



Collaborative Motor Learning Based on the Zone of Proximal Development

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Abstract

This study explores the potential role of collaborative motor learning facilitated through the strategic arrangement of tools and spaces in supporting the development of social skills in early childhood. While social and motor skills are fundamentally interrelated, a significant knowledge gap persists regarding the operationalization of a learning environment that integrates both dimensions simultaneously. The novelty of this research lies in its explicit treatment of spatial and tool arrangements as concrete sociocultural instruments within the Zone of Proximal Development (ZPD) framework, an aspect often overlooked in traditional motor development studies. Employing a descriptive qualitative approach, the study involved children aged 5 to 6 years. Data were collected through participant observation, in-depth interviews, and documentation, then analyzed using the Miles and Huberman model. The findings indicate that the Cheerful Number Relay activity designed with an open spatial layout, a colored relay track, and visual composition boards demonstrates a significant contribution to fostering active social interactions. Children exhibited enhanced capacities in coordination, communication, mutual assistance, and self-regulation. These results confirm that collaborative motor learning, structured through systematic environmental interventions, functions as scaffolding to optimize social skills within the ZPD. This study provides practical contributions for early childhood educators in designing holistic learning environments that integrate social and motor competencies.

Keywords: *early childhood education, collaborative motor learning, social skills, spatial and tool arrangement, Zone of Proximal Development (ZPD)*

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Introduction

Early childhood education is a crucial phase for building a holistic developmental foundation that integrates cognitive, affective, and psychomotor aspects (Ayu et al., 2025; Rodiah et al., 2024). Among these dimensions, motor development and social skills have been consistently identified as two interdependent pillars of child development: mature motor skills enable children to participate, negotiate, and collaborate in social environments, while sociocultural interactions in turn stimulate and refine motor competence (Hasnah & Rahmah, 2025; Insyur, 2025). This reciprocal relationship is theoretically grounded in Vygotsky's concept of the Zone of Proximal Development (ZPD), wherein a child's motor capacity may exceed the limits of independent performance through collaborative engagement and guided support (Hill et al., 2023). Within this framework, physical activity ceases to be mere mechanical movement and instead becomes a sociocultural process through which children co-construct skills in ways that simultaneously foster social negotiation, communication, and empathy.

The importance of integrating social and motor development in early childhood aligns with the recognition of humans as inherently social beings, for whom interaction is a foundational mechanism for

meeting developmental needs (Qusairi & Hanifansyah, 2022). Strong social skills, including cooperation, effective communication, and empathy, develop optimally when embedded within physical activities, because collaborative motor play provides a natural context for children to interact, share, and solve problems collectively (Ayu et al., 2025; Maria et al., 2025). Research further confirms that healthy social interactions support the development of self-confidence, positive peer relationships, language skills, and attentional capacities (Ginman et al., 2022; Juniati Sarah & Syamsiah Depalina, 2025), while structured motor training has been shown to benefit children's motor planning abilities and cognitive development more broadly.

Despite the growing body of evidence linking motor competence and social-emotional development, a critical gap remains in the literature. Although numerous studies have examined motor competence and cooperative learning as separate constructs, and while outdoor and physical environments are broadly recognized as influencing children's social interactions and physical activity levels (Hill et al., 2023; Taylor et al., 2024), very limited research has systematically conceptualized physical space arrangement as a structured scaffolding mechanism within children's ZPD. Motor activities are typically designed with individual dexterity as the primary goal, leaving educators without practical frameworks for leveraging the social architecture of physical tasks. Specifically, there is a lack of guidance on how the spatial rules and task interdependencies of a physical game can be intentionally engineered to generate peer scaffolding and expand the ZPD through collaborative motor challenge.

This study addresses that gap through the "Cheerful Number Relay" (Estafet Angka Ceria) game, a novel intervention that repositions motor activity as a structured communication and coordination station. By designing spatial arrangements and game rules that make social coordination a prerequisite for successful physical task completion, the intervention operationalizes task dependency as a mechanism for expanding children's ZPD in an engaging and developmentally appropriate manner. This research specifically examines: (1) the effect of collaborative motor activities on social skill development in children aged 5 to 6 years; (2) the contribution of such activities to the simultaneous integration of social and motor development; and (3) how a Vygotskian sociocultural approach to learning environment design can be practically operationalized in early childhood education settings.

Methodology

This study employs a qualitative descriptive approach to explore the implementation of collaborative motor learning through the arrangement of tools and spaces, as well as its influence on the social skills of early childhood. This approach was selected for its capacity to uncover meanings, experiences, and interaction patterns that emerge naturally within children's learning environments. The study was conducted at TKIT Assalam Jagir, Sine District, Ngawi Regency, over a four-month period from February to May 2025, encompassing the stages of instrument development, observation and interview, and data analysis and verification. This timeframe was considered sufficient to achieve adequate depth of observation regarding children's social interaction patterns and the learning environment arrangement strategies consistently applied by teachers.

Participants were determined through purposive sampling, consisting of 14 children from Group B aged 5–6 years who were actively engaged in collaborative motor learning activities, selected on the basis of their comparatively more developed motor and social competencies. Research informants included the class teacher and school principal. The researchers acknowledge that the sample size and single-institution context limit the generalizability of the findings; accordingly, the results are intended to generate a thick description of the phenomenon within this specific context, serving as a reference for similar studies in other settings.

Data were collected through three techniques: participatory observation conducted across 12 learning sessions, semi-structured in-depth interviews with the class teacher and school principal, and documentation comprising activity photographs, daily lesson plans, teacher observation notes, and children's work samples. Data analysis followed the Miles and Huberman model, involving data reduction through open and axial coding, data presentation in the form of descriptive narratives, and conclusion drawing accompanied by ongoing verification. Data trustworthiness was ensured through multiple procedures. Triangulation was applied in three directions: source triangulation by comparing data from the teacher, principal, and direct observation of children; technique triangulation by cross-checking findings across observation, interview, and documentation; and time triangulation by conducting observations across different sessions to confirm behavioral consistency. Credibility was further strengthened through member checking, in which interpretive findings were returned to the teacher and principal for confirmation. Dependability was maintained through the construction of an audit trail documenting all data collection processes and analytical decisions.

Additionally, peer debriefing with colleagues experienced in qualitative early childhood education research was conducted to minimize interpretive bias.

Results and Discussion

Initial observations conducted at TKIT Assalam Jagir Sine revealed that a number of children in Group B, aged 5–6 years, still exhibited limitations in movement coordination, turn-taking, and social interaction during group play activities. Some children tended to dominate activities, while others appeared passive or avoidant of peer interaction. These observed conditions formed the basis for the researcher and teachers to design activities that would not only stimulate physical development but also encourage social collaboration through enjoyable, child-centered play (Sitorus et al., 2025). In response to this situation, the teachers designed a themed activity called the "Cheerful Number Relay" as an implementation of the collaborative motor learning strategy with a structured arrangement of materials and open space. This relay activity was specifically designed to encourage children to participate actively, cooperate, and communicate while completing group assignments.

In terms of physical setup, the activity took place on the school's outdoor field, with a relay area approximately 5 meters in length. Each group's lane was demarcated using colored tape to prevent children from colliding while running. At the end of each lane, an area was arranged containing A5-sized number cards in bright colors, each accompanied by an illustration corresponding to its numerical value; for example, the number 3 was paired with a drawing of three apples to reinforce concrete understanding of number concepts. At the starting area, a board was provided for the children to arrange the number cards in the correct sequence. The cards were made from thick cardboard to ensure durability when handled by young children. The activity began with the teacher explaining the game rules and demonstrating how to pick up and arrange the number cards. The children appeared focused and enthusiastic, eagerly repeating after the teacher as she called out numbers one through ten. After being divided into groups, each child stood in a line along their designated relay lane, waiting for the teacher's signal to begin.

Once the activity commenced, the atmosphere became lively with various forms of spontaneous social interaction. The first child in each group ran to the front to retrieve a number card, while teammates cheered with encouragement such as, "Come on, hurry, pick number two!" or "Don't forget number four!" When a child appeared confused about which number to select next, a peer spontaneously stepped in to assist, saying, "After five comes six here, let me help." Children also exchanged hand signals, pointed to the needed number cards, and guided hesitant peers in placing the cards in the correct order. Throughout the activity, the teacher acting as facilitator provided consistent positive reinforcement through encouraging statements such as, "Wow, the blue group is doing wonderfully helping each other!" and "Let's see which number is still missing?" This verbal encouragement appeared to sustain the children's motivation to continue working collaboratively without placing undue emphasis on inter-group competition (Ollonen & Kangas, 2025).

Children's involvement was not limited to physical running but extended to social communication and role coordination. Children took turns in accordance with the game sequence, shared responsibilities within their groups, and demonstrated prosocial behaviors, including mutual assistance, waiting for their turn, and verbally encouraging teammates (Katerkamp & Horn, 2025; Tyas et al., 2018). The use of colored tape to demarcate each group's lane appeared to help children understand spatial boundaries, indirectly fostering respect for other groups' designated areas. The spatial arrangement of materials also enabled each group to observe one another, creating a dynamic and cooperative social atmosphere. Overall, the "Cheerful Number Relay" activity produced rich empirical observations of active social interaction among Group B children. Key observational findings included behaviors such as peer assistance, turn-taking, verbal communication during play, and collaborative coordination in completing shared tasks, all of which emerged naturally and consistently throughout the observed session.

Discussion

The observational findings from the "Cheerful Number Relay" activity suggest that structured collaborative motor activities, supported by deliberate arrangement of materials and physical space, can facilitate the emergence of positive social interactions among young children (Wulandari, 2024). The prosocial behaviors observed, including peer assistance, turn-taking, and verbal communication during play are broadly consistent with the theoretical frameworks underpinning this study. Nevertheless, these findings must be interpreted with considerable caution, given the descriptive qualitative nature of the research design, which does not permit causal claims.

From the perspective of Vygotsky's sociocultural theory, the interactions observed during the relay activity may be understood as learning processes operating within the Zone of Proximal Development (ZPD). When a more capable child guided a peer in identifying the correct number sequence, a process of natural peer scaffolding was evident (Wa Ode Riska Fauzia Ali, 2024). The teacher's verbal reinforcement for instance, praising collaborative behavior, served as a form of external scaffolding that appeared to encourage the internalization of cooperative values (Meo et al., 2026). This pattern aligns with Vygotsky's proposition that children internalize social behaviors through observation and interaction with their environment, both with peers and with adults (Aprianti et al., 2025).

A constructivist perspective further enriches the understanding of this learning process. Children actively constructed knowledge of numerical concepts alongside social norms such as turn-taking and role-sharing through direct, embodied experience in the context of play (Nurhayati, 2022). The use of concrete media, specifically colorful number cards paired with corresponding illustrations, appeared to reduce children's cognitive load, allowing their attention to be directed more fully toward social coordination and the collective completion of assigned tasks (Wayan et al., 2025).

The physical arrangement of the learning environment, including the division of lanes using colored tape and the strategic placement of number cards, also appears to have played a meaningful role in structuring social interaction. Clear physical boundaries helped children navigate their spatial territory, thereby indirectly promoting respect for other groups' boundaries. This observation supports the view that the physical learning environment is not merely a technical backdrop but a pedagogical element that functions as a medium for meaningful social learning (Amanda & Wahyuningsih, 2025). Teacher creativity in designing this environment emerged as a particularly crucial factor, especially given the constraints of limited material resources.

Social cognitive theory offers a complementary analytical lens by emphasizing that learning occurs not only through direct experience but also through the observation of others' behaviors and their consequences (Trismayanti et al., 2026). In the context of the relay activity, children who witnessed their peers receiving praise for helping one another were likely to internalize such behavior as socially valued and worth emulating. This dynamic reflects the reciprocal relationship between the individual and the environment in shaping social behavior a relationship that the designed activity appeared to harness effectively.

Despite these theoretically grounded interpretations, several alternative explanations warrant critical consideration. First, the possibility of a novelty effect cannot be dismissed. As an activity unfamiliar to the children, the "Cheerful Number Relay" may have generated high levels of enthusiasm and participation primarily because of its novelty, rather than as a direct result of its collaborative design or spatial arrangement. The animated engagement observed might diminish considerably if the same activity were repeated across multiple sessions. Longitudinal observation would be necessary to assess whether the social behaviors documented in this study are sustained over time.

Second, the influence of teacher facilitation must be acknowledged as a potentially independent variable, distinct from the spatial design itself. The teacher's consistent verbal encouragement, judicious choice of praise, and real-time responsiveness to children's needs likely contributed substantially to the prosocial behaviors observed (Rakhma Ardiani & Darsinah, 2023). It is therefore plausible that the outcomes documented were driven more by the quality of teacher facilitation than by the material and spatial arrangement per se. The present study does not permit the disentanglement of these two variables, as both operated concurrently throughout the observational sessions.

Third, individual child characteristics, including pre-existing prosocial tendencies (Cahyani et al., 2025), family background, prior play experience, and temperament may have influenced group dynamics independently of the activity design (Novianti & Primana, 2022). Children who are naturally inclined toward empathic or cooperative behavior could have acted as behavioral models that catalyzed positive interactions among their peers, regardless of the specific instructional approach employed. These individual and contextual variables constitute confounding factors that cannot be controlled within a qualitative descriptive research design.

In light of these methodological limitations, any claims regarding the effectiveness of collaborative motor learning must be framed with appropriate epistemic caution. Because this study does not employ an experimental design, it is not possible to establish a causal relationship between the arrangement of materials and space and improvements in children's social skills. What can reasonably be stated is that a collaboratively structured learning environment appeared to be associated with the emergence of positive social interactions during the observed session. These findings are indicative rather than conclusive, and would benefit from verification through more rigorous research designs such as quasi-experimental studies or systematic classroom action research conducted across multiple cycles.

Notwithstanding these limitations, the contribution of this study lies in its detailed empirical description of how the interplay between environmental design, material selection, and teacher facilitation can create a learning ecosystem rich in social interaction (Dina Dwi Febriani et al., 2025). The collaborative motor learning approach, integrated with adaptive arrangement of tools and space (Amini et al., 2024), offers practical insights for early childhood educators seeking to design activities that develop not only gross motor skills but also the social-emotional foundations that are critical to children's long-term development (Indar Rahman & Khadijah, 2023), including empathy, shared responsibility, and the capacity for verbal communication within structured play contexts (Fitri & Diana, 2024).

In applying the principles of the ZPD (Vygotsky, 1978), educators are encouraged to design learning experiences that are appropriately challenging relative to each child's current developmental capacity. Providing graduated support through collaborative interactions and well-structured activities can help children optimize their learning potential while simultaneously strengthening their social and emotional competencies (Nur Az-Zahra & Wahyuni, 2023; Sri Rika Amriani & Halifah, 2024). Nevertheless, the long-term effectiveness of this approach requires more systematic and controlled empirical investigation before stronger scientific conclusions can be drawn.



Figure 1. Game activity "Cheerful number relay"

Conclusion

This study demonstrates that collaborative motor learning supported by structured equipment and space arrangements effectively improves the social skills of children aged 5–6 years at TKIT Assalam Jagir Sine. The "Cheerful Number Relay" activity, designed with an open space arrangement, attractive visual aids, and an organized game path, facilitated active social interactions encompassing communication, cooperation, empathy, and shared responsibility. These findings reinforce Vygotsky's zone of proximal development and social cognitive theory, affirming that optimal early childhood learning emerges through social interaction within a deliberately constructed physical environment. Practically, this study underscores that teacher creativity in environmental design functions not merely as a technical consideration but as a core pedagogical strategy for nurturing social-emotional competencies. Nevertheless, several limitations must be acknowledged. First, the small sample size and single-site context restrict the generalizability of these findings to broader early childhood settings. Second, the relatively short observation period may not fully capture the sustained development of social skills over time. Third, the study is susceptible to observer bias, as the researcher's dual role in designing and evaluating the intervention may have influenced the assessment of outcomes. Future research should therefore employ larger and more diverse samples, longitudinal designs, and independent observation protocols to validate and extend these findings.

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References

- Amanda, D., & Wahyuningsih, T. (2025). Penerapan pendekatan play-based learning dalam mengembangkan sosial emosional anak usia 5-6 tahun. *Aulad: Journal on Early Childhood*, 8(2), 791–799. <https://doi.org/10.31004/aulad.v8i2.1113>
- Amini, S., Hasibuan, R., & Bachri, B. S. (2024). Collaborative learning melalui jump rope game pada kemampuan motorik sosial emosional anak. *Aulad: Journal on Early Childhood*, 7(2), 488–495. <https://doi.org/10.31004/aulad.v7i2.722>
- Aprianti, Y., Ramdani, I. L. A., Ali, M., Rifki, M., & Utomo, R. B. (2025). Perspektif teori konstruktivisme Vygotsky terhadap kemampuan bersosialisasi siswa slow learner di sekolah dasar inklusi. *Dwija Cendekia: Jurnal Riset Pedagogik*, 9(1), 135. <https://doi.org/10.20961/jdc.v9i1.99167>
- Ayu, C., Hutagalung, F. D., Savana, C., Indahsari, A., & Jannah, M. (2025). Enhancing social skills in early childhood through cooperative learning: A case study. *Nak Kanak*, 2(2), 81–87. <https://doi.org/10.21107/njcr.v2i2.144>
- Cahyani, A. D. N., Rahmawati, A., & Pudyaningtyas, A. R. (2025). Analisis perilaku prososial anak usia 5-6 tahun. *Early Childhood Education and Development Journal*, 12(1), 62–76. <https://doi.org/10.20961/ecedj.v12i1.106837>
- Febriani, D. D., Mahanani, R. T., Nafidhatu, S. A. F., Satria, A. F., Yapono, M. S. R., & Mahmud, E. A. (2025). Analisis lingkungan positif dalam mendukung pembelajaran efektif dan pengelolaan kelas yang harmonis di SMA Negeri 1 Gedeg. *Jurnal Bima: Pusat Publikasi Ilmu Pendidikan Bahasa dan Sastra*, 3(1), 270–279. <https://doi.org/10.61132/bima.v3i1.1568>
- Fitri, Z. Z., & Diana, R. R. (2024). Peran guru dalam membentuk tanggung jawab anak usia dini melalui komunikasi efektif, empatik, dan santun. *JEA (Jurnal Edukasi AUD)*, 9(2), 123–133. <https://doi.org/10.18592/jea.v9i2.11438>
- Ginman, K., Anttila, E., Juntunen, M.-L., & Tiippa, K. (2022). Classroom-integrated movement and music interventions and children's ability to recognize social interaction based on body motion. *Education Sciences*, 12(12), 914. <https://doi.org/10.3390/educsci12120914>
- Hasnah, S., & Rahmah, H. (2025). Metode pembelajaran bermain: Apakah berpengaruh terhadap perkembangan karakter sosial anak usia dini? *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 8(6), 2025–2032. <https://doi.org/10.31004/obsesi.v8i6.6153>
- Hill, P. J., McNarry, M. A., Mackintosh, K. A., Murray, M. A., Pesce, C., Valentini, N., Getchell, N., Tomporowski, P. D., Robinson, L. E., & Barnett, L. M. (2023). The influence of motor competence on broader aspects of health: A systematic review of the longitudinal associations between motor competence and cognitive and social-emotional outcomes. *Sports Medicine*, 54(2), 375–427. <https://doi.org/10.1007/s40279-023-01939-5>
- Insyur, A. (2025). Membangun keterampilan motorik kasar pada anak usia 5-6 tahun melalui permainan kelompok di TK Negeri Pembina Senggi. *Khombo Ime: Jurnal Pendidikan Anak Usia Dini*, 1(2), 76–88.
- Maria, I., Yufiarti, Y., & Sumantri, S. (2025). The impact of interactive game-based media on enhancing positive discipline in preschool children. *Journal of Neonatal Surgery*, 14(2), 121–135. <https://doi.org/10.52783/jns.v14.1790>
- Meo, L., Sadha, E., Mite, S. B., Ngurah, D., & Laksana, L. (2026). Strategi pengembangan keterampilan memberikan penguatan pada pembelajaran anak usia dini di TKK Negeri Harapan Bangsa. *Jurnal Citra Multidisiplin*, 1(2), 119–129. <https://doi.org/10.38048/jcm.v1i2.6601>
- Novianti, A., & Primana, L. (2022). Faktor-faktor keluarga yang mempengaruhi perkembangan kreativitas anak usia dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(5), 4367–4391. <https://doi.org/10.31004/obsesi.v6i5.2628>
- Nur Az-Zahra, A., & Wahyuni, D. (2023). Meningkatkan kemampuan sosial emosional anak usia dini melalui bermain. *Ulil Albab: Jurnal Ilmiah Multidisiplin*, 3(1), 286–292. <https://doi.org/10.56799/jim.v3i1.2599>
- Nurhayati, F. (2022). Dampak kegiatan bermain peran dalam meningkatkan kemampuan berhitung anak usia 5-6 tahun. *Aulad: Journal on Early Childhood*, 5(1), 15–21. <https://doi.org/10.31004/aulad.v5i1.212>
- Ollonen, B., & Kangas, M. (2025). Teacher motivational scaffolding and preschoolers' motivational triggers in the context of playful learning of multiliteracy and digital skills. *Early Childhood Education Journal*, 53(4), 1079–1093. <https://doi.org/10.1007/s10643-024-01664-2>
- Qusairi, A., & Hanifansyah, N. (2022). Psikologi manajemen dalam pendidikan. *Nidhomiyah: Jurnal Manajemen Pendidikan Islam*, 3(2), 116–128. <https://doi.org/10.38073/nidhomiyah.v3i2.830>

- Rahman, K. I., & Khadijah, K. (2023). Optimalisasi perkembangan fisik motorik kasar pada anak usia dini. *Murhum: Jurnal Pendidikan Anak Usia Dini*, 4(1), 429–437. <https://doi.org/10.37985/murhum.v4i1.238>
- Rakhma Ardhiani, N., & Darsinah, D. (2023). Strategi pengembangan perilaku prososial anak dalam menunjang aspek sosial emosional. *Murhum: Jurnal Pendidikan Anak Usia Dini*, 4(1), 540–550. <https://doi.org/10.37985/murhum.v4i1.263>
- Rodiah, I., Zulaika, G., & Saputra, D. G. (2024). The importance of holistic education for early childhood: Integrating cognitive, emotional and social aspects. *Educia Journal*, 1(11), 1–8. <https://doi.org/10.62872/yskex167>
- Sarah, J., & Depalina, S. (2025). Pengaruh berinteraksi dengan teman sebaya terhadap perkembangan bahasa anak usia dini. *Jurnal Arjuna: Publikasi Ilmu Pendidikan, Bahasa dan Matematika*, 3(4), 292–301. <https://doi.org/10.61132/arjuna.v3i4.2252>
- Sri Rika Amriani, & Halifah, S. (2024). Pengaruh model pembelajaran kolaboratif terhadap kecerdasan interpersonal anak usia dini. *PAUD Lectura: Jurnal Pendidikan Anak Usia Dini*, 7(2), 24–37. <https://doi.org/10.31849/paud-lectura.v7i2.19868>
- Taylor, N., Pringle, A., & Roscoe, C. M. P. (2024). Characteristics of the outdoor environment affording physical activity, motor competence, and social interactions in children aged 3–7 years: A systematic review. *Children*, 11(12), 1491. <https://doi.org/10.3390/children11121491>
- Trismayanti, E., Rismayanti, A., Rahmawati, E., & Pangandaran, A. F. (2026). Penerapan teori sosial kognitif Bandura dalam pembelajaran anak usia dini melalui observasi dan peniruan perilaku positif. *Murhum: Jurnal Pendidikan Anak Usia Dini*, 5(1), 70–79. <https://doi.org/10.62515/jos>
- Tyas, I., Sari, M., Toha, H., & Nurani, Y. (2018). Improving early childhood prosocial behavior through activity storytelling with puppets. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 2(2), 155–161. <https://doi.org/10.31004/obsesi.v2i2.75>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wa Ode Riska Fauzia Ali. (2024). Pengaruh interaksi teman sebaya terhadap kerjasama anak usia dini di TK Ar-Rayan Lantongau Kecamatan Mawasangka Tengah. *Ta'rim: Jurnal Pendidikan dan Anak Usia Dini*, 5(3), 146–152. <https://doi.org/10.59059/tarim.v5i3.1399>
- Wayan, N., Nurani, S., Awalunisah, S., & Zuama, S. N. (2025). Exploring the role of contextual learning in developing the cognitive abilities of children aged 5–6 years. *Indonesian Journal of Early Childhood Educational Research*, 4(12), 385–394. <https://doi.org/10.31958/ijecer.v4i2.15869>
- Wulandari, I. I. (2024). Developing prosocial skills in 4–5-year-olds through collaborative learning models: A qualitative study. *Genius: Indonesian Journal of Early Childhood Education*, 5(2), 157–168. <https://doi.org/10.35719/gns.v5i2.177>