



The Traditional Jump Rope Game As A Strategy For Stimulating Gross Motor Development In Early Childhood

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ABSTRAK

Penelitian ini menganalisis pemanfaatan permainan tradisional lompat tali untuk menstimulasi motorik kasar anak usia dini di TK Al-Amin Kota Jambi. Meski penting bagi pertumbuhan fisik dan kesiapan belajar, aspek ini belum selalu terstimulasi secara optimal. Penelitian kualitatif deskriptif ini menggunakan observasi, instrumen pengamatan 40 butir, dan studi dokumentasi dengan informan kepala TK serta guru Kelompok B. Data dianalisis secara tematik dan divalidasi dengan triangulasi. Hasilnya, lompat tali efektif mengembangkan keseimbangan, koordinasi, kekuatan otot, kelincahan, dan daya tahan; sebagian besar anak berkembang sesuai harapan hingga sangat baik. Permainan ini juga menumbuhkan sikap positif dan keterampilan sosial. Dukungan utamanya berupa antusiasme anak, alat sederhana, dan kemampuan guru; kendalanya adalah keterbatasan fasilitas, ruang, dan jadwal. Penelitian ini menghasilkan model stimulasi motorik kasar berbasis permainan tradisional yang murah, kontekstual, dan terpadu.

Kata kunci: Lompat Tali, Permainan Tradisional, Motorik Kasar, Stimulasi, Anak Usia Dini

ABSTRACT

This study analyzes the use of traditional jump rope to stimulate gross motor development in early childhood at TK Al-Amin, Jambi City. Though key to physical growth and learning readiness, this area is not always optimally stimulated. This descriptive qualitative study used observation, a 40-item instrument, and documentation, with the principal and Group B teacher as informants. Data were analyzed thematically and validated via triangulation. Findings show jump rope effectively builds balance, coordination, muscle strength, agility, and endurance; most children developed as expected or very well. It also fostered positive attitudes and social skills. Main supports: children's enthusiasm, simple equipment, and teacher competence; barriers: limited facilities, space, and inconsistent scheduling. This study offers a low-cost, contextual, integrative model for gross motor stimulation through traditional games.

Keywords: Jump Rope, Traditional Game, Gross Motor Skills, Stimulation, Early Childhood

Introduction

Gross motor skills refer to movement abilities that involve the coordination of large muscle groups, such as walking, running, jumping, throwing, and maintaining balance. These abilities develop gradually and systematically in line with the maturation of a child's nerves and muscles, and therefore require adequate opportunities to move as well as an environment that supports physical activity [1]. Early childhood constitutes a golden age that lasts from birth to the age of six, a phase in which all aspects of a child's development grow rapidly and form the basis for subsequent stages. Within this age range, appropriate stimulation strongly determines the quality of a child's physical, cognitive, language, social-emotional, and religious-moral growth. One aspect that demands special attention is motor development, particularly gross motor skills, because movements involving large muscles form the foundation of a child's independence, fitness, and readiness for learning at the next level [2].

Children who receive consistent gross motor stimulation tend to have better balance, strength, agility, and body coordination, which in turn support their self-confidence and social participation [3]. Unfortunately, in learning practice at a number of Early Childhood Education (PAUD) institutions, gross motor stimulation does not always receive a balanced share compared with activities that emphasize cognitive aspects such as reading, writing, and arithmetic. Limited space to move, a lack of variety in physical activities, and increasing exposure to gadgets further narrow children's opportunities for active movement [2]. This

condition may hinder the achievement of the expected level of gross motor development in Group B children (aged 5–6 years).

Traditional games offer an alternative stimulation strategy that is inexpensive, contextual, and rich in values. Various Indonesian traditional games—such as hopscotch, stilts, and jump rope—have been shown to involve locomotor and non-locomotor movements that stimulate children's physical-motor development [3], [4], [5]. In addition to training the body, traditional games also instill values of cooperation, sportsmanship, patience, and togetherness, making them consistent with a holistic and meaningful learning approach for early childhood.

Among these traditional games, jump rope (in field practice often using strung rubber bands) is a game that is very close to children's daily lives and easy to organize. The activity of jumping repeatedly requires children to use the large muscles of the legs, regulate rhythm and tempo, maintain balance, and coordinate the eyes and feet simultaneously [6], [7]. A number of previous studies have shown that the jump rope game has a positive effect on improving the gross motor skills and balance of children aged 5–6 years [1], [8], [9]. Evidence from other contexts even shows that jump rope can stimulate movement coordination in children with special needs [10] and improve motor coordination and selective attention in school-age children [11].

Theoretically, international studies on fundamental movement skills strengthen this argument. Structured movement intervention programs, implemented regularly at least twice a week, have been

shown to improve preschool children's fundamental movement skills, including jumping, balancing the body, and coordinating the limbs [12], [13]. These findings affirm that the success of motor stimulation does not depend solely on the type of game, but also on how the game is managed, scheduled, and integrated into learning.

At the age of 5–6 years, children should ideally already be able to display increasingly mature locomotor movements, such as running more stably, jumping with both feet as well as alternating feet, and maintaining balance when stopping suddenly. These abilities serve as benchmarks of gross motor development commonly used by PAUD teachers in assessing children's attainment. The jump rope game directly trains most of these benchmarks within one enjoyable sequence of movement, making it relevant as a means of both assessment and stimulation. This is one of the practical advantages of jump rope compared with motor exercises that are fragmented and less appealing to children.

A review of previous research shows consistency in the direction of findings. Several classroom action research studies reported improvements in the gross motor skills of Group B children after the repeated application of the jump rope game [9], while other studies confirmed its effect on gross motor skills and balance [1], [7]. Other traditional games such as hopscotch and coconut-shell stilts have also been reported as effective in developing children's gross motor skills [4], [5]. However, most of these studies focus on measuring outcomes, and few have comprehensively examined how teachers organize, facilitate, and evaluate the game

as a strategy. The present study addresses this gap through a descriptive qualitative approach that highlights the process rather than merely the final outcome.

Although research on jump rope and gross motor skills is fairly abundant, most of it focuses on measuring effects or improvements through quantitative approaches and classroom action research, whereas studies examining how jump rope is positioned as a teacher-managed stimulation strategy—from implementation, the motor indicators that emerge, and children's affective-social responses, to the supporting and inhibiting factors in the field—remain limited. It is this gap that the present study seeks to fill, taking TK Al-Amin in Jambi City as the research setting.

Based on this background, this study aims to analyze the use of the traditional jump rope game as a strategy for stimulating gross motor development in early childhood, covering its forms of implementation, the gross motor indicators stimulated, children's affective and social responses, and the supporting and inhibiting factors as well as the direction of its development. The findings are expected to provide practical contributions for PAUD teachers in designing simple yet effective motor activities, as well as an academic contribution to developing a model of gross motor stimulation based on traditional games.

To focus the study, the research is guided by several key questions: (1) what is the form of implementation of the jump rope game at TK Al-Amin as a gross motor stimulation strategy; (2) which gross motor indicators are stimulated through the activity and how is children's developmental attainment; (3) how do

children respond affectively and socially during the game; (4) what factors support and inhibit the success of the stimulation; and (5) how the activity is evaluated and developed. These five questions simultaneously become the dimensions examined systematically in the research instrument and analysis.

TK Al-Amin was selected as the research setting on the consideration that the institution regularly organizes game-based physical-motor activities and has educators who actively observe children's development. As an early childhood education institution imbued with Islamic values, TK Al-Amin also regards character building through play as important, so that the study of jump rope at this institution has the potential to reveal the integration of physical stimulation and value formation. Thus, this study views jump rope not merely as a physical activity, but as a holistic learning medium for early childhood.

The urgency of this study is also aligned with the policy direction of early childhood education in Indonesia. The Standards of Child Development Attainment place physical-motor development as one of the developmental domains that must be stimulated, and the spirit of child-centered learning emphasizes meaningful play as the main approach. Within this framework, traditional games such as jump rope have strategic value because they combine physical activity, play, and cultural preservation in a single activity. Making jump rope a planned stimulation strategy means aligning field practice with the demands of developmental standards as well as the principles of learning that are enjoyable for children. The conceptual framework

guiding the analysis in this study is presented in Figure 1.



Figure 1. Conceptual Framework of the Use of Jump Rope as a Gross Motor Stimulation Strategy for Early Childhood

Research Method

This study employed a qualitative approach with a descriptive design. This approach was chosen because it enables the researcher to gain an in-depth understanding of the phenomena occurring in the field, particularly regarding how the traditional jump rope game is organized and positioned as a gross motor stimulation strategy for children. The descriptive design emphasizes portraying the observed processes, behaviors, and conditions as they are, without giving any treatment or manipulation to the subjects [7].

The study was conducted at TK Al-Amin, located at Jalan Lingkar Barat II Number 46, Simpang Rimbo Sub-district, Alam Barajo District, Jambi City. The research subjects focused on Group B children (aged 5–6 years) who participated in the jump rope game activity. Informants were selected purposively, that is, by choosing informants who possessed knowledge and experience relevant to the research focus. The key informants in this

study consisted of the kindergarten principal and the Group B classroom teacher, who directly designed, facilitated, and observed the jump rope game activity at the institution.

Data were collected through three complementary techniques. First, participatory observation to directly observe the form of the game, the teacher's role, children's movements, and the affective and social responses that emerged during the activity. Second, a structured observation instrument in the form of a multiple-response multiple-choice questionnaire consisting of 40 items divided into five dimensions, namely (1) the conduct and implementation of the jump rope game, (2) gross motor development indicators, (3) children's affective and social responses, (4) supporting and inhibiting factors, and (5) evaluation and development. Third, documentation study of learning tools, records of children's development, and activity documentation.

The collected data were analyzed using thematic analysis [4], which proceeded through three stages: data reduction, data display, and conclusion drawing. Data reduction was carried out by filtering and grouping information according to the five instrument dimensions; data display was presented in the form of narratives and summary tables of findings; while conclusion drawing was carried out by interpreting the emerging patterns and relating them to theory and previous research. To ensure data validity, this study applied source triangulation (comparing the statements of the principal and the classroom teacher), method triangulation (comparing the results of observation, the questionnaire, and documentation), and

time triangulation (observation on more than one occasion), so that the findings obtained can be accounted for in terms of reliability and relevance.

The observation instrument was structured and arranged according to the five research dimensions so that each aspect was represented in a balanced manner. Each dimension contained eight items, so the entire instrument totaled 40 items. The items were formulated as multiple-choice questions with multiple responses, allowing observers to mark more than one condition according to the reality in the field, and were accompanied by an open-ended column to capture other conditions not listed. This format was chosen because the phenomena of children's motor development and behavior are multidimensional and rarely singular, so that a multiple-response approach better depicts the actual situation than a single choice.

Before use, the instrument was reviewed for readability and the suitability of its items to the gross motor development indicators of children aged 5–6 years, so that each item genuinely represented the dimension being measured. The use of two observers with different roles—the principal as manager and the classroom teacher as daily implementer—was intended to obtain mutually complementary perspectives while also serving as a form of source triangulation. The analysis was conducted interactively and iteratively: findings from one technique were cross-checked with another until a consistent picture was obtained. Through this procedure, the study sought to present a complete, honest, and traceable description of the practice of gross motor stimulation through the jump rope game.

Results and Discussion

Results

The research results are presented based on the five dimensions of the observation instrument. In general, the findings indicate that the traditional jump rope game at TK Al-Amin has been organized as part of the children's physical-motor development activities, with varied gross motor developmental attainment that nevertheless tends toward positive categories. A summary of the findings is presented in Table 1.

Table 1. Summary of Findings on Gross Motor Stimulation through Jump Rope

Dimension	Key Field Findings
Implementation	Jump rope was played with strung rubber bands and a rope turned in pairs; conducted during core activities, warm-up, and free play; the teacher demonstrated, gave cues, and recorded children's development.
Gross motor indicators	Stimulated: balance, eye-foot coordination, leg muscle strength, agility, and endurance; children's attainment ranged from BB to BSB with a tendency toward BSH-BSB.

Dimension	Key Field Findings
Affective-social response	Children were joyful, proud, and enthusiastic; cooperation, patience in waiting for turns, and self-confidence emerged; some children still felt disappointed or hesitant when failing.
Supporting & inhibiting factors	Supporting: children's enthusiasm, simple equipment, teacher competence, an adequate yard. Inhibiting: limited equipment and space, some hesitant children, and inconsistent scheduling.
Evaluation & development	Assessment through observation, anecdotal notes, checklists, and documentation; jump rope was judged effective with certain improvements and needs to be varied and regularly scheduled.

Source: observation, observation questionnaire, and documentation (processed).

1) Implementation of the jump rope game. Observations and informant statements indicate that the form of jump rope commonly played by children at TK Al-Amin is jump rope using strung rubber bands as well as paired or group jump rope with a rope turned by two people. The activity took place on several occasions: during scheduled core motor-learning activities, opening activities as a warm-up,

break or free-play time, and special activities in the form of occasionally held competitions. In its implementation, the teacher played an active role by demonstrating the jumping movements, turning and holding the rope, giving cues and verbal motivation, and observing while recording the children's development. The rules of the game were introduced through direct demonstration, simple oral explanation, and gradual practice from easy to more difficult movements.

Children were grouped in varied ways—based on age, level of motor ability, gender, or randomly in small groups that played in turns. The equipment used was simple and economical, namely strung rubber bands and self-made tools from recycled materials. The duration and frequency of the activity were still situational: the duration ranged from 10–20 minutes or adjusted to conditions, while the frequency took place once or twice a week, on certain themes, or incidentally. These findings indicate that jump rope has become part of the motor activities, but is not yet fully scheduled consistently within the learning plan.



Figure 2. Children performing repeated jumps over the rope.



Figure 3. Paired jump rope turned by two children while others wait their turn.

2) Gross motor development indicators. In the core dimension of the study, the jump rope game was observed to stimulate a number of gross motor indicators at once. The most prominently developed abilities included body balance, eye-foot coordination, leg muscle strength, agility and speed of movement, and endurance or stamina. While jumping, children displayed hand-foot coordination, eye-foot coordination, whole-body coordination, and regulation of the rhythm or tempo of their jumps. The variety of movements shown also varied, ranging from jumping with both feet together, jumping with alternating single feet, jumping while moving forward, jumping while turning or changing direction, to jumping in time with a count.

In terms of developmental attainment, the children's ability to jump over the rope was distributed across all four categories—Not Yet Developing (BB), Beginning to Develop (MB), Developing as Expected (BSH), and Developing Very Well (BSB)—with most Group B children tending toward the BSH to BSB categories. After children regularly played jump rope, the teacher observed a number of positive changes, including higher and farther

jumps, children falling or getting tangled in the rope less often, the ability to jump longer without stopping, and movements that were more supple and coordinated. The balance indicator was evident from the ability to land stably without staggering, maintain an upright body position, stop instantly while balanced, and quickly recover position after a missed jump. Meanwhile, the strength and endurance indicators were evident from the ability to jump repeatedly without tiring quickly and to remain active throughout the session, although some children still complained of fatigue after a few jumps.

A summary of the stimulated gross motor indicators together with the observed forms of movement behavior is presented in Table 2. This table shows that a single jump rope activity simultaneously trains several gross motor components, making it an efficient activity in terms of movement stimulation.

Table 2. Gross Motor Indicators Stimulated through Jump Rope

Gross Motor Component	Observed Movement Behavior
Balance	Landing stably without staggering, keeping the body upright, stopping instantly while balanced, and quickly recovering position after a missed jump.
Coordination	Hand-foot coordination, eye-foot coordination, whole-body coordination, and regulation of the rhythm and tempo of the jumps.

Gross Motor Component	Observed Movement Behavior
Leg muscle strength	Strong, powerful push-off, the ability to jump repeatedly, and jumps that became increasingly higher and farther.
Agility & speed	Adjusting to the rope's turning tempo, reacting quickly as the rope approached, nimbly changing position, and able to speed up or slow down the jumps.
Endurance / stamina	Staying active throughout the session, jumping longer without stopping, and recovering quickly after a short rest.

Source: observation and observation questionnaire (processed).

3) Children's affective and social responses. The jump rope game not only affected the physical aspect but also elicited rich affective and social responses. Emotionally, children showed joy and laughter, pride when they succeeded in jumping, and enthusiasm while waiting for their turn; nevertheless, some children also showed disappointment or cried when they failed, and even became bored quickly. In terms of social behavior, children encouraged one another, took turns in an orderly manner, and helped friends turn the rope, although occasionally behavior of scrambling for turns still appeared.

When facing difficulty or failure in jumping, most children showed an attitude of trying again persistently, asking the teacher or friends for help, and first observing how their friends did it. The

forms of cooperation that emerged included arranging turns together, teaching friends who could not yet do it, and giving verbal encouragement. Children's independence was evident from their willingness to prepare the equipment themselves and to choose their own position or role, while self-confidence was evident from the courage to jump in front of friends and to show results to the teacher or friends. Children also displayed discipline in obeying the order of turns, following the teacher's cues, and maintaining their own and their friends' safety. Overall, the activity made the classroom atmosphere livelier and more enthusiastic, strengthened familiarity among children, and reduced the boredom of learning routines.

4) Supporting and inhibiting factors.

The success of motor stimulation through jump rope was supported by a number of factors, namely the availability of adequate ropes or rubber bands, a relatively spacious and safe yard or play area, the children's high enthusiasm and interest, and the support of the teacher's skills. The condition of the kindergarten's facilities and infrastructure was considered adequate, with a sufficient field, a relatively safe ground surface, sufficient play equipment, and a shaded play area. Teacher competence was also an important support, as the teacher understood the gross motor stages of early childhood, was able to vary the games, manage safety, and assess children's development.

On the other hand, several inhibiting factors were also found in the field, including limited equipment or facilities, play space that at certain moments felt cramped, some children who were still afraid or hesitant to try, and limited activity time. The diverse characteristics of the

children—such as differences in age, differences in motor ability, and different play-experience backgrounds—also influenced the implementation. In terms of safety, the teacher's supervision was considered adequate and the children understood the safe limits, although there had been instances of children tripping or falling lightly, so that safety procedures still needed attention. As for scheduling, the activity was still flexible according to conditions and not yet fully scheduled consistently within the daily lesson plan.

5) Evaluation and development. The teacher assessed children's motor development through direct observation, anecdotal notes, developmental checklists, and photo or video documentation. Evidence of the effectiveness of jump rope in stimulating gross motor skills was evident from the improvement in children's jumping ability and children becoming more active in moving. For future development, the informants suggested that the activity be varied in difficulty gradually and that facilities be added and improved. Variations that can be developed include jump rope with new songs, combinations with other movements, light competitive contests, and jump rope with graded difficulty.

Interestingly, jump rope was also seen as able to be integrated with other developmental aspects, namely cognitive (counting while jumping), language (accompanying songs or verses), social-emotional (cooperation), art (movement and rhythm), and religious and moral values (sportsmanship and patience in waiting for turns). As a follow-up to the observation results, the teacher provided special guidance for children in the BB and MB categories, more challenging tasks for

BSB children, communicated the results to parents, and adjusted learning methods. Overall, the use of jump rope as a gross motor stimulation strategy was considered effective with certain improvements, and for more optimal results it should be combined with other strategies and scheduled continuously.

When the five dimensions are brought together, a complete pattern emerges: jump rope at TK Al-Amin has functioned as a gross motor stimulation strategy with tangible benefits, but it remains at a stage that can still be optimized. On the one hand, the activity successfully engaged children actively, brought out various motor indicators, and fostered positive affective-social responses. On the other hand, the still-situational nature of its implementation, the not-yet-consistent scheduling, and the limited facilities indicate that the full potential of jump rope has not yet been fully explored. This pattern becomes the basis for the following discussion, which links the field findings with the theoretical framework and the results of previous research.

Discussion

The findings of this study reinforce the position of the traditional jump rope game as an effective, contextual, and economical gross motor stimulation strategy for early childhood. The activity of jumping repeatedly demands the involvement of the large leg muscles and continuous rhythm regulation, so that it naturally trains children's strength, balance, agility, and coordination. These results are consistent with research concluding that the jump rope game has a positive effect on the gross motor skills of children aged 5–6 years [1], as well as with findings that jump rope can

develop both gross motor skills and children's balance [7].

The attainment of most children in the Developing as Expected to Developing Very Well categories supports the idea that the success of stimulation is strongly influenced by the regularity and structure of the activity. A meta-analysis of preschool children's fundamental movement skills affirms that structured interventions implemented regularly produce better improvements in movement skills than fully free activities [12]. Likewise, interventions targeting daily movement behavior have been shown to improve fundamental movement skills in children aged 4–6 years [13]. Thus, the finding at TK Al-Amin—that the activity is still situational and not yet consistently scheduled—becomes an important note: the potential of jump rope would be more optimal if it were managed in a scheduled and gradual manner.

From the perspective of educational management, the implementation of jump rope at TK Al-Amin in fact already contains the three basic managerial functions—planning, implementation, and evaluation—although not yet fully documented formally. Planning is evident from the teacher's efforts to introduce rules gradually and to group children; implementation is evident from the teacher's role in demonstrating, turning the rope, and giving cues; while evaluation is realized through observation, anecdotal notes, and documentation. Strengthening these three functions—for example, by incorporating jump rope into the daily lesson plan, setting clear attainment indicators, and following up on assessment results—would transform jump rope from an incidental activity into a managed

stimulation program. Such a managerial approach is consistent with the finding that the quality of management, not merely the availability of activities, determines the impact of stimulation [9], [12].

Furthermore, it must be emphasized that being structured does not mean eliminating the element of play that characterizes early childhood. Rather, a balance between structured activities and free play is recommended: structure provides direction and order, while freedom maintains children's joy and creativity. Jump rope allows this balance, because it can be designed with certain goals and levels of difficulty while still being played in a cheerful atmosphere. Wise management will combine directed scheduled sessions with opportunities for free play, so that children gain optimal stimulation benefits without losing the essence of play itself [12], [11].

From the perspective of motor development theory, the jumping movement is a locomotor skill that demands integrated coordination between the arms and legs as well as the maturity of postural control. The development of this ability proceeds gradually from control of the upper body parts toward the lower limbs, so that children require repeated practice and adequate feedback to achieve efficient movement [1]. The variety of movements that emerged in the children—jumping with both feet, alternating single feet, moving forward, to jumping in time with a count—reflects the process of mastering skills from simple to more complex patterns, as explained in the literature on fundamental movement skills [12].

The nature of the jump rope game, which demands movement repetition, is a key in this process. Repetition carried out in a play atmosphere allows children to practice without feeling burdened, so that the frequency of movement increases naturally. In the study of movement skills, practice that is deliberate and focused has a greater impact than merely mechanical repetition [13]. The implication is that the teacher's role in directing children's attention to certain aspects of movement—for example, the accuracy of the push-off, the rhythm of the jump, or the stability of the landing—can accelerate skill mastery. The finding that teachers at TK Al-Amin have demonstrated movements and given cues shows a practice consistent with this principle, although it can still be strengthened through more regular scheduling.

The rich affective and social responses during the game reinforce the argument that motor stimulation does not occur in isolation but is integrated with children's social-emotional development. Social learning theory emphasizes that children learn through observation, imitation, and modeling; when a child watches a friend succeed in jumping and then imitates it, or when the teacher demonstrates a movement, the process of motor learning takes place socially [3]. Behaviors of encouraging one another, arranging turns, and teaching friends who cannot yet do it show that jump rope becomes a vehicle for forming social skills, patience, and self-confidence. This is consistent with the characteristics of traditional games that foster togetherness and the value of sportsmanship [4].

The presence of some children who were disappointed or hesitant when they

failed is natural and in fact pedagogically valuable. The experience of facing failure and then trying again persistently or asking for help trains children's emotional regulation and resilience. It is here that the teacher's role as facilitator becomes crucial: by giving cues, motivation, and modeling, the teacher helps children turn the experience of failure into a drive to grow. This finding strengthens the view that the quality of teacher guidance helps determine the success of stimulation, not merely the availability of the game itself [9].

On the dimension of supporting and inhibiting factors, this study underlines that the success of the jump rope strategy is ecological in nature—determined by the interaction among children, teachers, facilities, and the environment. Children's enthusiasm, teacher competence, and the availability of simple equipment are the main assets, while limitations of space, facilities, and scheduling are challenges that need to be managed. The use of strung rubber bands and tools made from recycled materials proves that high-quality motor stimulation does not demand high cost, but rather creativity and management commitment. This finding is relevant to studies that position traditional games as an inexpensive and contextual means of physical-motor development [3], [4].

The safety aspect deserves special attention. The note that there had been instances of children tripping or falling lightly shows that the risk of injury, although small, is still present in jumping activities. Therefore, safety management—such as ensuring a safe play surface, regulating the distance between children, introducing safe limits, and supervising adequately—becomes an inseparable part of the stimulation strategy. The teacher's

skill in managing safety while maintaining children's joy is an important competence that needs to be continuously improved through training. With good safety management, the benefits of jump rope can be obtained to the maximum without causing excessive concern for teachers or parents.

The diversity of children's characteristics—differences in age, motor ability, and play experience—demands an inclusive and differentiated approach. Grouping based on motor ability and giving turns in small groups, as observed in the field, are appropriate practices for accommodating these differences. Children in the Not Yet Developing and Beginning to Develop categories require more intensive guidance and a lower level of difficulty, while children who are Developing Very Well need additional challenges to stay motivated. Such differentiation ensures that each child gains a movement experience suited to their developmental zone, so that no child feels it is too difficult or, conversely, becomes bored because it is too easy.

The possibility of integrating jump rope with cognitive, language, social-emotional, art, and religious-moral aspects demonstrates the advantage of this game as a holistic activity. Counting while jumping trains cognitive ability; accompanying songs enrich language; cooperation fosters social skills; movement and rhythm stimulate art; while patience in waiting for turns and sportsmanship instill religious and moral values. Such integration is consistent with the principles of early childhood learning that emphasize the integration of all developmental aspects within a single meaningful play activity. Additional evidence from other contexts

even shows that activities resembling jump rope can stimulate children's motor coordination and attention [11], so that their benefits extend beyond the physical domain alone.

Academically, this study contributes a complete description of how jump rope is managed as a stimulation strategy—from implementation, the motor indicators that emerge, and affective-social responses, to supporting factors and the direction of its development—which has rarely been examined comprehensively within a single study. Practically, these findings offer guidance for PAUD teachers to make jump rope a scheduled activity with graded difficulty, complemented by systematic assessment and parental involvement. The limitation of this study lies in its coverage of a single institution and a limited number of informants, so further research is recommended to use a broader sample or an experimental approach to quantitatively measure the magnitude of the effect [5], [13].

In the context of PAUD institutions imbued with Islamic values such as TK Al-Amin, the integration of physical stimulation with value formation has its own significance. The jump rope game, which requires children to wait their turn patiently, play honestly, and respect their friends, can become a means of instilling Islamic values such as patience, honesty, and togetherness in a concrete and enjoyable way. This approach is consistent with the principles of religious and moral value learning that emphasize modeling and habituation, so that children not only grow physically healthy but also have their character shaped. Thus, jump rope has the potential to become a meeting point between gross motor development and the

cultivation of good character, which is one of the focuses of value-based early childhood education.

Furthermore, the findings of this study can be read within the framework of developing physical literacy, namely children's ability, confidence, and disposition to be physically active throughout life. Children who from an early age gain enjoyable and successful movement experiences tend to build a positive attitude toward physical activity. The experience of success in jumping, the encouragement of friends, and the teacher's appreciation observed in this study are important elements in fostering such movement motivation. In other words, jump rope not only improves motor ability in the present, but also has the potential to form active-living habits beneficial to children's health in the future [12], [13].

The implications of all these findings are twofold. For teachers and institution managers, jump rope deserves to be placed as a core motor activity that is scheduled, varied, and continuously assessed, rather than merely a filler of spare time. For policymakers and parents, these findings affirm the importance of supporting children's physical activity, whether through the provision of simple facilities, teacher training, or habituation of active movement at home. The combination of such support will maximize the impact of stimulation while ensuring its continuity, so that the benefits of traditional games remain preserved amid the current of modernization that tends to reduce children's space to move [2].

The benefits of jump rope are in fact not limited to the motor and social-emotional domains but also extend to the

cognitive domain. The rhythmic activity of jumping demands that children coordinate perception, attention, and movement simultaneously, thereby training self-control functions and focus of attention. Studies of jump-based physical activity show a link between motor coordination training and improvements in attention and self-regulation in children [11]. In the observation at TK Al-Amin, children who counted their jumps, maintained rhythm together with their friends' counts, and waited their turn in an orderly manner displayed cognitive engagement integrated with physical activity. This strengthens the view that gross motor stimulation through traditional games can serve as a gateway for strengthening children's executive functions, so that jump rope deserves to be regarded as a multidimensional activity, not merely physical exercise.

Finally, all these findings signal the importance of enhancing teachers' professional capacity as the key to the success of the jump rope strategy. A teacher's competence in demonstrating movements, arranging turns, giving appropriate feedback, managing safety, and assessing children's development objectively does not arise by itself but needs to be cultivated through continuous training and mentoring. Such strengthening may take the form of workshops on the stages of fundamental movement skills, the development of simple yet measurable motor assessment instruments, and the habituation of reflection on learning practice. With competent and reflective teachers, a game as simple as jump rope can be managed into a directed, safe, and meaningful stimulation program. Investment in teachers' professional development is therefore a prerequisite for

the great potential of traditional games to be truly realized in everyday learning practice [9], [10].

Conclusion

Based on the research results and discussion, it can be concluded that the traditional jump rope game is an effective strategy for stimulating the gross motor development of early childhood at TK Al-Amin, Jambi City. Jump rope conducted with strung rubber bands as well as a rope turned in pairs proved to stimulate children's balance, eye-foot coordination, leg muscle strength, agility, and endurance, with most Group B children reaching the Developing as Expected to Developing Very Well categories. In addition to the physical aspect, the game elicited positive affective responses and social skills such as cooperation, patience, independence, and self-confidence, and it can be integrated with cognitive, language, art, and religious-moral aspects.

The success of this stimulation is supported by children's enthusiasm, teacher competence, and the availability of simple equipment, but it is still faced with limitations of facilities, space, and inconsistent scheduling. Therefore, PAUD institutions are advised to make jump rope a scheduled and continuous activity, vary the level of difficulty gradually, improve facilities, enhance teacher competence through training, and involve parents. Further research is recommended to examine the effect of jump rope quantitatively and on a broader scale in order to strengthen the generalization of the findings.

More specifically, several practical recommendations can be formulated from

this study. First, teachers should incorporate jump rope into the daily lesson plan with clear goals and attainment indicators, so that the activity is no longer incidental. Second, the activity should be designed in graded levels—from basic movements to more complex variations—to suit the diversity of children's abilities. Third, the assessment of motor development needs to be carried out systematically with checklists and anecdotal notes that are followed up. Fourth, the safety aspect must be managed through the arrangement of the area, supervision, and the introduction of safe limits to children. Fifth, parental involvement needs to be encouraged so that the habituation of active movement continues at home. By implementing these recommendations, the traditional jump rope game can develop from a mere play activity into a managed, sustainable, and meaningful gross motor stimulation strategy for the growth and development of early childhood.

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