

# Research on the Transformation of the Development Mode of Physical Education Teachers Based on the Improvement of Core Literacy of Graduate Students

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**Abstract:** This article aims to explore the transformation of the development mode of physical education teachers based on the improvement of core competencies of graduate students. By analyzing the current development model of physical education teachers and combining it with the cultivation mechanism of core competencies in graduate education, this article proposes a new professional development model for physical education teachers. This model emphasizes the combination of improving individual professional skills and academic research abilities of teachers, and is committed to cultivating high-quality physical education teachers who can meet the educational needs of the new era.

**Keywords:** Core competencies of graduate students; Physical education teachers; Career development; Transformation of educational models

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## Introduction

With the continuous deepening of education reform, the field of physical education has also encountered new development requirements and challenges. As an important component of higher education, graduate education has gradually shifted its training objectives from imparting knowledge to comprehensively enhancing core competencies. As a direct participant in educational implementation, physical education teachers urgently need to adjust their career development methods according to new educational concepts. This article will analyze the connotation of core competencies of graduate students and their impact on the professional development of physical education teachers, and explore possible paths for the transformation of the development mode of physical education teachers.

## 1. The Current Situation and Problems of Professional Development of Physical Education Teachers

### 1.1 Overview of the current professional development model for physical education teachers

In China, the career development model of physical education teachers has long relied mainly on traditional on-the-job training and educational advancement. This model emphasizes that teachers must complete the required training courses and obtain corresponding teacher qualification certificates. This mode has many shortcomings in practical operation. Traditional training content often focuses on theory and neglects practice, which cannot fully meet the practical needs of teachers in the teaching site. This training model often lacks specificity and personalization, making it difficult to meet the specific needs of different individual teachers at different stages of their career. The current evaluation system is mainly based on the teaching time, training hours, and theoretical exam scores of teachers, and this evaluation method is difficult to fully reflect the teaching effectiveness and professional ability of teachers. Lack

of evaluation of teachers in classroom management, student interaction, and innovative teaching methods implementation makes the evaluation results unable to fully reflect the true level of teachers.

### **1.2 The main challenges faced by physical education teachers**

The challenges faced by physical education teachers in their career development are multifaceted. For example, Teacher Li is a high school physical education teacher with ten years of teaching experience. Despite his passion for teaching, he found himself gradually struggling with teaching methods and student management. He felt that he lacked effective ways to motivate students and was not familiar enough with emerging sports technologies such as intelligent sports monitoring devices, which made him unable to improve student participation and exercise effectiveness in sports activities. In addition, Teacher Li often feels helpless when seeking further education and training opportunities due to school funding and resource constraints.

### **1.3 External factors affecting the professional development of physical education teachers**

The career development of physical education teachers is influenced by various external factors. At the policy level, although the education department emphasizes the importance of sports in comprehensive education, sports are often not given priority in actual education policies and funding allocation. For example, Teacher Zhang works as a physical education teacher at a famous high school in Beijing. He attempted to introduce modern physical education teaching tools and methods, such as using smart wristbands to monitor student movement data, in order to improve teaching quality. However, he found that due to budget constraints in schools, the procurement of such equipment was very difficult, and related training was not easily supported. The social environment and parental expectations also have a significant impact on the career development of physical education teachers. In the eyes of many parents, physical education grades are not as important as academic performance, which indirectly reduces the school's willingness to invest in sports. How teachers can maintain their professional development and teaching quality in such an environment is a major challenge. The professional development of physical education teachers requires fundamental reform and innovation. The traditional training and development model can no longer meet the needs of physical education in the new era. It is necessary to enhance the professional ability and teaching effectiveness of physical education teachers by introducing more flexible and personalized career development strategies, strengthening the cultivation of their practical abilities, and better utilizing modern technological means. In addition, enhancing the synergy between family, school, and society, and creating a supportive development environment for physical education teachers is also the key to promoting the progress of physical education.

## **2. A New Development Model for Physical Education Teachers Based on the Improvement of Core Literacy of Graduate Students**

### **2.1 The correlation between core competencies of graduate students and professional skills of physical education teachers**

In the current educational environment, the cultivation of core competencies of graduate students has become a key point in higher education reform. These core competencies include critical thinking, innovation ability, teamwork, and leadership, which have a direct impact on the professional skills improvement of physical education teachers. For example, critical thinking can help teachers effectively evaluate and improve teaching methods, while innovation ability can stimulate teachers' potential in physical education curriculum design and activity innovation. Taking Teacher Yang as an example, he was a teacher who directly engaged in high school physical education teaching after graduating from Tsinghua University as a graduate student. He successfully designed a teaching module that combines traditional sports with modern technology by utilizing critical thinking and innovative abilities developed during his graduate studies. This module uses intelligent sports devices to track students' exercise performance in real-time, and adjusts the training intensity and content of each class through data analysis, greatly improving student participation and physical education performance.

### **2.2 Strategies for improving the comprehensive quality of physical education teachers**

In order to effectively improve the comprehensive quality of physical education teachers, the following strategies can be adopted: first, strengthen the training of teachers' information technology application ability, so that they can effectively use modern technology such as AI health monitoring software, virtual reality (VR) sports games and other tools to improve teaching quality. For example, Teacher Wang used a software called "Physical Fitness Tracking" in a high school in Beijing. Through this software, students' physical health data is recorded and analyzed in real-time, helping Teacher Wang develop personalized sports training plans for each student. It is necessary to strengthen the continuous vocational training and academic research capabilities of teachers. For example, Teacher Liu participated in the "Sports Education Innovation and Practice" research project supported by the Ministry of Education. Through

this project, he not only improved his research ability, but also applied the research results to teaching practice, effectively linking theory and practice.

### **2.3 Case studies and empirical analysis**

In order to demonstrate how the core competencies of graduate students can promote the professional development of physical education teachers, we analyzed the case of Teacher Chen from Shanghai. During his master's studies, Teacher Chen focused on the study of sports psychology, and after graduation, he applied this knowledge to high school physical education teaching. He developed a series of sports motivation enhancement workshops based on psychological principles, aimed at enhancing students' self motivation and teamwork spirit. Through these workshops, students' physical performance has significantly improved, and Teacher Chen's teaching methods have also been widely recognized by peers. These cases indicate that integrating core competencies from graduate studies into the career development of physical education teachers can not only enhance their teaching abilities, but also greatly stimulate students' interest and participation in learning. Therefore, the education management department should attach importance to this transformation and provide more training and development opportunities for physical education teachers based on graduate core competencies, in order to achieve comprehensive improvement in physical education.

### **Conclusion**

This study analyzes the current situation and problems of the professional development of physical education teachers, and explores new development models based on the improvement of core competencies of graduate students, revealing the transformation needs and feasibility of the professional development of physical education teachers. Through empirical analysis and case studies, this article concludes that the career development model needs innovation, and traditional physical education teacher career development models cannot meet the needs of modern education. Teachers need a more flexible, practical, and sustainable career development mechanism to adapt to the rapid changes in the educational environment. The importance of core competencies, and the cultivation of core competencies for graduate students is crucial for the professional development of physical education teachers. These qualities, such as critical thinking, innovation ability, and information technology application, directly affect the teaching effectiveness and career growth of teachers. The combination of technology and education, as well as the integration of modern technological tools and applications, plays a significant role in improving the quality and efficiency of physical education teaching. Physical education teachers should be encouraged and supported to use these tools to innovate teaching methods and improve student physical performance. Policy support and resource allocation, education policy makers need to attach importance to physical education and provide necessary support and resources. This includes but is not limited to financial support, professional training, research opportunities, and the provision of modern teaching resources. The synergy between society and family environment, strengthening the tripartite cooperation between family, school, and society, improving the support and expectations of society and family environment for physical education, can help enhance the social status and career development space of physical education teachers. The professional development of physical education teachers should keep pace with the times and adapt to the pace of educational reform. By enhancing the core competencies of graduate students, not only can teachers enhance their professional skills, but they can also greatly stimulate their potential for innovative teaching, thereby promoting the sustainable development and innovation of the entire field of physical education. Therefore, education management departments at all levels should deepen reforms, create more comprehensive and effective development strategies, and ensure that physical education teachers can fully play their professional value and social role in the future educational environment.

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