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The Construction of Badminton Specialized Ability System for Physical Education Students under the Concept of OBE

Weiguo Li, Shen Luo, Jun Xiang

College of Physical Education and Health, Zhaoqing College, Zhaoqing, Guangdong, 526061, China

Abstract: This study applies Output-Based Education (OBE) to cultivate badminton-specific competence among physical education majors at Zhaoqing College. It identifies needs in technique, tactics, fitness, and psychological quality. A “four-in-one” system is proposed, enhancing technical skills, tactical understanding, physical fitness, and psychological resilience. Innovations in teaching and evaluation under OBE notably enhance student abilities, providing clear developmental pathways in physical education.

Keywords: OBE Concept; Physical Education; Badminton; Specialized competencies

1. Preface

Outcome-Based Education (OBE) enhances higher education quality, particularly in physical education, by emphasizing practical skills. This study at Zhaoqing College focuses on constructing an effective badminton competence system using OBE principles. It addresses issues like outdated content and limited teaching methods with a comprehensive module covering technical skills, tactics, fitness, and psychology. The approach updates content, innovates methods, and optimizes evaluation under OBE guidelines, emphasizing personalized teaching and practical activities. By improving students' badminton abilities, this strategy aims to advance physical education quality, foster professional skills, and cultivate competitive sports professionals.

2. Definition of specialized badminton competencies

Badminton specialized ability includes the comprehensive skills and qualities athletes show in competitions and training: technical skills, tactical understanding, physical fitness, and psychological fitness.

- (1) Technical skills: The foundation of badminton, including serving, movement, attack, and defense, requiring continuous training.
- (2) Tactical understanding: The ability to develop and adjust strategies based on the opponent and game situation, needing good observation and quick decision-making.
- (3) Physical fitness: Encompasses speed, strength, endurance, and flexibility, crucial for high-level performance.
- (4) Psychological fitness: Involves pressure management, emotional control, recovery, and concentration, essential for staying calm and performing under pressure.

3. Construction of Badminton Specialized Ability System for Physical Education Students under OBE Concepts

3.1 Construction of Badminton Specialized Technical Ability System

3.1.1 Definition of objectives

The objective of building a badminton technical competence system for physical education students is to enhance their competitive level and technical skills. It aims to ensure mastery of basic techniques like serving, movement, strokes, and catching, providing a solid foundation for advanced skills. Additionally, it focuses on improving tactical understanding and application, enabling quick judgment, tactical choices, and strategic play. It also aims to develop psychological qualities, such as pressure resistance and teamwork, to enhance performance in official matches. Overall, the goal is to develop comprehensive, multi-layered badminton skills for future success in competitions and careers.

3.1.2 Teaching arrangement

In constructing the badminton technical ability system for physical education students, teaching should progress from basic to advanced,

blending theory with practice. Initially, emphasis is on mastering basic techniques and rules through videos, demonstrations, explanations, and drills. As students advance, focus shifts to tactical understanding and psychological training, incorporating simulated matches and situational drills to enhance practical skills and mental resilience. Personalized guidance tailored to student needs is integral, alongside participation in competitions to refine learning and teaching strategies, aiming to nurture top-tier badminton players.

3.1.3 Outcome assessment

Assessing the badminton technical ability system for physical education majors involves continuous evaluation across technical, tactical, and psychological aspects. It includes regular technical tests, simulated and actual match assessments for tactical and psychological performance, and introduces self-assessment for self-improvement. Personalized feedback guides targeted skill enhancement, ensuring teaching objectives are met and students' abilities progress consistently.

3.2 Badminton specialized tactical ability system construction

3.2.1 Goal setting

The core objective of building badminton specialized tactical ability is to develop students' game understanding, tactical application, and decision-making. It begins with a focus on mastering game rules, basic tactics, and their practical applications. Students then learn to apply diverse tactics, control game rhythm, cover the court effectively, and devise strategic responses. Training includes developing quick reactions and decision-making skills for fast-paced games. Emphasis is also placed on teamwork in doubles or team matches, enhancing overall tactical execution and readiness for high-level competitions.

3.2.2 Teaching arrangement

To develop specialized badminton tactical ability, teaching should integrate theory and practical skills. Classroom teaching and video analysis detail tactical principles, scenarios, and opponent strategies. Practical sessions include group practices, simulations, and role-playing to enhance tactical understanding. Group discussions foster shared learning and tactical knowledge accumulation. Regular competitions allow students to refine and adjust their tactics in real-game settings, aiming to blend theory with practical application for improved tactical proficiency.

3.2.3 Effectiveness evaluation

The evaluation of badminton tactical ability should be comprehensive and systematic. It includes analyzing students' tactical choices, application effectiveness, and decision-making through game video analysis and professional software. Tactical skills testing in simulated scenarios assesses understanding and implementation. Coach and peer feedback, along with questionnaires and reflection reports, provide insights into teamwork and individual progress. This multi-dimensional approach identifies teaching gaps, guides improvement, and ensures the relevance and effectiveness of tactical training.

3.3 Badminton specialized physical quality system construction

3.3.1 Goal setting

The construction of badminton-specific physical fitness for physical education majors aims to enhance athletic performance, endurance, and technical skills. It focuses on improving explosive power and speed for quick movement changes and intense transitions. Endurance is strengthened to sustain high levels of performance throughout games. Flexibility and coordination are enhanced to prevent injuries and improve efficiency. Additionally, goals include improving balance and reaction speed to adapt effectively to diverse competition scenarios, aiming to elevate overall badminton performance for high-level competitions.

3.3.2 Training Program

The training program for badminton-specific physical fitness should be diverse, addressing various aspects of physical development. It includes speed and explosive power training like sprinting and jumping exercises for quick reactions. Endurance is built through long-distance running and interval training to maintain high performance levels during games. Yoga and stretching enhance flexibility and prevent injuries, while balance and coordination drills such as one-legged stands and medicine ball exercises improve motor skills. Adjustments based on competition cycles optimize training effectiveness, preparing students effectively for competitions.

3.3.3 Effect evaluation

Assessing the effect of badminton-specific physical fitness construction is crucial for adjusting training methods. Regular assessments use quantitative standards and indexes: physical tests measure improvements in explosive power, speed, and endurance. Professional tools assess coordination, balance, and flexibility. Training logs, injury records, and competition results provide comprehensive evaluation. This system ensures systematic improvement of students' physical fitness for badminton and supports optimizing future training programs with data-driven insights.

3.4 Construction of mental quality system

3.4.1 Goal setting

To enhance badminton-specific mental resilience for sports majors, goals focus on boosting self-confidence, self-control, and composure under pressure. Students are trained to rebound from setbacks, maintain emotional stability, and sustain performance efficiency. Improving concentration and teamwork skills, particularly vital for doubles players, ensures systematic enhancement of mental competitiveness in badminton, optimizing game performance.

3.4.2 Mental training

Badminton-specific mental training should be diverse to meet student needs. Methods include visualization for game simulation, stress management techniques like deep breathing and positive thinking, role-playing for adversity and tactical skills, and team activities to enhance communication and teamwork. This training not only boosts individual skills but also strengthens team cohesion and effectiveness.

3.4.3 Assessment and Adjustment

Establishing a systematic evaluation and adjustment mechanism is crucial for effective psychological training. This includes regular checks on psychological status, skills tests, and feedback sessions using standardized tools. Coaches, counselors, and students contribute feedback to assess training effectiveness comprehensively. Based on results, adjustments are made to strengthen specific skills or provide additional support. Post-competition, focus shifts to psychological recovery to maintain competitive edge and ensure ongoing training effectiveness.

4. Conclusion

Under the OBE concept, this study explores effective strategies for cultivating badminton specialized abilities in physical education majors. Using surveys, observations, and interviews at Zhaoqing College, it develops a systematic model to enhance students' overall badminton skills. OBE improves teaching quality and training effectiveness through comprehensive assessment and feedback mechanisms, advancing skill-based education in physical education with theoretical and practical significance.

References

- [1] Cheng, Y. (2021). Research on the construction of core curriculum system of physical education major based on outcome orientation (Doctoral dissertation). Shanghai Institute of Physical Education.
- [2] Cao, T. (2017). Construction of evaluation index system of badminton players' competitive ability (Doctoral dissertation). Beijing Sport University.
- [3] Chen, W. (2018). Research on the optimization of badminton specialization course for physical education majors in colleges and universities in Henan Province (Doctoral dissertation). Henan University.
- [4] Guo, S. (2019). Comparative analysis of domestic and international badminton research posture based on knowledge mapping (Doctoral dissertation). Beijing Sport University.
- [5] Lv, H., & Hao, H. (2020). Research on talent cultivation of physical education majors based on OBE education concept. *Physical Education Research and Education*, 35(02), 49-54.

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Author: Weiguo Li(1990-), Huazhou, Maoming, Guangdong, PhD in progress, Lecturer, Research Direction: Physical Education Teaching and Training