

# Educational Reform and the Transformation Requirements of Sports Teacher Education in the New Era: The Integration of Technology, Concepts, and Practice

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**Abstract:** This paper explores the transformative requirements posed by educational reform on sports teacher education in the new era, focusing on the profound impact of integrating technology, educational concepts, and practice in teacher education. With the rapid development of technologies such as artificial intelligence and virtual reality, sports teacher education faces unprecedented challenges and opportunities. Teachers not only need to master emerging technologies but also possess an interdisciplinary perspective, using digital tools to optimize teaching and assessment to enhance educational quality and efficiency. Meanwhile, the educational concepts of the new era require teachers to pay more attention to students' personalized development, promoting their overall physical and mental well-being, particularly in terms of gender, physical characteristics, and differentiated education. The reform in educational practice requires teachers to be able to adapt flexibly to complex situations, emphasizing the cultivation of "dual competence," which combines theoretical knowledge with practical application. This paper highlights that the transformation of sports teacher education is a multi-level, interdisciplinary, and dynamic process, and only by keeping pace with the times can teachers meet modern educational needs and drive the innovation and development of physical education.

**Keywords:** educational reform, sports teacher education, technological innovation, educational concepts, practical skills

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## Introduction

With the rapid development of technology and the deepening of educational reforms, sports teacher education is facing unprecedented transformation requirements. This transformation is driven by technology, educational concepts, and practical models. The core driving forces behind this educational reform are the rapid development of artificial intelligence, digital technologies, and cultural shifts within the context of globalization. These factors collectively shape the new landscape of sports teacher education in the new era. This paper will systematically analyze the new requirements that educational reform poses for sports teacher education from the perspective of integrating technology, educational concepts, and practice, and explore how to build a teacher education system that meets future needs in this context.

### 1. The Impact of Technological Revolution on Sports Teacher Education: The Application and Integration of Digital Tools

With the rapid development of technologies such as artificial intelligence (AI), virtual reality (VR), and augmented reality (AR), sports teacher education faces both significant challenges and opportunities. Teachers must not only master

the basic principles and applications of AI but also possess the ability to use intelligent tools to optimize teaching. AI technologies, particularly generative AI, low-code, and no-code tools, enable teachers to provide personalized teaching content and assessment methods, thereby fostering students' innovative thinking and independent learning<sup>[1]</sup>. Teachers should use digital tools to achieve more precise teaching design and student assessment, thereby improving teaching efficiency and quality<sup>[2]</sup>.

In addition, sports teacher education needs to adapt to the human-computer collaborative teaching model. Teachers must not only use AI technology to enhance classroom interaction but also cultivate students' digital literacy, helping them acquire the key skills required for future society. This requires teachers to have an interdisciplinary perspective, enabling them to integrate information technology with sports subject knowledge, thus better guiding students' overall development in physical, psychological, and social aspects<sup>[3]</sup>. However, as the application of technology deepens, ensuring the ethics of teaching, transparency, and the security of student privacy has also become an urgent issue to address in teacher education<sup>[4]</sup>.

## **2.The Impact of Educational Conceptual Reform on Sports Teacher Education: Student-Centered and Personalized Development**

The educational concept of the new era requires teachers to be not only knowledge transmitters but also designers of learning tasks and guides for students' growth. In the educational process, sports teachers should not only focus on students' mastery of academic knowledge but also emphasize their physical, mental, and psychological well-being. In this process, personalized education has become an important component of sports teacher education<sup>[5]</sup>. As the gender differences, physical characteristics, and personalized needs of students become increasingly evident, sports teachers need to design more flexible and inclusive teaching content and methods<sup>[6]</sup>.

Another significant trend in educational reform is the increasing emphasis on the concept of "inclusive education." Teachers not only need to work with regular students but also need to focus on special groups such as students with disabilities, providing inclusive education and creating a supportive learning environment<sup>[7]</sup>. This shift requires teachers to fully consider the diversity of students in their teaching process, establishing a learning atmosphere that respects differences and promotes cooperation. This transformation in teacher education requires not only the improvement of teachers' professional abilities but also the enhancement of their flexibility and adaptability in complex educational situations.

## **3.The Impact of Educational Practice Reform on Sports Teacher Education: Development of Practical Skills and "Dual Competence"**

In a rapidly changing social and technological environment, the practical requirements for sports teacher education are becoming increasingly prominent. Traditional teaching models and methods can no longer meet the comprehensive demands of modern education for teachers, and sports teachers must possess more diversified skills. Teachers not only need solid subject knowledge, such as sports physiology and psychology, but also flexible communication and interdisciplinary collaboration abilities<sup>[8]</sup>. Educational practice requires teachers to adjust teaching content and methods flexibly, designing differentiated teaching based on students' individual needs to enhance their learning experience and participation<sup>[9]</sup>.

In addition, teacher education needs to emphasize the cultivation of "dual competence," meaning that teachers should possess both solid theoretical knowledge and practical skills to solve problems<sup>[10]</sup>. This requires teachers to continuously receive feedback and make adjustments in actual teaching, focusing on real-time assessment of teaching effectiveness to optimize teaching content and methods<sup>[11]</sup>. With the advancement of educational globalization, sports teacher education must also draw on international advanced educational concepts, building educational models that adapt to multicultural and

societal needs to cope with the increasingly complex educational environment<sup>[12]</sup>.

#### 4. Conclusion

Educational reform has posed unprecedented challenges for sports teacher education, while also providing vast development opportunities. In the new era, sports teachers not only need to possess traditional subject knowledge and teaching skills but must also actively embrace technological innovation, implement student-centered educational concepts, and develop the practical ability to respond flexibly in complex social and educational environments. Only through the deep integration of technology, educational concepts, and practice can sports teachers meet the demands of modern education and promote comprehensive reforms and innovation in physical education. Therefore, the transformation of sports teacher education will be a multi-level, interdisciplinary, and dynamic process that must keep pace with the times, enhancing teachers' comprehensive literacy and innovative abilities, to cultivate sports education professionals who are adaptable to the needs of future society.

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