

Evolving Needs in PETE Programs: An Analysis of Practical Utility and Curriculum Gaps

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ABSTRACT

Physical Education Teacher Education (PETE) programs are designed to equip future educators with the necessary skills, knowledge, and methodologies to promote physical fitness and holistic well-being in students. However, despite structured curricula, there exist significant gaps between PETE training and the practical realities of school physical education. This study analyzes the practical utility of PETE programs and identifies curriculum gaps that hinder their effectiveness. A mixed-method research approach was employed, combining quantitative data from structured questionnaires and qualitative insights from open-ended responses. The study targeted BPED graduates and professionals working in various educational settings, assessing their experiences and challenges in real-world teaching environments. Key findings indicate that while 56.5% of respondents find the PETE curriculum moderately effective, there is a lack of practical training and real-world exposure. Nearly 47.8% reported that internships are insufficient, and 52.2% highlighted constraints such as lack of infrastructure and limited time for PE classes. Additionally, respondents emphasized the need for specialization options such as Strength & Conditioning, Digital Learning, and Sports Analytics. Classroom management training and behavior control strategies were also identified as crucial missing components. The study suggests curriculum modifications, including enhanced internships, interdisciplinary learning, technology integration, and elective specialization tracks. By addressing these gaps, PETE programs can be restructured to provide future physical education teachers with more hands-on training, technological expertise, and adaptive teaching methodologies, ensuring they are better prepared to meet the evolving demands of modern school education

Keywords : Physical Education Teacher Education, PETE Curriculum, Practical Training, Specialization, School Physical Education, Curriculum Gaps

Introduction

Physical Education Teacher Education (PETE) program

Physical Education Teacher Education (PETE) programs play a crucial role in preparing competent and professional physical education teachers who can promote physical fitness, sportsmanship, and overall well-being among students. An ideal PETE program should integrate scientific knowledge, pedagogy, and practical training to equip future educators with essential teaching methodologies, sports science principles, and leadership skills. The primary objective of PETE is to develop highly skilled physical education teachers who can effectively plan and implement engaging physical education curricula, foster students' lifelong fitness habits, and adapt teaching methods to diverse learning needs, including students with disabilities.

Globally, PETE programs are evolving with several emerging trends. One key trend is the integration of technology in physical education, including sports analytics, wearable fitness devices, and virtual coaching platforms. Additionally, adaptive physical education is gaining importance, ensuring inclusivity for students with special needs. Another significant trend is the emphasis on interdisciplinary learning, where PETE programs incorporate elements of sports psychology, nutrition, and fitness entrepreneurship, broadening career opportunities beyond traditional teaching roles. Many universities and training institutions are now shifting towards competency-based learning, ensuring that future PE teachers receive hands-on experience through internships, real-world teaching scenarios, and continuous skill assessment.

To meet modern educational demands, PETE programs must continuously adapt and innovate, integrating contemporary teaching methodologies, personalized learning approaches, and cutting-edge fitness training techniques. A well-structured PETE curriculum not only enhances physical literacy among students but also contributes to the holistic development of future generations.

BPED Program

The BPED program is a two-year course divided into four semesters, consisting of three major components: theoretical studies, practical training, and teaching practice. The theoretical component covers various subjects, including the Foundation of Physical Education, Psychology of Learner, Learning to Teach Physical Education, Anatomy and Physiology, Fitness and Wellness, Management of Sports and Physical Education, and Health Education and Nutrition. These subjects provide students with a strong academic foundation in physical education and sports sciences.

The practical component is designed to develop the physical skills of student-teachers. Over two years, they are introduced to 24 different practical activities such as Fundamental Motor Skills, Fitness Activities, Lezim, Drill and Marching, and Aerobics. These activities help in enhancing their physical abilities and teaching skills. Additionally, in the fourth semester, students are required to specialize in one particular sport, allowing them to gain in-depth knowledge and expertise in that discipline.

The teaching practice component prepares students for real-world teaching experiences. Student-teachers must conduct physical education lessons along with an elective subject in schools, giving them hands-on teaching experience. In the second year, they are required to complete an internship program, which provides them with practical exposure to school environments and helps them develop essential teaching skills.

Overall, the BPED curriculum is structured to provide a well-rounded education that integrates theoretical knowledge, practical skills, and teaching experience, ensuring that graduates are well-equipped for a career in physical education.

About CACPE

Maharashtriya Mandal's Chandrashekhar Agashe College of Physical Education is one of the premier institutions for quality physical education, not only in Maharashtra but across India. The college offers a two-year BPED program, a two-year MPED program, and a Research Center.

In addition to the recognized academic programs, the college organizes various international, national, and state-level seminars and workshops to provide students with valuable learning experiences. Furthermore, students are encouraged to participate in intercollegiate, inter-university, and inter-zonal competitions, along with other extended activities, to enhance their academic and practical exposure. The college extensively plans various student activities in areas such as curricular and co-curricular activities, cultural and extension activities for their overall personality development.

The Reality of School Physical Education in India

Physical education in Indian schools faces multiple challenges despite being recognized as an essential part of holistic education. While national education policies emphasize physical fitness and sports, the on-ground implementation is inconsistent. Key issues include:

- Lack of qualified PE teachers, with many schools appointing untrained personnel.
- Inadequate sports infrastructure and facilities, especially in government and rural schools.
- Time constraints, as PE is often sidelined in favor of academic subjects.
- Limited awareness about the importance of fitness and structured PE programs.

These challenges highlight the need for a more practice-oriented and contemporary PETE curriculum that equips teachers with skills to address the realities of school-based physical education.

Gaps between PETE programs and school needs

Despite the comprehensive curriculum in PETE programs, there are significant gaps when compared to the real-world requirements of school physical education teachers:

1. Insufficient focus on technology in PE - Digital learning tools, sports analytics, and performance analysis are missing in the curriculum.
2. Lack of training in adaptive physical education – Teachers are not adequately trained to handle students with disabilities or special needs.
3. Minimal exposure to school-based PE programs – While internships exist, structured collaborations with schools for long-term hands-on training are limited.
4. Limited emphasis on interdisciplinary learning – Subjects like sports management, fitness entrepreneurship, and strength & conditioning need better integration.
5. Inadequate preparation for modern teaching methodologies – Blended learning, e-learning, and digital assessments are not effectively covered.

To bridge these gaps, PETE programs need curriculum modifications that better align theoretical learning with practical teaching demands.

The purpose of the study

This research aims to analyze the practical utility of PETE programs and identify curriculum gaps that hinder their effectiveness in preparing teachers for school physical education. Specifically, the study will:

1. Evaluate the alignment between PETE curricula and real-world school PE requirements.
2. Assess the effectiveness of theoretical and practical components in preparing students for professional roles.
3. Identify key gaps in the curriculum that limit the applicability of PETE training.
4. Propose curriculum reforms that enhance the practical skills, technological integration, and interdisciplinary learning required for future PE teachers.

Offer program reforms that improve practical skills, technological integration and interdisciplinary training necessary for future physical education teachers. By controlling these critical aspects, this study aims to contribute to the development of a more effective, focused on the practice of the study program, which guarantees that future physical education teachers are better equipped to meet the education requirements of school education.

Materials and methods

This study aims to analyze the practical utility and curriculum gaps in Physical Education Teacher Education (PETE) programs, specifically in the BPED curriculum, to determine its effectiveness in preparing students for real-world teaching and coaching. The research follows a systematic approach to data collection and analysis, incorporating both quantitative and qualitative methods.

This study adopts a descriptive survey research design, which is suitable for gathering insights into the effectiveness of PETE programs, identifying gaps, and suggesting improvements. A mixed-method approach is employed, combining quantitative (structured questionnaire) and qualitative (open-ended responses) data.

The primary tool for data collection is a structured questionnaire designed based on the BPED syllabus. The questionnaire consists of:

1. Close-ended questions to collect quantifiable data on the effectiveness and gaps in the PETE curriculum.
2. Open-ended questions to gather qualitative insights on areas that need improvement.
3. Likert scale-based responses to measure participants' perceptions of various aspects of the PETE program.

The questionnaire covers key aspects such as:

- The effectiveness of theory and practical courses.
- The relevance of specialization training.
- Gaps between PETE training and school requirements.
- Suggestions for improving the curriculum.

The study targets students who have completed the BPED program from Chandrashekhhar Agashe College of Physical Education, Pune, and are engaged in teaching or coaching. A stratified random sampling method is used to ensure diverse representation from different types of schools (government, private, aided, CBSE, ICSE, etc.) and different levels of teaching experience.

Analysis and Interpretation

Results and Discussions

Table 1 : *Years of Experience in Physical Education*

Response Options	Percentage (%)
Less than 1 year	13.00%
1-3 years	13.00%
4-6 years	39.10%
More than 6 years	34.80%

Interpretation: A majority of respondents (74%) have more than 4 years of experience, indicating that the feedback is coming from professionals who have significant exposure to real-world teaching. This strengthens the reliability of the insights regarding the effectiveness and challenges of the PETE program.

Table 2 : Current Employment Status

Response Options	Percentage (%)
Government School	43.50%
Private School	43.50%
Aided School	13.00%
CBSE/ICSE School	39.10%
International School	4.30%
NGO	4.30%

Interpretation:

The majority of PETE graduates are employed in government and private schools, reflecting the primary job market for BPED graduates. However, a notable number are working in CBSE/ICSE schools, which may have different curriculum requirements compared to state board schools.

Table 2 : How well does the PETE curriculum prepare students for real-world teaching?

Response Options	Percentage (%)
Very well	8.70%
Moderately well	56.50%
Somewhat well	34.80%
Not well	0.00%

Interpretation: While 56.5% believe the curriculum is moderately effective, and 34.8% feel it is only somewhat effective, none of the respondents rated it as completely ineffective. This suggests that while the program provides a foundation, there is room for improvement in making it more aligned with actual school teaching challenges.

Table 3 : *Do PETE field activities meet school requirements?*

Response Options	Percentage (%)
Fully meet the requirements	13.00%
Partially meet the requirements	56.50%
Do not meet the requirements	30.40%

Interpretation: A majority (56.5%) believe the activities meet requirements only partially, and 30.4% think they are insufficient, suggesting a need for more school-relevant practical training in the PETE curriculum.

Table 4 : *How well did specialization training in your chosen sport prepare you for teaching/coaching?*

Response Options	Percentage (%)
Very well	30.40%
Moderately well	65.20%
Somewhat well	0.00%
Not well at all	0.00%

Interpretation: While almost 100% of respondents found specialization training useful, only 30.4% found it highly effective, suggesting that practical implementation or depth of training may need enhancement.

Table 5 : *How effective was the Teaching Skill Development Program?*

Response Options	Percentage (%)
Very Effective	39.10%
Moderately Effective	60.90%
Slightly Effective	0.00%
Not Effective	0.00%

Interpretation:

This program appears effective, with 100% of respondents rating it at least moderately effective. However, only 39.1% found it highly effective, indicating scope for further improvements.

Table 6 : *Was the internship in BPEd sufficient for handling real-world school challenges?*

Response Options	Percentage (%)
Yes, absolutely	13.00%
Somewhat sufficient	39.10%
No, needs improvement	47.80%

Interpretation: Nearly **half (47.8%)** feel the internship needs improvement, which is a significant concern. This suggests a **need for more structured internships** with extended practical exposure.

Table 7 : *Challenges faced in implementing Physical Education programs in schools*

Response Options	Percentage (%)
Lack of time for PE classes	52.20%
Lack of proper sports facilities	47.80%
Students' lack of interest	34.80%
Handling Student Misbehavior	43.50%
Administrative Constraints	52.20%

Interpretation: The biggest challenges include **time constraints and lack of infrastructure**, indicating that PETE graduates need **more training in classroom management and advocacy skills** to promote PE in schools.

Table 8 : *Which additional training would better prepare students for teaching?*

Response Options	Percentage (%)
Adapted Physical Education for Special Needs	13.00%
Strength & Conditioning Training	39.10%
Digital & E-learning Methods	13.00%
Integrated Approach in PE & Sports Management	26.10%

Interpretation: There is **strong demand (39.1%) for strength & conditioning training**, highlighting the increasing focus on **fitness-oriented teaching**. Additionally, **digital learning and adaptive physical education** require more

emphasis in the PETE curriculum.

Table 9 : *Should PETE programs have elective specialization tracks?*

Response Options	Percentage (%)
Strongly Agree	17.40%
Agree	78.30%
Neutral	4.30%
Disagree	0.00%
Strongly Disagree	0.00%

Interpretation: A **majority (95.7%) support elective specialization**, emphasizing the need for **customized career pathways in PETE programs**.

The **open-ended responses** provided by the participants suggest various **improvements needed in the BPED curriculum**. The key themes emerging from the responses are summarized below:

1. Need for More Practical Training : Many respondents emphasized the need for a greater focus on practical knowledge rather than just theoretical concepts. Specific suggestions include:

- Increasing the number of practical sessions in the curriculum.
- Ensuring that physical education remains an active and practical subject in schools.
- Modifying lesson planning and teaching practice to reflect real-world classroom challenges, including handling large student groups and diverse geographical and psychological conditions of students.

Key Takeaway: The curriculum should include more hands-on training, real-world teaching practice, and increased field experience for students.

2. Strengthening Classroom & Behavior Management Skills : Several responses highlighted the need for teacher training in handling student behavior and classroom management. Concerns raised include:

- Many students struggle with controlling the class and handling student misbehavior in schools.
- Schools still use traditional disciplinary methods (like scolding or physical punishment), and PETE students should be trained in modern, positive

reinforcement techniques.

- Teachers often face frustration while handling disruptive students, and they should be taught anger management strategies.

Key Takeaway: The curriculum should integrate classroom behavior management training, psychological strategies, and conflict resolution techniques.

3. Updating the Curriculum to Match Modern Trends : Several respondents suggested incorporating modern sports science and emerging technologies into the PETE curriculum, such as:

- AI and Sports Analytics: Using technology to improve sports performance.
- E-sports and Virtual Coaching: Addressing new career opportunities in sports education.
- Biomechanics, Mental Health, and Injury Prevention: More research-based learning on physical and mental well-being of athletes.
- Strength & Conditioning Training: Making fitness training a specialized component.

Key Takeaway: PETE programs should include contemporary topics such as AI in sports, digital coaching, and advanced fitness training.

4. Introducing Specialization & Elective Tracks : Most respondents strongly agreed that PETE programs should offer separate elective streams, such as:

- Coaching Science
- Fitness Training
- Sports Management
- Yoga Science
- Adaptive Physical Education (for special needs students)

One suggestion was to certify students in sports like chess, badminton, and carrom through authorized federations, creating new job opportunities.

Key Takeaway: PETE programs should provide elective courses to allow students to specialize in specific areas based on their interests and career goals.

5. Improving Internship & Implementation of Curriculum : A significant concern raised was the gap between the curriculum and its implementation:

- Many teacher training institutes do not implement the curriculum effectively, treating it as a formality.
- PETE students should get structured internship opportunities in schools with proper mentoring.
- There should be regular monitoring by central educational authorities to ensure that PETE programs are properly executed across institutions.

Key Takeaway: The internship structure should be improved, with better oversight of PETE program implementation in training institutes.

6. Research & Continuous Feedback System : One important suggestion was that PETE programs should conduct annual research on BPED graduates' experiences to understand their real-world challenges. This will provide:

- Authentic feedback from alumni.
- Insights into emerging trends and school-level challenges.
- A mechanism to continuously update and refine the PETE curriculum.

Key Takeaway: PETE programs should conduct yearly surveys of graduates to identify curriculum gaps and improve training.

7. Promoting Physical Education as a Core Subject : A few respondents highlighted a major issue—physical education is not given importance in schools, affecting job opportunities for BPED graduates. Suggestions include:

- Making Physical Education a compulsory subject in all schools.
- Ensuring government recruitment of PE teachers to create more employment.
- Conducting awareness campaigns to change the perception of PE as a secondary subject.

Key Takeaway: PETE graduates need advocacy training to promote the importance of PE in schools and push for better job security.

Final Summary & Recommendations : The qualitative feedback suggests that PETE programs need significant modifications to align with modern educational and professional demands. The key recommendations are:

1. Increase Practical Training & Field Exposure: More hands-on learning through school-based internships and real-world teaching experiences.

2. Improve Classroom & Student Behavior Management Training: Introduce psychology-based training for handling misbehavior and controlling frustration in students.
3. Update the Curriculum with Modern Trends: Integrate AI, esports, sports analytics, biomechanics, and strength training into PETE programs.
4. Offer Specialization Streams: Allow students to choose coaching, sports management, adaptive PE, fitness science, or yoga as elective subjects.
5. Enhance the Internship Program: Ensure better execution of the PETE curriculum in teacher training institutes and provide structured internships with proper mentoring.
6. Create a Feedback Mechanism: Conduct annual research on BPED graduates to assess the effectiveness of PETE programs and refine the curriculum accordingly.
7. Strengthen Physical Education's Role in Schools: Work towards making PE a mandatory subject, increasing government recruitment, and improving career opportunities for PETE graduates.

Conclusion

- The feedback from BPED students and professionals highlights several key areas for improvement in PETE programs:
- The curriculum is moderately effective but requires more hands-on practical training.
- Internships should be extended to provide greater real-world exposure and teaching experience.
- There is a strong demand for specialization and elective choices, especially in Strength & Conditioning, Digital Learning, and Sports Analytics.
- Lack of sports infrastructure and limited time for PE classes in schools require advocacy and administrative skills for PE teachers.
- Classroom management and behavior training should be included to help teachers handle student discipline effectively.
- By addressing these gaps, PETE programs can better equip future physical education teachers to meet modern educational demands.

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