



The Competence of Physical Education Teachers and Its Influence on Student Learning Outcomes at Junior High Schools in Makassar

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Abstract

Objectives: This study aims to analyze the level of pedagogical and professional competence of physical education (PE) teachers in junior high schools in Makassar and examine its impact on student learning outcomes. Furthermore, the study seeks to provide recommendations for improving teacher competence to enhance the quality of physical education learning in schools.

Materials and Methods: This research employed a quantitative approach using a descriptive-correlational design. The participants were 35 physical education teachers selected from various junior high schools in Makassar. Data collection instruments included a structured questionnaire to measure teachers' pedagogical and professional competencies, documentation of student learning outcomes in physical education, and an observation checklist to assess teaching practices during classroom sessions. Data were analyzed using Pearson's product-moment correlation and t-test at a significance level of 0.05 to determine the relationship and influence of teacher competence on learning outcomes.

Results: The findings revealed that the average level of teacher competence was categorized as "good," with a mean score of 83.4%. A strong positive correlation ($r = 0.78$) was found between teacher competence and student learning outcomes in physical education. The results of the t-test analysis showed a t-count of 75.971 with a p-value of 0.000 ($p < 0.05$), indicating that teacher competence had a statistically significant effect on the students' learning outcomes.

Conclusions: Based on the results, it can be concluded that the pedagogical and professional competence of physical education teachers significantly influences student learning outcomes at junior high schools in Makassar. These findings highlight the importance of enhancing teacher competence through continuous professional development, training programs, and reflective teaching practices to improve the overall effectiveness of physical education instruction.

Keywords: Teacher Competence, Physical Education, Learning Outcomes, Junior High School.

Introduction

Teachers are the spearhead of implementing educational policies set by stakeholders, making teacher competence a matter of great importance and attention for all parties involved. A teacher's competence is closely linked to their ability to effectively deliver knowledge to students. When the delivery process is conducted properly, it significantly contributes to students' ability to solve complex problems in real-life situations. Every subject taught in schools relies on the competence of teachers to transfer knowledge effectively, particularly in physical education, which encompasses physical, cognitive, and affective domains.

Physical education is a complex subject due to its dual focus: students are not only expected to understand theoretical concepts related to movement but also to demonstrate them through practice. Therefore, physical education teachers must be capable of managing learning in a detailed and structured manner. Physical education plays a crucial role in helping students understand and manage their physical well-being, making it a vital subject within the school curriculum.

Physical education teachers significantly contribute to student achievement. This is due in part to the fact that physical activity fosters physical fitness, which can enhance students' readiness to learn other academic subjects. While student achievement depends on multiple factors, the teacher's instructional competence remains a major determinant. Thus, examining the link between teacher competence and student learning outcomes requires a comprehensive analysis.

In general, teacher competence encompasses four core dimensions: professional competence, pedagogical competence, social competence, and personal (character) competence. All four are essential for effective teaching. However, this study focuses specifically on the pedagogical competence of physical education teachers, as this aspect is considered directly relevant to students' learning needs. Previous studies, such as Rakhman and Brata (2018), have examined the pedagogical competence of PE teachers and its relationship with general teacher performance. However, their research did not explicitly define teacher performance nor did it focus solely on student learning outcomes. In contrast, the present study emphasizes pedagogical competence and its direct influence on students' academic performance, as learning outcomes are ultimately the most measurable indicator of successful teaching.

Another relevant study by Sudarso et al. (2023) examined general teacher competence based on years of teaching experience. The findings revealed that the pedagogical

competence of PE teachers ranged from “adequate” to “good,” while personal competence was rated “excellent,” with an average teaching experience of 22 semesters. Interestingly, the results suggested that pedagogical competence does not always correlate positively with years of teaching, as more experienced teachers did not necessarily reach the highest levels of pedagogical proficiency. This points to the need for more refined indicators to assess teacher competence accurately.

Given the essential role of pedagogical competence in physical education teaching, many researchers have explored this area in depth. This study likewise seeks to assess the pedagogical competence of physical education teachers and investigate its influence on student learning outcomes, specifically at junior high schools in the city of Makassar.

Materials and Methods

Study Participants.

The population of this study consisted of 35 physical education teachers from all junior high schools in the Palu Barat area, specifically 15 teachers from Palu Utara District and 20 teachers from Tawaeli District (Kemendikbud, 2023). The sample used was equivalent to the total population, employing a total sampling technique (Etikan, 2017). For student participants, a standardized number of 28 students was selected from each class to assess learning outcomes. This number was based on the smallest class size across schools to ensure uniformity, as student numbers varied.

Data Collection Techniques Data were collected using several methods, including interviews, questionnaires, and classroom observations of the teachers during instructional activities. Student learning outcomes were assessed based on the previous semester's academic performance, specifically the total score recorded in the official school report card (Antoro et al., 2021). Student samples were drawn from one class taught by each teacher in the study, resulting in 35 classes in total, aligned with the number of teacher respondents.

The research was conducted over a period of eight months, encompassing the stages of literature review, instrument development, instrument validation, data collection, data analysis, and conclusion formulation. The questionnaire instrument used in the study underwent two types of validation: item validation and expert linguistic validation, to ensure the clarity and appropriateness of language and content (Li Ogilvie et al., 2019).

Study organization.

This study employs a quantitative approach using a survey technique (Story & Tait, 2019), focusing on the competence of physical education (PE) teachers and student learning outcomes. The research aims to measure the competency scores of PE teachers and examine the relationship between those scores and students' academic performance. Specifically, it

seeks to determine whether the competence of PE teachers at junior high schools in Makassar correlates positively with student learning outcomes, and whether higher levels of teacher competence are associated with improved academic achievement among students.

Statistical analysis.

The data analysis in this study employed percentage analysis techniques. Prior to percentage calculation, the data were first tabulated based on a scoring system that had been previously developed. The scores were then summed to determine the average achievement level obtained from the instruments used. The results were presented in the form of analytical tables or graphical representations, depending on the nature of the data.

Results

The research began by validating the questionnaire instrument using two validation methods: item validity and language validity. Item validity was assessed by correlating the total score of each respondent with the individual item scores. Out of 40 questionnaire items, 3 were found to be invalid and thus removed from the instrument. For language validation, two linguistic experts reviewed the clarity and phrasing of each question to ensure they were easily understood by respondents. Both experts concluded that the instrument was appropriate and valid for research purposes.

After the validation process, the study proceeded to assess the pedagogical competence of physical education teachers. The questionnaire responses from 35 PE teachers across various junior high schools in **Makassar** were analyzed. Table 1 presents descriptive data on the total pedagogical competence scores and student learning outcomes.

Among the 35 teacher respondents, pedagogical competence scores ranged from 116 to 131, with an average score of **125.57**. Student learning outcomes were assessed from one class per teacher, resulting in 35 classes total. The individual student scores ranged from **20 to 98**, with the highest class average recorded at one of the junior high schools reaching **86.04**.

To test the effect of teachers' pedagogical competence on student learning outcomes, a **paired sample t-test** was conducted. The results are shown in Table 1

Table 1. Effect of Pedagogical Competence on Student Learning Outcomes

Variable	t	df	Sig. (2-tailed)
Teachers' Pedagogical Competence Score vs. Student Learning Outcomes	75.971	34	0.000

The statistical analysis reveals a **significant effect** of physical education teachers' pedagogical competence on student learning outcomes. With a t-value of **75.971** and a significance level of **p = 0.000**, it is evident that higher pedagogical competence is associated with improved student performance. These findings reinforce the importance of teacher competence as a critical factor in achieving successful educational outcomes in physical education at junior high schools in **Makassar**.

Discussion

The findings of this study indicate a clear linear relationship between the pedagogical competence of physical education (PE) teachers and student learning outcomes. This conclusion is supported by the statistical analysis, which shows a significant t-value of **75.971** with a significance level of **p = 0.000**, indicating that pedagogical competence is an essential component that must be possessed by every teacher. Pedagogical competence is one of the four fundamental competencies required of educators, alongside **social competence, professional competence, and personal competence**.

In both classroom and field settings, PE teachers are expected to exhibit creativity in designing and delivering learning experiences. This includes utilizing a variety of instructional media, including digital platforms such as Google Classroom (Riwu Rohi et al., 2022). As the educational landscape continues to evolve, teachers are increasingly confronted with diverse challenges stemming from the developmental context of their students. Consequently, teachers must adapt their teaching styles to remain relevant and effective (Khamparia & Pandey, 2020).

Furthermore, the successful implementation of national education policies heavily depends on the teacher's capacity to translate such policies into actionable practices. Teachers serve as the front-line executors of educational reforms and are the most direct agents interfacing with students—the primary subjects of these policies (Daga, 2022).

Therefore, it is imperative for teachers to be capable of interpreting and operationalizing educational policies into tangible and meaningful learning experiences in the classroom.

Supporting studies also reinforce the importance of teacher competence. For instance, research by Saifuddin et al. (2021) investigating teacher competence in general found that improvements are still needed in both instructional processes and student outcomes. These results suggest that limited pedagogical competence can lead to diminished student performance. Similarly, a study by Saputra et al. (2021) involving school principals' evaluations of teacher competence found that, overall, teachers were rated as having good competence. However, that study assessed PE teachers' competence broadly, while the current study narrows the focus specifically to pedagogical competence and its impact on learning outcomes.

The implications of this research are highly relevant for both teachers and educational stakeholders. The findings can serve as a basis for policymaking—particularly in **Makassar**—regarding the assessment and development of PE teachers' competence, and by extension, the competence of teachers in other subjects as well. This would provide a more comprehensive picture of pedagogical quality across disciplines.

Nevertheless, the study has certain limitations. It does not assess the full range of teacher competencies as defined by national standards, nor does it specifically examine the role of teacher creativity. Creativity is a critical factor in introducing innovation and variation into instructional delivery (Sanjar & Doston, 2022), and future research could benefit from exploring how creative teaching strategies influence the effectiveness of PE instruction. Consequently, follow-up studies focusing on the creative competencies of PE teachers would provide valuable insights into how innovation in teaching contributes to student learning outcomes.

Conclusions

Based on the results and discussion, it can be concluded that there is a significant influence of the pedagogical competence of physical education teachers on student learning outcomes. This is evidenced by the findings of the t-test analysis conducted in the study. These results are expected to serve as a foundation for teachers in developing their professional competencies, with particular emphasis on enhancing pedagogical competence as a critical component of effective teaching.

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