



Maximizing The Motor Development Of Elementary School Students Through Physical Education Classes

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Abstract

Developmental growth and learning through physical activity will affect the three domains in education which include cognitive domains (aware of motion), psychomotor domains (biological growth, health, physical fitness), and affective domain (pleasure, self-actualization, self-concept) [1]. Problems that appear in this digital era, limited motoric abilities of children because early childhood have been exposed to gadgets early. So that the digital motor skills of children are limited due to the influence of gadgets. The purpose of this study was to determine the level of teacher knowledge of basic movement skills of kindergarten children. This research was conducted with quantitative methods with the type of survey research. Survey research is a study that uses a questionnaire as a research instrument. Research carried out in kindergartens in Cut Nyak Dien's Cluster. 32 kindergarten teachers who are in Cut Nyak Dien Group with educational background from undergraduate education, 65% working period is 2 years. There are 15 kindergarten teachers who have high knowledge in basic motion skills knowledge. There are 6 kindergarten teachers who have knowledge in the moderate category of basic motion skills knowledge in gross motor skills. And there are 12 kindergarten teachers who have low knowledge of basic motion skills knowledge in rough motoric kindergarten children. A total of 18% of teachers have knowledge of locomotor motion and 15% of teachers have no knowledge of non-locomotor movements. TK teachers can implement all three basic motion skills in various motor activities through dancing, gymnastics, and forms of games created by the teacher. Assessment of basic motion skills is done by kindergarten teachers and teachers through observation. 75% of kindergarten teachers know the purpose of stimulating children's basic motion skills, namely to improve children's motor development.

Keywords: *childhood Knowledge, Teacher, Skills, Basic movement*

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INTRODUCTION

Early childhood development encompasses several important aspects, including language, cognitive, social-emotional, and physical-motor development. Among these, physical-motor development plays a crucial role because it is closely related to children's overall growth and learning processes. Motor development begins even before birth and continues as the child grows, influenced by the maturation of bodily functions and environmental stimulation (Santrock, 2007; Hurlock, 1980).

Growth, development, and learning through physical activity contribute significantly to three main educational domains: cognitive (awareness of movement), psychomotor (physical fitness and biological growth), and affective (self-concept, enjoyment, and self-actualization) (Samsudin, 2008). This indicates that motor skills are not only related to physical ability but also integrate other developmental aspects in children's lives. Therefore, early stimulation of motor skills is essential to support optimal child development (Mahmud, 2019).

In the current digital era, one of the major challenges in early childhood development is the decline in children's physical activity due to excessive exposure to gadgets. Children tend to prefer sedentary activities such as playing with smartphones rather than engaging in active play like running, jumping, or playing traditional games. This condition can negatively affect the development of basic motor skills, especially gross motor skills (Fauziah et al., 2020).

Basic motor skills are fundamental movements that form the basis for more complex physical activities. These skills include locomotor, non-locomotor, and manipulative movements (Sujiono et al., 2010). Locomotor movements involve moving from one place to another, such as walking, running, and jumping. Non-locomotor movements involve stability without significant displacement, such as bending and stretching. Meanwhile, manipulative movements involve controlling objects, such as throwing, catching, and kicking. Mastery of these basic movements is essential for children as it supports participation in sports and daily physical activities (Kamtini, 2014).

The development of motor skills is closely related to the role of teachers, especially in early childhood education settings. Teachers are expected to design and implement learning activities that stimulate children's motor development effectively. However, in practice, several obstacles are often encountered, such as limited facilities, lack of space, and insufficient teacher knowledge regarding basic motor skills. Previous studies have shown that teacher competence significantly influences the success of motor skill development programs in children (Asmuddin et al., 2018; Tahira et al., 2022).

In addition, enjoyable and safe physical activities are essential to encourage children's participation and engagement. A supportive learning environment allows children to explore movements freely and develop their motor skills optimally (Fadillah, 2016). Therefore, teachers must possess adequate knowledge and creativity in designing motor learning activities.

Based on these problems, it is important to examine teachers' understanding of basic motor skills, particularly in early childhood education settings. Understanding the level of

teacher knowledge can provide valuable insights for improving teaching strategies and developing more effective motor learning programs.

Thus, this study aims to determine the level of preschool teachers' knowledge of basic movement skills in early childhood. The findings of this study are expected to contribute to improving the quality of physical education learning, especially in developing children's motor skills from an early age.

METHOD

This study employed a quantitative approach using a survey research design. Survey research is a method that utilizes questionnaires as the primary instrument to collect data from respondents in a structured manner (Prasetya & Miftahul, 2005). This approach was chosen to systematically measure the level of teachers' knowledge regarding basic motor skills in early childhood.

The study was conducted in the Larangan Subdistrict, Tangerang City, specifically in kindergartens within the Cut Nyak Dien cluster. The population of this study consisted of kindergarten teachers in the selected area, while the sample included 30 teachers who were willing to participate and met the research criteria.

Data collection was carried out using a questionnaire. The questionnaire consisted of both closed-ended and open-ended questions. Closed-ended questions were used to measure the level of teachers' knowledge quantitatively, while open-ended questions were included to obtain deeper insights into teachers' understanding and experiences related to basic motor skills. A questionnaire is an effective tool for collecting data in survey research because it allows respondents to provide answers based on their actual conditions (Sugiyono, 2010).

The research procedure was conducted in three stages. First, the preparation stage involved designing the research instrument, validating the questionnaire content, and obtaining permission from the relevant institutions. Second, the implementation stage involved distributing the questionnaires directly to the respondents and conducting follow-up interviews when necessary to clarify responses. Third, the reporting stage involved organizing and analyzing the collected data systematically.

Data analysis in this study used descriptive statistical techniques. Descriptive analysis aims to describe and interpret data without making generalized conclusions beyond the observed sample (Priyatno, 2008). The data were analyzed by calculating frequencies, percentages, and categorizing the level of teacher knowledge into three categories: high, moderate, and low.

The focus of this study was to assess teachers' knowledge of basic motor skills, which include locomotor, non-locomotor, and manipulative movements. These components are fundamental in early childhood motor development and serve as indicators in evaluating teachers' understanding (Sujiono et al., 2010).

Thus, this method is expected to provide a clear and systematic overview of the level of teachers' knowledge regarding basic motor skills in early childhood education.

RESULTS AND DISCUSSION

Result

This study aimed to determine the level of kindergarten teachers' knowledge regarding basic motor skills in early childhood. The data were collected from 30 kindergarten teachers in the Cut Nyak Dien cluster, Larangan Subdistrict, Tangerang City. The results are presented descriptively as follows.

Teacher Profile

The demographic characteristics of respondents are presented in Table 1.

Table 1. Teacher Demographic Profile

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	30	100%
Educational Background	Bachelor Degree	25	83%
	Non-Bachelor Degree	5	17%
Teaching Experience	≤ 2 years	19	65%
	> 2 years	11	35%

Table 1 shows that all respondents were female teachers. The majority held a bachelor's degree and had relatively short teaching experience (≤ 2 years), indicating that most participants were early-career teachers.

Level of Teachers' Knowledge

The distribution of teachers' knowledge levels regarding basic motor skills is shown in Table 2.

Table 2. Level of Teachers' Knowledge of Basic Motor Skills

Category	Frequency (n)	Percentage (%)
High	15	50%
Moderate	6	20%
Low	12	40%
Total	30	100%

Based on Table 2, half of the teachers (50%) were categorized as having a high level of knowledge. However, a considerable proportion of teachers (40%) still fell into the low category, indicating the need for improvement in understanding basic motor skills.

Knowledge Based on Types of Motor Skills

Teachers' knowledge based on types of motor skills is presented in Table 3.

Table 3. Teachers' Knowledge Based on Types of Motor Skills

Type of Motor Skill	Indicator Description	Percentage (%)
Locomotor	Understanding of moving from place to place	18%
Non-locomotor	Lack of understanding of stability movements	15% (low)
Manipulative	Understanding of object control movements	Moderate

Table 3 indicates that teachers have better understanding of locomotor movements compared to non-locomotor movements. The lowest understanding is found in non-locomotor skills, suggesting that teachers tend to associate motor skills mainly with movement involving displacement.

Implementation of Motor Skills in Learning

The implementation of basic motor skills in teaching activities is summarized in Table 4.

Table 4. Implementation of Motor Skills in Learning

Aspect	Description
Learning Activities	Games, gymnastics, dance
Assessment Method	Observation
Teaching Strategy	Teacher-created motor activities

The findings show that teachers generally apply motor skill learning through play-based and activity-based approaches. Observation is the primary method used to assess children's motor development, which is appropriate for early childhood settings (Pramunditya, 2014).

Purpose of Motor Skill Development

Teachers' understanding of the purpose of motor skill development is presented in Table 5.

Table 5. Purpose of Basic Motor Skill Development

Purpose	Percentage (%)
Improving motor development	75%
Other purposes	25%

Table 5 shows that most teachers (75%) understand that the primary goal of motor skill development is to improve children's motor abilities.

Discussion

The findings of this study indicate that the level of kindergarten teachers' knowledge regarding basic motor skills varies across categories. Based on Table 2, 50% of teachers were categorized as having high knowledge, while 40% were still in the low category. This condition suggests that although some teachers already understand basic motor skills well, a substantial proportion still lack sufficient knowledge. This gap may affect the effectiveness of motor learning implementation in early childhood education.

The variation in teachers' knowledge can be influenced by several factors, including educational background and teaching experience. As shown in Table 1, most teachers have relatively short teaching experience (≤ 2 years), which may limit their exposure to practical teaching strategies and professional development opportunities. Previous studies have shown that teaching experience and training significantly contribute to teachers' competence in delivering motor learning (Asmuddin et al., 2018; Tahira et al., 2022). Therefore, less experienced teachers may require additional support to enhance their understanding of motor skill development.

Furthermore, the findings reveal differences in teachers' understanding of various types of motor skills. As presented in Table 3, teachers demonstrate better knowledge of locomotor movements compared to non-locomotor movements. This result indicates that teachers tend to associate motor skills primarily with movements involving displacement, such as running and jumping. In contrast, non-locomotor movements, which involve stability and body control, are less understood. This finding is consistent with the concept that basic motor skills consist of locomotor, non-locomotor, and manipulative movements, all of which are equally important in child development (Sujiono et al., 2010).

The limited understanding of non-locomotor skills may lead to an imbalance in motor learning activities. Teachers who focus mainly on locomotor activities may overlook important aspects such as balance, flexibility, and body control. In fact, these components are essential for supporting more complex movements and overall physical development (Kamtini, 2014). Therefore, comprehensive teacher knowledge is necessary to ensure that all aspects of motor skills are developed proportionally.

In terms of implementation, Table 4 shows that teachers generally apply motor learning through play-based activities such as games, gymnastics, and dance. This approach is appropriate for early childhood education, as children learn effectively through enjoyable and meaningful activities. Play-based learning allows children to explore movements naturally and

develop motor skills in a supportive environment (Fadillah, 2016). In addition, the use of observation as an assessment method aligns with the characteristics of early childhood learning, where evaluation focuses on children's actual performance during activities (Pramunditya, 2014).

However, the effectiveness of these learning activities depends largely on teachers' understanding of motor skill concepts. Teachers with limited knowledge may not be able to design activities that optimally stimulate all components of motor development. This highlights the importance of improving teachers' competence through training, workshops, and continuous professional development programs.

Moreover, Table 5 indicates that 75% of teachers understand that the main purpose of motor skill development is to improve children's motor abilities. This shows a relatively good level of awareness among teachers regarding the importance of motor development. Motor skills play a fundamental role in supporting children's overall development, including cognitive and social aspects (Mahmud, 2019). Children with well-developed motor skills tend to be more active, confident, and capable of interacting with their environment.

Nevertheless, understanding the purpose alone is not sufficient. Teachers must also possess adequate knowledge and skills to implement effective learning strategies. Without proper understanding, the potential benefits of motor skill development may not be fully achieved.

Overall, the results of this study emphasize the need to enhance teachers' knowledge and competence in basic motor skills. Efforts such as training programs, workshops, and access to relevant learning resources are essential to improve the quality of physical education in early childhood settings. By strengthening teachers' competence, it is expected that motor learning can be implemented more effectively, thereby supporting optimal child development.

CONCLUSION

Based on the results of this study, it can be concluded that the level of kindergarten teachers' knowledge regarding basic motor skills in early childhood is still varied. Although half of the teachers (50%) have a high level of knowledge, a considerable proportion (40%) are still categorized as having low knowledge. This indicates that there is a need to improve teachers' understanding of basic motor skills to support effective learning implementation. Teachers demonstrate better understanding of locomotor movements compared to non-locomotor and manipulative movements. This imbalance suggests that motor learning activities

may not yet comprehensively cover all components of basic motor skills. In practice, teachers have implemented motor learning through play-based activities such as games, gymnastics, and dance, and they primarily use observation as an assessment method. Furthermore, most teachers (75%) understand that the main purpose of basic motor skill development is to improve children's motor abilities. However, this understanding needs to be supported by adequate knowledge and skills in designing and implementing effective learning activities. Therefore, it is recommended that schools provide opportunities for teachers to participate in training, workshops, and seminars related to motor skill development. In addition, teachers are encouraged to continuously improve their knowledge and creativity in designing motor learning activities. Future researchers are also expected to expand this study by exploring other factors that influence teachers' competence in developing children's motor skills.

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