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Implementing Rhythmic Gymnastics as a Learning Strategy for Gross Motor Development in Early Childhood: A Qualitative Study

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Abstract
Gross motor development is a crucial aspect of early childhood that requires structured and enjoyable learning strategies. This study aims to describe the implementation of rhythmic gymnastics as a strategy to support gross motor development in early childhood education. Using a descriptive qualitative approach, data were collected through observations, interviews, and documentation of rhythmic gymnastics activities conducted with children in a kindergarten setting. The findings show that rhythmic gymnastics was implemented through systematic planning, including scheduling, duration, movement variation, and the provision of a supportive learning environment, with teachers acting as facilitators and parents providing emotional support. The implementation process was associated with increased children's engagement in movement activities and positive emotional involvement during participation. The study concludes that rhythmic gymnastics functions as a meaningful learning strategy for supporting gross motor development when implemented consistently and adaptively in accordance with children's developmental and emotional readiness.

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INTRODUCTION

Early childhood is widely recognized as a critical developmental period characterized by rapid growth and significant developmental changes (Salsabila et al., 2024). During this stage, children require optimal and well-planned stimulation across multiple developmental domains, including gross motor development. Gross motor skills are defined as the ability to use large muscles to perform activities such as walking, jumping, throwing, and maintaining balance (Matheis & Estabillo, 2018; Muslihin, 2018; Payne & Chang, 2020). This ability serves as a crucial foundation for children's cognitive, social, and emotional development. Through gross motor activities, children learn to understand bodily movement, interact with their physical environment, and develop self-confidence (Candra et al., 2023).

Gross motor development in early childhood does not occur automatically, but requires intentional, structured, and systematic stimulation (Badriyah et al., 2020). Teachers play a central role in facilitating this development by introducing basic movements in a planned and developmentally appropriate manner. Appropriate stimulation of gross motor skills contributes to the development of strength, balance, agility, speed, and coordination (Iswatiningrum & Sutapa, 2022). Furthermore, well-developed gross motor abilities are associated with positive health outcomes, including increased enjoyment of physical activity, improved circulation, enhanced respiratory function, and better posture (Indriyani et al., 2021).

One educational approach that supports gross motor development in early childhood is physical education. Within early childhood education settings, physical education can be implemented through a variety of structured yet enjoyable physical activities that align with children's developmental characteristics. Among these activities, rhythmic gymnastics has gained attention as a learning approach that integrates movement and music, creating an engaging and enjoyable atmosphere that encourages active participation (Arifin et al., 2025).

Rhythmic gymnastics is defined as a form of physical activity performed in coordination with musical rhythms or singing, enabling synchronization between body movements and auditory cues (Tahtani & Sunaryo, 2025). Through the integration of movement and music, children's bodies are actively engaged, while coordination, balance, and large muscle strength are systematically trained. Previous studies indicate that rhythmic movement activities can effectively stimulate motor coordination and enhance children's overall physical competence (Lee et al., 2021).

Empirical evidence has demonstrated the potential of rhythmic gymnastics to improve gross motor skills in early childhood. Research by Iswatiningrum and Sutapa (2022) reported that Si Buyung gymnastics and cheerful rhythmic gymnastics contributed to improvements in kindergarten children's gross motor abilities (Iswatiningrum & Sutapa, 2022). Similarly, Puteri and Agusniatih (2025) found that rhythmic gymnastics had a significant impact on the gross motor development of children in group B at Pembina Palu Utara State Kindergarten (Puteri & Agusniatih, 2025). In addition, movement-based learning models have been shown to stimulate children's motor responses,

increase learning enjoyment, and reduce boredom commonly associated with repetitive physical activities (Lestariani et al., 2019).

Despite the documented benefits of rhythmic gymnastics, field observations indicate that its implementation in early childhood settings often remains monotonous, lacks variation, and is not fully adapted to children's developmental needs. As a result, some children show limited enthusiasm for participating in gymnastics activities, particularly when movements are repetitive or restrict opportunities for exploration. Consequently, gross motor stimulation may not be optimally achieved. Moreover, existing studies on rhythmic gymnastics predominantly employ quantitative approaches that rely on standardized motor test instruments administered at specific time points, such as pre- and post-tests. While these studies provide evidence regarding the effectiveness of rhythmic gymnastics, they offer limited insight into the implementation process, continuous observation, and adaptive strategies applied during learning activities.

Based on these considerations, this study aims to describe the implementation of rhythmic gymnastics as a strategy for stimulating gross motor skills in early childhood at Bina Bangsa Kindergarten. The study focuses on three dimensions: (1) the process of implementing the rhythmic gymnastics program, including scheduling, duration, movement variation, and environmental provision; (2) the dynamics of implementation within the learning context, particularly the roles of teachers and parental support; and (3) observable changes in children's behavior and gross motor performance during the program. Grounded in existing literature, this study seeks to contribute a process-oriented perspective on rhythmic gymnastics as an engaging learning strategy in early childhood education.

METHOD

This study employed a qualitative descriptive design to describe the implementation of rhythmic gymnastics as a strategy to stimulate gross motor development in early childhood education. This design was selected to capture learning processes, interactions, and contextual conditions as they naturally occurred, without manipulating variables or testing causal relationships (Yuliani & Hanif, 2024). A qualitative descriptive approach enabled an in-depth portrayal of how rhythmic gymnastics was planned, implemented, and experienced within the authentic learning environment.

The research was conducted at Bina Bangsa Kindergarten, an early childhood education institution where rhythmic gymnastics had been routinely implemented as part of the learning program. The site was selected purposively to allow an in-depth examination of the implementation process within a natural and ongoing educational context.

The participants in this study included children from Group B, aged 5–6 years, as well as classroom and assistant teachers who were directly involved in rhythmic gymnastics activities. Children in this age range were selected because they are in a critical phase of gross motor development and developmentally ready to engage in structured movement-based learning. Teachers served as key informants due to their roles in planning, facilitating, and evaluating the activities. The unit of analysis in this study was the

process of implementing rhythmic gymnastics, encompassing the stages of planning, implementation, and evaluation, as well as children's responses and involvement during the activities.

Data were collected over a two-week period using observation, semi-structured interviews, and documentation. Observations focused on children's participation, movement coordination, balance, agility, and courage in performing movements, as well as teacher facilitation during rhythmic gymnastics sessions. Semi-structured interviews were conducted with teachers to explore their perspectives on program planning, implementation challenges, and observed changes in children's behavior. Documentation, including activity schedules, lesson notes, and photographs, was used to support and contextualize observational and interview data.

The research instruments consisted of structured observation sheets and semi-structured interview guidelines. Instrument development began with a review of relevant theories and previous studies related to gross motor development and rhythmic gymnastics in early childhood education. Based on this review, indicators were formulated and adapted to the developmental characteristics of early childhood learners and the specific ECE context. Prior to data collection, the instruments were reviewed through consultation with an academic supervisor to ensure clarity, relevance, and appropriateness.

Data credibility was ensured through triangulation techniques, including method triangulation by comparing observation, interview, and documentation data, as well as source triangulation by observing children's activities and teacher roles across different times and situations. This process aimed to enhance the trustworthiness and validity of the findings.

The researcher's position in this study was that of a non-participant observer, meaning the researcher was not directly involved in the rhythmic gymnastics activities but rather played a role in observing, recording, and documenting the learning process objectively. This was done to maintain the naturalness of the situation and minimize bias in data collection. Data analysis was conducted using descriptive qualitative methods through the stages of data reduction, data presentation, and conclusion drawing, thereby providing a comprehensive understanding of the implementation of rhythmic gymnastics as a strategy for stimulating gross motor skills in early childhood.

Ethical considerations were carefully addressed throughout the research process. Permission to conduct the study was obtained from the school administration, and informed consent was secured from teachers and parents of participating children. Participants' identities were kept confidential, and all data were used solely for research purposes. Observations were conducted in a non-intrusive manner to ensure that children's learning activities proceeded naturally and without disruption.

RESULT

This study involved 15 children in Group B at Bina Bangsa Kindergarten, with observations conducted on two occasions over a two-week period. The results of the study indicate that the implementation of rhythmic gymnastics at Bina Bangsa Kindergarten was conducted through a well-planned and structured process. In implementing rhythmic gymnastics at Bina Bangsa Kindergarten,

the educators prepared all forms of learning activities as usual, starting from determining the schedule for the gymnastics, the duration of the gymnastics, the variety of gymnastic movements to be performed by the children, and facilitating a comfortable and suitable place for the children during the gymnastics activities. The implementation of rhythmic gymnastics at Bina Bangsa Kindergarten was designed with two types of activities. The first was light rhythmic gymnastics, which was performed daily for 3-5 minutes, and the second was complex rhythmic gymnastics, which was practiced once a week for 10-15 minutes. This planning involves teachers, principals, and parents in the process of preparing schedules, movement variations, supporting media, and a safe and comfortable environment for children. This process demonstrates systematic learning management oriented towards children's developmental needs.

In the implementation process, teachers had different roles, such as core teachers who served as the main instructors, demonstrating the movements, and assistant teachers who monitored the children's responses and provided support for those who tended to be passive. When some children showed reluctance or hesitation, teachers approached them persuasively, for example, by inviting them to sing together or by offering simpler and more interesting movement variations to encourage participation.

Observations during the rhythmic gymnastics activities revealed concrete forms of movement performed by the children. The movements demonstrated and imitated by the children included walking in place, stretching both arms, moving forward and backward, clapping their hands, and rotating their bodies in time with the music's rhythm. These movements were carried out repeatedly according to the teacher’s instructions and musical accompaniment, allowing children to actively engage their large muscle groups during the activities.

Further observations showed noticeable changes in children’s behavior between the first and second observation sessions. During the initial observation, several children appeared hesitant and less responsive to instructions, requiring frequent encouragement from teachers to follow the movements. In the second observation, children were seen to be more motivated to imitate the movements demonstrated by the teacher, responded more quickly to instructions, and appeared more agile compared to the first observation. Children who had previously appeared passive began to show greater involvement, such as daring to move to the rhythm, performing movements more confidently, and actively participating alongside their peers.

In addition to motor-related changes, changes in children’s emotional expressions were also observed. During the gymnastics sessions, children appeared more lively, cheerful, and enthusiastic. Their mood visibly improved, as evidenced by their smiles, laughter, and expressions of enjoyment while performing the movements. These behavioral changes were particularly evident in aspects of movement coordination, balance, agility, and courage to perform movements, which were the main indicators observed during the activities.

Parental involvement was also identified as a key aspect of the research findings. Children who arrived at school in a positive emotional condition tended to participate more actively in rhythmic gymnastics activities.

Conversely, children whose mood fluctuated upon arrival were more likely to show reluctance or low enthusiasm during the activities.

Findings from teacher interviews supported these observations. Teachers explained that children's mood when coming from home greatly influenced their participation during rhythmic gymnastics sessions. According to the teachers, when children were in a good mood, they appeared more relaxed, enjoyed the activities, and were sometimes reluctant to end the gymnastics session because they felt happy and engaged. However, teachers also reported that one of the main difficulties in implementing rhythmic gymnastics at Bina Bangsa Kindergarten was the frequent fluctuation of children's moods, which could cause children to lose motivation and enthusiasm during the activities.

These findings were derived from the triangulation of observation notes, teacher interviews, and activity documentation, as summarized in Table 1.

Table 1
Findings from the Bina Bangsa Kindergarten Rhythmic Gymnastics Program

No	Criteria	Description
1	Types of Gymnastics	Light exercise (daily, 3–5 minutes) and complex exercise (weekly, 10–15 minutes)
2	The Role of Teachers	Core teachers as instructors, assistant teachers as supervisors and motivators
3	Children's Response	From passive to active, increased agility, enthusiasm, and participation
4	The Role of Parents	Providing emotional support and influencing children's readiness and mood
5	Main Impact	Observable improvements in gross motor-related behaviors and confidence
6	Obstacles	Children's fluctuating moods and limited infrastructure

In general, the study's results indicate that the implementation of rhythmic gymnastics at Bina Bangsa Kindergarten was conducted regularly with the support of teachers and parents, and showed observable changes in children's involvement in movement activities, participation, emotional expressions, and motor-related behaviors as documented through repeated observations and supporting data.

DISCUSSION

Research findings indicate that the implementation of rhythmic gymnastics at Bina Bangsa Kindergarten aligns with the principles of active learning in early childhood education, emphasizing the importance of physical activity as a means of learning (Rodríguez et al., 2020). Rhythmic gymnastics offers children opportunities to engage in structured yet enjoyable physical activities through a combination of movement and musical rhythm. This aligns with the notion that rhythmic gymnastics programs in kindergartens enhance

walking, jumping, and balancing skills, as well as hand-eye coordination (Manggau & Usman, 2020; Ryabchuk, 2021). Varied music and movement patterns encourage children to engage in active movement (Manggau & Usman, 2020). In the context of this study, active learning through rhythmic gymnastics was reflected in children's direct engagement with simple, observable movements, such as walking in place, stretching their arms, clapping their hands, moving forward and backward, and rotating their bodies in response to musical rhythms, as documented during the observation sessions.

The results revealed that rhythmic gymnastics is a motor activity suitable for the developmental stage of early childhood. The findings of this study further demonstrate that the use of rhythmic music facilitated children's ability to follow movement sequences consistently, as children were observed to perform repeated movements with increasing accuracy and responsiveness across observation sessions. A series of simple, regular movements performed to music helps children recognize movement patterns more quickly and fosters enthusiasm during practice. Music serves as auditory stimulation that helps children maintain rhythm and accuracy in movement (Bawack et al., 2022). As explained by Mayar et al. (2022), experiments on the use of movement and song learning videos also found significant improvements in physical motor skills after music and movement-based interventions (Mayar et al., 2022).

The results of the study indicate that rhythmic gymnastics has a positive effect on the gross motor development and self-confidence of early childhood children in Bina Bangsa Kindergarten. Children who were initially passive and shy underwent a transformation becoming more active, courageous, and confident after participating in the activities on a regular basis. These findings are consistent with research by Puspitasari & Habibah (2022), which states that rhythmic gymnastics can improve children's motor coordination and self-confidence through enjoyable and repetitive physical activities (Puspitasari & Habibah, 2022). These findings reinforce that rhythmic gymnastics is an effective strategy for stimulating gross motor skills in early childhood. The implementation process carried out by Bina Bangsa Kindergarten aligns with the concept that stimulation should be provided through activities that are both enjoyable and meaningful for children (Darmanin & Pulis, 2023). This transformation was particularly evident when comparing the first and second observations, where children who initially required repeated encouragement showed increased motivation, quicker responses to teacher demonstrations, and greater agility during subsequent rhythmic gymnastics activities.

The role of teachers as instructors and facilitators is also an important factor in the implementation of rhythmic gymnastics. The persuasive and adaptive approach used by teachers allows children with different levels of readiness to continue participating. This supports the principle of developmentally appropriate practice (DAP), which emphasizes that developmental stimulation must be tailored to the abilities and needs of individual children (McGee, 2019; Thompson & Stanković-Ramirez, 2021). In practice, this adaptive role was observed when teachers modified movement complexity, accompanied instructions with singing, and provided individual encouragement to children

who appeared hesitant, enabling continued participation despite differences in readiness and mood.

Additionally, parental involvement in supporting children's physical activities also enhances the sustainability of motor stimulation. Emotional support and repetition of activities at home provide additional movement experiences for children. As stated by Hesketh et al. (2017), family or parental involvement plays an important role in shaping children's physical activity habits (Hesketh et al., 2017). The teacher interview data further indicated that children's emotional conditions upon arriving at school significantly influenced their engagement in rhythmic gymnastics, with children in a positive mood appearing more enthusiastic and, in some cases, reluctant to end the activity.

Theoretically, rhythmic gymnastics supports gross motor development through by stimulating basic movements such as jumping, bending, swinging, and moving around (Tincea, 2019; Zhao et al., 2024). These activities strengthen large muscles and improve children's balance and coordination. This aligns with the views of Husnah & Prayogo (2018), which confirms that structured physical exercise contributes to an increase in children's self-efficacy, as they feel capable of mastering movement challenges that were previously difficult (Husnah & Prayogo, 2018). In this study, such theoretical movement categories were manifested through developmentally appropriate actions, including walking in place, coordinated arm stretching, body rotation, and rhythmic clapping, which collectively supported balance, coordination, and large muscle engagement.

Rhythmic gymnastics, which combines rhythmic, coordinative, and repetitive movements, has been proven to help improve motor skills. Rhythmic gymnastics improves gross motor skills through repetitive and structured exercises. Many studies show that programmed rhythmic gymnastics (a combination of repetitive movements with musical rhythms) provides opportunities for children to practice balance, bilateral coordination, and body control gradually (Derm et al., 2001; Tincea, 2019; Vazou et al., 2020). Repeated movements with a steady rhythm help consolidate motor patterns, making neuromotor responses become more coordinated and stable. These findings are consistent with the results of a study by Ulfah et al. (2021), which demonstrates the significant role of rhythmic gymnastics in improving the gross motor skills of children in early childhood (Ulfah et al., 2021). The observed increase in cheerfulness, enthusiasm, and willingness to participate suggests that rhythmic gymnastics supported not only motor engagement but also positive emotional experiences, reinforcing children's intrinsic motivation to remain active.

From the perspective of Self-Determination Theory, children's self-confidence increases when their basic psychological needs are met, namely, a sense of competence and social support from their surroundings (Ryan & Deci, 2000; Sireno et al., 2020). Teachers and parents serve as sources of positive reinforcement, creating a sense of security and comfort that encourages children to try new things and participate actively (Deci & Ryan dalam Puspitasari & Habibah, 2022).

The change in children's behavior from reluctance to enthusiasm shows a positive internalization process towards physical activity. Children no longer view gymnastics as a chore, but as a fun activity that gives them a sense of

accomplishment. This reinforces the findings of Arifah & Mursid (2025), which state that rhythmic gymnastics serves as an effective learning medium in developing children's kinesthetic intelligence and courage (Arifah & Mursid, 2025).

Thus, the implementation of rhythmic gymnastics at Bina Bangsa Kindergarten is not only effective in stimulating gross motor skills but also contributes to the development of children's self-confidence, courage, and social interaction. Support from teachers, parents, and the school environment is a key factor in the success of this strategy.

Nevertheless, the study also identified fluctuating mood as a practical challenge in consistently implementing rhythmic gymnastics, indicating that children's emotional readiness remains a key contextual factor that educators must continually navigate.

The results of this study have practical implications for early childhood education, particularly in the development of gross motor skills. Rhythmic gymnastics can be integrated into daily and weekly learning routines, utilizing a variety of movements tailored to children's developmental needs. Early childhood teachers are encouraged to develop creativity in designing interesting, flexible, and music-based gymnastic movements to keep children motivated to move actively. In addition, synergy between schools and parents needs to be strengthened so that motor stimulation does not only occur in the school environment, but also continues at home as part of the active lifestyle habits of early childhood.

CONCLUSION

This study concludes that the implementation of rhythmic gymnastics at Bina Bangsa Kindergarten serves as a meaningful learning strategy for stimulating gross motor development in early childhood when carried out through systematic planning, consistent routines, and adaptive teaching practices. Through a qualitative descriptive approach, the study demonstrates that rhythmic gymnastics supports children's engagement in movement activities while also fostering positive emotional involvement in the learning process.

The findings highlight that the effectiveness of rhythmic gymnastics is closely linked to the roles of teachers and parents in creating a supportive and responsive learning environment, as well as to children's emotional readiness during participation. Therefore, rhythmic gymnastics should be viewed not merely as a physical activity, but as an integrated learning medium that contributes to both motor and social-emotional development.

Based on these conclusions, early childhood education institutions are encouraged to integrate rhythmic gymnastics into regular learning routines using developmentally appropriate and varied movements. Teachers are advised to apply flexible and creative approaches to accommodate children's individual conditions, while parental support remains essential in sustaining children's positive engagement. Future research may complement these findings by employing quantitative or longitudinal approaches to further examine the long-term developmental impacts of rhythmic gymnastics.

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