

PROMOTING LIFELONG PHYSICAL ACTIVITY ENGAGEMENT THROUGH SCHOOL-BASED PHYSICAL EDUCATION PROGRAM

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Abstract

This study assessed the effectiveness of school-based physical education (PE) programs in promoting lifelong physical activity engagement among secondary school students. A quantitative descriptive-comparative design was employed. Data were gathered from 50 high school students enrolled in PE classes at Lyceum-Northwestern University, Dagupan City. A researcher-made questionnaire measured self-reported physical activity engagement, participation patterns, and physical interest, while standardized school-based physical fitness tests provided objective indicators of endurance, strength, flexibility, and agility. Students were grouped as consistent or irregular PE participants to examine differences in engagement and fitness performance.

Results showed a high level of participation in PE classes, particularly in regular attendance, teamwork, and interest during lessons. Engagement in physical activities outside regular school hours was slightly lower, indicating the need for continued encouragement beyond structured classes. Overall physical activity engagement remained high, reflecting frequent involvement, awareness of health benefits, and willingness to sustain an active lifestyle after PE completion. Consistent participants obtained significantly higher scores than irregular participants across all fitness components. A strong positive relationship was also found between physical activity engagement and physical fitness levels, suggesting that students who are more active and motivated tend to achieve better fitness outcomes.

The findings underscore the essential role of school-based PE in shaping active, health-conscious lifestyles and in building foundations for lifelong physical activity habits. An enhancement program is proposed emphasizing varied, enjoyable, inclusive, and lifestyle-oriented activities, supported by strengthened teacher strategies and expanded co-curricular opportunities to sustain student engagement beyond school.

Keywords: Physical Education; Lifelong Physical Activity; Student Engagement; Physical Fitness; Participation Consistency; High School Students

1. Introduction

Physical inactivity among adolescents has become a persistent public health and education concern worldwide and in the Philippines. Globally, the World Health Organization reported that about 81% of adolescents do not meet the recommended levels of physical activity (WHO, 2022). In the Philippine setting, this challenge is more alarming: national analyses indicate that Filipino adolescents are among the most physically inactive globally, with only a small proportion meeting activity guidelines (Cagas et al., 2022; Inquirer, 2022). Such patterns increase risks for non-communicable diseases, poor mental health outcomes, and reduced quality of life later in adulthood. Because activity behaviors established during adolescence often track into adulthood, schools are widely recognized as critical sites for shaping positive, lifelong physical activity habits (EBSCO, 2024; Standage et al., 2025). Consequently, school-based physical education (PE) is positioned not merely as a subject for skill performance but as a long-term investment in students' health trajectories.

In response, the Philippine Department of Education (DepEd) has institutionalized PE as a core component of the K to 12 Basic Education Program. The K to 12 PE Curriculum Guide explicitly frames fitness and movement education as its foundation, aiming to help learners achieve health-related fitness, develop self-management skills, and sustain physical activity participation beyond schooling (DepEd, 2016/2019). More recently, the MATATAG Curriculum further emphasizes that PE and Health should provide movement-based, enjoyable, and challenging experiences that cultivate the mindset and skills needed for lifelong participation in physical activity (DepEd, 2023). Alongside curriculum direction, DepEd reinforced assessment mechanisms to monitor fitness outcomes. DepEd Order No. 34, s. 2019 (Revised Physical Fitness Test Manual) mandates standardized fitness testing to generate baseline data, guide PE instruction, and strengthen holistic wellness among learners (DepEd, 2019). Moreover, DepEd Order No. 8, s. 2015 highlights that classroom assessment should support learners' transfer of knowledge and skills to future contexts, aligning PE assessment with lifelong learning goals rather than short-term performance alone (DepEd, 2015). Taken together, these policies signal DepEd's strong commitment to ensuring that PE becomes a pathway to active living across the lifespan.

Parallel evidence from international literature supports DepEd's policy direction. Studies grounded in Self-Determination Theory (SDT) consistently show that PE can increase students' long-term participation in physical activity when programs support autonomy, competence, and relatedness (Lee et al., 2021; Standage et al., 2025). For instance, systematic reviews demonstrate that autonomy-supportive PE teaching enhances students' intrinsic motivation and likelihood of engaging in physical activity outside school (Lee & Reeve, 2021; Standage et al., 2025). Likewise, perceived competence and enjoyment in PE predict adolescents' physical activity engagement years later, indicating that meaningful PE experiences contribute to lifelong habits (Kalaja et al., 2015; Shen et al., 2023). In addition, curricular approaches that move beyond traditional competitive sports toward lifestyle-based and culturally relevant activities are associated with higher participation and more sustainable intentions to engage in activity (Beni et al., 2022). Therefore, evidence suggests that PE has the potential to promote lifelong physical activity when delivered in inclusive, motivating, and relevant ways.

Despite these strengths, a clear gap remains between PE policy intentions and adolescents' real-world activity outcomes. The 2022 Philippine Physical Activity Report Card highlights low grades in overall adolescent physical activity and strong concerns about sedentary behavior, despite PE being embedded in the curriculum (Cagas et al., 2022). This mismatch suggests that while PE programs may be implemented, they do not always translate into sustained activity outside regular school hours. Additionally, participation in PE itself is uneven. Some students attend and engage consistently, but others participate irregularly due to motivational, environmental, or contextual barriers. International studies warn that PE that overemphasizes performance, grading, or competitive norms can alienate less-skilled learners and reduce their long-term engagement (Lee et al., 2021; Beni et al., 2022). Thus, the key issue is not simply whether PE exists, but whether the quality and consistency of student participation in PE effectively impact their physical activity engagement and physical fitness development.

In this context, there is a pressing need to examine how school-based PE participation relates to students' activity engagement and fitness outcomes within actual Philippine school settings. Specifically, comparing students who participate consistently versus irregularly can clarify whether regular PE participation produces meaningful differences in fitness and activity behaviors. Moreover, investigating students' physical interests and out-of-school activities can help determine whether PE is fostering intrinsic motivation and habits aligned with lifelong engagement, as envisioned by DepEd and supported by SDT research. Addressing these questions is particularly timely given DepEd's continued curriculum reforms toward holistic, lifelong learning through the MATATAG framework (DepEd, 2023).

Hence, this study, titled “Promoting Lifelong Physical Activity Engagement Through School-Based Physical Education Program,” aims to assess the effectiveness of PE in encouraging sustained activity among high school students. Guided by DepEd policies and international evidence, it determines students’ self-reported physical activity engagement, identifies their physical activities beyond class hours, evaluates fitness test performance between consistent and irregular PE participants, and examines the relationship between engagement and physical interest. Ultimately, this research seeks to generate evidence that can inform an enhancement program aligned with DepEd’s curricular mandate for lifelong fitness, thereby strengthening PE’s role as a foundation for active, healthy living throughout students’ lives.

2. Method

2.1 Research Design

This study employed a quantitative descriptive–comparative research design to determine how participation in school-based physical education (PE) programs relates to students’ physical activity engagement and physical fitness performance. The descriptive component documented students’ self-reported levels of activity engagement, participation patterns in PE, and types of physical activities undertaken outside school hours, while the comparative component examined differences in standardized physical fitness test results between students who consistently participated in PE classes and those whose participation was irregular. Quantitative data were obtained through a researcher-made Likert-scale questionnaire and official school-based physical fitness assessments, enabling objective measurement of trends, relationships, and group differences. Using descriptive statistics and inferential tests (such as the independent samples t-test and correlation analysis), the design provided an empirical basis for evaluating PE’s effectiveness in promoting lifelong physical activity engagement and for developing a proposed enhancement program grounded in the study’s findings.

2.2 Participants

This study was fifty (50) high school students from Lyceum–Northwestern University, Dagupan City, who were officially enrolled in school-based physical education (PE) classes during the academic year of the study. These students were selected because they directly experienced the PE program implementation and could provide reliable self-reports of physical activity engagement, participation frequency, and physical interest. To enable comparative analysis, participants were categorized into two groups: those who consistently attended PE classes and those with irregular attendance, based on attendance and involvement records validated by MAPEH teachers and school documents. All participants voluntarily agreed to take part in the study and were assured of confidentiality and ethical protection throughout the data-gathering process.

2.3 Instrumentation

The study utilized two primary instruments for data collection: a researcher-made questionnaire and standardized physical fitness test results. The questionnaire, developed from relevant literature and aligned with the study objectives, consisted of sections on demographic profile, consistency of PE participation, self-reported physical activity engagement, types of activities performed outside school hours, and physical interest or motivation toward active living, with responses rated on a four-point Likert scale. To ensure validity and reliability, the instrument underwent expert content validation by MAPEH faculty members and a research methodologist, followed by pilot testing and reliability analysis through Cronbach’s Alpha. In addition to the survey, official school-based physical fitness test scores—measuring endurance, strength, flexibility, and agility—were gathered from MAPEH teachers following standardized DepEd testing

protocols, providing objective indicators for comparing fitness performance between consistent and irregular PE participants.

2.4 Data Analysis

Data analysis began with the organization, coding, and encoding of all questionnaire responses and physical fitness test scores into SPSS or Microsoft Excel, followed by data cleaning to ensure completeness and accuracy. Descriptive statistics—frequency, percentage, mean/weighted mean, and standard deviation—were used to summarize students' demographic profile, determine the average self-reported level of physical activity engagement, and identify the common physical activities performed outside school hours, as well as to describe fitness performance levels of consistent and irregular PE participants. To test group differences in physical fitness outcomes, an independent-samples t-test was used to compare the mean fitness scores of consistent versus irregular participants at the 0.05 level of significance. Lastly, correlation analysis (e.g., Pearson's r) was employed to determine the strength and direction of the relationship between students' physical activity engagement and their level of physical interest, and the results were used to propose an enhancement program to promote lifelong physical activity engagement further.

3 Results

The results indicated that students demonstrated a generally high level of participation in school-based physical education (PE) programs. In particular, consistent attendance, active involvement during class activities, teamwork, and displayed interest were frequently observed and rated highly in the self-report data. Moreover, the mean self-reported level of physical activity indicated that most respondents were regularly active and were aware of PE's contribution to their health and well-being. However, despite strong participation within formal PE settings, engagement in physical activities outside regular school hours was slightly lower. This suggests that while PE effectively motivates students during class, additional support may still be needed to sustain activity in home and community contexts.

In terms of physical fitness performance, a clear difference emerged between students who consistently participated in PE classes and those who did so irregularly. Specifically, consistent participants achieved higher mean scores across all standardized fitness components, including endurance, muscular strength, flexibility, and agility. These findings suggest that regular participation in structured PE activities positively affects students' physical development and overall fitness. Conversely, irregular participants—although still benefiting from PE—performed comparatively worse, highlighting the importance of consistent participation for maximizing fitness outcomes.

Finally, correlation analysis revealed a strong positive relationship between students' physical activity engagement and their level of physical interest. In other words, students who reported greater enjoyment, motivation, and interest in PE and physical activities were also more likely to engage frequently in physical activity and attain better fitness results. Taken together, these results emphasize that consistent PE participation strengthens fitness performance. At the same time, high physical interest serves as an important driver of sustained engagement—both of which support the broader goal of promoting lifelong physical activity habits among students.

4. Discussion

The present study's finding that students exhibited a high level of participation in school-based PE classes corroborates a broad body of literature showing that regular PE exposure is strongly associated with positive health and activity-related outcomes. International evidence from multi-country adolescent datasets indicates that higher PE attendance is associated with a greater likelihood of meeting recommended physical activity levels, suggesting that PE lessons offer

essential in-school opportunities for movement and habit formation (Guthold et al., 2020; Silva et al., 2020). In the Philippine context, this aligns with DepEd's K to 12 and MATATAG curricular directions, which position PE as a core learning area to cultivate active lifestyles and health-related fitness competencies (Department of Education [DepEd], 2023). Thus, the consistently high PE participation observed in this study supports the policy assumption that schools remain a practical and effective entry point for engaging adolescents in structured physical activity and for initiating lifelong fitness orientation.

However, the study also revealed that students' engagement in physical activity outside regular school hours was comparatively lower, and this pattern is similarly reflected in national and international reports. The 2022 Philippine Physical Activity Report Card notes that a large majority of Filipino adolescents do not meet daily activity recommendations, despite PE being part of the basic education curriculum (Cagas et al., 2022). Likewise, global surveillance data show that school-based activity alone often cannot offset sedentary lifestyles if home and community environments do not support continued participation (WHO, 2022). Therefore, the current result reinforces the literature's argument that PE must be intentionally linked to leisure-time and lifestyle-based activities, rather than confined to classroom requirements, if it is to fulfill its lifelong engagement mandate (Beni et al., 2022; Standage et al., 2025).

Moreover, the significant fitness advantage of consistent PE participants over irregular participants strongly supports previous findings that participation frequency matters in producing measurable fitness gains. Studies across different settings report that students who attend PE more regularly demonstrate better endurance, strength, flexibility, and agility than those with minimal or inconsistent participation (Hollis et al., 2017; Silva et al., 2020). This directly mirrors DepEd Order No. 34, s. 2019, which institutionalizes standardized fitness testing precisely because consistent engagement in PE is expected to improve health-related fitness and guide instruction for wellness outcomes (DepEd, 2019). Hence, the observed group differences validate both the empirical literature and DepEd's rationale for monitoring fitness performance as a school-based indicator of healthy development.

In addition, the study's strong positive relationship between physical activity engagement and physical interest levels aligns with motivation-based theories and research, particularly Self-Determination Theory and the trans-contextual model. Systematic reviews show that when PE supports autonomy, competence, and relatedness, students develop stronger intrinsic motivation, which then predicts sustained out-of-school activity and long-term adherence to exercise (Lee et al., 2021; Lee & Reeve, 2021). Intervention studies likewise demonstrate that autonomy-supportive teaching in PE increases students' leisure-time motivation and physical activity behavior beyond school (Hagger & Chatzisarantis, 2016; Sun et al., 2021). Consequently, the current finding implies that interest and motivation are not mere byproducts of PE participation but key mechanisms through which PE influences lifelong engagement, reinforcing DepEd Order No. 8, s. 2015, which emphasizes assessment for learning and the transfer of competencies to real-life contexts (DepEd, 2015).

Finally, taken together, the study's results reinforce the wider conclusion in the literature that PE is most effective for lifelong physical activity promotion when it is consistent, enjoyable, inclusive, and connected to real-world movement opportunities. Scholars argue that PE programs overly centered on performance or competitive sports may discourage less-skilled learners and fail to translate into lifelong activity habits; conversely, diverse, lifestyle-oriented, and autonomy-supportive programs improve both fitness outcomes and long-term engagement (Beni et al., 2022; Standage et al., 2025). In this sense, the proposed enhancement program arising from the present study is well grounded in both policy and research: it answers the national call to strengthen PE as a wellness foundation (DepEd, 2019, 2023) while also reflecting global evidence that motivation, consistency, and relevance are the strongest predictors of lifelong physical activity.

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