

Fostering Early Childhood Creativity through Finger Painting Activities: A Case Study

Auqillah Fadia Haya^{1⊠}, Alfandi Ahmad², Dina Putri Purnamasari³, Layyinatul Aliya⁴, Uun Lailatul Musfidah⁵

¹³⁴⁵Department of Early Childhood Education, Universitas Trunojoyo Madura, Bangkalan, Indonesia
²Prince of Songkla University, Thailand

ARTICLE INFO

Article History:

Received: December 18, 2024 Revised: May 8, 2025 Accepted: May 15, 2025

Keywords:

Creativity;
Finger painting;
Early childhood education.



This is an open-access article under the CC BY-NC license.

Copyright © 2025 by Author, Published Universitas Trunojoyo Madura

ABSTRACT

Background of the study: Art development is essential in early childhood education as it allows children to express their creativity and imagination. By the age of 5–6 years, children are expected to create diverse drawings and paintings using various techniques. However, in Class B at TK Pratiwi Kamal, several children had not yet developed the ability to produce painting works, indicating a gap in their artistic growth. This highlights the need for appropriate and engaging interventions to support their creativity.

Aims and scope of paper: This study aims to examine the effectiveness of finger painting as a method to enhance painting skills and artistic creativity among 5–6-year-old children. The focus is specifically on Class B at TK Pratiwi Kamal, with finger painting used as a medium to support visual art expression in early learners.

Methods: The research uses a Classroom Action Research design. The subjects were seven children—three girls and four boys—who participated in finger painting activities. Data collection involved observation and performance assessments to evaluate changes in artistic abilities before and after the intervention.

Results: The results showed varied levels of development: two children were in the "Not Yet Developed" category, one in "Beginning to Develop", two in "Developing as Expected", and two in "Very Well Developed". These findings indicate that finger painting positively impacted the children's artistic abilities, though progress differed among individuals.

Contribution: This study highlights finger painting as a valuable tool in fostering creativity and imagination in early childhood. It underlines the importance of providing diverse art media in early education. Teachers and schools are encouraged to integrate such methods to nurture artistic development and support children's talents from an early age.

Email : 230651100035@student.trunojoyo.ac.id

INTRODUCTION

Finger painting, as a form of visual art, plays a crucial role in facilitating creative exploration among young children. This activity allows children to express ideas, emotions, and imagination freely through the use of colors and hand movements (Blum & Dragositz, 1947; Napoli, 1947). In a study conducted with Group B students at TK Pratiwi Kamal, finger painting was not only observed as a creative outlet but also recognized as an effective educational medium that stimulates various aspects of early childhood development, particularly fine motor skills and creativity.

The urgency of researching finger painting at TK Pratiwi Kamal arises from the importance of providing developmentally appropriate stimuli during the golden age of a child's growth. Finger painting is known to have significant and relevant benefits for early childhood development. The activity demands the coordination of visual perception and fine hand movements, engaging the small muscles of the fingers and hands. This is particularly important for developing fine motor skills, which are essential for performing everyday tasks such as writing, eating, and dressing. In addition, finger painting supports social-emotional development by helping children manage emotions, cooperate with peers, and follow instructions in an enjoyable setting.

Despite its potential benefits, several challenges have been observed that hinder children from fully engaging in finger painting activities. These include limited creativity in creating finger painting artworks, difficulty in understanding color concepts or painting techniques, and anxiety or discomfort with getting their hands dirty. Such challenges highlight the need for appropriate pedagogical approaches to guide children through finger painting in a way that supports their comfort and growth.

Several studies affirm that creativity is a critical developmental aspect that must be nurtured from an early age (Budiwaluyo & Muhid, 2021). According to Priyanto, creativity is an inherent potential in young children that needs to be stimulated for optimal growth (Priyanto, 2014). The development of creativity is closely tied to cognitive development and can ultimately enhance children's academic achievement at later stages of education (Barboza-Salerno, 2020; Beamish et al., 2025; Reuter-Lorenz & Park, 2024). Priyantoro also emphasize that creativity plays a significant role in an individual's life; the more creative a person is, the more likely they are to achieve higher levels of success (Priyanto, 2014). Describes creativity as a cognitive activity that produces new perspectives on problems or situations (Amalia & Khoiriyati, 2018; Long et al., 2023; Rahma et al., 2025). Thus, fostering activities that stimulate creativity in early childhood becomes essential in their learning process.

One effective and enjoyable way to stimulate creativity in young children is through artistic activities such as finger painting. This form of art gives children the opportunity to paint and create images using their fingers as the primary tool. Finger painting as an activity in which children create images by freely applying colored materials directly with their fingers onto a surface. In addition to enhancing motor and visual skills, finger painting also enriches children's sensory experiences, which are vital in forming foundational learning concepts (Arabi & Saberi Kakhki, 2025; Herren et al., 2025).

To address the challenges faced by children during finger painting activities, educators need to adopt child-friendly strategies that help them gradually adjust to this form of art. Possible solutions include: (a) introducing paint slowly, starting with one finger to help children become accustomed to the texture of the paint; (b) demonstrating the activity alongside the children while showing that dirty hands can be easily cleaned; (c) using positive language to build comfort and excitement, such as saying, "Wow, it's so fun to play with colors on your hands!" or "It's okay to get messy—we can wash it off later!"; (d) providing wet wipes or damp cloths nearby so children can clean their hands whenever they wish, ensuring they feel comfortable; and (e) helping children see messy hands as part of a joyful exploration and offering praise when they are brave enough to try.

Unfortunately, initial observations and interviews conducted with teachers at TK Pratiwi Kamal revealed that finger painting has not yet been implemented as part of the children's daily learning activities. This is a missed opportunity considering the many developmental benefits this activity can offer. The lack of creative stimulation has led to signs of boredom among children, along with difficulties in maintaining focus during certain activities. These findings indicate a need for integrating more engaging and creative learning methods into the curriculum.

Based on this context, the present study aims to demonstrate that finger painting is not merely an art activity but a powerful educational tool to stimulate children's creativity in an enjoyable and effective manner. This research is expected to contribute to the development of more varied and meaningful learning strategies at TK Pratiwi Kamal and to serve as a reference for other early childhood education institutions in incorporating art-based activities into their daily routines.

METHOD

Research Design

This study employed a descriptive qualitative research design. The qualitative approach was chosen to explore and interpret phenomena in a natural setting and to understand the meanings constructed by the participants (Creswell & Creswell, 2018; Miles et al., 2020). According to Kristin, qualitative research is important for interpreting verbal and written data, enabling researchers to gain a deeper understanding of social phenomena related to the research focus (Kristin, 2016). The aim of qualitative research is to discover answers to social phenomena through systematic scientific procedures that emphasize interpretation and meaning-making.

Research Subjects

The research was conducted at TK Pratiwi, located in Kamal Sub-district, Bangkalan Regency, during the even semester of the 2024/2025 academic year. The participants in this study included seven children and five educators. The selection of this site was based on its relevance to the research objectives and the accessibility of participants who were actively involved in early childhood learning activities.

Data Collection Techniques

The data collection techniques used in this study were observation and documentation. Observation was conducted to directly monitor the learning activities involving finger painting, focusing on children's creativity and responses. Documentation was used to collect supporting evidence such as photographs, lesson plans, and children's work as proof of the activities that had taken place. Creswell emphasizes that these methods are suitable for qualitative research, as they provide a rich source of data grounded in actual experiences and events (Creswell & Creswell, 2018).

Data Analysis Techniques

The data analysis process followed the interactive model, which includes several stages: (1) Data Collection – gathering information through observation and documentation; (2) Data Reduction – selecting, simplifying, and focusing data that are relevant to the research questions; (3) Data Display – presenting data in an organized form to facilitate understanding and interpretation; and (4) Conclusion Drawing and Verification – formulating findings based on patterns and meanings that emerge from the data (Miles et al., 2020). The qualitative data analysis is carried out interactively and continuously until the data become saturated and no new information emerges (Miles et al., 2014).

Data Validation Techniques

To ensure the validity and reliability of the data, the researcher applied data triangulation techniques. This involved cross-checking information from multiple sources, including the

principal and teachers, to confirm the accuracy and consistency of the data obtained. Triangulation enhances the credibility of qualitative research by examining the data from different perspectives. This process is essential in determining the degree of trustworthiness of the findings collected through qualitative inquiry (Miles et al., 2020).

RESULTS

This research was conducted at TK Pratiwi Kamal with the theme: Enhancing Early Childhood Creativity through Finger Painting Activities. The study aimed to encourage active participation among children, foster creative expression, and improve their fine motor skills and self-confidence. Finger painting was chosen as a medium to support these developmental targets due to its engaging and hands-on nature.

The activity began with an opening session, in which the researchers introduced themselves to the children to build rapport and create a comfortable learning environment. This was followed by an introduction to the activity itself—what finger painting is, what tools would be used, and how the activity would proceed. Materials used in the session included illustrated paper, food-safe coloring or poster paint, and hand towels for cleaning. The researchers also presented a set of ground rules or class conventions to ensure a smooth and respectful learning process.

The learning interaction implemented multi-directional communication patterns, allowing reciprocal exchanges between researcher and child, and child to child. Through guided interaction, the researcher demonstrated color mixing possibilities and encouraged discussion and observation among the children. This phase was critical in stimulating curiosity and preparing the children for the hands-on session.

The core activity of finger painting was carried out in two main stages. First, the children used illustrated tree trunk templates to apply colored finger prints as "leaves." The researchers provided demonstrations, which some children imitated. However, others showed initiative by creating their own compositions based on imagination. Some children initially showed hesitation to touch the paint, but this was addressed through gentle explanations and encouragement. Researchers explained that the paints were safe and washable, and modeled the process themselves. Once children became comfortable, they were given freedom to experiment and express their ideas and emotions through color and shape.



Figure 1. Children Participating in Finger Painting Activities

The figure 1, the children are shown sitting in small groups of 3–4 participants, each group receiving a set of materials distributed by the researchers. The image also captures the moment where children and researchers collectively establish the activity rules. This group setup was designed to foster collaboration and social interaction. The researchers initiated a stimulus phase, prompting children with open-ended questions like, "Have you ever seen a painting made with fingers?" to encourage idea generation and exploration.

At the conclusion of the activity, the researchers and class teacher conducted an evaluation to assess learning outcomes and student engagement. Based on observations, it was found that the creativity of children aged 5–6 at TK Pratiwi Kamal had not yet developed to its full potential.

Many still relied heavily on models provided by adults and showed limited initiative in producing original work.

Creativity involves generating new combinations based on previous knowledge and experience and can be developed continuously throughout life at school, at home, or within the community. The finger painting activity helped develop children's creativity in several dimensions, including fluency, flexibility, originality, and elaboration. Children were given the freedom to create different visual expressions based on their ideas, to mix colors, and to share their results with peers. This process encouraged not only imagination but also self-expression, confidence, and interpersonal communication.

Furthermore, finger painting provided opportunities for language development, as children were encouraged to describe or tell stories about their artworks to the researchers and classmates. Thus, the learning process was integrated, engaging cognitive, physical, emotional, and linguistic domains simultaneously.

DISCUSSION

Based on the findings of this study, the classroom action implemented at TK Pratiwi Kamal demonstrated that the creativity of children in group B3 can be effectively developed through finger painting activities. This was evident from the application of activities in which children were invited to create paintings using their fingers based on sample images. Although some children initially required assistance and were reluctant to touch the paint or food coloring used in finger painting, their participation gradually increased with encouragement. Finger painting proved beneficial not only for fostering creativity but also for enhancing children's fine motor skills. The finger painting serves to enhance creative thinking, develop aesthetic appreciation, and train finger muscles (Anggraini et al., 2018; Hasibuan & Ningrum, 2017; Maghfuroh & Chayaning Putri, 2018; Nafiatin et al., 2022).

Creativity, as demonstrated through this activity, refers to the ability to generate new ideas or tangible products that are original and different from existing ones. Finger painting, a technique that involves applying paint directly to a surface using fingers instead of tools like brushes, allows children to express imagination, creativity, fine motor skills, and artistic abilities—particularly in the realm of visual arts (Harmon et al., 2025; Hasanah et al., 2025; Krombholz, 2025; Long et al., 2023; Muthaharah et al., 2025; Surgent et al., 2025). Through this sensory-rich experience, children learn to control their finger movements, recognize and mix colors, and express their inner ideas. When children are given the freedom to experiment with colors and finger strokes, they begin to show indicators of creative traits such as fluency, flexibility, and originality.

Art development in early childhood can be supported through various media, one of which is finger painting. Anggraini et al. finger painting as a direct painting method using fingers, offering children the freedom to express their imagination in a simple and unrestricted manner (Anggraini et al., 2018). Teachers play an essential role in motivating children and building their confidence to engage in this activity, especially in overcoming the initial reluctance to get their hands messy with paint. Emphasize that finger painting develops hand-eye coordination, finger muscle strength, imagination, color combination skills, and an appreciation for artistic movements and beauty. As shown in this study, finger painting was well-suited for the learning process at TK Pratiwi Kamal because it was engaging, enjoyable, and sustained children's interest.

Moreover, the research aimed to enhance young children's creativity through finger painting as a central theme (Novitasari & Mursid, 2025). The expected outcomes included heightened enthusiasm, improved creativity and productivity, and increased self-confidence in learners. Overall, the activity achieved its objectives, as evidenced by the positive feedback from educators and the active participation of the children. Interviews with teachers and staff at the partner institution confirmed that finger painting provided significant benefits to learners. Despite initial unfamiliarity, the children quickly adapted to the activity due to its enjoyable and expressive nature.

Further argue that artistic activities contribute to the development of children's physical, perceptual, intellectual, emotional, creative, social, and aesthetic abilities (Alonso et al., 2025; Barboza-Salerno, 2020; Budiarti & Yasmin Adar, 2023; Maharani et al., 2025). Such activities also offer valuable educational experiences. Consequently, finger painting is a valuable tool in early childhood education, supporting multiple developmental domains, including socioemotional skills (Maloney et al., 2024). As a painting technique that stimulates imagination and expression, finger painting should be designed and implemented purposefully to support holistic child development in early learning settings.

Implications

The findings of this study highlight the practical importance of incorporating finger painting activities in early childhood education as a means to foster creativity and support fine motor development. Teachers can use finger painting not only as an artistic activity but also as a tool for cognitive, emotional, and social stimulation. The positive response from both educators and learners suggests that this approach is effective in increasing children's engagement and self-confidence. Therefore, early childhood institutions should consider integrating finger painting more systematically into their learning programs to promote holistic child development.

Research Contribution

This study contributes to the growing body of knowledge on creative development in early childhood, specifically by demonstrating the effectiveness of finger painting as a medium for enhancing children's creativity. Unlike previous studies that may have explored creative development in general, this research provides concrete classroom-based evidence on how finger painting can directly support creative expression, imagination, and self-confidence among young learners. The study also adds value by emphasizing the role of teacher facilitation and the need for supportive learning environments in fostering creativity.

Limitations

Although the results of this study are promising, several limitations must be acknowledged. First, the research was conducted in a single institution (TK Pratiwi Kamal) with a limited number of participants, which may affect the generalizability of the findings. Second, the study focused on short-term observations during classroom action research, thus lacking long-term evaluation of sustained creative growth. Additionally, variations in individual children's learning styles, cultural backgrounds, and prior experiences with art activities were not deeply explored, which might have influenced the outcomes.

Suggestions

Future research is encouraged to explore the long-term impact of finger painting and other creative arts-based activities on children's development. Comparative studies across multiple early childhood institutions and cultural contexts would help validate and enrich the findings. Researchers should also consider integrating more structured assessment tools to measure creativity and other developmental outcomes more objectively. Furthermore, it is recommended that educators receive training and support to effectively facilitate art-based learning, ensuring that children's creativity is nurtured in a stimulating and inclusive environment.

CONCLUSION

Based on the results of the classroom action research conducted in Group B3 of TK Pratiwi Kamal, Bangkalan Regency, it can be concluded that finger painting is an effective method for developing children's artistic expression and imagination. The implementation of finger painting activities, in which children were encouraged to create images using their fingers, showed progressive improvement in their creative abilities. Initially, some children required assistance and exhibited hesitance due to discomfort with getting their hands dirty. However, through

continuous facilitation and encouragement, most children gradually became more independent, enthusiastic, and expressive in their artistic creations. Assessment of the children's development showed varied outcomes: two children were categorized as Developing Very Well, two as Developing as Expected, one as Beginning to Develop, and two as Not Yet Developing. These results indicate that finger painting can effectively support artistic and imaginative growth in early childhood, although the level of progress may vary among individuals based on their readiness and prior exposure to art-based activities. Longitudinal studies should also be undertaken to assess the sustained impact of finger painting on children's creative, emotional, and cognitive development. Moreover, future investigations may explore how integrating finger painting with other art forms or thematic learning can further enrich children's learning experiences and developmental outcomes.

AUTHOR CONTRIBUTION STATEMENT

AFH conceived the idea. AA conducted data collection. ULM contributed to the literature review. DPP contributed to proofreading and drafting the manuscript. All authors reviewed and approved the final version of the manuscript.

REFERENCES

- Alonso, A., Cabrera, N. J., Kerlow, M. A., & Reich, S. M. (2025). Mothers' and fathers' emotion socialization: Longitudinal relations with toddlers' social competence. *Infant Behavior and Development*, 78, 102034. https://doi.org/10.1016/j.infbeh.2025.102034
- Amalia, E. R., & Khoiriyati, S. (2018). Effective Learning Activities To Improve Early Childhood Cognitive Development. *AL-ATHFAL*: *JURNAL PENDIDIKAN ANAK*, *4*(1), 103–111. https://doi.org/10.14421/al-athfal.2018.41-07
- Anggraini, S., Jaya, T. B. S., & Sofia, A. (2018). Pengaruh Aktivitas Permainan Finger Painting terhadap Pengenalan Warna Anak Usia 5-6 Tahun. *Jurnal Pendidikan Anak*, 4(2), 1–11.
- Arabi, S. M., & Saberi Kakhki, A. (2025). Comparing the effects of fine, gross, and fine-gross motor exercises on the motor competence of 6–12 year-old autistic children: A quasi-experimental study with a follow-up test. *Acta Psychologica*, *254*, 104842. https://doi.org/10.1016/j.actpsy.2025.104842
- Barboza-Salerno, G. E. (2020). Cognitive readiness to parent, stability and change in postpartum parenting stress and social-emotional problems in early childhood: A second order growth curve model. *Children and Youth Services Review*, 113, 104958. https://doi.org/10.1016/j.childyouth.2020.104958
- Beamish, J., Drijver, J., & Partanen, M. (2025). Cognitive and adaptive functioning outcomes after cancer diagnosis in early childhood: A systematic review. *EJC Paediatric Oncology*, 5, 100237. https://doi.org/10.1016/j.ejcped.2025.100237
- Blum, L. H., & Dragositz, A. (1947). Finger Painting: The Developmental Aspects. *Child Development*, 18(3), 88. https://doi.org/10.2307/1125467
- Budiarti, E., & Yasmin Adar, S. (2023). Impact of Digital Media on Social-Emotional Development in Early Childhood: A Case Study at TK Kartika XX-46 Kendari. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 8(2), 89–98. https://doi.org/10.14421/jga.2023.82-04
- Budiwaluyo, H., & Muhid, A. (2021). Manfaat Bermain Papercraft Dalam Meningkatkan Kreativitas Berpikir Pada Anak Usia Dini: Literature Review. *Pedagogi: Jurnal Anak Usia Dini Dan Pendidikan Anak Usia Dini*, 7(1), 76–93.

- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (Fifth edition). SAGE.
- Harmon, R., Beerse, M., & Castellanos, D. C. (2025). Association between fine motor function and fundamental cooking skills in preschool-aged children. *Human Movement Science*, 101, 103340. https://doi.org/10.1016/j.humov.2025.103340
- Hasanah, U., Kamila, F., Rika, W., & Khoirina, R. C. R. (2025). Enhancing Children's Creativity Through Art-Based Learning in Early Childhood: A Strategy to Stimulate Gross and Fine Motor Development. *Nak-Kanak: Journal of Child Research*, 2(1), 17–22.
- Hasibuan, R., & Ningrum, M. A. (2017). Pengaruh Bermain Outdoor Dan Kegiatan Finger Painting Terhadap Kreativitas Anak Usia Dini. *Jurnal Pendidikan (Teori Dan Praktik)*, *I*(1), 73. https://doi.org/10.26740/jp.v1n1.p73-81
- Herren, S., Seebacher, B., Mildner, S., Riederer, Y., Pachmann, U., Böckler, N. S., Niedecken, S., Sgandurra, S. A., Bonati, L., Hotz, I., Schättin, A., Jurt, R., Brenneis, C., Lenfert, K., Behrendt, F., Schmidlin, S., Nacke, L., Schuster-Amft, C., & Martin-Niedecken, A. L. (2025). Exergame (ExerG)-Based Physical-Cognitive Training for Rehabilitation in Adults With Motor and Balance Impairments: Usability Study. *JMIR Serious Games*, 13, e66515–e66515. https://doi.org/10.2196/66515
- Kristin, F. (2016). Analisis Model Pembelajaran Discovery Learning Dalam Meningkatkan Hasil Belajar Siswa SD. *Jurnal Pendidikan Dasar PerKhasa*, *2*(1), 90–98.
- Krombholz, H. (2025). Gross and fine motor milestones in the first two years of life—Representative data for Germany. *Global Pediatrics*, 12, 100254. https://doi.org/10.1016/j.gpeds.2025.100254
- Long, D., Rollins, S., Ali-Diaz, J., Hancock, K., Nuonsinoeun, S., Roberts, J., & Magerko, B. (2023). Fostering AI Literacy with Embodiment & Creativity: From Activity Boxes to Museum Exhibits. *Proceedings of the 22nd Annual ACM Interaction Design and Children Conference*, 727–731. https://doi.org/10.1145/3585088.3594495
- Maghfuroh, L., & Chayaning Putri, K. (2018). Pengaruh Finger Painting Terhadap Perkembangan Motorik Halus Anak Usia Prasekolah di TK Sartika I Sumurgenuk Kecamatan Babat Lamongan. *Journal of Health Sciences*, 10(1), 36–43. https://doi.org/10.33086/jhs.v10i1.144
- Maharani, C. A., Muslihati, M., Hanurawan, F., Ramli, M., Atmoko, A., Hambali, I., Wibawa, A. P., & Hotifah, Y. (2025). Silenced by Culture and Emotion: An Interpretative Phenomenological Analysis of Incest Survivors' Silent Coping in Indonesia. *Journal of Child Health and Development*, 1(1), 47–60.
- Maloney, J. E., Whitehead, J., Long, D., Kaufmann, J., Oberle, E., Schonert-Reichl, K. A., Cianfrone, M., Gist, A., & Samji, H. (2024). Supporting adolescent well-being at school: Integrating transformative social and emotional learning and trauma-informed education. *Social and Emotional Learning: Research, Practice, and Policy*, 4, 100044. https://doi.org/10.1016/j.sel.2024.100044
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (Third edition). SAGE Publications, Inc.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (Fourth edition). SAGE.
- Muthaharah, I. U. F. A., Jariyah, M. A., Syafhira, D., Rosada, S. A., & Jannah, D. R. (2025). Instructional Approaches in Early Childhood Education to Development Fine Motor Skills: A Qualitative Study. *Journal of Child Health and Development*, *1*(1), 23–33.

- Nafiatin, D., Darmiyanti, A., & Putri, F. E. (2022). Pengaruh Kegiatan Finger Painting Terhadap Kemampuan Motorik Anak Usia dini 4-5 Tahun di TK Shafa Islamic Karawang. *Jurnal Ilmiah Wahana Pendidikan*, 8(17), 133–137.
- Napoli, P. J. (1947). Interpretive Aspects of Finger-Painting. *The Journal of Psychology*, 23(1), 93–132. https://doi.org/10.1080/00223980.1947.9917323
- Novitasari, A., & Mursid, M. (2025). Pelaksanaan Kegiatan Finger Painting untuk Meningkatkan Kemampuan Sosial Emosional Anak Usia 5-6 Tahun. *Aulad: Journal on Early Childhood*, 8(1), 1–9. https://doi.org/10.31004/aulad.v8i1.828
- Priyanto, A. (2014). Pengembangan Kreativitas Pada Anak Usia Dini Melalui Aktivitas Bermain. COPE: Caraka Olah Pikir Edukatif, 2. https://journal.uny.ac.id/index.php/cope/article/view/2913
- Rahma, A., Saputra, A., Safitri, M. A., Roisah, A., & Aisyah, S. (2025). Enhancing Early Childhood Cognitive Development Through Play-Based Learning: A Case Study. *Journal of Child Health and Development*, *I*(1), 11–22.
- Reuter-Lorenz, P. A., & Park, D. C. (2024). Cognitive aging and the life course: A new look at the Scaffolding theory. *Current Opinion in Psychology*, 56, 101781. https://doi.org/10.1016/j.copsyc.2023.101781
- Surgent, O., Andrews, D. S., Lee, J. K., Boyle, J., Dakopolos, A., Miller, M., Ozonoff, S., Rogers, S. J., Solomon, M., Amaral, D. G., & Nordahl, C. W. (2025). Sex Differences in the Striatal Contributions to Longitudinal Fine Motor Development in Autistic Children. *Biological Psychiatry*, *97*(12), 1150–1162. https://doi.org/10.1016/j.biopsych.2025.01.005