Indonesian Journal of Early Childhood Education Studies (IJECES)
Volume 15, Number 1, June 2026, Pages 1-13
e-ISSN: 2476-9584 (Online), p-ISSN: 2252-8415 (Print)

Effectiveness of Traditional Rope Jumping Games on Gross Motor Skill Development in 5–6 Year Old Children: A Classroom Action Research Study

Yenneka Sandra[1], Mutia Farina[2]
[1,2]Faculty of Tarbiyah, Institut Ilmu Al-Quran, Jakarta

DOI: https://doi.org/10.15294/ijeces.v15i1.45843
Submitted: 17/03/2026 **Revised:** 28/06/2026 **Accepted:** 28/06/2026

ABSTRACT
Gross motor development is a fundamental aspect of early childhood education because it enables children to perform essential movements such as jumping, running, balancing, and coordinating body movements. Previous studies have demonstrated that rope-jumping activities can improve children's gross motor skills. However, limited research has examined how these skills develop progressively through systematic classroom action cycles. This study aimed to investigate the effectiveness of the traditional rope-jumping game in improving the gross motor skills of children aged 5–6 years through Classroom Action Research (CAR). The study was conducted in two action cycles involving 13 children at TK Aisyiyah Padang City. Data were collected using an observation sheet assessing large muscle strength, agility, movement coordination, movement accuracy, and active participation. The findings showed that the proportion of children achieving the categories of Developing as Expected (BSH) and Very Well Developed (BSB) increased from 61.54% in Cycle I to 100% in Cycle II after improvements were made to the learning activities. These findings indicate that the traditional rope-jumping game provides systematic and developmentally appropriate physical stimulation that effectively enhances gross motor skills among children aged 5–6 years.

Keywords: Traditional Games, Rope Jumping, Gross Motor Skills, Early Childhood, Classroom Action Research

Copyright (c) 2026 Sandra, et al

Corresponding Author:

Yenneka Sandra
Faculty of Tarbiyah, Institut Ilmu Al-Quran, Jakarta
sandrayeneka@gmail.com

1. INTRODUCTION

Early Childhood Education (ECE) is an educational stage that plays a fundamental role in optimizing all aspects of children's development (Maulani et al., 2016). At the age range of 0–6 years, children are in the golden age, which is characterized by very rapid development and high sensitivity to various environmental stimuli. Therefore, learning at this stage must be designed in a planned and continuous manner to support children's cognitive, language, social-emotional, moral, physical, and motor development (Maulani et al., 2016).

One important aspect of early childhood development is motor development, especially gross motor skills. Gross motor skills relate to the ability to control large body movements involving major muscles such as running, jumping, kicking, and maintaining balance (Roza et al., 2022). These abilities serve as a foundation for children in carrying out various daily physical activities and also influence children's self-confidence and independence. According to the Australian 24-Hour Movement Guidelines for the Early Years, children aged 3–5 years should accumulate at least 180 minutes of physical activity per day, of which 60 minutes should be of moderate-to-vigorous intensity (Okely et al., 2017). However, global trends indicate a significant decline in children's physical activity levels over the past two decades, coinciding with increasing rates of obesity and motor skill limitations (Ali et al., 2017). Wang and Zhou (2024), in their updated meta-analysis, confirmed that motor development-focused exercise training enhances gross motor skills more effectively than ordinary physical activity in preschool children.

Furthermore, research has shown that motor competence and physical activity in early childhood demonstrate stability and a significant reciprocal relationship (Schmutz et al., 2020). Children with higher motor competence tend to be more physically active, and regular physical activity in turn improves motor competence. However, the global decline in children's physical activity is alarming, with many children failing to meet the recommended guidelines (Ali et al., 2017). This condition is exacerbated by the increasing use of gadgets and screen time, which displaces children's active play time (Hidayati, 2020). In Indonesia, many educators still rely on conventional teaching methods that do not provide sufficient opportunities for children to move actively (Sutapa & Suharjana, 2019).

Initial observations conducted at TK Aisyiyah Padang City showed that the gross motor abilities of children in Group B had not yet developed optimally and evenly. Some children experienced difficulties when running and jumping, easily lost their balance when moving quickly, and were unable to coordinate hand and foot movements properly when participating in rope-jumping activities. In addition, some children appeared less confident and less active in gross motor activities.

This condition indicates that children require more varied stimulation that is appropriate to their developmental characteristics. Play-based learning is the most appropriate approach for early childhood because it provides opportunities for children to learn actively, spontaneously, and joyfully (Susanti & Ramadhani, 2025). Pesce et al. (2016) distinguished between free play and deliberate play, demonstrating that deliberate play integrated with cognitively challenging physical activities simultaneously benefits motor coordination and cognitive processing in children. In this context, traditional games can be an alternative activity that is not only easy to implement but also contains educational value and is able to stimulate children's physical development.

The traditional rope-jumping game is an activity that involves repeated jumping movements, maintaining balance, and coordinating hand and foot movements (Susanti et al., 2022). Biomechanically, rope jumping is a multisensory activity that requires simultaneous coordination between the visual, proprioceptive, and vestibular systems (Shi et al., 2023). This game requires strength, agility, and movement accuracy, so it has the potential to improve children's gross motor skills (Situmeang et al., 2025). Previous research has demonstrated that rope-jumping training significantly improves dynamic balance (Shi et al., 2023) and enhances balance and motor coordination in preadolescent children (Trecroci et al., 2015). Rope-jumping is pedagogically appropriate for children aged 5–6 years because it develops multiple motor components simultaneously: balance (static and dynamic), bilateral coordination, jumping accuracy (timing), and

rhythm (Trecroci et al., 2015). Furthermore, the game requires visual-motor perceptual coordination that is important for cognitive development (Pesce et al., 2016) and can be implemented simply without expensive equipment (Aliriad et al., 2024).

However, although previous studies have shown the positive effect of rope-jumping activities on children's motor development (O. M. Putri et al., 2021; Andini et al., 2022), limited studies have examined how these skills improve gradually through systematic classroom action cycles. Most existing research uses experimental designs with pre-test and post-test measurements, which do not reveal the progressive improvement of motor skills over time (Fu et al., 2022; Foulkes et al., 2017). Furthermore, studies using Classroom Action Research (CAR) with two or more cycles to observe gradual changes in children's gross motor indicators through structured intervention cycles are still very scarce (Allimant et al., 2023). Based on the explanation above, this study aims to determine the effect of the traditional rope-jumping game on the gross motor skills of children aged 5–6 years at TK Aisyiyah Padang City, with a particular focus on observing progressive improvement through two CAR cycles.

Literature Review

The Nature of Early Childhood

Early childhood refers to children aged 0–6 years, a period often referred to as the golden age of development. During this stage, children have enormous potential to optimize all aspects of their development, including motor development (Putri, 2025). According to Suryana (2021), early childhood is an individual with unique characteristics and potentials that must receive special attention from adults. The characteristics of children aged 5–6 years include increased curiosity, the development of imagination, the ability to begin working in small groups, and an interest in challenging physical activities (Sudaryanti et al., 2025). Safitri (2022) also states that at this age children begin to follow simple rules and show increased self-confidence in group activities (Safitri, 2022)

Gross Motor Development in Early Childhood

Gross motor skills refer to body movements that involve large muscle groups and depend on the child's physical maturity (Roza et al., 2022). Gross motor activities include running, jumping, climbing, and various other dynamic movements (Zulfa, 2023). Putri et al. (2021) state that gross motor development occurs through play activities that involve the active use of the entire body.

According to the motor development theory proposed by Seefeldt, there are sequential stages of motor development that children must pass through, ranging from reflexive motor skills and fundamental motor skills to specific sports skills (Wu et al., 2021). At the age of 5–6 years, children are in the Fundamental Movement Skills (FMS) phase, which comprises three main categories: (1) locomotor skills (movement skills such as walking, running, and jumping); (2) stability skills (balance skills such as standing on one foot and bending); and (3) manipulative skills (object control skills such as throwing, catching, and kicking) (Karadeniz et al., 2024).

These basic skills are critically important because, according to Seefeldt's motor development pyramid model, the inability to master FMS during childhood creates a “proficiency barrier” that hinders children's participation in more complex physical activities and sports in adulthood (Wu et al., 2021).

At the age of 5–6 years, children show improvement in locomotor, non-locomotor, and manipulative movements (Zulfa, 2023). Children are able to jump on one foot alternately, walk along a line without losing balance, and combine a series of movements in a coordinated manner (Andini et al., 2022). In addition, body movement control improves, especially in activities that require agility and balance (Situmeang et al., 2025). Fu et al. (2022) demonstrated that functional training focused on motor development enhances gross motor skills, physical fitness, and sensory integration in

healthy Chinese children aged 5–6 years, confirming the importance of structured motor interventions during this critical developmental stage.

Indicators of gross motor ability at this age include large muscle strength, agility, movement coordination, movement accuracy, and active participation in physical activities (Zulfa, 2023). Physical self-concept also plays an important role in the relationship between motor competence and physical activity; children with positive perceptions of their motor abilities tend to be more motivated to participate in physical activities (Utesch et al., 2018). Therefore, motor development interventions should not only improve technical skills but also build children's confidence in physical activities (Fu et al., 2022). Optimal gross motor development will support children's readiness to participate in various learning activities.

Traditional Rope-Jumping Game

Rope jumping is an activity that involves jumping using a rope and can be played individually or in groups. This game functions to stimulate body muscles and improve strength, speed, and movement coordination (Situmeang et al., 2025). The traditional rope-jumping game has educational value because it involves active physical movement that can strengthen large muscles while improving children's balance and agility (Susanti et al., 2022). Roza et al. (2022) state that rope-jumping games are effective in improving children's jumping ability and movement coordination.

From a biomechanical perspective, rope jumping is a multisensory activity that requires simultaneous coordination between the visual, proprioceptive, and vestibular systems (Shi et al., 2023). Shi et al. (2023) demonstrated that 12 weeks of rope-jumping training significantly improved dynamic balance and stroke stability in junior tennis players. Similarly, Trecroci et al. (2015) found that a short-term jump rope training protocol improved balance and motor coordination in preadolescent soccer players. These findings highlight the effectiveness of rope jumping as a training method for developing multiple motor components simultaneously.

Rope jumping is particularly appropriate for children aged 5–6 years for several pedagogical reasons: (1) it is an enjoyable activity that aligns with the characteristics of early childhood learning (Pesce et al., 2016); (2) it involves multiple gross motor components integratively, including static-dynamic balance, bilateral coordination, jumping accuracy, and rhythm (Trecroci et al., 2015); (3) it requires visual-motor perceptual coordination that is important for cognitive development (Pesce et al., 2016); and (4) it can be implemented simply without expensive equipment (Aliriad et al., 2024).

In the context of Indonesian traditional games, rope jumping is one of the games that has been widely known in Indonesian culture and has great potential as a medium for gross motor development (Aliriad et al., 2024). Hidayati (2020) emphasized the importance of reviving local wisdom through traditional games that contain educational values and character messages. Irmansyah et al. (2020) also showed that traditional sport games in physical education can shape children's social skills in primary schools.

Previous research shows that rope-jumping games have a significant influence on improving the gross motor skills of children aged 5–6 years (Putri et al., 2021). Another study also found an increase in the average score of gross motor skills after the implementation of rope-jumping games (Situmeang et al., 2025). Thus, theoretically, the traditional rope-jumping game has strong relevance as a stimulus to improve the gross motor skills of children aged 5–6 years.

2. METHOD

The research instrument used in this study was an observation sheet designed to assess children's gross motor skills during the implementation of the traditional rope-jumping game. The observation instrument consisted of five indicators adapted from previous studies on gross motor development (Putri et al., 2021): (1) large muscle strength, observed through the child's ability to perform repeated jumps without showing excessive fatigue; (2) agility, assessed through the child's ability to respond quickly and adjust body movements to the rhythm of the swinging rope; (3) movement coordination,

evaluated based on the child's ability to synchronize foot movements with the rope movement while maintaining body balance; (4) movement accuracy, assessed through the child's ability to jump without stepping on or being caught by the rope; and (5) active participation, observed through the child's willingness to participate enthusiastically, follow instructions, and complete the rope-jumping activities.

To improve the credibility of the observation data, the observation sheet was reviewed by lecturers in the field of Early Childhood Education to ensure that the indicators were appropriate for assessing gross motor development in children aged 5–6 years. During the implementation of the research, observations were conducted collaboratively by the researcher and the classroom teacher, who served as a co-observer. Before data collection, both observers discussed the operational definitions of each indicator and the scoring criteria to ensure a shared understanding. At the end of each meeting, the observation results were compared and discussed to resolve any differences in judgment before the final scores were recorded. Although inter-rater reliability was not statistically calculated, these procedures were implemented to minimize subjective bias and maintain scoring consistency throughout both Classroom Action Research cycles.

Table 1. Score Interpretation Criteria

Interval (%)	Category	Performance Description
81–100	Very Well Developed (BSB)	The child consistently performs all gross motor indicators independently, accurately, confidently, and without teacher assistance.
61–80	Developing as Expected (BSH)	The child performs most gross motor indicators correctly with only minimal guidance and demonstrates good coordination, balance, and active participation.
41–60	Beginning to Develop (MB)	The child is able to perform some gross motor indicators but still requires frequent teacher guidance and shows inconsistent coordination, balance, or movement accuracy.
0–40	Not Yet Developed (BB)	The child has difficulty performing most gross motor indicators, requires continuous teacher assistance, and demonstrates limited participation during activities.

Source: Adapted from Arikunto (2021)

Data analysis was conducted using descriptive quantitative analysis by calculating the average score and the percentage of indicator achievement. The research was considered successful if at least 75% of the children reached the categories of Developing as Expected (BSH) and Very Well Developed (BSB).

3. RESULTS AND DISCUSSION

Results

This study was conducted to improve the gross motor skills of children aged 5–6 years through the implementation of the traditional rope-jumping game in Group B of TK Aisyiyah Padang City. The research was carried out using the Classroom Action Research (CAR) approach, consisting of two cycles, with each cycle conducted over three meetings. The research subjects consisted of 13 children, including 7 girls and 6 boys.

Each cycle in this research consisted of four stages: planning, implementation, observation, and reflection (Arikunto, 2010). The research was conducted collaboratively between the researcher and the classroom teacher with the aim of improving the gross motor learning process, which had

previously not been optimal. The indicator of research success was determined when at least 75% of the children reached the categories of Developing as Expected (BSH) and Very Well Developed (BSB).

Before implementing the actions, the researcher conducted a preliminary observation (pre-cycle) to determine the initial condition of children's gross motor abilities. The observation results showed that most children still experienced difficulties in performing repeated jumps, maintaining body balance during fast movements, and coordinating hand and foot movements when participating in the game. In addition, several children appeared less confident and less actively involved in gross motor activities. This condition indicates that the gross motor stimulation previously provided had not been optimal and had not been implemented in a structured manner.

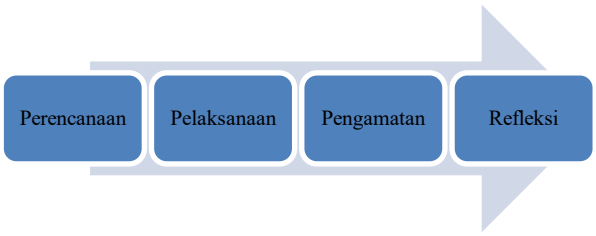


Fig. 1. Classroom Action Research (CAR) Procedure

The following section presents the results of the research that has been conducted.

Cycle 1

Planning

At the planning stage of Cycle I, the researcher and the classroom teacher discussed and identified problems related to children's gross motor abilities. Based on the initial observations, it was found that children were not accustomed to performing repetitive jumping activities and had not received varied games that could stimulate body strength and balance. The researcher then prepared the Daily Learning Implementation Plan (RPPH) by incorporating the traditional rope-jumping game as the main learning activity. The observation instrument was prepared based on the indicators of gross motor ability, including large muscle strength, agility, movement coordination, movement accuracy, and children's active participation (Putri et al., 2021). In addition, the researcher prepared learning media in the form of rubber ropes and observation sheets to record children's development during the activities. The implementation of Cycle I was scheduled for three meetings.

Implementation

The implementation of the action in Cycle I was carried out in three meetings. The learning activity began with light warm-up exercises to prepare the children's physical condition before playing. The teacher then explained the rules of the rope-jumping game in a simple manner and demonstrated the correct way to jump. During the first meeting, most children appeared hesitant when performing the jumps. Some children frequently got caught in the rope and lost their balance. They also still required intensive guidance from the teacher in coordinating hand and foot movements. In the second meeting, an improvement in children's participation began to appear. The children looked more confident in trying and gradually began to understand the rhythm of the rope swing. However, several children still had difficulty maintaining body balance.

In the third meeting, children's gross motor abilities showed better improvement compared to the previous meetings. Children began to perform repetitive jumps more steadily and appeared more active in participating in the game. However, the results were not yet evenly distributed among all children.

Observation

Observations were conducted during the learning process using the prepared observation sheet. Based on the observation results at the end of Cycle I (third meeting), the following data were obtained:

Table 2. Distribution of Children's Gross Motor Skill Development in Cycle I

Development Category	Number of Children	Percentage (%)
Not Yet Developed (BB)	2	15.38
Beginning to Develop (MB)	3	23.08
Developing as Expected (BSH)	4	30.77
Very Well Developed (BSB)	4	30.77
Total	13	100

Based on the table 2, The number of children who reached the BB categories was 2 children, MB categories was 3 childrend, BSH and BSB categories was 8 out of 13 children.
The percentage of indicator achievement was calculated as follows:

$$P = \frac{8}{13} \times 100\% = 61.54\%$$

Compared with the initial condition, there was an improvement in children's gross motor abilities. However, the percentage 61.54% had not yet reached the research success indicator of 75%, therefore improvements were needed in the next cycle.

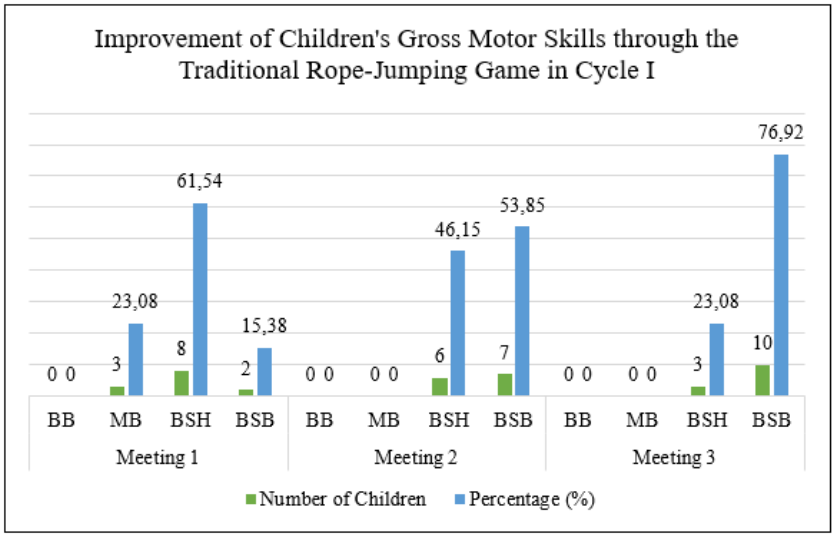


Fig. 2. Improvement of Children's Gross Motor Skills through the Traditional Rope-Jumping Game in Cycle

Reflection

Based on the observation results and discussions with the classroom teacher, it was found that the rope-jumping game had begun to show positive effects on children's gross motor development. This was indicated by the decrease in the number of children in the BB and MB categories and the increase in the BSH and BSB categories. However, several obstacles were still identified. Some children were less focused while waiting for their turn and still needed assistance in maintaining body balance. In addition, the motivation provided to children needed to be improved so that all children could develop optimally. Therefore, improvements in the learning strategy were implemented in Cycle II.

Cycle 2

Planning

The planning stage of Cycle II was a follow-up to the reflection results from Cycle I. The researcher and the classroom teacher evaluated the weaknesses found previously.

Improvements were made by clarifying the game instructions, providing more detailed demonstrations of movements, increasing supervision during jumping activities, and providing more intensive motivation and reinforcement. The RPPH was also improved with emphasis on movement repetition and better group management, so that children could remain more focused and orderly during the activity.

Implementation

The implementation of actions in Cycle II showed significant changes. Children appeared more confident and enthusiastic in participating in the rope-jumping game. During the first meeting, most children were already able to perform jumps more steadily. In the second meeting, no children showed hesitation in playing. They were able to coordinate hand and foot movements more effectively and maintain balance during repeated jumps. In the third meeting, almost all children were able to perform jumps without getting caught in the rope and were able to follow the teacher's instructions well. Children's active participation also increased compared to Cycle I.

Observation

Based on the observation results at the end of Cycle II (third meeting), the following data were obtained:

Table 3. Distribution of Children's Gross Motor Skill Development in Cycle II

Development Category	Number of Children	Percentage (%)
Developing as Expected (BSH)	3	23.08
Very Well Developed (BSB)	10	76.92
Total	13	100

These results indicate that all children had reached the predetermined development indicators. The number of children who reached the BSH and BSB categories was 13 out of 13 children. The percentage of achievement was calculated as follows:

$$P = \frac{13}{13} \times 100\% = 100\%$$

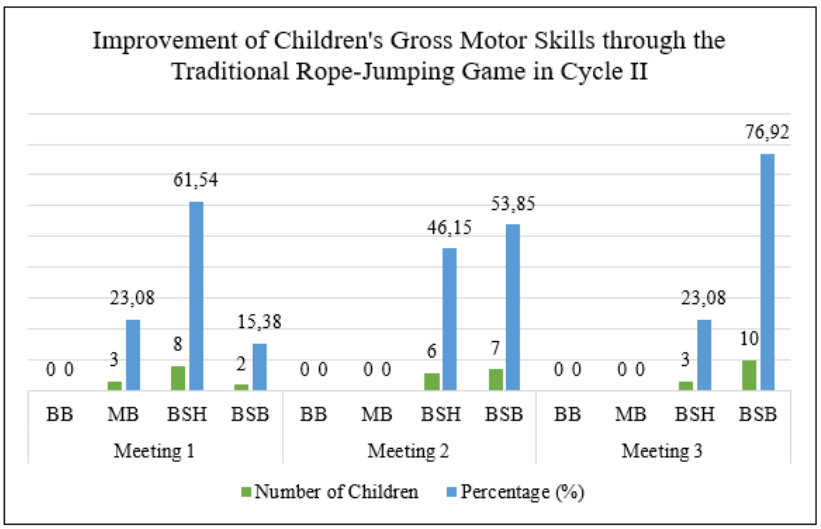


Fig. 3. Improvement of Children's Gross Motor Skills through the Traditional Rope-Jumping Game in Cycle II

Reflection

Reflection in Cycle II showed that the improvement in the learning strategy worked very well. The provision of more intensive motivation, clearer instructions, and systematic repetition of movements had a positive impact on the development of children's gross motor skills. Since 100% of children achieved the BSH and BSB categories, the success indicator of the research had been fulfilled, and the study was not continued to the next cycle.

Discussion

The implementation of classroom action research through the application of the traditional rope-jumping game showed a significant improvement in the gross motor skills of children aged 5–6 years at TK Aisyiyah Padang City. This improvement occurred gradually from the initial condition, Cycle I, to Cycle II. In the initial condition (pre-cycle), children's gross motor abilities had not developed optimally and evenly. Children still experienced difficulties in performing repetitive jumps, maintaining body balance, and coordinating hand and foot movements. This indicates that the gross motor stimulation previously provided was not sufficiently varied and not implemented systematically.

This finding is in line with the opinion of Putri et al. (2021), which states that children's gross motor development is strongly influenced by opportunities for children to move actively through play activities that involve the use of large muscles (O. M. Putri et al., 2021). Children who lack varied movement experiences tend to experience obstacles in strength, balance, and coordination.

The implementation of Cycle I showed an initial improvement in children's gross motor abilities. The percentage of children reaching the categories Developing as Expected (BSH) and Very Well Developed (BSB) increased to 61.54%. Although it had not yet reached the success indicator of 75%, this result indicated that the traditional rope-jumping game had begun to provide a positive impact on children's gross motor development.

At this stage, children began to adapt to the movement patterns of rope jumping, although some still had difficulty maintaining rhythm and balance. This finding is consistent with the research of Susanti et al. (2022), which states that at the initial stage of implementing rope-jumping games, children need time to adapt to the movement coordination and game rules. Similarly, Roscoe et al. (2024) found that fundamental motor skills interventions require sufficient time for children to adapt

to new movement patterns, and that progress typically becomes more evident in later stages of the intervention.

Furthermore, the improvement observed in Cycle I also indicates that the rope-jumping game was able to stimulate large muscle strength and agility. This supports the opinion of Roza et al. (2022), which states that traditional rope-jumping games are effective in improving children's jumping ability, balance, and body coordination through repeated physical activities (Roza et al., 2022). Battaglia et al. (2019) also demonstrated that a structured physical education program significantly improved the gross motor development quotient in preschool children, confirming the importance of systematic physical activity interventions at this age.

However, the results of Cycle I were not yet optimal because several children were still in the BB and MB categories. Based on reflection, it was found that some children still lacked focus and required further guidance in coordinating hand and foot movements. Tortella et al. (2020) emphasized that teacher scaffolding plays a dual role in motor-cognitive development in early childhood education, where direct guidance and support from teachers help children overcome motor challenges more effectively.

Therefore, improvements in the learning strategy were implemented in Cycle II, including clearer instructions, increased motivational reinforcement, and more structured repetition of movements. The implementation of Cycle II showed a very significant improvement, where the percentage of achievement increased to 100%, meaning that all children reached the BSH and BSB categories.

This result supports the findings of Andini et al. (2022), which state that rope-jumping games can improve children's jumping ability and movement coordination when implemented consistently and accompanied by clear demonstrations of movement. The results of this study are also consistent with the findings of Situmeang et al. (2025), which indicate a significant improvement in children's gross motor abilities after the implementation of rope-jumping games. Situmeang emphasizes that repetitive and directed practice helps children develop strength, balance, and movement coordination more optimally (Situmeang et al., 2025).

More specifically, the improvement observed in this study can be analyzed based on several indicators of gross motor skills. In terms of large muscle strength, children demonstrated an increased ability to perform repeated jumps without becoming easily fatigued. Regarding agility, children were able to adjust their movements more quickly to the rhythm of the swinging rope. In the aspect of movement coordination, children showed better control in coordinating hand and foot movements in a more stable manner. In terms of movement accuracy, children were able to jump over the rope without getting caught. Furthermore, in the aspect of active participation, children appeared more confident and enthusiastic in engaging in the activity. Vazou et al. (2020) found that rhythmic physical activity interventions, similar to the rhythmic nature of rope jumping, effectively improve motor skills and executive function in children, supporting the multi-component benefits observed in this study.

In addition to physical improvements, the traditional rope-jumping game also had a positive impact on children's affective aspects. Children became more confident, more willing to try, and more actively involved in learning activities. This finding aligns with the framework of learning through play proposed by Parker et al. (2022), which highlights that play-based learning environments foster student engagement, inclusion, and holistic development. The enjoyable and game-like nature of the rope-jumping activity likely contributed to children's increased motivation and self-confidence during the intervention.

Overall, the results of this study prove that the traditional rope-jumping game is an effective learning strategy for improving the gross motor skills of children aged 5–6 years. The structured implementation through the stages of planning, action, observation, and reflection was able to gradually improve the learning process until the predetermined success indicators were achieved (Arikunto, 2012).

4. CONCLUSION

Based on the results of the classroom action research conducted in two cycles, it can be concluded that the traditional rope-jumping game is effective in improving the gross motor skills of children aged 5–6 years at TK Aisyiyah Padang City. In the initial condition, children's gross motor abilities had not yet developed optimally, as indicated by the low ability to perform repeated jumps, maintain body balance, and coordinate hand and foot movements. The implementation of the action in Cycle I showed an improvement, with the percentage of children reaching the categories of Developing as Expected (BSH) and Very Well Developed (BSB) reaching 61.54%, although this had not yet achieved the predetermined success indicator of 75%. After improvements were made in Cycle II through clearer instructions, systematic repetition of movements, and more intensive motivation, the percentage of achievement increased to 100%. All children reached the BSH and BSB categories, indicating that the research success indicator had been achieved.

Therefore, the structured and continuous implementation of the traditional rope-jumping game has proven to improve several aspects of children's gross motor development, including large muscle strength, agility, movement coordination, movement accuracy, and active participation in learning activities. The traditional rope-jumping game can therefore be recommended as an alternative learning strategy in early childhood education to support the optimal development of children's gross motor skills.

REFERENCES

Ali, A., Pigou, D., Clarke, L., & McLachlan, C. (2017). Literature review on motor skill and physical activity in preschool children in New Zealand. *Advances in Physical Education, 7*(1), 2–17. https://doi.org/10.4236/ape.2017.71002

Aliriad, H., S, A., Manullang, J. G., Endrawan, I. B., & Satria, M. H. (2024). Improvement of motor skills and motivation to learn physical education through the use of traditional games. *Physical Education Theory and Methodology, 24*(1), 30–37. https://doi.org/10.17309/tmfv.2024.1.04

Allimant, R. A., Hurtado-Almonacid, J., Reyes-Amigo, T., Yanez-Sepulveda, R., Cortes-Roco, G., Arroyo-Jofre, P., & Paez-Herrera, J. (2023). Effects of structured and unstructured physical activity on gross motor skills in preschool students to promote sustainability in the physical education classroom. *Sustainability, 15*(13), Article 10167. https://doi.org/10.3390/su151310167

Andini, Y. T., Syamsudin, M. A., & Ulansari, F. (2022). Pengaruh permainan lompat tali terhadap perkembangan motorik kasar anak usia dini. *JP2KG AUD (Jurnal Pendidikan, Pengasuhan, Kesehatan dan Gizi Anak Usia Dini), 3*(2), 97–108. https://doi.org/10.26740/jp2kgaud.2022.3.2.97-108

Arikunto, S. (2010). *Prosedur penelitian: Suatu pendekatan praktik*. Rineka Cipta.

Arikunto, S. (2012). *Prosedur penelitian: Suatu pendekatan praktik*. PT Rineka Cipta.

Arikunto, S. (2021). *Prosedur penelitian: Suatu pendekatan praktik* (Edisi revisi). Rineka Cipta.

Battaglia, G., Alesi, M., Tabacchi, G., Palma, A., & Bellafiore, M. (2019). The development of motor and pre-literacy skills by a physical education program in preschool children: A non-randomized pilot trial. *Frontiers in Psychology, 9*, Article 2694. https://doi.org/10.3389/fpsyg.2018.02694

Foulkes, J., Knowles, Z., Fairclough, S. J., Stratton, G., O'Dwyer, M., Ridgers, N. D., & Foweather, L. (2017). Effect of a 6-week active play intervention on fundamental movement skill competence of preschool children. *Perceptual and Motor Skills, 124*(2), 582–598. https://doi.org/10.1177/0031512516685200

Fu, T., Zhang, D., Wang, W., Geng, H., Lv, Y., Shen, R., & Bu, T. (2022). Functional training focused on motor development enhances gross motor skills, physical fitness, and sensory

integration in healthy Chinese children aged 5–6 years. *Frontiers in Pediatrics, 10*, Article 936799. https://doi.org/10.3389/fped.2022.936799

Hidayati, N. N. (2020). Indonesian traditional games: A way to implant character education on children and preserve Indonesian local wisdom. *Istawa: Jurnal Pendidikan Islam, 5*(1), 1–14. https://doi.org/10.24269/ijpi.v5i1.2475

Irmansyah, J., Lumintuarso, R., Sugiyanto, F. X., & Sukoco, P. (2020). Children's social skills through traditional sport games in primary schools. *Jurnal Cakrawala Pendidikan, 39*(1), 1–13. https://doi.org/10.21831/cp.v39i1.28210

Karadeniz, S., Suveren, C., Arslan, Y., Durhan, T. A., Ceylan, T., Albay, F., Kucuk, H., & Ceylan, L. (2024). Examination of basic motor skills in children and adolescents. *Frontiers in Physiology, 15*, Article 1346750. https://doi.org/10.3389/fphys.2023.1346750

Maulani, G., Novianti, W., Mali'ah, S., Nur, M., Missori, R., Romadhon, K., Listyorin, M. T., Usnur, U. H., Siregar, R. W., Hadikusumo, R. A., Simanungkalit, L. N., Pratamawati, A., Syarifah, T., Dewi, N. W. R., Jamin, N. S., & Chairunnisa. (2016). *Strategi pembelajaran anak usia dini*. PT Sada Kurnia Pustaka.

Okely, A. D., Ghersi, D., Hesketh, K. D., Santos, R., Loughran, S., Cliff, D. P., Shilton, T., & Grant, D. (2017). A collaborative approach to adopting/adapting guidelines: The Australian 24-hour movement guidelines for the early years (Birth to 5 years): An integration of physical activity, sedentary behavior, and sleep. *BMC Public Health, 17*(Suppl. 5), Article 867. https://doi.org/10.1186/s12889-017-4867-6

Parker, R., Thomsen, B. S., & Berry, A. (2022). Learning through play at school: A framework for policy and practice. *Frontiers in Education, 7*, Article 751801. https://doi.org/10.3389/feduc.2022.751801

Pesce, C., Masci, I., Marchetti, R., Vazou, S., Saakslahti, A., & Tomporowski, P. D. (2016). Deliberate play and preparation jointly benefit motor and cognitive development: Mediated and moderated effects. *Frontiers in Psychology, 7*, Article 349. https://doi.org/10.3389/fpsyg.2016.00349

Putri, M. (2025). Praktikalitas media pembelajaran Educaplay pada mata pelajaran SKI kelas VII. *Jurnal Ilmiah Nusantara (JINU), 2*(2), 103–112. https://doi.org/10.61722/jinu.v2i2.3552

Putri, O. M., Qalbi, Z., Delrefi, D., & Putera, R. F. (2021). Pengaruh permainan lompat tali terhadap perkembangan motorik kasar anak usia 5–6 tahun. *Pesona Pendidikan Anak Usia Dini, 8*(1), 46–55. https://doi.org/10.24036/111072

Roscoe, C. M. P., Taylor, N., Weir, N., Flynn, R. J., & Pringle, A. (2024). Impact and implementation of an early years fundamental motor skills intervention for children 4–5 years. *Children, 11*(4), Article 416. https://doi.org/10.3390/children11040416

Roza, M., Afifatun, S., Sajdah, M., & Hariyati, T. (2022). Meningkatkan motorik kasar anak melalui permainan tradisional lompat tali. *Al Jayyid: Jurnal Pendidikan Anak Usia Dini, 1*(1), 20–38.

Safitri, L. (2022). Perkembangan kemampuan motorik halus anak usia dini 5–6 tahun melalui kegiatan memegang pensil. *Indonesian Journal of Early Childhood, 4*(2), 492–499. https://doi.org/10.35473/ijec.v4i2.1441

Schmutz, E. A., Leeger-Aschmann, C. S., Kakebeeke, T. H., Zysset, A. E., Messerli-Burgy, N., Stulb, K., Arhab, A., & Meyer, A. H. (2020). Motor competence and physical activity in early childhood: Stability and relationship. *Frontiers in Public Health, 8*, Article 39. https://doi.org/10.3389/fpubh.2020.00039

Shi, Z., Xuan, S., Deng, Y., Zhang, X., Chen, L., Xu, B., & Lin, B. (2023). The effect of rope jumping training on the dynamic balance ability and hitting stability among adolescent tennis players. *Scientific Reports, 13*(1), Article 10934. https://doi.org/10.1038/s41598-023-31817-z

Situmeang, E., Hulu, A., Zamili, U., & Herlina, E. S. (2025). Pengaruh permainan lompat tali terhadap kemampuan motorik kasar anak usia 5–6 tahun. *Jurnal Pendidikan Sosial dan Humaniora, 4*(4), 7358–7373. https://doi.org/10.24036/111072

Sudaryanti, Kurniati, W., & Novianto, E. (2025). Mengembangkan keterampilan motorik halus anak usia 5–6 tahun dengan menggunakan media kolase. *Tarbiyah Jurnal*. https://doi.org/10.24903/jw.v9i2.1756

Susanti, S., Muslihin, H. Y., & Surmadi, S. (2022). Manfaat permainan tradisional lompat tali bagi perkembangan motorik kasar anak usia 5–6 tahun. *Jurnal Penelitian dan Pengembangan Pendidikan Anak Usia Dini, 9*(1), 77–84. https://dx.doi.org/10.30870/jpppaud.v9i1.11365

Susanti, S. R., & Ramadhani, A. (2025). Pendidikan anak berkebutuhan khusus pada anak tunagrahita di sekolah inklusif jenjang sekolah dasar. *PPSDP Undergraduate Journal of Educational Sciences, 2*(1), 90–105.

Sutapa, P., & Suharjana. (2019). Improving gross motor skills by gross kinesthetic- and contemporary-based physical activity in early childhood. *Jurnal Cakrawala Pendidikan, 38*(3), 542–552. https://doi.org/10.21831/cp.v38i3.25324

Taniredja, T. (2013). *Penelitian tindakan kelas*. Alfabeta.

Tortella, P., Schembri, R., Ceciliani, A., & Fumagalli, G. F. (2020). Dual role of scaffolding on motor-cognitive development in early childhood education. *Journal of Human Sport and Exercise, 15*(4 Proc), S1527–S1536. https://doi.org/10.14198/jhse.2020.15.proc4.37

Trecroci, A., Cavaggioni, L., Caccia, R., & Alberti, G. (2015). Jump rope training: Balance and motor coordination in preadolescent soccer players. *Journal of Sports Science and Medicine, 14*(1), 17–25.

Utesch, T., Dreiskämper, D., Naul, R., & Geukes, K. (2018). Understanding physical (in-)activity, overweight, and obesity in childhood: Effects of congruence between physical self-concept and motor competence. *Scientific Reports, 8*(1), Article 6633. https://doi.org/10.1038/s41598-018-24139-y

Vazou, S., Klesel, B., Lakes, K. D., & Smiley, A. (2020). Rhythmic physical activity intervention: Exploring feasibility and effectiveness in improving motor and executive function skills in children. *Frontiers in Psychology, 11*, Article 556249. https://doi.org/10.3389/fpsyg.2020.556249

Wang, X., & Zhou, B. (2024). Motor development-focused exercise training enhances gross motor skills more effectively than ordinary physical activity in healthy preschool children: An updated meta-analysis. *Frontiers in Public Health, 12*, Article 1414152. https://doi.org/10.3389/fpubh.2024.1414152

Wu, H., Eungpinichpong, W., Ruan, H., Zhang, X., & Dong, X. (2021). Relationship between motor fitness, fundamental movement skills, and quality of movement patterns in primary school children. *PLoS ONE, 16*(5), e0237760. https://doi.org/10.1371/journal.pone.0237760

Zulfa, E. S. (2023). Pengaruh permainan tradisional lompat tali terhadap motorik kasar anak usia 5–6 tahun. *Attaqwa: Jurnal Pendidikan Islam dan Anak Usia Dini, 2*(1), 15–26. https://doi.org/10.24036/111072