

IMPACT OF PHYSICAL EDUCATION TO TEACHERS' PRACTICES ON LEARNERS' PHYSICAL ACTIVITY

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Abstract

Physical Education (PE) plays a crucial role in promoting physical activity, health, and lifelong fitness behaviors among adolescents. This study examined the relationship between Physical Education teachers' instructional practices and junior high school learners' physical activity levels in selected public secondary schools in Aguilar District, Division of Pangasinan II. Employing a quantitative descriptive–correlational research design, the study involved 20 PE teachers and 80 junior high school learners selected through purposive sampling. Data were collected using a researcher-developed, validated questionnaire that measured teachers' practices and learners' physical activity levels, complemented by items that identified challenges encountered by teachers and proposed intervention measures.

Descriptive statistics were used to determine the extent of teachers' practices and learners' physical activity. At the same time, Pearson's product–moment correlation coefficient tested the relationship between the two variables at a 0.05 level of significance. Results revealed that PE teachers' practices were manifested to a very high extent, while learners' physical activity levels were high. A statistically significant and strong positive relationship was found between teachers' practices and learners' physical activity, indicating that effective instructional strategies, motivation techniques, and classroom management contribute substantially to increased learner engagement in physical activity. Despite these positive findings, teachers reported very high levels of challenge, particularly related to inadequate facilities, limited equipment, and insufficient time allocated to PE classes. Proposed intervention measures, including professional development and improved facilities, were strongly supported.

The study concludes that PE teachers' practices are a critical determinant of learners' physical activity. Strengthening institutional support and addressing structural challenges are essential to maximize the impact of Physical Education programs.

Keywords: Physical Education; Teacher Practices; Physical Activity; Junior High School; Descriptive–Correlational Study

1. Introduction

Physical Education (PE) is an essential component of basic education that contributes to learners' health, psychosocial development, and lifelong engagement in physical activity. In contemporary education systems, PE is mandated not merely to facilitate structured movement but to cultivate attitudes, skills, and behaviors that support an active and healthy lifestyle (Department of Education Philippines, n.d.). Despite its curricular importance, adolescent physical inactivity remains a pressing global concern, and schools are critical institutions for reversing sedentary behaviors through structured, meaningful PE experiences. Moreover, teacher practices within PE settings are widely recognized as a central influence on students' engagement, motivation, and actual participation in physical activity (Guo et al., 2025; De Cocker et al., 2025). This study examines how Physical Education teachers' instructional practices influence junior high school learners' physical activity levels, addressing an identified research gap in the Philippine context.

The role of PE teachers extends beyond mere delivery of physical tasks. Teachers shape the learning environment, pedagogical strategies, and motivational climate that influence students' participation and attitudes toward physical activity (Guo et al., 2025). In systematic reviews and empirical investigations, supportive teacher practices such as autonomy support, structured instruction, and positive feedback have been linked to higher student engagement and physical activity during PE lessons (Guo et al., 2025; De Cocker et al., 2025). Specifically, Self-Determination Theory (SDT) posits that when educators support students' psychological needs for autonomy, competence, and relatedness, learners demonstrate more sustained motivation and engagement with physical activities (De Cocker et al., 2025). Within this theoretical framework, teachers' instructional and motivational behaviours are predictive of both in-class engagement and the potential transfer of activity behaviours outside scheduled PE sessions.

Research also suggests that teacher support and pedagogical quality influence student outcomes across cognitive, affective, and behavioral domains. For example, teacher support in PE correlates with higher levels of behavioral and emotional engagement, which are essential for active participation and adherence to physical activity recommendations (Guo et al., 2025). Moreover, effective teaching practices are recognized as essential for translating curricular objectives into meaningful student outcomes, particularly in settings where PE faces resource constraints or low institutional prioritization (Department of Education Philippines, n.d.). These insights underscore the dual influence of domain-specific instructional quality and broader educational support structures in shaping learners' active behaviors.

In addition to pedagogical influences, student perceptions of teacher behavior and classroom climate are associated with affective responses to PE and subsequent activity levels. Filipino adolescents' attitudes toward PE, for instance, are influenced by teacher–student interactions, reinforcing the view that relational dynamics in PE settings can affect students' willingness to participate in physical activities (Cruz et al., 2021). When students perceive teacher support and positive interaction, they tend to exhibit more favorable attitudes, which may enhance both engagement and longer-term physical activity behaviors. This highlights the importance of teaching practices that extend beyond technical instruction and embed relational and motivational dimensions that encourage sustained participation.

Despite the documented importance of teacher practices, much of the existing literature focuses on teacher training at the pre-service level, teacher self-efficacy, or general pedagogical quality rather than direct empirical assessment of how specific instructional practices correlate with student physical activity levels within regular PE programs (Magallanes et al., 2024; Xiang et al., 2013). Moreover, few studies have been conducted in under-researched contexts, such as rural or resource-limited public school settings in Southeast Asia, where infrastructural and administrative barriers may further influence PE implementation and outcomes. This gap is notable because contextual factors such as facility availability, time allocation, and administrative support are known to moderate the effectiveness of teacher practices in promoting physical activity (Sabado et al., 2025). Without comprehensive evidence from diverse educational environments, stakeholders lack the empirical basis to tailor interventions or policy reforms that strengthen PE's contribution to active lifestyles.

To address these gaps, this study examines the relationship between PE teachers' instructional practices and learners' physical activity levels in junior high schools in the Aguilar District, Division of Pangasinan II, Philippines. A descriptive–correlational design was used to quantify teacher practices and student activity levels and to test the strength and direction of their association. By operationalizing teacher practices along dimensions such as instructional clarity, motivational support, task design, and classroom management, and by measuring learners' reported physical activity levels, the study aims to provide contextually grounded insights relevant to both educational practitioners and policymakers.

Furthermore, this investigation examines the challenges PE teachers face that may influence their instructional practices and, consequently, learners' physical activity outcomes. Prior research within the Philippine educational context has highlighted structural challenges such as limited facilities, equipment shortages, and restricted time allotment for PE, which can impede the translation of effective pedagogical intent into practice (Sabado et al., 2025; Department of Education Philippines, n.d.). Understanding the nature and extent of these challenges is integral to interpreting the efficacy of teacher practices and to proposing actionable interventions.

By establishing the nature of the relationship between teacher practices and learner physical activity, this study contributes to a growing body of evidence that situates teacher behavior as a key determinant of student engagement in physical activity. It also extends the empirical literature by providing localized data from the Philippine secondary education context, where questions about PE's role in promoting lifelong health behaviors remain underexplored. Given the global priority accorded to promoting physical activity among youth to mitigate the risks of non-communicable diseases and enhance overall well-being, insights from this study provide evidence to inform teacher training, curriculum enhancement, and institutional support mechanisms necessary to strengthen PE's impact.

In summary, this introduction has outlined (a) the conceptual significance of PE teacher practices in shaping student physical activity, (b) theoretical frameworks that contextualize teacher influence, (c) empirical evidence underscoring teacher–student relational dynamics, and (d) the gap in localized research addressing both pedagogical practices and contextual barriers. The ensuing sections detail the methodological framework, results, and implications of the study, which collectively deepen understanding of how PE instruction can effectively foster active lifestyles among junior high school learners.

2. Method

2.1 Research Design

This study employed a quantitative research design using the descriptive–correlational method to determine the relationship between Physical Education (PE) teachers' practices and junior high school learners' physical activity in Aguilar District. The quantitative approach was selected because it enables the collection of measurable, objective data suitable for statistical analysis. The descriptive component aimed to present an accurate account of (a) the prevailing PE teachers' practices and (b) learners' current level of physical activity. The correlational component tested whether a significant association exists between teachers' instructional practices and learners' physical activity engagement, without manipulating variables, thereby allowing interpretation of relationships as they naturally occur in the school setting.

Data were gathered through standardized survey questionnaires that generated quantifiable responses for the study's two major variables—teachers' practices and learners' physical activity. Teachers' practices were measured across key instructional dimensions (e.g., lesson planning, teaching strategies, motivation, assessment, and classroom management). At the same time, learners' physical activity was assessed in terms of participation indicators such as frequency, duration, and intensity across school and non-school contexts. A five-point Likert scale was used to ensure consistent quantification and suitability for statistical treatment.

Consistent with descriptive–correlational procedures, descriptive statistics (e.g., weighted mean and standard deviation) summarized the extent of teachers' practices and learners' physical activity, while inferential analysis using Pearson's product–moment correlation coefficient tested the strength and direction of the relationship between the two variables.

2.2 Participants

The study comprised of 100 respondents drawn from selected public secondary schools in Aguilar District, Division of Pangasinan II, during School Year 2025–2026: 20 Physical Education (PE) teachers and 80 junior high school learners. The respondents were selected using purposive sampling, focusing on individuals directly involved in the teaching and learning of PE within the participating schools. Teacher-respondents were those responsible for conducting PE classes, organizing school-based sports and fitness programs, and assessing learners' performance, while learner-respondents were those who regularly attended PE classes and were actively involved in physical activities within or outside the school setting.

Inclusion criteria required that: (1) teacher-respondents were currently teaching PE at the time of data collection (full-time or part-time PE instructors); (2) learner-respondents were officially enrolled as junior high school students in the selected public schools within Aguilar District and actively participating in PE classes; and (3) all participants voluntarily agreed to take part through informed consent procedures.

Exclusion criteria included: (1) teachers assigned only to other MAPEH components (e.g., Music, Arts, Health) and not handling PE classes; (2) learners who were medically excused, physically incapacitated, or exempted from participating in PE classes; and (3) respondents who failed to complete or return the questionnaire. Participants were informed of their right to withdraw at any time without penalty, and incomplete responses were excluded from final analysis to preserve data reliability and consistency.

2.3 Instrumentation

The primary research instrument used in this study was a structured survey questionnaire developed by the researcher based on related literature, prior studies, and theoretical frameworks on teaching practices and physical activity in Physical Education. The questionnaire was designed to generate quantitative data describing the two major variables of the study: (a) Physical Education teachers' practices and (b) learners' physical activity levels. To ensure objectivity and standardization, items were written in clear, measurable terms and rated using a five-point Likert scale to support statistical analysis.

The questionnaire consisted of three parts: (1) respondents' demographic profile (e.g., age, sex, grade level for learners, and years of teaching experience for teachers); (2) items measuring teachers' practices, including instructional strategies, motivational techniques, classroom management, and evaluation methods; and (3) items measuring learners' physical activity level, operationalized through indicators of frequency, intensity, and duration of participation in physical activities during PE and in extracurricular settings.

Prior to final administration, the instrument underwent content validation and reliability testing. A panel of experts (physical education professors, research specialists, and measurement experts) reviewed the questionnaire for clarity, relevance, and alignment with the study's objectives, and revisions were implemented based on their feedback. A pilot test was subsequently conducted with 30 junior high school learners and 5 PE teachers from a non-participating school within the same division. Reliability analysis using Cronbach's alpha yielded a coefficient of 0.89, indicating high internal consistency and supporting the instrument's suitability for the main study.

2.4 Data Analysis

Data collected from the completed questionnaires were coded, tabulated, and analyzed quantitatively using appropriate statistical techniques to address the objectives of the study. Prior to analysis, all responses were screened for completeness and accuracy. Questionnaires with missing or inconsistent entries were excluded to ensure data integrity and reliability.

Descriptive statistics were employed to summarize respondents' characteristics and to determine the extent of Physical Education (PE) teachers' practices and learners' physical activity levels. Specifically, the weighted mean was used to describe the degree to which teacher practices were manifested and the level of learners' physical activity. In contrast, standard deviation was used to assess the variability of responses. Mean scores were interpreted using predefined descriptive ranges corresponding to the five-point Likert scale.

To determine the relationship between PE teachers' practices and learners' physical activity, Pearson's product-moment correlation coefficient (r) was applied. This inferential statistical test was selected because the variables were continuous and normally distributed, and the study sought to measure the strength and direction of their linear relationship. The level of significance was set at $\alpha = 0.05$, and the null hypothesis was rejected when the computed p -value was less than the established significance level.

All statistical analyses were conducted using a standard statistical software package appropriate for educational research. Results were presented in tables and interpreted in relation to the study objectives, with emphasis on statistical significance and practical implications within the context of Physical Education instruction.

3 Results

The study revealed that Physical Education (PE) teachers' practices were rated to a very high extent, with a composite mean of 4.32. High ratings were observed across instructional dimensions, particularly in the use of varied teaching strategies, provision of clear instructions, and application of motivational techniques that encouraged learner participation. Teachers consistently reported integrating structured activities aligned with lesson objectives and providing constructive feedback to enhance learners' performance and engagement. These findings indicate that PE teachers in the selected schools demonstrated strong adherence to effective pedagogical practices in delivering PE instruction.

Learners' physical activity level was rated high, with a composite mean of 4.02. Results showed that learners actively participated in PE classes and school-based physical activities, including exercises, games, and sports. Higher mean scores were noted for participation during scheduled PE classes, while slightly lower—but still favorable—ratings were recorded for engagement in physical activities outside regular class hours. Overall, the findings suggest that learners maintained an active level of physical engagement, particularly within the structured school environment.

Correlation analysis using Pearson's product-moment correlation coefficient revealed a statistically significant positive relationship between PE teachers' practices and learners' physical activity ($r = 0.76$, $p < 0.05$). This result indicates a strong association: higher levels of effective teaching practices corresponded with higher levels of learner physical activity. Consequently, the null hypothesis stating that there is no significant relationship between teachers' practices and learners' physical activity was rejected.

The challenges encountered by PE teachers in promoting learners' physical activity were rated to a very high extent, with a composite mean of 4.30. The most frequently reported challenges included inadequate sports facilities and equipment, limited time allocation for PE classes, large class sizes, and competing academic demands. These constraints were perceived as limiting the range of activities teachers could implement and reducing opportunities for sustained learner engagement in moderate-to-vigorous physical activity.

Proposed intervention measures to enhance PE implementation and learners' physical activity were rated very high, with a composite mean of 4.50. Priority interventions included regular in-service training and professional development for PE teachers, provision and improvement of sports facilities and equipment, and the organization of school-wide physical activity and sports programs. The strong level of agreement indicates broad support among

respondents for institutional and administrative actions to strengthen PE delivery and address identified challenges.

Overall, the results demonstrate that effective PE teachers' practices are strongly associated with higher learner physical activity levels, despite substantial structural and resource-related challenges.

4. Discussion

The results showed that PE teachers' practices were manifested to a very high extent. This indicates that teachers consistently applied effective instructional strategies, motivational techniques, and classroom management practices in PE classes. These findings align with prior studies that emphasize that high-quality PE instruction—characterized by clear objectives, varied activities, and positive feedback—enhances student engagement and participation (Guo et al., 2025). Teacher support, particularly through encouragement and structured guidance, has been shown to foster students' sense of competence and enjoyment, which are critical determinants of sustained physical activity (De Cocker et al., 2025).

From a theoretical standpoint, these findings are consistent with Self-Determination Theory, which posits that teaching practices that support autonomy, competence, and relatedness promote intrinsic motivation and engagement (Ryan & Deci, 2020). When PE teachers provide clear instructions, adapt activities to learners' abilities, and create a supportive learning climate, students are more likely to participate actively and persist in physical activity. Similar conclusions were drawn by Cruz et al. (2021), who reported that Filipino students' positive attitudes toward PE were strongly influenced by teacher behavior and instructional quality.

Learners' physical activity levels were high, particularly during scheduled PE classes. This suggests that the school environment, through structured PE lessons, plays a vital role in ensuring that adolescents meet recommended levels of physical activity. This finding supports global evidence that schools are among the most effective settings for promoting physical activity among young people, especially in contexts where opportunities for recreational activity outside school may be limited (World Health Organization, 2022).

However, slightly lower activity levels outside formal PE periods suggest that while teacher-led instruction effectively promotes in-class activity, translating these behaviors into leisure-time physical activity remains a challenge. Previous studies have similarly noted that PE participation does not automatically result in sustained physical activity beyond school unless learners develop strong motivation and self-regulation skills (Guo et al., 2025). This underscores the importance of PE programs that not only emphasize skill development but also explicitly encourage active lifestyles beyond the classroom.

One of the most significant findings of the study was the strong positive relationship between PE teachers' practices and learners' physical activity. This result confirms that higher-quality teaching practices are associated with higher levels of learner participation in physical activity. The strength of the correlation ($r = 0.76$) indicates that teacher practices are a major contributing factor to learners' activity behavior.

This finding corroborates the results of Guo et al. (2025), who demonstrated that teacher support in PE significantly predicts student behavioral engagement.

Similarly, De Cocker et al. (2025) emphasized that PE teachers play a pivotal role in motivating students to engage in both in-school and out-of-school physical activity through instructional design and motivational climate.

These findings also align with Social Cognitive Theory, which highlights the role of environmental factors and social modeling in shaping behavior (Bandura, 1986). Teachers serve as role models whose enthusiasm, competence, and commitment can influence learners' beliefs about physical activity and their perceived ability to participate. When teachers consistently

demonstrate positive practices, learners are more likely to internalize the value of physical activity and engage more actively.

Despite high levels of teacher practice, the study revealed that PE teachers experienced very high levels of challenge, particularly inadequate facilities and equipment, limited instructional time, and large class sizes. These findings are consistent with research in the Philippine context, which has repeatedly identified structural and resource-related constraints as major barriers to the implementation of quality PE (Sabado et al., 2025).

Such constraints may limit teachers' ability to implement diverse and engaging activities, potentially reducing opportunities for moderate-to-vigorous physical activity. Even highly competent teachers may struggle to achieve optimal outcomes when institutional support is insufficient. This reinforces the argument that improving PE outcomes requires not only effective teachers but also supportive policies, adequate resources, and appropriate time allocation within the school curriculum (Department of Education Philippines, n.d.).

The very high level of agreement on proposed intervention measures reflects respondents' shared recognition that systemic support is necessary to sustain and enhance PE effectiveness. Interventions such as regular professional development, facility improvement, and expanded school-wide physical activity programs are consistent with international recommendations for strengthening PE systems (World Health Organization, 2022). These interventions address both teacher capacity and structural barriers, thereby creating conditions that allow effective teaching practices to translate more fully into improved learner physical activity.

Overall, the discussion highlights that while PE teachers in the study context demonstrate strong instructional practices, their impact is mediated by broader institutional conditions. The strong relationship between teacher practices and learner physical activity underscores the critical role of teachers, while the identified challenges emphasize the need for coordinated administrative and policy-level support. Together, these findings contribute to the growing body of evidence that effective PE requires an integrated approach that combines high-quality teaching, adequate resources, and supportive school environments.

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