

# Research on the path of promoting the development of students' professional quality through physical education teaching in higher vocational colleges

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**Abstract:** The purpose of this study is to use qualitative research methods to deeply analyze and understand how physical education teaching activities in higher vocational colleges effectively promote the improvement of students' professional skills and qualities. Through the in-depth analysis of the core elements of PE teaching, the components of professional skills, and the potential role of PE teaching in promoting professional ability, the purpose is to clarify and formulate a series of specific development ways and implementation strategies. This study not only aims to provide a solid theoretical basis for the reform of physical education in higher vocational education system, but also hopes to provide effective guidance for practical teaching activities. Through such research, it is expected to optimize the physical education teaching model, enhance students' vocational skills, and train them to become professionals with all-round quality.

**Keywords:** higher vocational colleges; physical education; professional quality; path research

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## 1 Introduction

In the context of the rapid development of today's society, higher vocational colleges, as a key platform for cultivating high-level technical talents, are gradually becoming the focus of social attention for their educational quality and effectiveness [1]. Physical education plays a vital role in the higher vocational education system, which is directly related to students' physical health and psychological state, and has a far-reaching impact on promoting the comprehensive development of students' professional skills and qualities [2]. Recently, the continuous innovation of educational thinking and teaching methods has prompted many academic experts to focus on the close relationship between physical education and the cultivation of students' professional ability.

This study adopts qualitative research methods. The research systematically reviewed the literature about PE teaching reform in higher vocational colleges at home and abroad, and built a theoretical model of "PE teaching elements - vocational ability dimension". Nvivo software was used to encode 127 core journals, and 7 core categories such as teaching objectives, curriculum design and evaluation system were extracted. Three national "double high planning" higher vocational colleges in the Yangtze River Delta region (School A - intelligent manufacturing, school B - modern service, school C - construction engineering) were selected for in-depth research. The participatory observation method was used to

record the physical education curriculum implementation process, and experience materials such as teaching syllabus, physical fitness test data, and skill competition award list were collected.

This study tries to provide a solid theoretical support and practical guidance for the reform of physical education teaching in higher vocational education system. With the deep exploration of the unique value of physical education, this paper earnestly seeks to contribute to the cultivation of comprehensive talents with noble character and excellent skills in the field of higher vocational colleges.

## **2 Analysis of the relationship between physical education teaching and professional accomplishment development in higher vocational colleges**

### **2.1 Connotation of PE teaching**

Physical education plays a core role in the educational structure of higher vocational colleges, and its value is far beyond the simple teaching of sports skills and theoretical knowledge. It encompasses comprehensive development goals, focusing not only on improving students' physical and athletic abilities, but also on developing their teamwork spirit, perseverance, self-management and time planning skills. By participating in various sports activities, students are able to learn in practice how to set and pursue goals, how to maintain a positive attitude in the face of challenges, and how to use individual strengths in team work. In addition, physical education can effectively promote students' mental health, enhance their social adaptability and innovation ability, and lay a solid foundation for their future career and social life [3]. Therefore, the position and function of physical education in the education system of higher vocational colleges cannot be ignored, and it is an indispensable part to realize the all-round development of students. In the process of physical education teaching, students can not only systematically master the basic theoretical knowledge of sports, various sports skills and scientific and effective exercise methods, but also deeply appreciate the importance of teamwork in the process, so as to develop the spirit of perseverance in the face of difficulties, and form an optimistic and positive attitude towards life. The cultivation of these soft strengths is of great significance to the all-round development of students.

Physical education focuses on the integration of practice and theory, and emphasizes the initiative and innovative spirit of students in sports activities. Rich teaching strategies and methods are adopted to ignite students' enthusiasm for learning, enhance their physical fitness, and comprehensively improve their comprehensive skills. In addition, physical education not only bears the responsibility of imparting sports skills, but also shoulders the important task of spreading sports culture and developing sports spirit. It plays an indispensable role in shaping students' sense of social responsibility, strengthening the sense of belonging to a team and enhancing the sense of national identity. Therefore, the implementation of physical education teaching in higher vocational colleges has extremely important educational significance and extensive social value.

### **2.2 Connotation of professionalism**

The in-depth mastery of professional knowledge and skills, as well as the unified display of professional attitudes and values formed on this basis, together constitute the professional quality of an individual in a specific professional field. It not only deeply discusses the solid professional theoretical foundation and exquisite operational skills, but also focuses on cultivating the ability of quick insight, critical thinking and effective solution formation for problems in the professional field. Within the educational framework of higher vocational colleges, professional skills not only require students to deeply understand and master the core knowledge and technology of their major, but also emphasize the cultivation of their noble professional ethics, effective teamwork spirit and self-driven lifelong learning ability.

### **2.3 The promoting effect of PE teaching on the development of professional accomplishment**

Physical education plays a core role in higher vocational colleges, which not only helps to strengthen students'

physical fitness, but also enhances students' vocational skills and qualities imperceptibly. Participation in physical exercise can help students develop a tough character and strong psychological tolerance, which is essential for them to cope with challenges and overcome difficulties in their future career path. At the same time, physical education pays attention to the cultivation of teamwork and competitive consciousness, which can effectively enhance students' communication skills and teamwork ability, being an indispensable part of professional skills. Physical education can not only stimulate students' innovative thinking and problem-solving skills, but also promote students' learning and development in practice and challenges through organizing rich sports activities, thus comprehensively improving their professional ability and literacy.

### **3 Paths and strategies of physical education in higher vocational colleges to promote the development of students' professional accomplishment**

#### **3.1 Path analysis**

##### **3.1.1 Curriculum system reform**

In the field of physical education in advanced vocational colleges, the innovation of curriculum system is the core element to promote the improvement of students' professional ability. Traditional physical education usually focuses on sports skills and physical training, but often neglects the close combination with professional ability. Therefore, the innovation of curriculum system should focus on building a set of physical education curriculum system that can closely match students' professional ability and accomplishment. This strategy aims to deeply integrate the content of physical education courses into students' professional learning system, and carefully design physical education courses that can not only effectively enhance students' physique, but also deepen and strengthen their professional skills. For engineering students, we can design sports projects integrating mechanics principles, which can not only effectively improve students' physical quality, but also deepen their understanding and application of professional theoretical knowledge. With the help of this reform, the function of physical education will be greatly expanded, no longer limited to the teaching of traditional sports skills, but becoming a key channel to comprehensively enhance students' professional ability and literacy.

##### **3.1.2 Innovation of teaching methods**

In the field of physical education in higher vocational colleges, the innovation of teaching strategies is the key to promoting the improvement of students' professional ability. The traditional teaching mode mainly focuses on the instilling of skills and the training of behavioral norms, but it is insufficient in cultivating students' innovative consciousness and problem-solving skills. Therefore, we should actively explore and implement more flexible teaching strategies and models, including but not limited to case studies, project-driven learning and classroom inversion, so as to effectively stimulate students' desire for knowledge and active participation. With the help of these novel teaching strategies, we can not only provide students with more practical physical exercise scenes, but also stimulate their teamwork spirit, cultivate their critical thinking ability and innovative consciousness, so as to comprehensively strengthen their vocational skills and comprehensive quality.

#### **3.2 Policy suggestions**

##### **3.2.1 Strengthening the integration of physical education and professional teaching**

In vocational college education, deepening the integration of physical education courses and professional knowledge and skills has become a key strategy to cultivate high-quality professionals. Through the integration of multi-area teaching programs, sports activities are cleverly integrated into each professional curriculum, which not only helps to improve the physical fitness of students, but also develops the professional fitness and skills they need in the specific professional environment. For example, in the professional education of engineering technology, sports elements can be creatively integrated to design a series of characteristic practical teaching activities. These activities include not only team-oriented

outdoor outward bound training that allows participants to experience cooperation and competition in a natural environment, but also challenging projects that use the principles of sports science for mechanical design. Through such activities, students can exercise their teamwork skills, develop innovative thinking and improve problem solving skills while participating in physical exercise. This comprehensive learning approach effectively combines sportsmanship with engineering expertise, thereby indirectly improving students' professional quality and practical ability. This integrated teaching method aims to break down the existing disciplinary barriers, promote the mutual penetration of knowledge and technology, and lay a solid foundation for the all-round growth of students.

### 3.2.2 Improving the PE teaching evaluation system

It is very important to construct a perfect PE teaching evaluation system to guarantee the quality and effect of PE teaching. The traditional PE teaching evaluation system usually pays more attention to the performance of students in physical fitness and sports skills, but easily ignores the evaluation of students' professional qualities in sports ethics, teamwork ability and innovative thinking.

Therefore, we should construct a multi-dimensional and all-round physical education evaluation framework, which not only focuses on the enhancement of students' sports skills, but also emphasizes the cultivation of their comprehensive qualities such as sports ethics and teamwork. This includes the introduction of student self-assessment and the use of multiple assessment methods, including mutual assessment and teacher evaluation, to ensure the fairness and objectivity of the evaluation process. At the same time, the evaluation system should emphasize the process evaluation, focusing on the performance and growth of students in sports practice, so as to stimulate the enthusiasm of students to participate in sports activities and continuously improve their professional skills and literacy.

## 4 Conclusion

Physical education in higher vocational colleges plays a vital role in promoting the improvement of students' professional skills and qualities. Through the in-depth exploration and practice of curriculum system reform, teaching innovation, teacher development and campus culture construction and other multi-dimensional aspects, physical education can not only significantly enhance students' physical fitness and sports skills, but also cultivate their teamwork spirit, innovation consciousness and problem-solving ability in a subtle way, so as to promote the improvement of their professional quality in an all-round way. At the same time, we should strengthen the integration of PE teaching and professional teaching, optimize the evaluation mechanism of PE teaching, strengthen the development of PE teaching resources, and promote the internationalization of PE teaching. The implementation of these strategies will provide clear guidance for the innovation and progress of physical education. In the future, higher vocational education institutions should continue to promote the innovation of physical education system, actively explore and implement new physical education teaching methods, aiming at significantly improving the quality and effect of students' professional skills training.

### Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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