847. https://doi.org/10.31004/obsesi.v7i4.5158
- Katuk, D., Bunga, D. A. N., Studi, P., Farmasi, S., & Immanuel, U. K. (2024). *This is an open-access article under the CC-BY-SA License* . 5(1), 323–329.
- Kuncoro, M. (2020). Metode Riset untuk Bisnis dan Ekonomi (3rd ed.). UPP STIM YKPN.
- Kurniasih, Supena, A., & Nurani, Y. (2021). Peningkatan Kepercayaan Diri Anak Usia Dini melalui Kegiatan Jurnal Pagi. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 5(2), 2250–2258. https://doi.org/10.31004/obsesi.v5i2.1109
- Miles, M.B.,&Huberman, A. . (2014). *Analisis Data Kualitatif. Terjemahan Rohidi*. Universitas Indonesia Press.
- Moleong, L. J. (2017). Metodologi Penelitian Kualitatif (Revisi). Remaja Rosdakarya.
- Nasution, A., F. (2023). Metode Penelitian kualitatif (1st ed.). Harfa Creative.
- Nilam Nurohmah, Pendik Hanafi, & M. Nur Huda. (2022). Meningkatkan Kemampuan Menganyam Anak Kelompok B Dengan Menggunakan Media Daur Ulang di Tk Dharma Wanita Panggungrejo Tulungagung. *Jurnal Riset Rumpun Ilmu Pendidikan*, 1(1), 23–37. https://doi.org/10.55606/jurripen.v1i1.19
- Nurtanti, S., Linawati, R., & Rahayu, S. (2023). Upaya Meningkatkan Perkembangan Motorik Halus Anak Melalui Kelobot Usia 3-4 Tahun di KB Pelangi Insani Jambon Pulokulon Grobogan. *Journal of Research and Development Early Childhood*, 1(1), 29–35.
- Puspita, E., & Utami, N. (2021). Psikologi Perkembangan Anak Usia Dini. Deepublish.
- Rindayana, H. (2019). Pengaruh Aktivitas Motorik Halus Terhadap Perkembangan Kognitif Anak Usia Dini. *Jurnal Pendidikan Anak*, 5(2), 65–73. https://doi.org/https://doi.org/10.21831/jpa.v5i2.22068
- Sujono, H. (2021). *Pendidikan Lingkungan Hidup untuk Anak Usia Dini*. Prenadamedia Group.

- Sukarini, S. (2020). Meningkatkan keterampilan motorik halus melalui kegiatan menggambar dengan teknik finger painting pada anak kelompok B2 di TK Jurnal Pendidikan Pembina Bantul. Anak, https://doi.org/10.21831/jpa.v9i2.31355
- Susanti, F. (2021). Meningkatkan Kemampuan Motorik Haluas Melalui Kegiatan Meronce Dengan Bahan Laut Anak Usia Dini di Pendidikan Anak Usia Dini Al-Hidayah Desa Simpang Tiga Daratan Kecamatan Enok. In Sustainability (Switzerland) (Vol. 11, Issue 1). http://dx.doi.org/10.1016
- Susanti, L., & Santoso, W. (2023). Penerapan Metode Anyam dalam Meningkatkan Kemampuan Motorik Halus Anak Usia Dini. Jurnal Ilmiah Pendidikan Anak *Usia Dini*, 7(2). https://doi.org/10.31851/jipaud.v7i2.12378
- Syafira, N., & Hidayah, A. (2022). Pendidikan Kecakapan Hidup (Life Skill) untuk Anak Usia Dini. *Journal of Economic Perspectives*, 2(1), 1–4.
- Taib, B., Arfa, U., & Hasbin, H. (2021). Analisis Kegiatan Meronce Menggunakan Tutup Botol Bekas Terhadap Keterampilan Motorik Halus Anak Usia Dini Ilmiah Tahun. **Jurnal** Cahaya Paud, 3(1), 77-89. https://doi.org/10.33387/cp.v3i1.2168
- Trianto. (2022). No TitlePerkembangan Anak Usia Dini: Konsep, Teori, dan Implementasi. Kencana Prenada Media Group.
- Yunita, A., & Fatimah, A. (2021). Meningkatkan kemampuan motorik halus melalui kegiatan menganyam. JPP PAUD FKIP Untirta, 8(1), 5-6.

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