

Challenges in Implementing Gross Motor Learning Strategies in Early Childhood Education

Sonia Margaretha Damanik*, Ayuli Permata Simarmata, Mamay Bellaginta

Universitas Negeri Medan, Medan, Indonesia

ABSTRACT

Gross motor learning is an essential component of early childhood education (ECE) as it directly contributes to children's physical, cognitive, and socio-emotional development. However, its implementation in ECE settings still faces various challenges. This study aims to examine in depth the challenges of implementing gross motor learning strategies in early childhood education. The research employed a descriptive qualitative approach conducted at TK Negeri Pembina Tanjung Morawa. The study subjects included two classroom teachers, with data collected through observation, interviews, and documentation. Data analysis followed the stages of data reduction, data presentation, and drawing conclusions. The results indicate that the main challenges in implementing gross motor learning strategies include limited instructional time, the predominance of classroom-based activities, inadequate facilities and infrastructure, and variations in teachers' abilities to design and modify motor activities suitable for children's characteristics. Additionally, classroom management and differences in children's motor skills also affect the effectiveness of learning. These findings underscore the need to strengthen teacher competencies, optimize the learning environment, and plan more flexible and contextual learning activities to ensure the optimal development of gross motor skills in early childhood.

ABSTRACT

Pembelajaran motorik kasar merupakan komponen penting dalam pendidikan anak usia dini (PAUD) karena berkontribusi langsung terhadap perkembangan fisik, kognitif, dan sosial-emosional anak. Namun, implementasinya di satuan PAUD masih menghadapi berbagai tantangan. Penelitian ini bertujuan untuk mengkaji secara mendalam tantangan implementasi strategi pembelajaran motorik kasar pada pendidikan anak usia dini. Penelitian menggunakan pendekatan kualitatif deskriptif yang dilaksanakan di TK Negeri Pembina Tanjung Morawa. Subjek penelitian meliputi dua guru kelas, dengan teknik pengumpulan data melalui observasi, wawancara, dan dokumentasi. Analisis data dilakukan melalui tahapan reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa tantangan utama dalam implementasi strategi pembelajaran motorik kasar meliputi keterbatasan waktu pembelajaran, dominasi aktivitas belajar di dalam kelas, keterbatasan sarana dan prasarana, serta variasi kemampuan guru dalam merancang dan memodifikasi aktivitas motorik yang sesuai dengan karakteristik anak. Selain itu, pengelolaan kelas dan perbedaan kemampuan motorik anak turut memengaruhi efektivitas pembelajaran. Temuan ini menegaskan perlunya penguatan kompetensi guru, optimalisasi lingkungan belajar, serta perencanaan pembelajaran yang lebih fleksibel dan kontekstual agar pengembangan motorik kasar anak usia dini dapat berjalan secara optimal.

ARTICLE HISTORY

Received 12 November 2025

Accepted 18 December 2025

KEYWORDS

Learning Challenges; Gross Motor Skills; Early Childhood Education; Learning Strategies

KATA KUNCI

Tantangan Pembelajaran; Motorik Kasar; Pendidikan Anak Usia Dini; Strategi Pembelajaran

* **Corresponding Author:** damaniksonia117@gmail.com

© 2026 The Author(s). Published by Era Scientific Publisher (ERA).

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

Introduction

Early childhood education (ECE) serves as a fundamental foundation for building human resource quality, as this phase represents the so-called "golden age," characterized by rapid development across various domains, including physical-motor, cognitive, socio-emotional, language, and moral and character values (Sujiono, 2015; Yuliana et al., 2020). Optimal development during this period is strongly influenced by the quality of stimulation provided through a well-planned and meaningful learning environment (Khadijah, 2020; Kamtini, 2014).

One developmental domain that plays a fundamental role yet often receives insufficient attention in ECE practice is gross motor development. Gross motor skills involve children's ability to control large muscles to perform activities such as walking, running, jumping, throwing, and maintaining body balance (Saripudin, 2016; Sukamti, 2018). These skills not only serve as a

foundation for physical competence but also contribute to cognitive development, emotional regulation, and social interaction (Mahmud, 2018; Rafifah et al., 2024).

Theoretically, gross motor development in early childhood is influenced by nervous system maturation, physical condition, and opportunities for children to engage in varied and structured movement activities (Komaini, 2018; Ananditha, 2017). Appropriately designed gross motor activities support brain hemisphere balance, enhance self-confidence, and help children adapt to their social environment (Farida, 2016; Muzaffar et al., 2019). Therefore, gross motor learning should be an integral part of ECE, rather than merely a supplementary activity.

In the learning context, teachers play a strategic role in designing and implementing gross motor learning strategies by selecting approaches, methods, and media that align with children's developmental characteristics (Mulyasa, 2017; Akbar, 2020). Effective strategies require teachers to manage play activities, demonstrate appropriate movements, and create a safe and challenging learning environment (Masitoh, 2017; Yus, 2020). Child-centered, play-based, and contextual learning approaches are believed to be more effective in stimulating early childhood gross motor development (Jamil, 2020; Widiyanti, 2021).

However, various studies indicate that the implementation of gross motor learning in ECE institutions still faces several obstacles. Learning tends to be dominated by classroom-based activities emphasizing early academic skills, while physical activities that involve exploration of movement remain limited (Maulin Fadlun et al., 2019; Yuliana et al., 2020). This situation highlights a gap between the holistic developmental needs of children and the learning practices in the field.

Moreover, challenges in implementing gross motor learning strategies also relate to limited facilities and infrastructure, restricted learning time, and differences in children's motor abilities within a single learning group (Sukamti, 2018; Rafifah et al., 2024). Teachers often encounter difficulties in modifying motor activities to suit individual children's needs, particularly in contexts with high teacher-to-child ratios and complex administrative demands (Mulyasa, 2017; Mislan, 2021).

Previous studies have mostly focused on the effectiveness of specific methods or games in improving children's gross motor skills, such as traditional games, gymnastics, or dance (Humairah & Sitorus, 2023; Heriyani & Suzanti, 2022). While these findings provide valuable insights, studies specifically examining the challenges of implementing gross motor learning strategies from the perspective of teachers' practices in ECE remain limited. Understanding these challenges is crucial for developing realistic, sustainable strategies that align with field conditions.

Based on this overview, the present study focuses on the challenges of implementing gross motor learning strategies in early childhood education. It is expected to contribute empirical evidence to enrich the discourse on gross motor learning in ECE and serve as a foundation for developing policies and practices that are more adaptive to the developmental needs of young children.

Method

This study employed a descriptive qualitative approach aimed at gaining an in-depth understanding of the challenges in implementing gross motor learning strategies in early childhood education. A qualitative approach was chosen because it allows the researcher to explore teachers' experiences, perceptions, and practices contextually within real classroom situations (Creswell & Creswell, 2018; Miles et al., 2014).

The research was conducted at TK Negeri Pembina Tanjung Morawa, with the study subjects consisting of two classroom teachers directly involved in planning and implementing gross motor learning activities. Subjects were selected through purposive sampling, considering that the teachers had experience and a strategic role in implementing gross motor learning strategies in ECE classrooms (Sugiyono, 2021).

Data were collected through observation, in-depth interviews, and documentation. Observations were conducted to directly monitor the implementation of gross motor learning, teacher-child interactions, and the condition of learning facilities and environment. In-depth interviews were used to explore teachers' perspectives on lesson planning, strategies employed, and various challenges encountered in gross motor learning practice. Documentation included Daily Learning Plans (RPPH), lesson activity notes, and supporting photographic documentation (Moleong, 2019).

Data analysis was conducted interactively through the stages of data reduction, data display, and conclusion drawing, as described by Miles and Huberman (2014). Analysis occurred concurrently with data collection until patterns, themes, and categories emerged representing the challenges in

implementing gross motor learning strategies.

Data validity was ensured through source and method triangulation, by comparing observations, interviews, and documentation, as well as checking for consistency of information across multiple data sources (Creswell & Poth, 2018; Sugiyono, 2021). Consequently, the research findings are expected to achieve an adequate level of credibility and trustworthiness.

Result and Discussion

The research findings were obtained through observations of gross motor learning implementation, in-depth interviews with classroom teachers, and analysis of learning documents. The study revealed that the implementation of gross motor learning strategies in ECE settings faces several challenges that consistently emerge in daily learning practices.

Observations indicated that gross motor learning was not consistently structured within daily activities. Gross motor activities were generally conducted at specific times and did not always appear in every sequence of the learning process. Such activities were often scheduled after core classroom activities or during free time, resulting in limited duration and quality of implementation.

Analysis of Daily Learning Plans (RPPH) showed that gross motor activities were included in the planning, yet classroom implementation did not always align with the plan. In practice, teachers adjusted activities according to class conditions and children's readiness, often leading to simplified or omitted motor activities.

Interviews revealed that limited instructional time was one of the main constraints. Teachers reported that allocated time for learning was often consumed by other activities, particularly academic tasks and routine classroom procedures. This situation made it difficult to conduct gross motor activities optimally, especially those requiring equipment preparation and adequate space.

Observations also indicated that when gross motor activities were conducted, teachers tended to limit repetitions and variations of movements. This approach was taken to manage time constraints and maintain classroom order but reduced opportunities for children to fully explore movement.

The findings showed that the availability of facilities and infrastructure supporting gross motor learning was still limited. Outdoor play spaces were not always fully utilized due to space constraints or environmental conditions. Available motor play equipment was also relatively limited, requiring teachers to reuse the same materials repeatedly.

Documentation indicated that teachers often relied on simple tools or modified existing games to conduct motor activities. While teachers attempted to adapt activities to available resources, these limitations restricted the variety and complexity of gross motor activities offered to children.

Observations also revealed variations in children's motor abilities within a single class group. Some children could participate in activities effectively, while others required more intensive assistance. These differences affected classroom dynamics, particularly during group motor activities.

Interviews further revealed that teachers struggled to manage motor activities that could accommodate all children simultaneously. In such cases, activities were simplified or movement challenges were limited so that all children could participate. While this strategy helped maintain classroom order, it compromised the optimal stimulation of children with higher motor abilities.

Teachers acknowledged the importance of gross motor learning but reported limitations in designing and modifying varied activities. Conducted motor activities tended to be routine and repetitive, with minimal variation over time. Daily learning plan documentation indicated that teachers used uniform RPPH formats with relatively minimal activity adjustments. This reflects constraints in developing innovative and contextual gross motor learning strategies, particularly in aligning activities with children's needs and characteristics.

The study indicates that challenges in implementing gross motor learning strategies in ECE are complex and multidimensional. These challenges involve not only technical aspects of implementation but also pedagogical dynamics, structural conditions, and teachers' professional competencies.

The time limitations found in this study highlight a tension between curriculum demands and the developmental needs of young children. The dominance of academic activities in ECE often sidelines gross motor activities or positions them as supplementary. This aligns with Sujiono (2015), who emphasizes that ECE practice in the field often deviates from principles of holistic child development. Yuliana et al. (2020) also note that excessive emphasis on early academic skills can reduce children's opportunities to develop motor skills through active play. Gross motor learning requires sufficient and repeated time to provide meaningful movement experiences (Sukamti, 2018).

Therefore, time constraints arise not only from scheduling but also from learning orientations that do not fully prioritize children's developmental needs.

Limitations in facilities and infrastructure further emphasize the role of the physical environment as a critical factor in gross motor learning. Komaini (2018) stresses that a learning environment rich in movement stimuli allows children to explore fundamental movement patterns optimally. When resources are limited, teachers tend to repeat the same activities, resulting in less varied motor experiences for children.

Khadijah (2020) states that resource constraints often push ECE teachers to rely on creativity and improvisation. However, without adequate environmental support, these efforts do not always produce optimal motor learning. This finding indicates that challenges related to facilities cannot be separated from institutional policies and support for movement-based learning.

The variation in children's motor abilities underscores the heterogeneity of ECE classrooms and the need for flexible approaches. Saripudin (2016) emphasizes that each child has unique motor development characteristics, requiring differentiated approaches in gross motor learning.

In practice, differentiation is often difficult due to high teacher-to-child ratios and limited instructional time. This aligns with Mislán (2021), who notes that ECE teachers often face a dilemma between maintaining classroom order and meeting individual needs. Consequently, motor activities are simplified to accommodate all children, which reduces movement challenges for those with higher abilities.

Teacher competence emerged as a critical factor in implementing gross motor learning strategies. Teachers tended to use routine and repetitive activities due to limited understanding and experience in designing varied motor tasks. Mulyasa (2017) emphasizes that ECE teachers' pedagogical competence includes the ability to design creative, adaptive learning aligned with children's developmental characteristics.

Masitoh (2017) and Yus (2020) also stress that ECE learning should be play- and exploration-based, including in gross motor development. When teachers lack adequate training in motor learning, implemented strategies tend to be conventional and less challenging. These findings suggest that ongoing professional development is essential to enhance the quality of gross motor learning in ECE.

Theoretically, these findings reinforce the view that gross motor learning cannot be separated from its implementation context. Challenges faced by teachers indicate that the success of learning strategies depends not only on method design but also on teacher preparedness, environmental support, and overall institutional learning orientation (Sujiono, 2015; Kamtini, 2014).

Practically, the findings suggest the need for systematic efforts to strengthen gross motor learning through better time allocation, provision of supportive learning resources, and enhancement of teachers' competencies in designing and modifying contextual gross motor activities. In this way, gross motor learning can function optimally as an integral part of early childhood education.

Conclusion

This study indicates that the implementation of gross motor learning strategies in early childhood education still faces various multidimensional challenges. These challenges include limited allocation of learning time, the dominance of academic activities in the classroom, inadequate facilities and infrastructure, variations in children's motor abilities, and limited teacher competence in designing and modifying gross motor activities appropriate to the characteristics of young children.

The findings highlight that the challenges in implementing gross motor learning are not solely caused by technical factors but are also influenced by ECE learning orientation, support from the learning environment, and teachers' professional preparedness. This situation reveals a gap between the principles of child-centered, holistic early childhood education and actual classroom practices.

The study's implications emphasize the need for systematic efforts to strengthen gross motor learning in ECE through more proportional time allocation, provision of supportive facilities and resources, and enhancement of teacher competencies through continuous professional development. By addressing these factors, gross motor learning can function optimally as an integral part of early childhood education and contribute to children's overall development.

Acknowledgments

The author sincerely expresses gratitude to the school and teachers who provided permission, support, and opportunities throughout the research process. Appreciation is also extended to all

parties who contributed, both directly and indirectly, enabling this study to be conducted successfully and achieve its intended objectives.

Disclosure statement

The author declares that there are no conflicts of interest, either financial or non-financial, in the conduct of this research or in the preparation of this article.

Funding

This study was conducted using the author's personal funds and did not receive any financial support from external parties.

References

- Akbar, S. (2020). Instrumen perangkat pembelajaran. PT Remaja Rosdakarya.
- Ananditha, A. C. (2017). Faktor-faktor yang memengaruhi perkembangan motorik kasar anak usia dini. *Jurnal Pendidikan Anak*, 6(2), 70–79.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Farida, I. (2016). Pengaruh aktivitas bermain terhadap perkembangan motorik anak usia dini. *Jurnal PAUD*, 5(1), 45–53.
- Heriyani, D., & Suzanti, L. (2022). Pengembangan aktivitas motorik kasar anak usia dini melalui permainan tradisional. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(3), 2104–2113. <https://doi.org/10.31004/obsesi.v6i3.1805>
- Humairah, S., & Sitorus, A. S. (2023). Stimulasi motorik kasar anak usia dini melalui kegiatan senam ritmik. *Jurnal Pendidikan Anak Usia Dini*, 7(1), 55–64.
- Jamil, M. (2020). Pembelajaran berbasis bermain pada pendidikan anak usia dini. *Jurnal Pendidikan Anak*, 9(1), 1–10.
- Kamtini. (2014). *Psikologi perkembangan anak*. Perdana Publishing.
- Khadijah. (2020). *Pengembangan fisik motorik anak usia dini*. Kencana.
- Komaini, A. (2018). *Perkembangan motorik anak usia dini*. Rajawali Pers.
- Mahmud, B. (2018). Perkembangan fisik motorik anak usia dini. *Jurnal Pendidikan Anak Usia Dini*, 12(1), 1–12.
- Maulin Fadlun, A., Yuliana, D., & Nurhayati. (2019). Implementasi pembelajaran berbasis bermain di PAUD. *Jurnal Ilmiah Pendidikan Anak*, 4(2), 112–121.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Sage Publications.
- Mislan. (2021). Tantangan guru PAUD dalam pengelolaan pembelajaran berbasis perkembangan anak. *Jurnal Pendidikan Usia Dini*, 15(1), 89–101.
- Moleong, L. J. (2019). *Metodologi penelitian kualitatif* (Edisi revisi). PT Remaja Rosdakarya.
- Muzaffar, M., Suyadi, & Mulyani, S. (2019). Aktivitas fisik dan implikasinya terhadap perkembangan anak usia dini. *Jurnal Pendidikan Anak Usia Dini*, 13(2), 143–152.
- Mulyasa, E. (2017). *Pengembangan dan implementasi kurikulum PAUD*. PT Remaja Rosdakarya.
- Rafifah, N., Sari, D. P., & Lestari, R. (2024). Kendala pembelajaran motorik kasar pada anak usia dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 8(1), 145–156. <https://doi.org/10.31004/obsesi.v8i1.4837>
- Saripudin, A. (2016). Karakteristik perkembangan motorik anak usia dini. *Jurnal Pendidikan Anak*, 5(1), 17–25.
- Sugiyono. (2021). *Metode penelitian kualitatif, kuantitatif, dan R&D*. Alfabeta.
- Sujiono, Y. N. (2015). *Konsep dasar pendidikan anak usia dini*. PT Indeks.
- Sukamti, E. R. (2018). *Perkembangan motorik*. UNY Press.
- Widiyanti, E. (2021). Pembelajaran kontekstual dalam pengembangan motorik anak usia dini. *Jurnal Pendidikan Anak Usia Dini*, 5(2), 98–107.
- Yuliana, D., Fadlun, A. M., & Nurhayati. (2020). Orientasi pembelajaran PAUD dan implikasinya terhadap perkembangan anak. *Jurnal Pendidikan Anak Usia Dini*, 14(2), 233–244.
- Yus, A. (2020). *Model pendidikan anak usia dini*. Kencana.