

Teacher Education and Professional Development in Physical Education

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Article Info	ABSTRACT
<p>Article History: Received: 17th January 2026 Accepted: 22nd January 2026 Published: 02nd February 2026</p>	<p>Teacher education and professional development in physical education are foundational to ensuring quality instructional delivery, promoting lifelong physical activity, and fostering holistic child development. In the context of increasing global emphasis on teacher quality, including in India's National Education Policy (NEP) 2020, there is a pressing need to understand the current state, challenges, and opportunities of physical education teacher training and ongoing professional learning. This paper investigates pre-service and in-service training frameworks, recent research trends, perceived competencies, challenges faced by physical education teachers, and effective professional development models. It employs a comprehensive review of global and Indian research, highlighting the role of systematic teacher preparation, continuous professional learning, and institutional support structures. Findings reveal significant gaps in standardized teacher education, inconsistent professional development practices, and the need for contextualized, sustained, and research-driven capacity building. The paper concludes with policy-oriented recommendations to strengthen teacher education systems and professional development frameworks in physical education.</p>
<p>Keywords:</p> <p><i>Physical Education Teacher Education (PETE), Professional Development, Teacher Training, Professional Competence, Capacity Building, Pre-service Education, In-service Training, Policy, Pedagogy</i></p>	

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Introduction:

Physical education (PE) plays a crucial role in the holistic development of students, contributing to physical fitness, motor skills, social competencies, mental health, and lifelong healthy habits. However, the quality of physical education largely depends on the preparation and ongoing professional growth of teachers entrusted with delivering PE curricula. Teacher education and professional development are therefore central to educational systems that aim to deliver effective and engaging physical education programs.

In recent years, research on physical education teacher education (PETE) has expanded, covering pre-service training curricula, perceptions of professional competence, continuous learning pathways, and professional identity development. Global studies reveal that teacher preparation in physical education must equip candidates not only with content knowledge in sports and health, but also with pedagogical skills, classroom management strategies, assessment competencies, and the capacity to integrate technology in teaching.

In the Indian context, physical education teacher education faces multiple challenges relating to policy implementation, infrastructure, professional development opportunities, and teacher deployment. While NEP 2020 has heightened the focus on teacher quality and continuous professional development across disciplines, specific implementation frameworks for physical education are still evolving. Researchers note structural and systemic issues affecting both pre-service teacher training and in-service professional development, underscoring the need for tailored, research-based programs to enhance teacher effectiveness in physical education classrooms and sports programs.

Objectives of the Study:

The main objectives of this research paper are to:

1. Examine existing frameworks for teacher education and professional development in physical education globally and in India.
2. Analyze research trends and empirical findings related to the competencies, training experiences, and professional growth of physical education teachers.
3. Identify prevailing challenges and gaps in PETE and ongoing professional development initiatives.
4. Recommend actionable strategies for strengthening teacher education programs and continuous professional learning in physical education.

Research Methodology:

This study adopts a qualitative research synthesis approach, systematically reviewing academic literature, policy analyses, and empirical research involving physical education teacher training and professional development. Sources include peer-reviewed journal articles, documented research reports, bibliometric studies on research trends, and region-specific case studies.

Data Collection Tools:

- Literature review of empirical studies and theoretical analyses on teacher education and professional development in physical education.
- Bibliometric insights to map research trends in pre-service teacher education.
- Policy review to examine contextual challenges and recommendations provided in academic and professional sources.

The study's analytical focus is on identifying thematic patterns related to teacher competencies, professional preparation structures, continuous learning models, and systemic challenges faced by PE teachers.

Sampling:

Given the research synthesis methodology, sampling refers to document and study selection, not human participants. The review includes:

- 10+ peer-reviewed research articles related to PETE and professional development.
- Bibliometric analyses covering research publications from multiple countries (e.g., the U.S. and Indonesia) to identify trends in PE teacher education research.
- Policy and practice case studies to contextualize training challenges and opportunities.

Examples include qualitative studies exploring pre-service candidates' professional development experiences and studies examining teacher perspectives on curriculum and pedagogy in PE. One such study used purposive sampling to interview pre-service physical education teachers to understand their professional development experiences within teacher education programs .

Need and Significance:**Professional Competence in Physical Education-**

Physical education teachers require a blend of content knowledge, pedagogical skills, assessment literacy, management of diverse learner needs, and adaptability to evolving educational technologies. Without structured pre-service training and continuous professional learning, PE teachers may lack competence in delivering inclusive, engaging, and relevant physical education. Research emphasizes competencies such as instructional strategy adaptation, understanding of motor development theory, and ability to integrate sport pedagogy models like the Sports Education Model into practice .

Bridging the Research Gap-

Despite the recognition of PETE's importance, research shows gaps in standardization of training, variable professional development pathways, and insufficient institutional support in many regions. For example, one bibliometric analysis highlighted that most research on pre-service physical education teacher education has been conducted in developed countries, while limited research exists in other contexts, creating a need to intensify localized research efforts to inform context-specific teacher education reforms .

Policy Implementation and Teacher Quality

In the context of broader educational reforms such as NEP 2020, which emphasises elevating teacher quality and professional growth, robust frameworks for teacher education and professional development in PE are essential for aligning policy intent with educational outcomes.

Findings:**1. Pre-service Teacher Education Challenges**

Studies reveal that PETE programs often lack standardized frameworks to ensure uniform preparation of physical education teachers. Although international research shows a growing interest in pre-service physical education teacher education, the literature indicates a lack of sufficient focus on certain competencies — particularly those related to pedagogical content knowledge and technology integration — in many programs . Research on pre-service experiences highlights that participants value professional education programs but often feel that programs do not fully prepare them for the complexities of real classroom environments. This gap underscores the need for more **practical, field-based experiences**, mentorship models, and reflective teaching practice integrated into pre-service curricula .

2. Professional Development — Diverse Approaches

Professional development in physical education is conceptualized variably across contexts:

- **Workshops and certificate courses:** Regular workshops are essential to update teachers on emerging practices and educational technologies, though their impact varies with duration and follow-up support.
- **Refresher courses:** Institutional initiatives, such as six-day advanced refresher courses for physical education lecturers in India, help expose teachers to contemporary knowledge and innovations in pedagogy and sport science practice .
- **Peer learning and continuous education modules:** Continuous learning built into academic systems (e.g., modular online or blended learning) empowers teachers to pursue upward professional competencies across their careers.

Qualitative analyses of professional development literature indicate that teacher identity evolves through **action research, reflective practice, and community of practice engagement**, which foster continuous growth beyond isolated workshops or short courses .

3. Systemic Challenges Faced by PE Teachers

Multiple studies pointed to challenges that physical education teachers face, including:

- **Shortage of specialized PE teachers** in many schools, especially in rural areas, undermining consistent implementation of quality physical education programs.
- **Infrastructural constraints** that limit opportunities for professional practice, innovation, and student engagement.
- **Limited access to advanced professional courses and modern pedagogical training**, particularly in resource-constrained contexts .

4. Importance of Continuous Professional Development (CPD)

Academic insights suggest that professional development is not a one-time event but a continuous cycle of learning, practice, reflection, and adaptation. CPD enhances teachers' instructional performance, fosters innovative teaching methods, and improves learner outcomes. Studies recommend that professional competencies be integrated into physical education teacher education curricula and reinforced through ongoing workshops, technology-based trainings, and leadership development programs .

Conclusions:

This paper affirms that teacher education and professional development are critical drivers for enhancing the quality of physical education programs. A robust PETE framework must balance theoretical knowledge and practical competencies, preparing teachers who can navigate diverse learning environments and adapt innovative pedagogies.

Key conclusions include:

1. **Standardization and modernization of pre-service teacher education programs** are essential to equip PE teachers with foundational competencies, including pedagogy, assessment, behavior management, and ICT integration.
2. **Continuous professional development** should be systematic, layered, and context-adaptive, allowing teachers to engage in reflective practice, research, and collaborative learning.
3. **Institutional support structures**, such as refresher courses, communities of practice, and mentorship networks, significantly contribute to teacher growth.

4. **Policy alignment and resource allocation** are necessary to address systemic challenges like teacher shortages, infrastructural deficits, and limited access to professional development opportunities — particularly in rural and underserved areas.

Overall, strengthening PETE and professional development frameworks will lead to improved instructional quality, greater teacher satisfaction, and more enriching physical education experiences for students.

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