

Study on Profession-Oriented Health-Related Physical Fitness Teaching Model

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Abstract: *With the development of social economy and the diversification of professional demands, health-related physical fitness education is increasingly important in profession-oriented education. This paper aims to explore a profession-oriented health-related physical fitness teaching model by systematically analyzing the definition, components, importance, and relevant theories of health-related physical fitness. It combines these elements with the definition and objectives of profession-oriented education to identify the intersections. Based on this, a profession-oriented health-related physical fitness teaching model is constructed, exploring its design principles, teaching content, methods, and implementation strategies. The results show that a profession-oriented health-related physical fitness teaching model can effectively enhance students' professional skills and health literacy, providing new ideas and practical paths for vocational education reform.*

Keywords: *profession-oriented, health-related physical fitness, teaching model, vocational education, health literacy*

Introduction

With the development of modern society, vocational education plays an increasingly important role in cultivating high-quality skilled talents. Health-related physical fitness, as an important factor affecting individual professional capabilities and quality of life, is gaining prominence in vocational education. This study aims to explore a profession-oriented health-related physical fitness teaching model to enhance students' professional skills and health literacy, providing theoretical support and practical guidance for vocational education, promoting students' comprehensive development, and adapting to the diverse needs of the professional world. Given its impact on professional capabilities, health-related physical fitness requires significant attention in vocational education. By constructing a profession-oriented health-related physical fitness teaching model, we can offer comprehensive health education to students, enhancing their professional adaptability and meeting the modern demand for high-quality skilled talents.

1. Theoretical Basis of Health-Related Physical Fitness

1.1 Definition and Components of Health-Related Physical Fitness

Health-related physical fitness (HRPF) refers to an individual's comprehensive ability to effectively respond to various physical demands and pressures in daily life, work, and recreational activities. It encompasses not only basic physical health but also aspects of muscle strength, cardiorespiratory endurance, flexibility, balance, and coordination. The components of health-related physical fitness include the following:

Cardiorespiratory Endurance: This is the ability of the heart, blood vessels, and respiratory system to supply oxygen and sustain prolonged physical activity. High levels of cardiorespiratory endurance enhance an individual's endurance and efficiency in extended physical activities^[1].

Muscular Strength and Endurance: Muscular strength refers to the maximum force that muscles can exert in a single contraction, while muscular endurance is the ability to maintain force during repeated

contractions or for extended periods. These factors jointly determine an individual's capacity for physical tasks in daily life and work.

Flexibility: Flexibility is the range of motion and movement capability of joints and muscles. Good flexibility helps prevent injuries, improves athletic performance, and enhances the comfort of daily activities.

Body Composition: Body composition refers to the proportion of different components in the body, including fat, muscle, water, and bones. A healthy body composition is crucial for maintaining bodily functions and preventing chronic diseases.

Balance and Coordination: Balance and coordination are the abilities to maintain stability and coordinate movements during static or dynamic states. These abilities are vital for preventing falls and performing complex motor skills.

1.2 Importance of Health-Related Physical Fitness

Health-related physical fitness is significant for individual health and societal development, reflected in the following aspects:

Enhancing Individual Health Levels: Indicators of health-related physical fitness are closely linked to various chronic diseases, such as cardiovascular diseases, diabetes, and obesity. Improving health-related physical fitness can effectively prevent and control these chronic diseases, enhancing overall health and quality of life^[2].

Enhancing Professional Capabilities: Good health-related physical fitness improves work efficiency, reduces physical fatigue and occupational injuries, particularly in physically demanding jobs or those requiring prolonged standing.

Promoting Mental Health: Health-related physical fitness benefits not only physical health but also mental health. Regular physical fitness exercises can alleviate stress, improve mood, enhance self-confidence, and reduce the risk of depression and anxiety.

Driving Social Development: Improving health-related physical fitness contributes to reducing social healthcare burdens, increasing labor productivity, and promoting sustainable social and economic development.

1.3 Relevant Theories of Health-Related Physical Fitness

The study of health-related physical fitness spans multiple academic disciplines, including the following key theories:

Exercise Physiology Theory: This theory studies the physiological responses and adaptive mechanisms of the body during exercise, explaining the physiological basis of various components of health-related physical fitness. For example, the improvement in cardiorespiratory endurance is achieved through adaptive enhancements in the cardiovascular and respiratory systems.

Exercise Psychology Theory: This theory explores the relationship between exercise and mental health, emphasizing the role of physical fitness exercises in alleviating psychological stress, improving mood, and enhancing psychological resilience. These studies support the integration of health-related physical fitness and mental health.

Behavioral Science Theory: This theory examines the processes of choice and change in individual health behaviors, aiding in the understanding and design of effective physical fitness interventions. Models such as the Transtheoretical Model (TTM) and Health Belief Model (HBM) are commonly used to explain and predict individual health behaviors.

Social Ecology Theory: This theory focuses on the interaction between individual health behaviors and their environment, emphasizing the influence of multi-level factors (such as individual, social, environmental, and policy) on health-related physical fitness. It helps design comprehensive health promotion strategies considering the impact of social and environmental factors on individual health behaviors.

Understanding the definition, importance, and relevant theories of health-related physical fitness allows educators and researchers to better design and implement health-related physical fitness teaching models, promoting students' comprehensive development and meeting the needs of profession-oriented education.

2. Integration of Health-Related Physical Fitness and Career-Oriented Education

2.1 Definition and Objectives of Career-Oriented Education

Career-oriented education refers to a mode of education and training designed to develop students' professional skills and competencies, enabling them to meet the demands of job positions and career development requirements. This educational approach not only emphasizes the accumulation of academic knowledge but also focuses on practical skills and professional ethics, aiming to produce highly skilled and competitive talent for society and businesses^[3].

Developing Professional Skills: Through practice-oriented courses and training, students are equipped with the necessary technical and practical skills required in specific professional fields, enhancing their professional qualifications and practical abilities. This includes training in areas such as mechanical operation, information technology application, and medical care.

Enhancing Professional Qualities: Emphasis is placed on cultivating students' professional ethics, attitudes, and spirit, ensuring they possess good professional qualities. This includes education on responsibility, teamwork, communication skills, and innovation spirit.

Increasing Employment Competitiveness: By offering career planning and employment guidance, students gain insights into industry trends and job requirements, thereby enhancing their competitiveness and adaptability in the job market. Career-oriented education not only facilitates students' smooth entry into employment but also focuses on their long-term career development.

Promoting Comprehensive Development: Career-oriented education also focuses on improving students' overall quality, including physical health, mental health, and social adaptability. This comprehensive educational model helps students achieve higher success in both their professional and personal lives.

2.2 Integration Points of Health-Related Physical Fitness and Career-Oriented Education

The integration of health-related physical fitness and career-oriented education lies in systematically incorporating health-related physical fitness education to improve students' physical fitness, mental health, and social adaptability, thereby enhancing their professional skills and qualities to meet the diverse requirements of job positions. The specific integration points are as follows:

Enhancing Professional Skills: Different professions have varying physical fitness requirements. For instance, physical labor and manufacturing jobs require higher muscle strength and endurance, while service and nursing jobs need good cardiorespiratory endurance and flexibility. Health-related physical fitness education allows students to target and improve relevant fitness areas, meeting the physical demands of their job positions and enhancing their professional skill levels.

Cultivating Professional Qualities: Health-related physical fitness education helps cultivate students' professional qualities. Regular physical fitness training can enhance students' sense of responsibility and discipline, team sports can improve their teamwork and communication skills, and challenging physical fitness training can strengthen their willpower and stress tolerance. These qualities are crucial in career-oriented education, helping students excel in their professional careers.

Physical Health and Career Adaptation: Good physical health is fundamental for students to successfully complete vocational training and develop in their future careers. Health-related physical fitness education improves students' physical health through systematic exercise and health education, reducing career adaptation obstacles caused by health issues. Additionally, health-related physical fitness education enhances students' mental health, enabling them to maintain a positive psychological state under professional pressure, thereby improving their career adaptability.

Increasing Employment Competitiveness: In a competitive job market, physical fitness and health status are important factors that employers consider when evaluating job candidates. Health-related physical fitness education enables students to showcase good physical fitness and health, enhancing their employment competitiveness. Furthermore, students with a strong health-related physical fitness background are better equipped to handle various challenges in their professional careers, allowing them to better cope with career pressures and difficulties^[4].

Promoting Comprehensive Development: The integration of health-related physical fitness education and career-oriented education not only focuses on developing students' professional skills and qualities but also emphasizes their overall development. Systematic health-related physical fitness training improves students' physical, mental, and social adaptability, fostering a comprehensive development model that helps students achieve long-term success in both their careers and personal lives.

3. Construction of a Career-Oriented Health-Related Physical Fitness Teaching Model

3.1 Principles of Teaching Model Design

A career-oriented health-related physical fitness teaching model should adhere to the following principles to ensure its scientific, practical, and sustainable nature:

Student-Centered Approach: The teaching model should focus on the developmental needs and career goals of students, emphasizing personalized teaching and fully considering students' fitness levels, interests, and career directions to develop differentiated teaching plans. This means that teachers need to thoroughly understand each student's specific situation, including their fitness foundation, career aspirations, and personal interests, to design targeted teaching content and training plans. Personalized teaching not only increases students' learning enthusiasm but also ensures the practicality and effectiveness of the teaching content, helping students better master the fitness and skills required for their careers.

Integration of Theory and Practice: Teaching content should emphasize the combination of theoretical knowledge and practical skills. Through scientific theoretical guidance and extensive practical training, students can comprehensively master the knowledge and skills of health-related physical fitness. In course design, it is essential to include comprehensive and systematic theoretical instruction, such as exercise physiology, sports nutrition, and occupational health, along with ample practical training, such as physical fitness training, vocational skill simulations, and health assessment practices. This combination of theory and practice allows students to not only grasp the necessary theoretical knowledge but also improve their practical skills and application abilities, thereby better meeting career demands.

Continuous Improvement and Feedback Mechanism: Establish a sound teaching feedback mechanism to regularly evaluate teaching effectiveness. Based on student feedback and development needs, continuously improve the teaching content and methods to ensure ongoing optimization and enhancement of the teaching model. Teaching evaluations can take various forms, such as regular tests, practical assessments, student surveys, and teaching seminars. Through these evaluation methods, teachers can promptly understand students' learning progress and existing problems and adjust teaching accordingly. For example, based on student feedback, certain vocational skills training intensity can be increased, or teaching methods can be adjusted to better suit students' learning habits and needs. Continuous feedback and improvement can not only enhance teaching effectiveness but also promote the ongoing development and innovation of the teaching model.

Multidisciplinary Integration: Integrate knowledge from exercise physiology, sports psychology, vocational education, and other disciplines into the teaching model, using different theories and methods

to enhance the scientific and systematic nature of teaching. Multidisciplinary integration requires teachers to have a broad knowledge base and cross-disciplinary teaching abilities. By combining theories and methods from various disciplines, comprehensive health-related physical fitness education can be provided. For instance, exercise physiology can be used to explain the impact of exercise on various body systems, sports psychology methods can help students overcome psychological barriers in training, and vocational education theories can guide students' career planning and development. This multidisciplinary teaching model allows students to gain comprehensive and systematic knowledge and skills, improving their overall quality and career competitiveness.

3.2 Design and Implementation of Teaching Content

The design and implementation of health-related physical fitness teaching content should closely align with career-oriented goals, including the following aspects:

Health-Related Physical Fitness Course Design: Design systematic health-related physical fitness courses based on the physical fitness requirements of different professions. The course content should include training for cardiorespiratory endurance, muscle strength and endurance, flexibility, and balance. Additionally, incorporating occupational health knowledge can enhance students' awareness of occupational health^[5].

Integration of Vocational Skills and Physical Fitness: Incorporate vocational skills training into health-related physical fitness courses. For example, in manufacturing skill training, include strength and endurance training; in service industry skill training, add flexibility and cardiorespiratory endurance training. Integrating vocational skills with physical fitness enhances students' career adaptability.

Teaching Objectives and Evaluation System: Develop clear teaching objectives and evaluation standards to ensure the systematic and coherent teaching content. Establish a scientific evaluation system that includes regular testing and comprehensive assessments to measure students' physical fitness levels and mastery of vocational skills comprehensively. Adjust teaching strategies based on evaluation results.

3.3 Teaching Methods and Techniques

The choice of teaching methods and techniques directly affects the teaching outcome, emphasizing diversity and innovation:

Diverse Teaching Methods: Employ various teaching methods such as lectures, discussions, case analysis, and practical training to enhance the interest and effectiveness of teaching. Techniques like scenario simulation and role-playing can increase student participation and practical ability.

Technological Assistance and Digital Resources: Fully utilize modern educational technology by developing and applying digital teaching resources. Online courses, virtual reality (VR), and augmented reality (AR) technologies can provide vivid physical fitness training and vocational skill simulations, improving the interactivity and effectiveness of teaching^[6].

Practice-Oriented Teaching Activities: Organize a variety of practical activities, such as vocational experiences, company visits, and internships, allowing students to exercise their fitness and vocational skills in real-world environments. Practical operations and problem-solving activities improve students' overall quality and adaptability.

3.4 Implementation Strategies for the Teaching Model

The successful implementation of the teaching model requires scientific strategies and effective management:

Teaching Plans and Course Scheduling: Develop detailed teaching plans and course schedules to ensure the systematic and coherent delivery of teaching content. Appropriately allocate time and balance between theoretical learning and practical training to ensure students thoroughly master health-related physical fitness knowledge and skills.

Teacher Training and Professional Development: Strengthen teacher training and professional development to improve their teaching abilities and professional levels. Regular training, academic exchanges, and practical guidance can enhance teachers' understanding and application of health-related physical fitness and career-oriented education.

Student Feedback and Teaching Adjustment: Establish a comprehensive student feedback mechanism to understand their learning needs and problems in a timely manner. Continuous improvement of teaching content and methods through regular evaluations and feedback ensures the effectiveness and adaptability of the teaching model.

Resource Integration and Industry Collaboration: Integrate internal and external resources and strengthen collaboration with industries. Collaborating with companies can provide more vocational experiences and internship opportunities, enhancing students' career adaptability and employability. Actively introduce industry resources, invite industry experts to participate in teaching and guidance, and improve the practical and career-oriented nature of teaching.

In summary, constructing a career-oriented health-related physical fitness teaching model requires scientific design principles, diversified teaching content, innovative teaching methods, and effective implementation strategies. This comprehensive teaching model can significantly improve students' health-related physical fitness levels and vocational qualities, providing scientific and effective guidance and practical paths for modern vocational education.

Conclusion

This paper systematically studies health-related physical fitness and career-oriented education, proposing and constructing a career-oriented health-related physical fitness teaching model. The research shows that this model not only effectively enhances students' health literacy and vocational abilities but also promotes innovation and development in vocational education. Future research should further explore the applicability and effectiveness of the career-oriented health-related physical fitness teaching model in different vocational fields, optimize teaching methods and evaluation systems, and combine technological advancements. Utilizing big data and artificial intelligence technologies can improve the intelligence and personalization of the teaching model, providing more scientific and effective support for the development of vocational education.

References

- [1] Yin Yue, Fang Qiang, Li Yan, et al. *Research on the Improvement Model of Health-Related Physical Fitness for Physically Weak Students in Vocational Colleges from the Perspective of Career Development [J]. Journal of Lianyungang Technical College, 2023, 36(01): 88-92.*
- [2] Yin Yue, Zhao Hailong, Wang Ke, et al. *Analysis and Improvement Strategies of Physical Fitness Needs for Preschool Education Students [J]. Journal of Lianyungang Normal Higher School, 2022, 39(02): 95-99.*
- [3] Yang Lin, Ren Mengting, Yao Jiaqin, et al. *Study on Health-Related Physical Fitness and Sleep Conditions of Elderly People Over 65 Who Exercise Regularly [J]. Chinese Journal of General Medicine, 2024, 22(04): 578-581+621.*
- [4] Tu Shiji, Chen Jing. *Comparative Analysis of Health-Related Physical Fitness of Physical Education Students in Kunming in the Post-Pandemic Era [C]//Chinese Bandy Association, Macau Physical Fitness Association, Guangdong Physical Fitness Association. Proceedings of the Eleventh China Physical Fitness Training Science Conference (Volume II). Yunnan Normal University; Yunnan University Dianchi College; 2024: 8.*
- [5] Yang Songhong, Xiong Mina, Yang Sheng, et al. *Empirical Research on Improving Elderly Physical Fitness through Different Exercise Interventions in the Context of Healthy Aging [J]. Fujian Sports Science and Technology, 2024, 43(01): 34-40+54.*
- [6] Wu Yubo, Luan Jun, Li Peiqin, et al. *Study on the Health-Related Physical Fitness of Public Servants in Guangzhou under the "Healthy China" Strategy [J]. Occupation and Health, 2023, 39(24): 3378-3381+3387.*