

THE EFFECT OF THE GAME LANGKAH TAPAK GMBIRA ON THE GROSS MOTOR DEVELOPMENT OF EARLY CHILDREN

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ABSTRAK

Article History:

Submitted: 23/07/2025

Accepted: 08/09/2025

Published: 25/09/2025

Keywords:

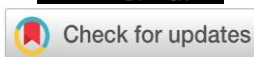
Gross Motor Skills,
Games,
Lantara

Abstract:

The ages of 5–6 years represent a golden period in child development, during which gross motor skills undergo rapid growth. Nevertheless, some children continue to experience developmental delays due to limited stimulation. This study investigated the effect of the Lantara game, a structured physical activity, on the gross motor skills of children aged 60–72 months at TK Gelora Mekar, Way Tenong District, West Lampung Regency, in 2025. A quantitative approach with a one-group pretest–posttest design was employed. The sample consisted of 22 children selected according to inclusion and exclusion criteria. Data were obtained through observation and standardized gross motor assessments administered before and after the intervention. Statistical analyses included normality testing and paired sample t-tests. The results demonstrated significant improvements in all domains of gross motor skills following the intervention: Jump on one leg increased from 2.23 to 3.91, Stand on one leg for several seconds, from 2.32 to 3.82, Walk in a straight line, from 2.36 to 3.95, and Jump forward from 2.36 to 3.95 ($p < 0.05$). These findings indicate that the Lantara game is an effective medium for stimulating gross motor development in early childhood. Its application may serve as a practical, play-based strategy to address developmental delays and promote holistic growth in preschool settings.

Abstrak:

Usia 5–6 tahun merupakan periode emas dalam perkembangan anak, di mana keterampilan motorik kasar mengalami pertumbuhan yang pesat. Namun demikian, beberapa anak masih mengalami keterlambatan perkembangan karena stimulasi yang terbatas. Penelitian ini mengkaji pengaruh permainan Lantara, sebuah aktivitas fisik terstruktur, terhadap keterampilan motorik kasar anak usia 60–72 bulan di TK Gelora Mekar, Kecamatan Way Tenong, Kabupaten Lampung Barat, pada tahun 2025. Pendekatan kuantitatif dengan desain pretes-postes satu kelompok digunakan. Sampel penelitian terdiri dari 22 anak yang dipilih berdasarkan kriteria inklusi dan eksklusi. Data diperoleh melalui observasi dan penilaian motorik kasar terstandar yang dilakukan sebelum dan sesudah intervensi. Analisis statistik meliputi uji normalitas dan uji-t sampel berpasangan. Hasilnya menunjukkan peningkatan yang signifikan di semua aspek keterampilan motorik kasar setelah intervensi: Melompat dengan satu kaki meningkat dari 2,23 menjadi 3,91, Berdiri dengan satu kaki selama beberapa detik, dari 2,32 menjadi 3,82, Berjalan lurus, dari 2,36 menjadi 3,95, dan Melompat ke depan dari 2,36 menjadi 3,95 ($p < 0,05$). Temuan ini menunjukkan bahwa permainan Lantara merupakan media yang efektif untuk menstimulasi perkembangan motorik kasar pada anak usia dini. Penerapannya dapat menjadi strategi praktis berbasis permainan untuk mengatasi keterlambatan perkembangan dan mendorong pertumbuhan holistik di lingkungan prasekolah.



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How to Cite:

I. Khasanah, S. Sudarmi, R. Septiani, "The Effect of The Game Langkah Tapak Gmbira on The Gross Motor Development Of Early Children", Indonesia. J. Heal. Sci., vol. 9, no. 2, pp. 149-158, 2025.

INTRODUCTION

The right time to start providing stimulation for optimal child development is during childhood [1]. The crucial period for the development of children's knowledge and behavior is between the ages of 5 and 6. This phase is invaluable because all aspects of child development, including language, physical motor skills, cognitive skills, and psychosocial skills, develop rapidly [2]. Development refers to the increasing complexity of a child's body structure and function, and abilities [3]. Motor development consists of gross motor skills and fine motor skills. Gross motor skills are abilities that require full-body movement and involve large muscles to function effectively. Gross motor skills involve full-body movements and large muscles, while fine motor skills utilize smaller muscles to achieve specific goals [4].

Data from the World Health Organization [5] indicates that there is a global prevalence of developmental disorders in early childhood, with a prevalence of 6.3%. Meanwhile, according to the results of a survey conducted by the Basic Health Research Agency [6], the prevalence of early childhood in Indonesia who experience developmental disorders is 11.7% of children; in Lampung province it reaches 12.6%. The coverage of toddler growth and development monitoring in 2023 in Lampung province is targeted to reach 90.9%, but there are still districts that have not reached this target, including West Tulang Bawang district at only 74.8%, North Lampung at 78.9%, and West Lampung district at only 73.2%, which is the lowest coverage of growth and development monitoring [7].

Delays in gross motor development impact a child's ability to adapt, particularly in social and play skills. Motor skills are used for self-image, social skills, play, and school ([8]. Sensory-motor impairments hinder children's ability to recognize their surroundings and make it difficult to be accepted into their environment [9] .

According to Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 146 of 2014 concerning the 2013 Curriculum, indicators for achieving gross motor development for children aged 5-6 years include coordinated body movements to develop balance, flexibility, coordination, and accuracy in play [10]. Therefore, suboptimal gross motor skills deprive children of opportunities to develop well socially and psychosocially [11].

Play activities can support motor development by actively moving, thus impacting their physical and mental development [12]. Physical play can be an effective learning medium for children to improve their gross motor skills [13]. One of the educational games that can be used is the Happy Steps (Lantara) game, which is the author's creation by modifying the existing Steps game props, with modifications: a rectangular shape measuring 4 m x 2.7 m, in which there are various colors and physical activities, such as hopscotch, zigzag jumping with 2 legs, crawling, jumping with one leg, walking back and forth, walking sideways, tiptoeing and ending with jumping with both feet. The advantages of this game include portability, safe materials, multi-functionality, encouraging socialization, developing discipline and logical intelligence as well as educational and stimulating design. Based on the mentioned problems and descriptions, the developmental disorders, low coverage of growth and development monitoring, and the importance of stimulation through physical play motivated the researcher to conduct a study on the effect of the Lantara game on the gross motor development of children aged 60–72 months at Gelora Mekar Kindergarten, West Lampung Regency

RESEARCH METHOD

This quantitative study used a pre-experimental method that utilized a one-group pretest-posttest design. The study

took place at Gelora Mekar Kindergarten, Tanjung Raya, in Way Tenong District, West Lampung Regency, from February to March 2025. The purpose of this study was to determine the effect of the "Lantara" Happy Steps game on the gross motor development of children aged 60–72 months at Gelora Mekar Kindergarten. The population in this study was all 22 children attending Gelora Mekar Kindergarten in Tanjung Raya in 2025. The sample used in this study was the total sample with the inclusion & exclusion criteria (children in good health, no injuries, able to follow instructions, parents/guardians give permission) [14].

The data collection technique by providing intervention of the lantara game was carried out 6 times for 2 weeks. Before the intervention, a pre-test was conducted using an observation sheet and after the intervention, a post-test was conducted with the same observation sheet. The observation sheet containing assessment items refers to the regulation of the Minister of Education and Culture of the Republic of Indonesia Number 146 of 2014. Analysis Technique, univariate data with percentages, with an assessment score

of 1 if the child can do the steps of the lantara game and a score of 0 (nul) if the child cannot do it. With the assessment category not yet developed if <40 , starting to develop a value of 4-5 developing according to expectations 6-7 and developing very well 8-10. The bivariate analysis used in this study was the chi square test with a significance level (α) = 0.05.

Research hypothesis: there is an influence of the game "Lantara" Happy Steps Tapak on gross motor development (balance, flexibility, accuracy, and coordination) in children aged 60-72 months. Univariate data analysis with percentages and bivariate analysis using the dependent paired t-test to determine the average difference between the pretest and posttest results with a significance level (α) < 0.05 . Data before being analyzed were tested for data normality using Shapiro-Wilk; data analysis was processed using the SPSS program [15]. Ethics review of the research was obtained from the Ministry of Health Polytechnic of Tanjungkarang with eligibility number No.022 / Perst.E / KEPK-TJK / III / 2025.



Figure 1. Game Lantara Design

RESULT AND ANALYSIS

Univariate Analysis

Frequency distribution of respondent characteristics can be seen in table 1

Table 1.
Frequency and Percentage Distribution of Respondent Characteristic

Respondent Characteristics	Frequency	Percentage (%)
Child's Age		
60-66 months	5	22.7
67-72 months	17	77.3
Gender		
Male	13	59.1
Female	9	40.9

The distribution of children's age characteristics showed that the majority were in the 66-72 month age range, with 17 children (77.3%). Meanwhile, 13 children (59.1%) were male

Gross Motor Skills

Gross motor skills assessed, based on the Developmental Pre-Screening Questionnaire (KPSP) for children aged 60-72 months, include the child's ability to: jump on one leg, stand on one leg for several seconds, walk in a straight line, and jump forward. This is done by observing balance, flexibility, accuracy, and coordination. To see the child's gross motor skills before and after the intervention, see Table 2 below.

Table 2.
Children's Gross Motor Skills Before and After the Intervention (Pretest-Posttest)

Gross Motor Skills	Pretest		Posttest	
	N	(%)	N	(%)
Jump on one leg				
Not Yet Developed	3	1.6	0	0
Starting to Develop	11	50	0	0
Developing as Expected	8	36.4	2	9.1
Developing Very Well	0	0	20	90.9
Stand on one leg for several seconds				
Not Yet Developed	2	9.1	0	0

Starting to Develop	12	54.5	0	0
Developing as Expected	7	31.8	4	18.2
Developing Very Well	1	4.5	18	81.8
Walk in a straight line				
Not Yet Developed	3	13.6	0	0
Starting to Develop	8	36.4	0	0
Developing as Expected	11	50	1	4.5
Developing Very Well	0	0	21	95.5
Jump forward				
Not Yet Developed	1	4.5	0	0
Starting to Develop	12	54.5	0	0
Developing as Expected	9	40.9	4	18.2
Developing Very Well	0	0	18	81.8

Based on the gross motor skills of children before and after the Lantara game intervention (Pretest-Posttest) that of the four gross motor aspects assessed to 22 children experienced an increase after the intervention. Based on the results of the assessment before the intervention (pretest), Most children were in the category of Starting to Develop and after the intervention (posttest), the majority of children moved into the category of Developing Very Well. In the aspect of jumping on one leg, 11 children (50%) were in the category of Starting to Develop to 20 children (90.9%) in the category of Developing Very Well. In the aspect of Standing on one leg, 12 children (54.5%) were in the category of Starting to Develop to 18 children (81.8%) in the category of Developing Very Well. In the aspect of walking in a straight line, 11 children (50%) were in the category of Starting to Develop to 21 children (95.5%) in the category of Developing Very Well. Meanwhile, in the aspect of jumping forward, 12 children (54.5%) were in the category of Starting to Develop to 18 children (81.8%) in the category of Developing Very Well

Bivariate Analysis

After conducting a normality test using the Shapiro-Wilk test, a paired sample t-test was used to determine the effect of the Lantara game. The paired

sample t-test is a parametric statistical test after the data is normally distributed. The results of the paired sample t-test are as follows

Table 3.
Paired Sample T-test Results

Gross Motor Skills	N	Mean	St Deviation	Difference Mean ± Deviation	t-test	P- value
Jump on one leg						
Before Intervention	22	2,2273	0,68534	1,68182	13.891	0,00
After Intervention		3,9091	0,29424			
Stand on one leg for several seconds						
Before Intervention	22	2,3182	0,71623	1,50000	8.775	0,00
After Intervention		3,8182	0,39477			
Walk in a straight line						
Before Intervention	22	2,3636	0,72673	1,59091	11,202	0,00
After Intervention		3,9545	0,21320			
Jump forward						
Before Intervention	22	2,3636	0,58109	1,45455	13,387	0,00
After Intervention		3,8182	0,39477			

Based on the Paired sample test results table, the Sig. (2-tailed) value is 0.00 (p-value <0.05) for all gross motor aspects, which consist of aspects: Jumping on one leg, standing on one leg for a few seconds, walking in a straight line and the child's ability to jump forward, by looking at balance, strength, accuracy, and coordination, it can be interpreted that there is an influence of the Lantara game on gross motor development before and after the intervention at Gelora Mekar Tanjung Raya Kindergarten, Way Tenong District, West Lampung Regency in 2025.

DISCUSSION

The Effect of Lantara Games on Gross Motor Development (Jump on one leg)

The paired sample t-test results obtained a significant value (2-tailed) of 0.00 ($p < 0.05$), and there was a significant difference between the pretest and posttest scores, with an average pretest score of 2.2273 increasing to 3.909 in the posttest. This finding indicates a significant effect between Lantara games and gross motor development in the jump on one leg aspect.

Intervention through structured physical play helps children learn to control their posture and adjust to changes in position [16]. Children's ability to maintain balance while moving can improve because their central nervous system is increasingly trained to regulate body position appropriately [17]. Lantara games involve various physical activities, such as hopscotch, tiptoeing, walking forward and backward, and walking sideways, which require balance to move from one position to another. Repeated stimulation through Lantara games can improve gross motor skills in the balance jump on one leg aspect.

The results of this study are strengthened by previous research on "Strategies for Stimulating Gross Motor Development in Early Childhood Through Travel Playmat Media" which discusses the same physical activity regarding gross motor aspects, namely balance can be stimulated by physical play, with the results of 16 out of 17 children and 80% of children experiencing an increase in gross motor development. [18], [19]. Similarly

research conducted by Nurlailah, R [20], on the effect of footprint play on children's gross motor skills found that footprint play significantly improved gross motor skills in the aspect of balance because activities such as jumping and walking in certain patterns require control of a child's posture and body stability. Therefore, stimulation hones children's skills.

The researchers assume in this study that the improvement in children's balance occurs due to the stimulating movements in the Lantara game: the first step is hopscotch, the fourth step is hopping on one leg, the fifth step is walking back and forth, the sixth step is walking sideways, and the seventh step is standing on tiptoe. Repeated activities performed in a fun way encourage children to be more actively involved in movement, thereby naturally improving their balance skills. Lantara play, when played regularly, can be an alternative learning medium to stimulate children's balance development. Educators at school and parents can use this game continuously in a fun atmosphere to stimulate the development of gross motor skills and jump on one leg balance aspects in children.

The Effect of Lantara Games on Gross Motor Development (stand on one leg for several seconds)

The paired sample t-test results obtained a significant value (2-tailed) of 0.00 ($p < 0.05$), and there was a significant difference between the pretest and posttest scores, with an average pretest score of 2.3182 increasing to 3.8182 in the posttest. This finding indicates a significant effect between Lantara games and gross motor development in the flexibility aspect. Lantara games include physical activities that can improve gross motor skills in the stand on one leg for several seconds aspect, consisting of jumping, crawling, and tiptoeing to strengthen and stretch the large leg muscles. When children engage in active and regular physical play, a process of muscle adaptation occurs, strengthening

muscles and increasing physical endurance. This aligns with the principle of physical exercise, which states that muscles that are frequently used will develop and become stronger and more flexible, making them less prone to injury [21]. Stimulation through play involves large muscles, which will optimally develop children's physical strength and flexibility, especially in body parts frequently used in activities such as the legs, arms, and back.

The results of this study align with research by Qomariah [22], who stated that flexibility can be honed through stimulation through movements such as hopscotch. Hopscotch movements involve coordination between the feet, hands, and bending movements, which indirectly train children's flexibility during play. These findings are further supported by Novitasari, R et al [23], who developed a game-based flexibility training model for children aged 6–12. The results of this study indicate that directed and enjoyable physical play has been proven effective in increasing children's flexibility. Flexibility training through play stimulates movements such as stretching, reaching, and swinging over a wide range of motion, which directly impacts muscle and joint flexibility [24].

Lantara games can improve gross motor development in the stand on one leg for several seconds aspect of the steps: the first step is hopscotch movement, the second step is zigzag jumping with two feet, the third step is crawling with both hands, the fourth step is jumping with one foot, the seventh step is tiptoeing, and the eighth step is jumping with two feet simultaneously. The findings of this study are that if children are given movement stimulation that involves stretching, jumping, and variations in body position consistently, then the ability to develop gross motor skills in the flexibility aspect will develop optimally. Therefore, it is hoped that educators and parents will involve children more often in physical activities with lantara games on an ongoing

basis, and it can be an effective alternative game to improve children's gross motor development. This lantara game is expected to be included in the daily program at school and at home as a real effort to support children's gross motor development as a whole.

The Effect of Lantara Games on Gross Motor Development (Walk in a straight line)

The paired sample t-test results yielded a significant value (2-tailed) of 0.00 ($p < 0.05$) and a significant difference between the pretest and posttest scores, with an average pretest score of 2.3182 increasing to 3.9545 in the posttest. This indicates a significant effect between Lantara games and gross motor development in the Walk in a straight line aspect. When playing with playmats, precision in movement is crucial because each step of the game has a different pattern and rules, so players are tested on their accuracy when jumping in the appropriate pattern [25]. Lantara games involve structured physical activity that can enhance gross motor development in children. This game trains gross motor accuracy because children are instructed to perform directed movements according to specific step instructions and patterns [26]. In this game, children must jump or step to a specific point according to instructions or visual cues, which means they must measure distance, estimate direction, and adjust the strength and speed of their body movements appropriately.

The results of this study support the research of Erwanda & Sutapa [27], who found that activities such as manipulative and coordinative movements require precision in their execution. Movements such as walking in a straight line and crawling on a straight path require precision, which can be developed through consistent practice and stimulation. This research also aligns with the findings of [28], who found that physical activities such as sports can stimulate precision skills

through various movements that require a high degree of accuracy to achieve precise movement goals. Therefore, this game can provide the right stimulation to develop children's precision skills.

The Lantara game can be an option for stimulating gross motor skills in the precision aspect, as it provides visual aids such as targets or patterns on the floor that serve as play media to effectively continue the stimulation of these skills. According to the researchers, if children are given directed and consistent physical activity stimulation through visual instructions and movement patterns that require accuracy, their precision motor skills will develop optimally. Therefore, it is recommended that the Lantara game be used routinely in children's learning and play activities as a method to support children's gross motor development, particularly in the precision aspect.

The Effect of Lantara Games on Gross Motor Development (Jump forward)

The paired sample t-test results obtained a significant value (2-tailed) of 0.00 ($p < 0.05$), and there was a significant difference between the pretest and posttest scores, with an average pretest score of 2.3636 increasing to 3.8182 in the posttest. This finding indicates a significant effect of the Lantara game intervention on gross motor development in the Jump forward aspect. [29]. Jump forward is one aspect of gross motor skills that can be improved through stimulation such as the Lantara game. According to the Directorate General of Education, coordination is an individual's ability to combine various movements into effective and directed movement patterns. Lantara games are physical games that require coordination to perform movements such as jumping, zigzagging, crawling, and tiptoeing according to the route shown. All of these movements require cooperation between the senses of sight, body movement, and concentration. The activities in these games involve not only the body's muscles but

also the activation of the entire brain, thus supporting precise and balanced coordination processes.

Effective coordination develops through consistent practice, as the brain, muscles, and nervous system become more aligned. Children who are accustomed to performing complex movements will be more skilled and responsive to environmental stimuli [30]. This is supported by research by Sistiari, R. D. [31], which states that providing regular stimulation can train eye-hand coordination, as well as help children understand and solve movement challenges better. Furthermore, research by Ubaedah et al. [32], shows that motor games such as walking in a straight line, jumping in a certain pattern, and standing on tiptoes can significantly improve balance and coordination skills in early childhood. These exercises encourage cooperation between body systems and support the development of posture and overall body control.

If children are consistently stimulated by physical activity through games that incorporate various types of movements, such as jumping, crawling, and standing on tiptoes, their body coordination skills will develop optimally. Early stimulation of physical activity by parents can prevent 55.6% of growth and developmental disorders in toddlers [33]. This is because repeated practice with varied movement patterns can simultaneously improve cooperation between the nervous system, muscles, and the sense of sight [34]. Therefore, Lantara games can be an option for educators and teachers to implement routinely in school learning activities and play activities at home. This game is not only fun but also provides gross motor stimulation, which positively impacts the development of balance and coordination in early childhood.

CONCLUSION

The findings of this study indicate that the Lantara game is an effective medium for stimulating gross motor development in children aged 60-72 months. Implementing this Lantara game can be a practical, play-based strategy to stimulate children's movement, as a means of stimulating gross motor skills in early childhood. This Lantara game can be an alternative play tool to address developmental delays and encourage holistic growth in preschool environments.

REFERENCES

- [1] F. A. Fatmawati, *Physical motor development in early childhood*. Caremedia Communication, 2020.
- [2] A. Reswari, "The Effectiveness of a Modified Basketball Game on the Gross Motor Skills of 5–6 Year Old Children," *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini (Early Childhood Education Journal)*, vol. 6, no. 1, pp. 17–29, 2021.
- [3] Directorate of Early Childhood Education, *Checklist Format for Child Development Assessment*. 2021.
- [4] I. Amin, "Motor Development in Elementary School Children through Integrated Education and Physical Activities," *Permadiani: Journal of Civil Society Research Service*, vol. 2, no. 2, pp. 60–69, 2024.
- [5] World Health Organization, *Global report on children with developmental disabilities*. 2023.
- [6] Ministry of Health, Republic of Indonesia, *2018 National Riskesdas Report*. Balitbangkes Publishing Institute, p. 156, 2018.
- [7] Lampung Health Office, *Lampung Health Profile 2023*, vol. 44, pp. 1–326, 2023.
- [8] Khadijah and N. Amelia, *Physical and Motor Development of Early Childhood*, 1st ed., 2020.

- [9] A. C. Ananditha, "Factors related to gross motor development in toddlers," *Muhammadiyah Nursing Journal*, vol. 2, no. 1, pp. 40–48, 2017.
- [10] Ministry of Education and Culture, *Regulation of the Minister of Education and Culture of the Republic of Indonesia*, No. 137 of 2014, *Educhild Journal: Education and Social Sciences*, vol. 10, 2014.
- [11] D. Hura, "Factors Influencing Gross Motor Development in 3–5 Year Old Children in Lasara Sawo Village, Sawo District, Nias Regency," *Journal of Pharmaceutical and Health Sciences Research*, vol. 2, no. 1, pp. 213–222, 2024.
- [12] O. Richard, "Identification of Gross Motor Skills in Preschool Children Aged 4–6 Years at Khm. Noer Kindergarten, Surabaya," *Angewandte Chemie International Edition*, vol. 6, no. 11, pp. 951–952, 2021.
- [13] S. N. Putri and N. Afrianti, "The Effect of Playing with Eduter Playmats on the Crawling, Rolling, and Jumping Skills of 4–5 Year Old Children," *Early Childhood Education Teacher Education Research Journal*, pp. 13–18, 2023.
- [14] E. Roflin, I. A. Liberty, and P. Liberty, *Population, Sample, Variables in Medical Research*. PT. Nasya Expanding Management, 2021.
- [15] P. S. Mustafa, H. Gusdiyanto, A. Victoria, N. K. Masgumelar, N. D. Lestariningsih, and H. Maslacha, *Quantitative, Qualitative, and Classroom Action Research Methodologies in Physical Education*, Issue 112, Dec. 1, 2022.
- [16] E. Tarigan and S. Bukit, "Improving Gross Motor Skills in 5–6 Year Old Children Through the Footprint Game at Pembina Pancur Batu State Kindergarten, Academic Year 2021/2022," *DIAJAR: Journal of Education and Learning*, vol. 1, no. 2, pp. 152–158, 2022.
- [17] N. M. Siregar, M. Budiningsih, and E. F. Novitasari, "A Game-Based Flexibility Training Model for Children Aged 6 to 12 Years," in *Proceedings of the Seminar and Workshop of the Faculty of Sport Science, Jakarta State University*, vol. 3, no. 01, pp. 75–87, 2018.
- [18] U. Sumiati, I. F. Zahro, and S. K. Alam, "Strategies for Stimulating Gross Motor Development in Early Childhood Through Travel Playmats," *Jurnal CERIA (Smart, Energetic, Responsive, Innovative, Adaptive)*, vol. 6, no. 3, pp. 258–266, 2023.
- [19] A. Fathurrahma, *The Effect of Footprint Playmats on Gross Motor Skills in Children Aged 5–6 Years at Raudhatul Jannah Kindergarten, Taman Rajo*, Thesis, 2023.
- [20] R. Nurlailah, *The Effect of Footprints on the Gross Motor Skills of 5–6 Year Old Children at PITUE Mandiri Kindergarten, Pangkajene Regency*, 2021.
- [21] E. Yanti and N. Fridalni, "Factors Influencing Motor Development of Preschool Children," *Jurnal Kesehatan Medika Saintika*, vol. 11, no. 2, pp. 226–235, 2020.
- [22] D. N. Qomariah and S. Hamidah, "Exploring the Benefits of Traditional Games in Improving Gross Motor Skills: An Early Childhood Context," *PLS Window*, vol. 7, no. 1, pp. 8–23, 2022.
- [23] R. Novitasari, M. Nasirun, and D. D., "Improving Children's Gross Motor Skills Through Playing with Hula hoops in Group B Children at Al-Syafaqoh Preschool, Rejang Lebong Regency," *Potensia Scientific Journal*, vol. 3, no. 1, pp. 6–12, 2019.
- [24] P. Hasliza and N. Anisa, "Development of the 'Joyful Footprints' Game to Enhance Kinesthetic Intelligence in 5–6 Year Old Children," *Journal of Early Childhood*

- Education*, vol. 2, no. 1, pp. 26–35, 2020.
- [25] S. Rofi'ah and E. Widiyati, "The Effectiveness of Using the 'Travel Playmat' Educational Tool to Develop Gross Motor Skills in 7-Year-Old Children," *Journal of the IKA PGSD (PGSD Alumni Association) UNARS*, vol. 8, no. 2, p. 410, 2020.
- [26] U. H. M. Tangse and D. Dimiyati, "Relay Games to Improve Gross Motor Skills in 5–6 Year Old Children," *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, vol. 6, no. 1, pp. 9–16, 2021.
- [27] D. R. Erwanda and P. Sutapa, "Development of Traditional Gobak Sodor Game Media to Improve Gross Motor Skills in Children Aged 5–6 Years," *Obsession Journal: Journal of Early Childhood Education*, vol. 7, no. 3, pp. 3323–3334, 2023.
- [28] R. L. Hidayah and R. I. Khan, "Utilization of Circuit Games to Hone Gross Motor Skills in Early Childhood," in *Proceedings of SEMDIKJAR (National Seminar on Education and Learning)*, vol. 4, pp. 646–654, Dec. 2021.
- [29] M. P. Anggraini and D. Dwi, *Gross Motor Development in Early Childhood*, 2022.
- [30] M. Volkers, "Improving Gross Motor Skills in 5–6 Year Old Children Through Jump Rope Games at PAUD AL-IKHLAS, South Tangerang," *Anza*, vol. 8, no. 5, p. 55, 2019.
- [31] R. D. Sistiarini, "Development of the Animate Circuit Game to Stimulate Gross Motor Skills in Children Aged 5–6 Years," *AWLADY: Journal of Child Education*, vol. 7, no. 1, p. 46, 2021.
- [32] D. Ubaedah, A. Fatimah, and R. Kusumawardani, "Improving Gross Motor Skills Through Animal Rhythmic Gymnastics," *Journal of Research and Development of Early Childhood Education*, vol. 6, no. 1, pp. 29–40, 2019.
- [33] Fitriani, I. S., & RR, O. Stimulasi, Deteksi dan Intervensi Dini Orang Tua terhadap Pencegahan Penyimpangan Pertumbuhan dan Perkembangan Anak Balita. Indones J Heal Sci [Internet]. 2017 Mar 31; 1 (1): 1. *Indonesian Journal for Health Sciences (IJHS) Vol, 1*, 1-01.
- [34] N. Z. Jf and N. Mahrani, "Strategies for Developing Fine and Gross Motor Skills in Early Childhood Through Structured Play Activities," *AL IHSAN: Journal of Islamic Education for Early Childhood*, vol. 6, no. 1, pp. 024–036, 2025.