FROM PHYSICAL FITNESS TO ECOLOGICAL RESPONSIBILITY THROUGH PHYSICAL EDUCATION

by:
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Physical education (PE) has long been associated with developing fitness, motor skills, and healthy lifestyles. In recent years, however, there has been a growing recognition that PE can also serve as a platform for teaching environmental stewardship and sustainability. This shift reflects a broader movement in education known as Education for Sustainable Development (ESD), which emphasizes preparing learners to think and act in ways that contribute to a sustainable future. Scholars argue that PE is uniquely positioned to support ESD because of its active, experiential nature and its close connection to real-world environments where movement and health intersect with ecological issues (Bucht et al., 2022). While students strengthen their bodies during PE lessons, they can also cultivate values and habits that protect the environment, effectively transforming the subject from a fitness-focused discipline into one that promotes stewardship.

Globally, the integration of sustainability into PE has gained momentum. Several education systems have updated their curricula to align with the United Nations Sustainable Development Goals (SDGs), and physical education has been identified as a subject that can contribute to a wide range of these objectives (Baena-Morales et al., 2021). A review of international programs revealed that twenty-four SDG targets, covering health, equality, sustainable communities, and environmental conservation, can be addressed through PE (Baena-Morales et al., 2021). For instance, outdoor learning activities encourage students to appreciate natural environments while building physical fitness, while school-based campaigns like "active commuting" promote walking or

cycling to school as a sustainable alternative to motorized transport. Lundvall and Fröberg (2022) emphasize the importance of redefining health in PE by including environmental factors, suggesting that experiential learning and curriculum updates are crucial for meaningfully embedding sustainability in the subject.

Innovative pedagogical models are also emerging to support the integration of sustainability into PE. Baena-Morales et al. (2025) illustrate how the Personal and Social Responsibility Model, commonly used in PE to promote responsibility and values-based learning, can be adapted to include sustainability goals. Their program introduced activities such as plogging, where students jog while picking up litter, and active commuting, encouraging students to walk or cycle as a form of daily exercise. The outcomes of these programs extended beyond physical fitness: students reported greater environmental awareness, stronger social responsibility, and improved gender inclusion (Baena-Morales et al., 2025). These findings suggest that PE can be designed to contribute not only to personal health but also to broader social and environmental goals.

Although the concept of "green PE" may sound abstract, research points to concrete strategies that schools can adopt. Outdoor activities such as nature walks, hiking, or beach games paired with clean-up drives provide opportunities for students to experience local ecosystems while contributing to their protection. Sports festivals can be reimagined as eco-events by minimizing plastic waste, promoting reusable water bottles, and involving students in recycling initiatives. Health education topics integrated into PE, such as discussions on sustainable diets or the environmental benefits of active transport, can reinforce the message that personal health is interconnected with environmental well-being (Lundvall & Fröberg, 2022). Hands-on projects, such as school gardens and waste segregation activities, further illustrate how physical activity and environmental stewardship can be combined. Evidence from European programs demonstrates that when these practices are implemented, students not only show

enthusiasm but also begin adopting sustainable behaviors beyond school, such as reducing consumption and practicing better waste management (Bucht et al., 2022).

In the Philippine high school context, the integration of sustainability into PE is both timely and necessary. The country faces pressing environmental challenges, including stronger typhoons, rising sea levels, and pervasive waste management issues. These realities make sustainability education highly relevant for Filipino youth. Physical Education and Health (PEH) is a compulsory subject in the K–12 curriculum, offering an accessible platform for embedding sustainability themes into lessons (Acut et al., 2025). Local practices, such as tree planting, coastal clean-ups, and the Gulayan sa Paaralan program, already provide opportunities for schools to combine physical activity with ecological responsibility. For instance, a mangrove planting day can serve as both a community service initiative and a form of fitness training. At the same time, intramurals can be redesigned to include environmental themes such as zero-waste campaigns or eco-friendly sports competitions. Connecting these initiatives with cultural practices, such as integrating the principles of bahay kubo into lessons on nutrition and sustainable diets, makes sustainability education more relatable for Filipino students.

However, embedding sustainability in PE requires adequate teacher preparation and institutional support. A recent study found that Filipino teachers' intentions to integrate ESD in PEH are strongly influenced by their confidence and perceived control over the material (Acut et al., 2025). This suggests that training programs and resource development are critical to enabling teachers to adopt sustainability practices in their classes successfully. Policy support from the Department of Education is also necessary to ensure that sustainability is not treated as an add-on but as a core element of the curriculum. While existing policies mandate climate change education and disaster risk reduction, these themes are often limited to science or social studies subjects. Expanding them into PEH would reinforce the idea that environmental responsibility is a shared duty across all disciplines. Challenges remain, particularly in urban schools with limited

outdoor spaces. However, creative adaptations, such as simulated nature activities in gyms or partnerships with local communities for outdoor excursions, can help address these limitations.

The benefits of integrating sustainability into PE are significant. Students not only improve their fitness and health but also develop lifelong eco-consciousness, civic responsibility, and community resilience. They come to understand that every physical activity can have a dual purpose: strengthening the body and protecting the environment. This holistic approach reframes PE as a discipline that prepares students to be both physically active and environmentally responsible citizens. As global and local evidence suggests, today's PE lessons can produce tomorrow's environmental champions, embodying the transformation from fitness to stewardship.

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