



## The Level of Physical Education Teachers' Knowledge on Learning Models in Physical Education at SD Negeri 6 Sila

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### Abstract

#### Background

. Physical education (PE) plays a vital role in students' holistic development—physically, cognitively, and affectively. The success of PE learning greatly depends on the teacher's ability to apply appropriate instructional models that align with curriculum goals. However, many elementary school teachers may lack adequate knowledge of diverse PE learning models.

#### Objectives

. This study aims to determine the level of knowledge possessed by physical education teachers regarding PE instructional models at SD Negeri 6 Sila.

#### Methods

A descriptive quantitative approach was used involving a sample of 22 PE teachers. Data were collected through a multiple-choice knowledge test consisting of 25 validated items. Descriptive statistics including mean, median, mode, standard deviation, and percentage distributions were used to analyze the results.

#### Results

The average score obtained was 14.55 out of 25. Based on the assessment criteria, 4.5% of the teachers were categorized as having “high” knowledge, 54.6% “moderate,” 31.8% “low,” and 9.1% “poor.” The majority of teachers demonstrated only a moderate understanding of the learning models in physical education.

#### Conclusion

The findings indicate a need for enhanced professional development to improve PE teachers' knowledge of learning models. Strengthening this aspect can contribute to more effective and engaging physical education learning processes in line with curriculum standards.

**Keywords:** Knowledge Level, Instructional Models, Physical Education, Primary School Teachers.

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## INTRODUCTION

Physical education (PE) is an integral component of holistic education, contributing to students' physical, cognitive, affective, and social development (Syafuruddin & Sutriawan, 2024). According to Octaviana and Ramadhani (2021), knowledge is a product of human sensory perception—articularly through vision and hearing—and is foundational to behavior and decision-making. In the educational context, teacher knowledge is essential to effective instructional practices.

Teachers of physical education hold a critical role in designing, implementing, and evaluating learning experiences. Their understanding of instructional strategies directly influences the learning atmosphere and student outcomes (Alimuddin et al., 2024). In this regard, pedagogical knowledge encompasses not only subject content but also strategies to engage students effectively and meaningfully.

PE instructional models such as cooperative learning, inquiry-based learning, tactical games approach, and the Sport Education model are designed to meet diverse student needs and encourage active, enjoyable, and purposeful participation (Setiyawan, 2017; Mitzer, 2021). These models are aligned with Indonesia's national curriculum, particularly the 2013 Curriculum, which emphasizes student-centered, interactive, and competency-based learning (Permendiknas No. 41, 2007).

Nevertheless, research shows that many teachers, especially in elementary schools, lack comprehensive knowledge of these models. According to Darsini and Fahrurrozi (2019), teacher knowledge includes awareness of subject matter and the ability to apply appropriate teaching methods based on student characteristics and learning goals. Limited knowledge in this area may result in suboptimal teaching practices, reducing the effectiveness of physical education lessons (Siregar et al., 2024).

Given the pivotal role of instructional models in facilitating quality education, assessing the knowledge of PE teachers becomes imperative. This study aims to explore the level of understanding among PE teachers at SD Negeri 6 Sila regarding PE instructional models and to identify areas in need of professional development support.

## METHOD

### Participant

The participants in this study consisted of 22 physical education (PE) teachers from SD Negeri 6 Sila, a public elementary school in Bima, Indonesia. These teachers were selected based on their roles in delivering PE lessons at the school and were involved as respondents in the data collection process.

### Research Design

This study employed a descriptive quantitative research design aimed at identifying and categorizing the level of knowledge among PE teachers regarding physical education learning models. The research instrument used was a multiple-choice knowledge test containing 25 validated items. The test items were developed based on key concepts of instructional models in PE, and the test was administered via Google Forms to facilitate access and response collection. The reliability of the instrument was confirmed with a Cronbach's Alpha score of 0.918, indicating high internal consistency.

### Data Analysis

The collected data were analyzed using descriptive and inferential statistics. Descriptive statistics included mean, median, standard deviation, and frequency distribution for both pretest and posttest scores. Before conducting hypothesis testing, normality was tested using the Shapiro-Wilk test, and homogeneity of variance was assessed using Levene's test. To evaluate the effect of the intervention, a paired sample t-test was used to compare the mean scores of the pretest and posttest. The statistical significance level was set at  $p < 0.05$ . All analyses were conducted using IBM SPSS Statistics version 26. The data obtained were analyzed using descriptive statistics. Measures of central tendency such as mean, median, and mode, as well as dispersion (standard deviation, minimum, and maximum scores), were calculated. Furthermore, participants' scores were categorized into four knowledge levels:

- 1) **High** (76%–100%)
- 2) **Moderate** (56%–75%)
- 3) **Low** (40%–55%)
- 4) **Poor** (<40%)

## RESULTS AND DISCUSSION

### Results

This study aimed to assess the level of knowledge among physical education (PE) teachers at SD Negeri 6 Sila regarding various instructional models in physical education. A total of 22 teachers participated by completing a 25-item multiple-choice knowledge test. Based on the descriptive statistical analysis, the average (mean) score was 14.55 out of 25, with a median score of 15.00 and a mode of 16.00. The minimum score recorded was 10, while the highest score was 22. The standard deviation was 3.203, indicating a moderate dispersion of scores among participants.

To categorize the knowledge levels, the scores were converted into percentage intervals and grouped into four categories: high (76–100%), moderate (56–75%), low (40–55%), and poor (<40%). The results showed that 54.6% of the teachers (12 out of 22) were in the moderate category, indicating a fair understanding of PE instructional models. Meanwhile, 31.8% (7 teachers) were categorized as having low knowledge, and 9.1% (2 teachers) demonstrated poor knowledge. Only one teacher (4.5%) achieved a high level of knowledge.

These findings suggest that although most teachers have a sufficient understanding of PE instructional models, a substantial proportion still require further support and training. The presence of teachers in the low and poor categories highlights the need for targeted professional development programs to strengthen their pedagogical competence and improve the quality of physical education delivery in primary schools.

## Discussion

The findings of this study revealed that the majority of physical education (PE) teachers at SD Negeri 6 Sila demonstrated a moderate level of knowledge regarding PE instructional models, with 54.6% of participants falling into this category. This suggests that while most teachers possess a basic understanding of various teaching models, their knowledge may not be sufficiently comprehensive to support optimal teaching practices. A further 31.8% of respondents were categorized as having low knowledge, and 9.1% were identified as having poor knowledge, highlighting a significant gap in pedagogical competence among nearly half of the teachers surveyed.

This aligns with previous research by Darsini and Fahrurrozi (2019), which emphasizes that teacher knowledge is not merely content-related but also includes the ability to apply appropriate instructional strategies. Limited understanding of teaching models can hinder the effectiveness of lesson planning, student engagement, and overall learning outcomes. Moreover, Setiyawan (2017) and Mitzer (2021) underline the importance of using varied models such as cooperative learning, inquiry-based learning, tactical games, and Sport Education that cater to students' developmental needs and align with curriculum objectives.

The current Indonesian education curriculum, as outlined in Permendiknas No. 41 of 2007, promotes interactive, inspiring, and student-centered learning. To meet these standards, PE teachers must be equipped with the knowledge and skills to implement diverse instructional models. However, the presence of teachers with low or poor knowledge levels in this study indicates that professional development opportunities may be lacking or underutilized.

Additionally, effective teaching in PE requires not only theoretical knowledge but also the ability to adapt models to real classroom conditions. Siregar et al. (2024) point out that PE is vital in fostering students' physical, mental, and emotional growth through structured and meaningful activities. When teachers lack sufficient understanding of instructional strategies, the implementation of PE becomes routine and less impactful, limiting students' holistic development.

Therefore, it is imperative that school administrators and education policymakers provide targeted training and continuous professional development for PE teachers. Workshops, seminars, and collaborative teaching programs could help bridge the knowledge gap, ensuring that teachers are well-prepared to deliver engaging and effective PE lessons. The enhancement of pedagogical knowledge in this field will contribute not only to improved teaching quality but also to better learning outcomes for students.

## CONCLUSION

This study concludes that the level of knowledge among physical education (PE) teachers at SD Negeri 6 Sila regarding instructional models in physical education is generally moderate. The majority of teachers (54.6%) demonstrated a moderate understanding, while 31.8% exhibited low knowledge and 9.1% showed poor knowledge. Only 4.5% of the participants reached a high level of understanding. These findings indicate that although most teachers have a basic grasp of PE learning models, there is a significant need for improvement, particularly through structured professional development and training programs. Enhancing teachers' pedagogical knowledge is essential to ensure the effective implementation of diverse instructional models, which in turn can improve the quality of physical education learning and student outcomes.

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## AUTHOR CONTRIBUTION STATEMENT

. Samsudin was responsible for the conception and design of the study, development of research instruments, data collection, data analysis, and interpretation. He also drafted and finalized the manuscript. All aspects of the research and writing process were conducted independently by the author.

## CONFLICT OF INTEREST AND FUNDING

There is no conflict of interest

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