

Research on the Teaching Reform of Public Physical Education Courses in Colleges and Universities based on the OBE Concept

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Abstract: In response to the prevalent issues in current public physical education courses in universities, such as vague objectives, content disconnected from demand, singular evaluation, and insufficient student agency, this study introduces the concept of Outcome-Based Education (OBE) and systematically constructs a framework for the reform of public physical education courses in universities. By integrating the core elements of OBE, including learning outcomes orientation, student-centeredness, integration of teaching and assessment, and continuous improvement, specific reform strategies are proposed. Starting from the precise setting of course objectives, innovation of teaching content and methods, improvement of the teaching evaluation system, and construction of a teaching quality assurance mechanism, this paper expounds on how to effectively integrate the OBE concept into public physical education courses in universities. The aim is to enhance teaching quality, promote the comprehensive development of students' physical fitness and comprehensive abilities, and provide theoretical reference and practical guidance for the reform and development of public physical education in universities.

Keywords: OBE Concept, College Public Physical Education, Curriculum Teaching Reform.

1. Introduction

With the continuous updating of educational concepts and the shift in societal demand for talents, the reform of public physical education curriculum in colleges and universities has become a key task in enhancing students' comprehensive qualities. The core of high-quality development in higher education lies in the improvement of talent cultivation quality. At the same time, it serves as a crucial carrier for enhancing students' physical health level, shaping sound personality, and cultivating lifelong sports awareness. Its teaching effectiveness is directly related to the implementation of the national "Healthy China" strategy and the fundamental task of "cultivating students with virtue and talent"[1]. However, upon examining the current teaching practice of public physical education courses in colleges and universities, many deep-seated issues still prevail: the course teaching objectives are broadly stated and poorly measurable, which are disconnected from the overall goals of talent cultivation in colleges and universities and the societal demand for comprehensive qualities (especially health literacy, teamwork, willpower, etc.); the teaching content focuses on imparting sports skills, with a strong competitive flavor, and is not closely integrated with students' diverse interests and future career life needs; the teaching evaluation overly relies on single sports skill standards or physical fitness test scores, neglecting the learning process, the cultivation of exercise habits, and the development of sports ethics and comprehensive abilities; the teaching methods are traditional, with the "teacher demonstration-student practice" mode still dominating, failing to fully exert students' subjectivity and initiative. Traditional public physical education teaching faces issues such as vague course objectives, content disconnected from student needs, and single evaluation methods. The OBE (Outcome-Based Education) concept emphasizes student learning outcomes as the guide, which

helps clarify teaching objectives, meet students' personalized needs, optimize teaching processes and evaluations, improve teaching quality, and promote students' comprehensive development. It has important guiding significance for the reform of public physical education curriculum in colleges and universities[2].

2. Overview of OBE Concept

2.1. The Connotation of OBE Concept

The concept of OBE (Outcome-Based Education) was first proposed by American scholar Spady, W. D. in 1981. This concept emphasizes that educational activities should revolve around students' ultimate learning outcomes, clearly focusing and organizing all aspects of education, so that students can achieve the expected results during the learning process. The core of the OBE concept lies in defining clear learning outcome goals and ensuring that these goals can be effectively achieved through systematic planning. In practice, it not only focuses on how much knowledge students have learned, but also emphasizes the improvement of students' abilities and whether they can apply the learned knowledge and skills to real-world situations. It cultivates students' comprehensive abilities such as critical thinking, creativity, teamwork, and communication skills to meet the needs of the real world.

2.2. Key Elements of OBE Concept

Learning Outcome-Oriented: This is the soul of OBE. The starting point for the design of all educational activities is to clearly define the observable and measurable core competencies (knowledge, skills, attitudes/values) that students should possess upon graduation (or upon completion of a certain stage of learning). These Intended Learning Outcomes (ILOs) are the sole basis for the design of curriculum, teaching, and evaluation[3].

Student-centered: All teaching activities are designed and

implemented around the needs and development of students, respecting their individual differences and encouraging personalized learning. Teaching plans are designed based on students' different characteristics and interests, enabling students to fully develop in their areas of expertise.

Integration of teaching and assessment: Teaching and assessment are closely integrated. Teachers design teaching activities based on learning objectives and use a variety of assessment methods to determine whether students have achieved the expected goals. The assessment results are promptly fed back into teaching to adjust teaching strategies and methods.

Continuous improvement: Emphasize the evaluation and feedback mechanism of educational outcomes. By regularly collecting information on students' learning progress, identify issues within the existing teaching system, thereby promoting the continuous optimization and improvement of the entire educational system, forming a teaching cycle of continuous improvement[4].

2.3. The Appropriateness of Applying the OBE (Outcome-Based Education) Concept to Public Physical Education Courses in Universities

The OBE (Outcome-Based Education) concept is highly aligned with the goals and requirements of physical education in universities in the new era. It provides effective paths to address the current issues in public physical education courses in the following aspects: 1. Addressing the dilemma of vague goals: OBE requires the precise definition of clear and measurable course learning outcomes, which directly responds to the current issues of vague and difficult-to-measure goals in public physical education courses. For example, outcomes can be expressed as "students can develop and implement a personalized 12-week fitness plan," "demonstrate effective communication and collaboration behaviors in team sports," "explain the health value and cultural connotation of a certain sport," etc., rather than the general "enhancing physical fitness" and "mastering skills." 2. Strengthening demand alignment and ability cultivation: OBE emphasizes that outcomes stem from social demands (health literacy, team spirit, willpower, etc.) and school talent cultivation positioning (comprehensive development of individuals). Applying OBE promotes the shift in public physical education course content design from "what teachers will teach" to "what abilities students need," effectively overcoming the drawbacks of content detachment from demand and strengthening the cultivation of students' core competencies (such as healthy lifestyles, social emotional abilities, and sports ethics)[5]. 3. Driving scientific and diversified evaluation: OBE requires evaluations to directly point to and demonstrate the achievement of learning outcomes. This forces public physical education course evaluations to go beyond single skill tests or physical fitness data, and construct a multi-dimensional evaluation system (such as portfolios, performance evaluations, reflection reports, peer evaluation, health behavior records, etc.) that covers knowledge understanding, skill application, exercise habits, sports spirit, cooperation ability, etc., to achieve the diagnostic, motivational, and developmental functions of evaluation. 4. Implementing the student-centered principle: The "student-centered" principle requires that teaching activity design must stimulate students' active participation and personalized learning. In physical education teaching,

this manifests as advocating independent choice of projects, layered teaching, cooperative learning, inquiry-based learning, information-assisted learning, etc., giving students more choices and decision-making power, and enhancing their learning motivation. 5. Establishing a long-term quality assurance mechanism: The "continuous improvement" mechanism of OBE provides an endogenous driving force for public physical education courses. By regularly evaluating the achievement of course outcomes (such as analyzing student ability achievement data in various dimensions and tracking surveys of graduates), identifying problems, and continuously optimizing course objectives, content, teaching methods, and evaluations, a spiral quality improvement cycle is formed[6].

3. Current Situation and Existing Problems of Public Physical Education Course Teaching in Colleges and Universities

3.1. Ambiguous Positioning of Course Objectives

Currently, many public physical education courses in universities lack clear, specific, and measurable objectives. They often merely mention enhancing students' physical fitness and cultivating interest in sports in a general way, without being refined based on students' professional characteristics, future career needs, and individual differences. This makes teaching activities lack specificity, making it difficult for teachers to accurately grasp the teaching focus and direction during the teaching process. Students are also unclear about what specific outcomes they should achieve through course learning, which affects teaching effectiveness and students' learning enthusiasm.

3.2. The Teaching Content is Disconnected from the Students' Needs

In terms of teaching content setting, some universities still primarily focus on traditional competitive sports such as basketball, football, and track and field. Although these sports have certain exercise values, they are difficult to meet the diverse interests and needs of students. With the development of society, students have shown a strong interest in emerging sports such as yoga, rock climbing, archery, and esports. However, due to limitations in teaching resources and faculty, these sports have not been widely incorporated into the public physical education curriculum system. Furthermore, the teaching content is not closely related to students' future career development, and the special needs of students from different majors for physical fitness and sports skills are not fully considered. This leads to difficulties for students in applying the sports knowledge and skills they have learned to their actual life and work after graduation.

3.3. Monotonous Teaching Methods

In terms of teaching methods, many public physical education courses in universities still adopt the traditional "inculcation" teaching method, which is teacher-centered and focuses on the impartation of sports skills, neglecting the subjective position and individualized needs of students. In the classroom, teachers often demonstrate and explain movements first, and then let students practice repeatedly. The teaching process is boring and tedious, and student participation is low. This single teaching method is not

conducive to stimulating students' interest and initiative in learning, and it is difficult to cultivate students' autonomous learning ability and innovative thinking.

3.4. Imperfect Teaching Evaluation System

The current evaluation of public physical education courses in colleges and universities primarily focuses on students' athletic skill assessments and physical fitness test scores. The evaluation methods are monotonous, overly emphasizing outcome evaluation while neglecting process evaluation. The evaluation indicators lack comprehensiveness, failing to fully consider students' learning attitudes, effort levels, progress, and performance in teamwork, sports spirit cultivation, and other aspects. Furthermore, the evaluation subjects are also relatively limited, mainly conducted by teachers, with fewer opportunities for student self-evaluation and peer evaluation. This approach cannot fully reflect students' true learning situations and is not conducive to students' self-reflection and self-improvement.

4. Teaching Reform Strategies for Public Physical Education Courses in Colleges and Universities based on the OBE Concept

4.1. Clarify Course Objectives and Be Student-outcome-oriented

Starting with the end in mind, defining clear and measurable learning outcomes is the logical starting point and core of reform. The construction of the goal system needs to strictly follow the "reverse design" principle. Firstly, it is necessary to align with the overarching goals by conducting in-depth analysis of national education policies (cultivating students with moral integrity and "Healthy China 2030"), overall objectives of higher education talent cultivation, school positioning, and professional talent cultivation programs (especially the descriptions of physical and mental qualities, social abilities, and comprehensive literacy in graduation requirements), to clarify the key competency points that public physical education courses need to support. Secondly, research needs to be conducted through questionnaires, interviews, focus groups, and other methods to extensively investigate the expectations of students (interests, development needs, career planning), social employers (demands for talent health literacy, teamwork, stress resistance, etc.), and subject experts (core competencies in physical education). By defining the expected learning outcomes of the courses and integrating the above analysis, the overall goal of public physical education courses and the specific goals of individual courses/modules can be precisely defined. The expression of outcomes must follow the SMART principle (Specific, Measurable, Achievable, Relevant, Time-bound), focusing on the abilities that students should possess. The dimensions of outcomes should cover athletic ability, mastering 1-2 lifelong beneficial sports skills; possessing a certain level of athletic performance ability; mastering scientific exercise principles and methods. Healthy behaviors form positive sports attitudes and lifelong sports awareness; developing regular exercise habits; possessing health risk assessment and avoidance abilities; mastering basic health management knowledge (nutrition, rest, recovery). Sports ethics include abiding by rules, respecting opponents, referees, and teammates; possessing the spirit of fair competition,

teamwork, perseverance, and responsibility; exhibiting good sports ethics. Comprehensive literacy involves effective communication and collaboration in sports activities; demonstrating leadership and organizational coordination abilities; possessing the ability to analyze and solve problems in sports; understanding the cultural value and social function of sports. Finally, the outcomes are hierarchical and interconnected, breaking down the overall goal into graded objectives for different grades and different course modules, and clarifying the supporting relationships between each goal, forming a clear-layered and logically coherent goal system map.

4.2. Innovate Teaching Content and Methods to Meet Students' Individualized Needs

Student-centeredness, advocating diversified teaching methods and blended learning strategies, serves as a crucial bridge towards achieving ILOs. It must embody the "student-centered" principle through diversified physical education teaching methods. This includes employing stratified teaching methods, stratifying students based on their physical fitness and skill levels, setting different levels of ILOs, and providing differentiated teaching content and practice requirements. Cooperative learning methods are widely applied in collective project learning, tactical drills, physical training, and small-scale competition organization. Through group goals, role division, and mutual assistance and evaluation, students' team collaboration, communication, and leadership skills are cultivated. Situational teaching methods and task-driven approaches are utilized to create real or simulated sports scenarios (such as competition scenes, fitness guidance scenes, and sports injury treatment scenes), design challenging tasks (such as organizing a class league match, developing a weekly training plan for peers), and guide students to apply knowledge and skills in problem-solving to develop comprehensive abilities. Inquiry-based learning methods encourage students to observe, ask questions, consult materials, conduct experimental verification (such as the impact of different stretching methods on flexibility), summarize and reflect on sports technology principles, training effects, and health issues, cultivating critical thinking and scientific inquiry spirit. Additionally, information-based teaching methods utilize sports apps (such as Keep, Yuepaoquan), wearable devices, online course platforms (such as MOOC, SPOC), and video analysis software to achieve instant feedback on movement techniques, visual tracking of exercise data, online theoretical learning, personalized guidance, and extracurricular extended learning. Furthermore, the deep integration of online learning and offline practice is utilized: online (Online) provides theoretical micro-courses, skill demonstration videos, extended reading materials, online tests, discussion forums, and personal exercise plan submission and tracking platforms. Offline (Offline): classroom time focuses on skill refinement, tactical drills, actual combat, team collaboration activities, physical training guidance, in-depth question answering, and performance evaluation implementation. The role of teachers transforms into a guide, organizer, feedback provider, and supporter. Finally, students are granted choice and autonomy in project selection, practice partners, practice methods, learning progress (within reasonable limits), and evaluation methods (such as choosing the way to showcase skills), stimulating intrinsic motivation.

4.3. Improve the Teaching Evaluation System and Achieve Integration of Teaching and Evaluation

Establishing a diversified evaluation index: A multi-dimensional evaluation index system encompassing sports skills, physical fitness, learning attitude, effort level, progress amplitude, teamwork, and sports spirit is established. It not only focuses on students' learning outcomes but also emphasizes their learning process and comprehensive development. For instance, when evaluating students' learning attitude, factors such as classroom attendance, enthusiasm for participating in classroom discussions, and independent exercise after class can be considered; when evaluating teamwork, students' performance in group sports activities, such as coordination and communication skills, and ability to work together and divide tasks, can be observed; when evaluating sports spirit, attention is paid to qualities such as the fighting spirit, perseverance, and respect for opponents exhibited by students in competitions and training.

Adopt diversified evaluation methods: comprehensively utilize various evaluation methods such as process evaluation and summative evaluation, quantitative evaluation and qualitative evaluation, teacher evaluation, and student self-evaluation and peer evaluation. Process evaluation runs through the entire teaching process, through classroom performance records, homework completion, periodic tests, etc., to timely understand students' learning progress and existing problems, providing a basis for teaching adjustments; summative evaluation conducts a comprehensive assessment of students' learning outcomes at the end of the semester. Quantitative evaluation measures students' motor skills and physical fitness levels through specific data indicators, while qualitative evaluation conducts descriptive evaluations of students' learning attitudes, teamwork, and other aspects. At the same time, students are encouraged to actively participate in self-evaluation and peer evaluation, allowing them to learn self-reflection and mutual learning in the evaluation process.

Establish an evaluation and feedback mechanism: promptly provide students with feedback on their evaluation results, enabling them to understand their learning strengths and weaknesses, and clarify the direction of their efforts. Based on the evaluation feedback information, teachers analyze the problems existing in the teaching process, adjust teaching strategies and methods, optimize teaching content, and achieve continuous improvement in teaching quality. For example, teachers can address the issue of students' unfamiliarity with a certain motor skill reflected in the evaluation by increasing relevant practice time and targeted coaching in subsequent teaching; for sports that are generally of interest to students, consider making appropriate adjustments and additions to the curriculum.

4.4. Establish a Teaching Quality Assurance Mechanism to Promote Continuous Improvement

Strengthening the construction of teaching staff: Teachers are the implementers of teaching reforms, and their professional expertise and teaching abilities directly affect the quality of teaching. Universities should strengthen the construction of public physical education teaching staff, continuously enhancing teachers' professional knowledge and teaching skills through regular organization of professional training, academic exchange activities, teaching skill

competitions, and other means. Teachers are encouraged to carry out teaching research and reform practices, explore new teaching models and methods based on the OBE concept, and improve their ability to use modern educational technologies and methods for teaching. At the same time, teachers with professional backgrounds in emerging sports and rich teaching experience should be introduced to enrich the teaching staff and optimize the teacher structure.

Improve the allocation of teaching resources: Increase investment in public physical education teaching resources, improve the construction of sports venues and facilities, purchase advanced sports equipment, and provide students with a good environment for physical education learning and exercise. Strengthen the informatization of physical education courses, develop online teaching platforms and teaching resource libraries, provide rich resources such as teaching videos, electronic textbooks, and teaching cases, and meet the needs of students for autonomous and personalized learning. In addition, actively cooperate with off-campus sports institutions, enterprises, etc., expand teaching resources, and provide students with more opportunities to participate in social practice and sports competitions.

Establish a teaching quality monitoring system: Construct a comprehensive and multi-level teaching quality monitoring system to conduct real-time monitoring and evaluation of all aspects of public physical education teaching. Establish a dedicated teaching supervision team to regularly observe classes, check the implementation of teaching plans, the application of teaching methods, and teaching effectiveness; establish a student teaching information feedback system to widely collect students' opinions and suggestions on teaching through questionnaires, forums, and other forms; carry out peer evaluation activities to promote communication and learning among teachers and jointly improve teaching quality. Based on the results of teaching quality monitoring, promptly identify problems and take effective measures to solve them to ensure continuous improvement in teaching quality.

5. Conclusion

The reform of public physical education curriculum in colleges and universities is a crucial project related to students' physical and mental health as well as their comprehensive development. Based on the OBE (Outcome-Based Education) concept, the reform of public physical education curriculum in colleges and universities is an inevitable choice to adapt to the development of the times and the needs of students. By implementing a series of reform measures such as clarifying curriculum objectives, innovating teaching content and methods, improving the teaching evaluation system, and constructing a teaching quality assurance mechanism, it can effectively address the existing problems in the current public physical education curriculum teaching in colleges and universities, enhance teaching quality, and promote the comprehensive development of students' physical fitness and comprehensive abilities. In the process of reform, colleges and universities should fully recognize the importance of the OBE concept, actively promote teaching reform practices, and continuously explore teaching modes and methods suitable for their actual situations, laying a solid foundation for cultivating high-quality talents with healthy bodies, good sports literacy, and comprehensive abilities. At the same time, it is necessary to continuously pay attention to the development trends of education and changes in student demands, and constantly adjust and improve teaching reforms

to achieve sustainable development of public physical education in colleges and universities.

References

- [1] Zhang Ruilin. The Mission, Challenges, and Countermeasures of School Physical Education Development in China in the New Era [J]. Journal of Shanghai University of Sport, 2020, 44(1): 1-8
- [2] Central Committee of the Communist Party of China, State Council. "Healthy China 2030" Planning Outline [Z]. 2016
- [3] General Office of the State Council. Opinions on Comprehensively Strengthening and Improving School Physical Education in the New Era [Z]. 2020
- [4] Spady, W. G. *Outcome-Based Education: Critical Issues and Answers*. American Association of School Administrators, 1994.
- [5] Liu Haifeng. Application Research of OBE Education Concept in the Reform of Physical Education in Colleges and Universities [J]. Journal of Physical Education, 2021, 28(3): 98-103
- [6] Wang Huazhuo, Liu Xin. The Current Situation and Prospects of Physical Education Curriculum Reform in Chinese Universities [J]. Journal of Beijing Sport University, 2015, 38(1): 94-99