

Methods of Fine Motor Development in 5-6 Year Old Children at TK Tunas Cahaya Kubu Raya

Received : April 05, 2024

Revised : May 10, 2024

Accepted: May 20, 2024

Publish : May 31, 2024

Dira Arthamevia Agustina *, Dian Miranda, Lukmanulhakim

Abstract:

This research aims to describe how Tunas Cahaya Kubu Raya Kindergarten teachers help children aged five to six years develop their fine motor skills. This research method uses descriptive qualitative. The subjects of this research were the head of the kindergarten and the Group B teacher at the Tunas Cahaya Kubu Raya Kindergarten. The data collection techniques used in this research are interviews, observation and documentation. Data analysis carried out data collection, data reduction, data presentation, and drawing conclusions. The technique for checking data validity is triangulation. The findings of the study demonstrate: 1. How to use resources, media, and procedures to support children's fine motor skill development while they carry out learning activities in order to ensure their success. The technique of assigning homework that helps kids improve their fine motor abilities is to provide them solo and group tasks that test their skills. Play techniques: Individual and group play activities using media and instruments like plasticine, ring cones, balls, etc. help kids improve their fine motor abilities. A learning activity carried out by teachers to develop fine motor skills in children aged 5-6 years. The suggestions in this research are that in delivering the material teachers use words that are easy for children to understand and that teachers can give tasks to children that can be done at home so that children's fine motor development can develop optimally.

Keywords: Fine Motoric, PAUD, Teacher's Method

1. INTRODUCTION

Fine motor development that occurs in children aged 5-6 years in Tunas Cahaya Kindergarten is not optimal when doing learning activities such as holding pencils correctly, cutting, sticking, connecting lines, and holding cutlery correctly. Supposedly in children aged 5-6 years in Permendikbud 137 of 2014 children can already draw according to their ideas, imitate shapes, explore with various media and activities using stationery and holding cutlery correctly, cut according to patterns, stick pictures appropriately, express themselves through detailed drawing movements.

According to Aprianti et al. (2024), method is an approach used to implement the plan that has been set in real action to maximize the achievement of the goals that have been set. Because a learning strategy

can only be implemented through the use of learning techniques, the effectiveness of the implementation of the strategy is highly dependent on how the teacher uses the method. According to Jumiyati et al. (2023), there are several important responsibilities of ECD instructors to encourage early development of fine motor skills in the academic environment. Children at this age have enormous potential to utilize all their abilities, including motor skills, in an effort to develop their talents that can be utilized in play activities.

Zhang et al. (2024) states that fine motor is a movement that involves only certain parts of the body and is carried out by small muscles, such as the skill of using fingers and precise wrist movements. According to Zhou & Tolmie (2024) states that movements involving fine muscles or specific body parts that are influenced by learning and practicing opportunities are known as fine motor skills. These two skills are essential for the optimal development of a child's fine motor skills, or the ability to manipulate objects and play equipment as well as writing, drawing, throwing and catching a ball.

One part of early childhood development is the physical motor element. Children's physical motor development consists of gross motor and fine motor skills. According to Permendikbud 137 of 2014 article 10 point 3 paragraph 1 Fine motor skills are skills related to physical motor abilities that involve

Publisher Note:

CV Media Inti Teknologi stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright

©2024 by the author(s).

Licensee CV Media Inti Teknologi, Bengkulu, Indonesia. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-ShareAlike (CC BY-SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).

flexibility and capacity to use tools and fingers to explore and express themselves in various ways. The correct use of finger and wrist movements requires fine motor skills. Fine motor development needs to be developed because fine motor development will affect children's readiness to enter school and also their daily lives.

Teaching methods are ways used by teachers in the learning process so that the learning process can run well and students get good results. According to Prasmita et al. (2024) states that learning methods are procedures, sequences, steps and ways that teachers use in achieving learning objectives, it can be said that learning methods are focused on achievement. In helping learners reach their full potential, teachers need a way when doing educational exercises that will be used or designing teaching activities. Techniques are very important in learning for the development of children's fine motor skills. Teachers must create learning techniques based on early childhood development in order to achieve learning objectives. To achieve certain goals teachers need the right method to be developed in classroom learning, namely learning methods.

Researchers found from observation and interview data that children's fine motor development at Tunas Cahaya Kindergarten Kubu Raya was not optimal when they were between 5-6 years old when doing learning activities. The teacher said that in developing children's fine motor skills, the teacher used three methods, namely the demonstration method, the assignment method, and the play method. The purpose of this study was to determine how the use of the demonstration method, the assignment method and the play method in the development of fine motor skills in children aged 5-6 years at Tunas Cahaya Kindergarten Kubu Raya.

2. MATERIAL AND METHOD

Qualitative research was used by this researcher. Through accurate word descriptions of reality obtained from data collection procedures and data analysis that can be applied from real world circumstances, qualitative research reveals certain social conditions. The location of this research is located on Jl. Peace. Komp. Damai Sejahtera No. C 1, Pal IX, Sungai Kakap, Kubu Raya, West Kalimantan. This research is planned at the beginning of the first semester of the 2023-2024 school year, namely in July 2023 to August 2023.

This research is a qualitative study at Tunas Cahaya Kindergarten Kubu Raya which seeks to provide a systematic and accurate description, and can reveal

the improvement of children's fine motor skills through methods carried out by teachers at the school. To get the data needed in this study, there are several techniques used, among others:

- a. Interview method, which is an interview conducted by the interviewer first preparing written guidelines on what to ask the informant.
- b. Participant observation method, which collects data through direct observation of informant activities.
- c. Documentation is a record of events that have passed, documents can be in the form of writings, pictures and works of an event

Participation in this study consists of several participations, namely:

- a. Teachers, to see the success rate of the implementation of the use of demonstration methods, assignment methods, play methods in the development of fine motor skills in children in teaching and learning activities.
- b. Children, consisting of 4 girls and 6 boys

Sample Question

1. How is the early development of fine motor skills of children aged 5-6 years at Tunas Cahaya Kindergarten Kubu Raya? Before starting the learning activity, do you ask the children about the previous material?
2. How do you create a warm atmosphere during learning?
3. How do you do if there are children who do not pay attention when the demonstration process begins?
4. Do you provide opportunities for children to think actively?
5. How do you encourage children to participate in demonstration learning?
6. In learning, do you apply the imitation process so that children can easily understand learning activities?
7. Do you use tools or props to make it easier to carry out demonstrations?
8. What are the obstacles in applying the demonstration method to children?
9. Does the teacher have a goal to achieve when doing assignments?
10. Do you prepare media or materials used to help develop children's fine motor skills?
11. In applying the assignment method, do you divide the children into groups or individuals?
12. Do you give direction and examples before implementing the assignment?

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>13. How do you help children succeed in learning activities?</p> <p>14. How do you apply the assignment method in daily life to develop children's fine motor skills?</p> <p>15. After doing the assignment activity, do you ask about the activities that the child has done?</p> <p>16. What are the obstacles in using the assignment method to develop children's fine motor skills?</p> <p>17. In applying the play method, do you divide the children into groups/individually?</p> | <p>18. Before the activity starts, do you give directions and the purpose of the game?</p> <p>19. When children are playing the game, does the teacher motivate the children?</p> <p>20. When playing the game, do you guide the children in playing the game?</p> <p>21. Do you evaluate the children when using the play method?</p> <p>22. When the game is over, does the teacher reward the children?</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Table 1. Teacher Observation Lattice About Fine Motor Skill Development Methods in 5-6 Year Old Children at Tk Tunas Cahaya Kubu Raya

No	Aspect Observed	Observation Indicator
1	Fine motor development method through demonstration method	<p>The teacher starts the demonstration with an activity that stimulates children to think.</p> <p>The teacher creates a soothing atmosphere by avoiding a tense atmosphere.</p> <p>The teacher ensures that all children follow the demonstration by paying attention to the reactions of all children.</p> <p>The teacher provides opportunities for children to actively think further according to what they see from the demonstration process.</p> <p>Appeared on day 2 with 3 children and day 3 with 6 children</p>
2	Fine motor development method through assignment method	<p>The teacher assigns tasks to the children.</p> <p>The teacher provides guidance, supervision and encouragement so that children want to do the task on their own.</p> <p>The teacher asks for a report from the child orally or in writing.</p>
3	Fine motor development method through play method	<p>The teacher presents the objectives and motivates the children</p> <p>The teacher conveys information</p> <p>The teacher groups the children into learning groups</p> <p>The teacher guides the children</p> <p>The teacher conducts evaluation</p> <p>The teacher gives awards</p>

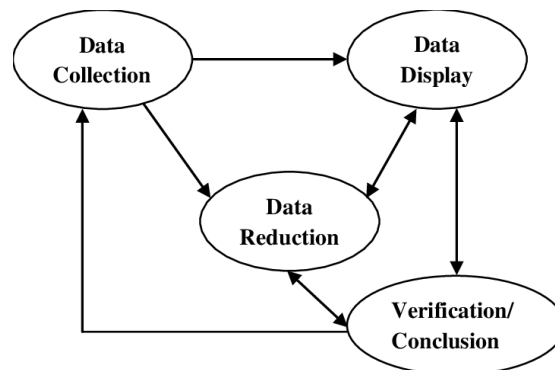


Figure 1. Components in Data Analysis (Interactive Model)

3. RESULT AND DISCUSSION

3.1 Result

The use of demonstration methods in fine motor development in children aged 5-6 years at Tunas Cahaya Kindergarten. The teacher said that the demonstration method is a method that shows the previous material so that children can recall the previous material and imitate it again. The steps taken by the teacher in developing children's fine motor skills, among others: (1) The researcher saw that before the teacher started the demonstration, the teacher arranged the children's seats first so that all students could clearly pay attention to the ongoing demonstration, (2) The researcher saw the teacher prepare and show the materials and media that would be used in the demonstration learning process to the children, (3) The researcher saw that when the lesson began the teacher gave thought-provoking exercises to the children to complete. For example, the teacher asks the child "what is the date today" then the child answers "the 10th" then the teacher invites the child to count to ten using the finger "let's count together from one to ten, one two three four five six seven eight nine ten". After counting the teacher asked the child again "so what date is this" the child also answered "ten", (4) The researcher saw that if the learning atmosphere of the children's attention was distracted, the teacher quickly took back the child's focus by inviting the child to sing or pat the spirit so that the child refocused himself in participating in the lesson and the child paid attention to the demonstration, (5) The researcher saw the teacher provide opportunities for children to actively think further according to what was seen from the demonstration process. For example, after the teacher explains the rules of the game, the teacher provides opportunities for children to think actively by the teacher giving examples of how the game is done.

Researchers see that teachers have carried out demonstration learning methods to children to help children develop their fine motor skills with tools or media that are shown with the imitation process so that children can directly imitate these activities easily. From the research conducted that teachers at Tunas Cahaya Kindergarten have used the demonstration method in helping children in developing children's fine motor skills, with the demonstration method carried out by the teacher can make it easier for children to understand activities, imitate and perform activities to develop their fine motor skills successfully.

The use of the assignment method in fine motor development in children aged 5-6 years at Tunas Cahaya Kindergarten. The teacher said that by using the method of giving assignments the teacher can see the development of children's fine motor skills so that the teacher can directly assess orally the development of children's fine motor skills. The activities regarding activities carried out by teachers to help children aged 5-6 years develop their fine motor skills at Tunas Cahaya Kindergarten Kubu Raya, include:

(1) Teachers provide activities that involve children's fine motor movements such as sticking, writing, drawing, coloring, etc. Giving activity tasks can be done individually or in groups, (2) Teachers guide, supervise, and encourage children. when the activity is given, the teacher supervises, guides and encourages in the form of encouragement and a star made of children's origami paper so that children are motivated to complete the activity by themselves, (3) The teacher asks for a report on the child verbally. after the activity is completed, the teacher asks the child how he feels when doing the activity, and asks the child which parts are difficult to do. That way the children report how they felt, for example, happy, sad, or scared. Children can also report which parts are difficult and easy to do. The researcher observed that teachers have improved children's fine motor skills through the task approach by using various activities that involve children's fine motor skills such as sticking, writing, coloring, folding, drawing, etc.

The use of play methods in fine motor development in children aged 5-6 years at Tunas Cahaya Kindergarten. The teacher said that with the play method the teacher can see directly the development of children's fine motor skills with children playing games. The actions taken by the teacher to provide activities that help children improve their fine motor skills include: (1) The teacher conveys information. Researchers observed that before starting the game, the teacher conveys information in the form of tools and materials used as well as how and the rules in the game so that children can easily follow the game, (2) Teachers group children in study groups. The researcher observed that before carrying out the activity, the teacher first divided the children into several groups depending on the game being played, (3) The teacher guides the children. The researcher observed that the teacher gave guidance to children who did not understand the game, (4) The teacher conducted an evaluation. Researchers observed that the teacher conducted an oral evaluation after the game was over which later the teacher could further improve the game that could help children's fine motor development, (5) The teacher gave awards.

Researchers observed that the teacher always gave awards in the form of stars to groups that successfully played the game.

3.2 Discussion

The use of demonstration methods carried out by the teacher by showing a learning process or activity to children that can make it easier for children to understand and develop their fine motor skills such as cutting according to patterns, imitating shapes, folding, and pasting pictures appropriately. According to Wildmon et al. (2024), this is a method through which educators or teachers provide instructions to students by showing them a scenario, action, event, and sequence of implementation of a particular task or object being studied, either in real or imitation form, using various media techniques relevant to the subject matter to encourage children's creativity in understanding the information they learn.

According to Zhang et al. (2024), says "Demonstration can be used with many methods of learning. it is a good vehicle to involve students in learning process. the demonstration should bring continuity in learning. after demonstration students should be asked to practice the skills or attitudes in right way". Demonstration can be used in many ways to support learning which is useful to make children interested in what they are learning. After the demonstration, the teacher should encourage the child to put the skills or attitudes into practice in an appropriate way. According to Zulfikar et al. (2024) demonstration method is a learning strategy used by teachers to teach students directly by modeling an action. According to Nordin et al. (2024) through the process of creating something and doing something, the demonstration approach has the advantage of helping students better understand and comprehend the learning activities delivered by the teacher.

According to Doleck et al. (2021), there are steps in the implementation of the demonstration, namely; (1) Arranging the spatial layout that allows all students to pay attention to the demonstration, (2) Determining the activities carried out during the implementation of learning such as whether it is necessary to give a lengthy explanation so that students can gain a broad understanding, whether students are given the opportunity to ask questions to ensure that children really understand or still doubt, whether students are required to make certain notes. According to Putra et al. (2024) there are several characteristics of the demonstration method, namely; (1) displaying objects or material beforehand; (2) experiencing the imitation process; (3) having props that can be used

in carrying out the demonstration method. According to Wildmon et al. (2024) the purpose of learning with demonstration techniques is to demonstrate how an event occurs according to the lesson plan, how to carry it out, and how simple the child's understanding is in the classroom. Based on the results of research conducted by researchers at Tunas Cahaya Kindergarten Kubu Raya, teachers have carried out the learning steps of the demonstration method with stages to achieve the goal of developing fine motor skills in children aged 5-6 years. before carrying out learning activities, the teacher first arranges the child's seat so that all children can pay attention to learning and the teacher determines the activities carried out during implementation such as conveying teaching materials, methods and rules in learning activities so that children make it easier for children to carry out learning activities.

The use of the method of giving tasks in the development of fine motor skills in children aged 5-6 years at Tunas Cahaya Kindergarten, the teacher provides activities that involve fine motor movements, activity tasks such as drawing, merging, sticking or folding. Tasks are given to children individually or in groups under guidance and supervision and the teacher provides encouragement to children so that children can complete the activities given by the teacher on their own. In line with Jia & Lu (2024), stated that the method of giving assignments is a way of teaching and learning interaction characterized by the existence of tasks that are done at school or at home in groups or individually. Through the method of giving assignments, children are directly involved in activities in accordance with the teaching presented, it can be measured to what extent their ability to do the assigned tasks is in accordance with the expected tasks. According to Amelia & Cinantya (2024), children will benefit from hands-on, independent assignment methods. Children learn by doing, such as folding and pasting, which helps them develop hand-eye coordination.

According to Rahma et al. (2024), assignment as a teaching method is an assignment by the teacher to students to achieve certain teaching objectives. By giving this task, students learn and do tasks. In carrying out learning activities, students are expected to obtain a result, namely a certain change in behavior in accordance with the predetermined goals. Tasks are given to students as part of the teaching and learning process in the classroom, and this approach helps them overcome difficulties by giving them tasks to do. The child will be accountable to the teacher

after completing and mastering this work within a set period of time (Zach et al., 2024).

According to Faber et al. (2024), the assignment method is a method used to provide opportunities for children to carry out tasks prepared by the teacher. This assignment method can be used by teachers to give tasks to children to achieve certain development goals. According to Loeng (2020), the assignment method has three stages, namely: (1) the teacher gives the task, (2) the child carries out the task, (3) the child is accountable to the teacher what has been learned. Based on the results of research conducted at Tunas Cahaya Kindergarten Kubu Raya, teachers have applied the method of giving assignments, to achieve results in accordance with the objectives, namely the development of fine motor skills of children aged 5-6 years, teachers provide tasks using activities that involve children's fine motor skills, such as folding, sticking, cutting, coloring, and imitating shapes, both individually and in groups.

The use of play methods in the development of fine motor skills in children aged 5-6 years at Tunas Cahaya Kindergarten which is carried out by teachers, namely individually and in groups using media and props in the form of plasticine, ring cones, straws, plastic cups, blocks and others. According to Raharjo & Nurhayati (2024) the play method is an activity carried out by several children in search of fun that can shape the child's personality process and help children achieve physical, intellectual, social, moral and emotional development. According to Inkasari et al. (2024) mentions play as a direct and spontaneous activity, where a child interacts with others using their imagination, five senses, and all their limbs.

According to Inkasari et al. (2024) mentions play as a direct and spontaneous activity, where a child interacts with others using his imagination, five senses, and all his limbs. Based on the results of research conducted by researchers at Tunas Cahaya Kindergarten Kubu Raya, teachers have conducted learning through the play method to develop fine motor skills of children aged 5-6 years. In line with the opinion Raharjo & Nurhayati (2024) the steps in the play method are: (1) The teacher conveys goals and motivates children, (2) The teacher conveys information, (3) The teacher groups children into learning groups, (4) The teacher guides the child, (5) The teacher conducts an evaluation, (6) The teacher gives awards. However, in Tunas Cahaya Kindergarten Kubu Raya, the teacher does not guide children when playing, only gives directions and

examples so that children play the game independently.

The suggestions that researchers give are that in delivering the material the teacher should choose the use of words that are easily understood by children. so that children can easily imitate and complete activities successfully. And the teacher should give assignments to children that can be done at home so that children's fine motor development can develop optimally.


4. CONCLUSION

Based on the results of data analysis and discussion that researchers have conducted at KB Labschool UNP Kediri about the analysis of technology-based learning using TikTok. learning activities using TikTok aim to develop physical motor and social-emotional aspects. indicators of the development of physical motor and social-emotional aspects have increased. Both in the physical motor aspects, namely moving to the rhythm of the song, doing a dance of jumping, spinning, twisting while jumping, clapping, twisting hands, as well as the social-emotional aspects of daring to appear in front of many people Children look confident in front of the camera, more confident in their ability to show happy expressions, Children can learn to express their feelings in good contact with many people posing like a model.kindergarten is officially implemented 15-20 minutes every day before the start of educational activities (primary observation) in the form of activities in the form of methods as follows: Through lectures. (explaining concepts), through games, storytelling, singing, modeling, role play, traveling etc. According to the form of activities carried out through routine, spontaneous, exemplary and programmed activities. Fostering religious values in children includes introducing God, worshipping Him and encouraging good morals.

AUTHOR INFORMATION


Corresponding Authors

Dian Miranda, Universitas Tanjungpura, Indonesia

 <https://orcid.org/0009-0000-8761-8345>

Email: dianmiranda84@gmail.com

Lukmanulhakim, Universitas Tanjungpura, Indonesia

 <https://orcid.org/0009-0009-0591-9781>

Email: lukmanulhaq@gmail.com

Authors

Dira Arthamevia Agustina, Universitas Tanjungpura, Indonesia

 <https://orcid.org/0009-0002-9012-4877>

Email: dira.arthamevia@gmail.com

REFERENCE

- Amelia, N., & Cinantya, C. (2024). Developing Activity, Independence and Fine Motor Aspect Using The Donat Model Of Group B Children. *E-CHIEF Journal*, 4(1), 1. <https://doi.org/10.20527/e-chief.v4i1.10069>
- Aprianti, E., Nafiqoh, H., Annisa, A. N., & Cahyati, A. (2024). *Application of Discovery Learning Strategies in Natural Materials Centers in Early Childhood Education* (pp. 168–177). https://doi.org/10.2991/978-2-38476-206-4_19
- Doleck, T., Lemay, D. J., & Brinton, C. G. (2021). Evaluating the efficiency of social learning networks: Perspectives for harnessing learning analytics to improve discussions. *Computers & Education*, 164, 104124. <https://doi.org/10.1016/j.compedu.2021.104124>
- Faber, L., Schoemaker, M. M., Derikx, D. F. A. A., Seetsen- van Schelven, H., Hartman, E., & Houwen, S. (2024). Qualitative age-related changes in fine motor skill performance among 3- to 6-year-old typically developing children. *Human Movement Science*, 93, 103169. <https://doi.org/10.1016/j.humov.2023.103169>
- Inkasari, R. F., Kharismawati, I., & Priatiningsih, S. (2024). Development of “Smart Egg Puzzle” as An Innovative Learning Media in Introducing Numbers to Early Childhood. *Jurnal Paedagogy*, 11(1), 132. <https://doi.org/10.33394/jp.v11i1.9573>
- Jia, H., & Lu, C. (2024). Guided learning strategy: A novel update mechanism for metaheuristic algorithms design and improvement. *Knowledge-Based Systems*, 286, 111402. <https://doi.org/10.1016/j.knosys.2024.111402>
- Jumiyati, Dian Eka Priyantoro, & Uswatun Hasanah. (2023). Implementation of Coloring Activities Early Childhood in Developing Fine Motor Skills. *Journal of Childhood Development*, 3(1), 1–12. <https://doi.org/10.25217/jcd.v3i1.3139>
- Loeng, S. (2020). Self-Directed Learning: A Core Concept in Adult Education. *Education Research International*, 2020, 1–12. <https://doi.org/10.1155/2020/3816132>
- Nordin, M. N., Ismail, S. Z., Yusuf, R., Abu Bakar, Z. A., & Abbas, M. S. (2024). A Review of Multisensory Theory on The Learning of Students with Special Education Needs with Visual Impairment. *International Journal of Academic Research in Business and Social Sciences*, 14(3). <https://doi.org/10.6007/IJARBS/v14-i3/21041>
- Prasmita, D. S., Kesumawati, N., & Dedy, A. (2024). Pengaruh Metode Edutainment Terhadap Kemampuan Berhitung Permulaan Siswa Kelas I SD. *Jurnal Pendidikan Dasar Flobamorata*, 5(1), 52–58. <https://doi.org/10.51494/jpdf.v5i1.1092>
- Putra, A. P., Iman, M. I. N., Pane, S. A. F., & Pane, N. H. A.-U. (2024). Kerentanan Stres Mahasiswa Ditinjau Dari Perbedaan Gender Dalam Menghadapi Model Pembelajaran SCL (Student Centered Learning). *Educate: Journal of Education and Learning*, 2(1), 1–9. <https://doi.org/10.61994/educate.v2i1.344>
- Raharjo, & Nurhayati, A. (2024). Pandemic Learning Loss Recovery Strategy in the New Normal Period. *European Journal of Education and Pedagogy*, 5(1), 15–22. <https://doi.org/10.24018/ejedu.2024.5.1.731>
- Rahma, F., Zaini, M., & Kaspul, K. (2024). Keterampilan Berpikir Kritis Buku Ensiklopedia Famili Dipterocarpaceae Melalui Penelitian Pengembangan. *JUPENJI: Jurnal Pendidikan Jompa Indonesia*, 3(2), 28–38. <https://doi.org/10.57218/jupenji.Vol3.Iss2.1048>
- Wildmon, M., Anthony, K., & Kamau, Z. (2024). Identifying and Navigating the Barriers of Parental Involvement in Early Childhood Education. *Current Issues in Education*, 25(1). <https://doi.org/10.14507/cie.vol25iss1.2146>
- Zach, M., Tauber, J., Dohnal, P., & Svoboda, J. (2024). Designing Multi-Functional Magnetic Storage Cubes for Use in Modern Homes and Schools. *Applied Sciences*, 14(2), 829. <https://doi.org/10.3390/app14020829>
- Zhang, B., Pan, Z., Cao, L., Xie, J., Chu, S., Jing, Y., Lu, N., Sun, T., Li, C., & Xu, Y. (2024). Measurement of wellbore leakage in high-pressure gas well based on the multiple physical signals and history data: Method, technology, and application. *Energy Science & Engineering*, 12(1), 4–21. <https://doi.org/10.1002/ese3.1619>
- Zhou, Y., & Tolmie, A. (2024). Associations between Gross and Fine Motor Skills, Physical Activity, Executive Function, and Academic

Achievement: Longitudinal Findings from the UK Millennium Cohort Study. *Brain Sciences*, 14(2), 121.

<https://doi.org/10.3390/brainsci14020121>

Zulfikar, M. Y., Hafidz, & Azzahro, S. (2024). Penerapan Metode Talaqqi dalam Program Tahfidz Anak Usia Dini di Rumah Tahfidz Desa Beji. *Didaktika: Jurnal Kependidikan*, 13(2), 1755–1766.

<https://doi.org/10.58230/27454312.589>