

Research on reformation and optimization of practical teaching of physical education major in higher vocational colleges based on OBE concept

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Abstract: Practical teaching of physical education in higher vocational colleges is an important link to cultivate students' practical ability and professional accomplishment. However, there are some problems in the traditional practice teaching mode, such as low participation of students and traditional role of teachers. In order to optimize practical teaching and improve students' practical ability and professional accomplishment, this study, guided by OBE concept, discusses the optimization measures of practical teaching reform of physical education major in higher vocational colleges based on OBE concept: 1. Clarify the learning outcomes and goals of practical teaching in physical education majors; 2. Enriching teaching activities and resources for practical teaching in physical education majors; 3. Strengthen the evaluation and feedback of practical teaching in physical education majors; 4. Enhance student participation and self-directed learning in practical teaching of physical education majors; 5. Encourage practical teaching teachers in physical education to transform their roles.

Keywords: OBE concept; Higher vocational colleges; Physical education major; Practical teaching

1. Introduction

Physical education is an important link in cultivating students' physical and mental health and comprehensive development, and it is of great significance for the practical teaching reform of physical education majors in vocational colleges. With the continuous updating of educational concepts and changes in social needs, traditional knowledge imparting teaching is no longer able to meet the comprehensive ability development needs of students. Therefore, the practical teaching reform based on the OBE (learning centered teaching) concept has become an important issue in the current physical education major of vocational colleges.

2. The connotation and implementation framework of OBE concept

OBE stands for Outcome Based Education, which is a learning outcomes oriented education. It emphasizes that the goal of education is the learning outcomes that students should achieve, rather than just teaching course content[1]. The core philosophy of OBE is to place learners at the center of education, guiding teaching and evaluation through clear learning outcomes and goals.

Table 1 OBE Implementation Framework for Practical Teaching Reform

frame	content
Learning outcomes and goals	Knowledge objective: Relevant knowledge required for physical education majors. Skill objective: To proficiently apply the skills required for physical education majors. Communication objective: To effectively communicate and collaborate with others. Innovation goal: Possess innovative thinking and problem-solving abilities. Reflection objective: To reflect and evaluate one's teaching practice. Professional ethics goal: To possess good professional ethics and professional qualities.
Teaching activities and resources	Lectures and lectures: impart relevant theoretical knowledge of physical education. Reading materials and learning resources: Provide relevant textbooks, papers, case studies, and other reading materials. Practical teaching: Students participate in practical teaching practices. Observation and imitation: Students observe and imitate the teaching practices of excellent physical education teachers. Project design and implementation: Students participate in project design and

	implementation. Innovative technology application: Students learn and apply innovative technology tools and resources.
Evaluation and feedback	Organizational assessment: classroom observation and recording, group discussion and feedback. Individual assessment: learning logs and reflection reports, student self-evaluation, and teacher assessment. Feedback and guidance: verbal feedback and guidance, written feedback and guidance. Evaluation tools and standards: teaching evaluation forms and grading standards, student evaluations, and peer evaluations.
Student participation and self-directed learning	Project based learning: Organize course content into projects, allowing students to learn and practice through independent selection and planning of projects. Problem oriented learning: problem oriented, guiding students to actively raise questions, explore solutions, and engage in practice and reflection. Group cooperative learning: Encourage students to engage in group cooperative learning, and work together to complete course tasks and projects through cooperation, discussion, and mutual assistance. Practical Internship: Arrange students for practical internships, allowing them to conduct teaching practice and observation in a real teaching environment.
The transformation of the role of teachers	Learning designer: Teachers need to design courses and teaching activities for student participation and self-directed learning based on learning objectives and standards. Learning Navigator: Teachers need to guide students in their learning. Learning evaluators: Teachers need to evaluate students' learning outcomes and progress. Learning collaborators: Teachers need to collaborate with students. Learner Reflector: Teachers need to engage in reflection and self-assessment.

3. Optimization Measures for Practical Teaching Reform of Physical Education Majors in Vocational Colleges Based on OBE Concept

3.1 Clarify the learning outcomes and goals of practical teaching in physical education major

It is very important to clarify the learning outcomes and goals of practical teaching in physical education in vocational colleges based on the OBE (Outcome Based Education) concept[2]. According to the characteristics and requirements of physical education practical teaching, vocational colleges should clarify the knowledge, skills, and attitudes that students should possess in the practical environment. These learning outcomes should be aligned with professional standards and industry needs to ensure that students are competent in the relevant profession after graduation. Vocational colleges should develop specific learning objectives based on learning outcomes, and clarify the levels and abilities that students should achieve in practical teaching. Learning objectives should be specific, measurable, and achievable, guiding the design of teaching content and evaluation methods. Vocational colleges should redesign practical teaching courses for physical education majors based on students' learning outcomes and goals, aligning course content and activities with learning objectives, and ensuring that students can improve their required knowledge and skills in targeted practical teaching. By introducing problem-solving and project-driven learning methods, students can be stimulated to actively learn and practice. By solving practical problems and participating in real-life projects, students can better apply their knowledge and skills to practice, improving the effectiveness of their learning.

When teaching "sports practice", students learn and master the basic skills of different sports through classroom explanations and practical operations. Teachers help students master movements and techniques correctly and improve their motor skills through demonstration and guidance. Students can improve their practical skills and competitive level by selecting sports that they are interested in, participating in training and competitions. Students cultivate and improve their physical fitness through sports practice. Teachers design diverse sports training activities, including aerobic exercise, strength training, flexibility training, etc., to help students comprehensively develop their physical fitness. Students cultivate competitive spirit and good sports ethics by participating in competitions and competitions. Teachers guide students to treat victory and defeat correctly, respect opponents, abide by competition rules, and cultivate a spirit of fair competition and unity and friendship. Through the study of sports practice, students can master the basic skills and rules of sports, develop physical fitness and athletic ability, and cultivate teamwork and competitive spirit. At the same time, students can also improve their practical skills and competitive level by participating in training and competitions, laying a solid foundation for future work in the field of physical education.

3.2 Enriching teaching activities and resources for practical teaching in physical education majors

In the reform of practical teaching in physical education based on the OBE concept, vocational colleges should enrich teaching activities and resources to enhance students' practical abilities and professional qualities, build and improve teaching laboratories and equipment in physical education, and provide suitable venues and materials for practical teaching[3]. Students deepen their understanding and application of teaching practice through laboratory practice and simulation operations. Vocational colleges can invite industry experts or experienced teachers as practical mentors to guide students in practical teaching activities. Mentors provide professional guidance and feedback to help students improve their practical skills and professional competence. Vocational colleges collaborate with institutions related to physical education to arrange students for off campus internships and practical training. Students exercise practical abilities in actual physical education teaching work, understand industry needs and actual work environment.

When teaching sports competitions, teachers introduce students to knowledge about the rules, techniques, and tactics of different sports competitions through classroom explanations, case studies, and practical operations. Teachers help students master basic skills and tactical strategies through demonstrations and demonstrations, and improve their practical abilities in sports competitions. Students actively participate in the learning and practice of sports competitions through watching competition videos, on-site observation, and communication with athletes and coaches. Students improve their skills and practical abilities in sports competitions through simulated competitions and practical operations. At the same time, students also participate in the organization and management of sports competitions, improving their organizational and coordination abilities. Teaching resources include textbooks, courseware, competition videos, sports equipment, etc. Teachers provide corresponding teaching resources based on the teaching content and the needs of students, helping them better understand and apply the knowledge and skills they have learned. Teaching evaluation is conducted through exams, practical operations, and project reports. Based on the evaluation results, teachers understand the learning progress and shortcomings of students, adjust teaching strategies and content in a timely manner, and improve teaching effectiveness and student learning outcomes. Through the teaching activities of teachers and the participation of students, combined with abundant teaching resources, students can better grasp the rules, techniques, and tactics of sports competitions, and improve their practical ability and competitive level.

3.3 Strengthen the evaluation and feedback of practical teaching in physical education majors

In the practical teaching reform of physical education majors in vocational colleges based on the OBE concept, strengthening evaluation and feedback is a very important link. Vocational colleges design diverse evaluation methods based on learning outcomes and goals to evaluate the knowledge, skills, and attitudes achieved by students in practical teaching[4]. The evaluation methods include written exams, practical operations, project reports, oral presentations, etc., to comprehensively understand the learning situation of students. Teachers should provide timely feedback on practical teaching to students, help them understand their strengths and weaknesses, and provide suggestions for improvement. Teachers provide individual or group feedback by observing and recording students' practical performance, guiding them to further improve their practical abilities. Introducing peer evaluation into the evaluation mechanism allows students to evaluate and provide feedback to each other. Students provide constructive opinions and suggestions by observing and evaluating the practical performance of others. This promotes interaction and learning among students, enhances practical skills and professional competence. Students should record their practical teaching process and experience for reflection and summary. Teachers require students to write practical teaching logs, practical reports, etc. to help them reflect on their practical performance and provide guidance and suggestions.

When teaching the physiological basis of physical exercise, classroom explanations and multimedia presentations are used to introduce the physiological effects of physical exercise on cardiovascular, respiratory, and skeletal muscle systems. At the same time, the teacher provides a detailed explanation of common physiological indicator evaluation methods, such as heart rate, blood pressure, lung capacity, etc. Students use devices such as heart rate meters, blood pressure monitors, and lung capacity meters to measure their physiological indicators and record the results. Students analyze and interpret data based on measurement results. Students analyze and interpret data based on measurement results to understand their physical condition, such as cardiovascular function, respiratory function, etc., and compare them with theoretical knowledge. Students discuss and summarize in groups. Share your own measurement results and feelings, discuss the impact of different exercise methods on physiological

indicators, and propose suggestions for improving your exercise plan. Students fill out feedback forms to evaluate the experimental process and results, assess the difficulty and understanding of experimental operations, and assess their mastery of physiological indicators. Teachers observe students' experimental operations and data analysis processes to evaluate their practical and theoretical application abilities. Teachers also evaluate students' collaborative and expressive abilities through group discussions. Teachers collect feedback from students to understand their satisfaction and suggestions for this practical teaching.

3.4 Enhancing student participation and self-directed learning in practical teaching of physical education majors

In the practical teaching reform of physical education majors in vocational colleges based on the OBE concept, it is very important to enhance student participation and self-directed learning. Encourage students to actively participate in practical teaching activities, such as organizing sports competitions, community services, etc[5]. Students exercise their practical abilities and professional qualities through practical activities, and apply the knowledge and skills they have learned to practice. Teachers should encourage students to actively participate in practical teaching activities, such as organizing sports competitions, community services, etc. Students exercise their practical abilities and professional qualities through practical activities, and apply the knowledge and skills they have learned to practice.

When teaching "Sports Injury and Prevention", common types and causes of sports injuries are introduced through classroom explanations and case analysis. At the same time, explain the characteristics of different sports, as well as corresponding preventive and emergency measures. Arrange student groups to simulate sports injuries. Each group chooses a sports event to simulate exercise and injury situations. Students experience the symptoms and treatment process of sports injuries in simulated practice. Students can independently learn the prevention methods and first aid measures for sports injuries based on classroom explanations and simulated practical experience. Refer to relevant literature and materials for in-depth learning and research. Students actively participate in sports and simulate the process of injury through simulation practice. Experience the symptoms and treatment methods of sports injuries, enhance practical skills and emergency response capabilities. During the process of self-directed learning, students choose sports that they are interested in, and conduct in-depth research and learning on relevant preventive and emergency measures. By consulting literature, watching videos, and conducting field research, we aim to enhance our self-learning and information acquisition abilities. Through student participation and self-directed learning, teachers can stimulate students' interest and initiative in learning, improve learning outcomes and practical abilities.

3.5 Encourage physical education professional practice teaching teachers to change their roles

It is very important to encourage teachers to change their roles in the practical teaching reform of physical education majors in vocational colleges based on the OBE concept. Teachers should become mentors for students to learn and guide them in practical teaching. Teachers provide relevant learning resources and guidance, help students develop learning plans and goals, and provide necessary support and guidance. Encourage teachers to unleash their creativity and innovative consciousness in practical teaching, and design interesting and challenging practical tasks. Teachers try new teaching methods and tools, provide diverse learning opportunities, and stimulate students' interest and potential in learning. Provide professional development opportunities for teachers to continuously update their knowledge and enhance their teaching abilities. Teachers participate in educational training, academic seminars, and other activities to exchange and share teaching experiences with peers, continuously improving their professional competence.

When teaching sports appreciation, teachers play the roles of guides and facilitators in the classroom. Not only should we impart relevant knowledge and skills, but we should also stimulate students' interests and desires, provide learning resources and guidance, and guide them to actively learn and practice. Students actively participate in the appreciation and analysis of sports by watching videos of sports competitions, observing them on site, and communicating with athletes and coaches. Choose sports that interest you and gain a deeper understanding of their rules, techniques, and tactics. Students improve their sports skills and practical abilities through simulated competitions and practical operations. Participate in sports training and competitions, and experience the fun and challenges of sports firsthand. Teachers provide individual guidance and guidance to students during their learning and practical processes. Provide personalized tutoring tailored to the learning characteristics and needs

of students, helping them solve problems and improve their abilities. Through the transformation of the teacher's role from a traditional knowledge imparter to a guide and facilitator, students are able to participate more actively in the teaching process, unleashing their subjective initiative and creativity. By providing resources and guidance, teachers can stimulate students' interest and desire to learn, and guide active learning and practice.

4. Conclusion

This study explores and studies the optimization measures for the practical teaching reform of physical education majors in vocational colleges based on the OBE concept, and draws some useful conclusions. Firstly, enhancing student participation and self-directed learning is an important means to enhance the effectiveness of practical teaching. By actively participating in practical activities and self-learning, students can exercise their practical abilities and professional qualities. Secondly, encourage teachers to change their roles and become mentors for student learning, stimulating their interest and potential in learning. In addition, the creativity and innovative consciousness of teachers are also crucial for the reform and development of practical teaching. By providing opportunities for teacher professional development and supporting teacher practical research, we continuously enhance the teaching ability and professional competence of teachers.

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