



Development of Basketball Teaching Model under Concept of Outcome – Outcome-Based Education for Xi'an University Students in Shaanxi Province

Dong Chen¹, Chanchai Siriphan² and Rumpai Soonjan³

Faculty of Sports Science and Technology Bangkokthonburi University, Thailand

¹ E-mail: 269756487@qq.com, ORCID ID: <https://orcid.org/0009-0000-9272-2972>

² E-mail: siriphan.cs@gmail.com, ORCID ID: <https://orcid.org/0009-0000-9981-655X>

³ E-mail: rgymnas@gmail.com, ORCID ID: <https://orcid.org/0009-0003-6183-7410>

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Abstract

Background and Aim: In the evolving pedagogical landscape, the Outcome-Based Education (OBE) approach has garnered attention for its student-centric model and clear educational outcomes. University in Shaanxi Province recognizes the need for an integrative basketball teaching model to harmonize with this paradigm shift. This study endeavors to design a basketball teaching model for Xi'an University students, underpinning the OBE concept.

Materials and Methods: Employing a combination of interviews, questionnaires, and specialized software packages, data were collected from a population comprising 45 teachers and 5,000 first-year students, with a selected sample of 370 students and 45 teachers. The research process encompassed a thorough examination of the current teaching model, followed by the utilization of the Delphi technique and focus groups to conceptualize the OBE framework for basketball teaching.

Results: Analysis revealed the need for a comprehensive basketball teaching model in higher education. The proposed OBE model integrates 4 primary elements (Basketball Theory, Basketball Skills, and Physical, and Social Adaptability), further divided into 12 secondary and 34 tertiary elements. Each segment is tailored to specific outcome objectives, emphasizing cognitive understanding, skill mastery, physical fitness, and social adaptation.

Conclusion: The proposed OBE basketball teaching model offers a holistic approach to basketball education, integrating both sport-specific and life-oriented skills. By aligning with China's national development goals and the principles of education, this model stands poised to revolutionize basketball education in Xi'an, setting a benchmark for other provinces.

Keywords: Basketball Teaching Model; Outcome – Based Education

Introduction

As the world continues to evolve and advance, so do the essence and objectives of education. With countries globally, especially China, placing an amplified emphasis on the holistic development of students, the importance of integrating physical education into the formal educational framework has never been more evident. Rooted in this perspective is the belief that sports, particularly basketball, not only aids in enhancing students' physical well-being but also has profound implications on mental health, teamwork, discipline, and character-building.

China's General Office of the State Council (2019) illuminated the path by emphasizing the criticality of integrating students' physical health evaluation into educational systems, revealing a nation's ambition to inculcate healthy lifestyles among its youth. Further substantiating this commitment, "Sports power,

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education power, healthy China" has been marked as a crucial element of China's strategic roadmap for 2035. Within this grand vision, university physical education stands as a pivotal pillar.

Yet, while the vision is clear, the methodology to achieve it is still in its evolutionary stages. Traditional teaching methods, while foundational and effective to some extent, might not be fully aligned with the dynamic needs of today's students, especially in applied universities like A University in Xi'an, Shaanxi Province. Such institutions, characterized by their application-driven and industry-relevant curriculum, demand a pedagogy that equally complements their ethos – one that is outcome-based and forward-looking.

This study, therefore, delves deep into the crux of this educational paradigm shift. Focusing on the development of a basketball teaching model under the concept of Outcome-Based Education (OBE) for students in Xi'an University, Shaanxi Province, this research seeks to blend the traditional essence of basketball teaching with modern pedagogical approaches. The overarching aim is to ensure students not only master the sport but also internalize the life lessons it inherently offers, preparing them for future challenges both on and off the court.

By anchoring the teaching model in OBE, the research also taps into a more extensive global movement that places students at the center, prioritizing learning outcomes, real-world applicability, and continuous improvement. The subsequent chapters will detail the intricacies of this proposed model, explore its potential advantages, and challenges, and provide a roadmap for its practical implementation in applied universities. As China stands on the cusp of educational modernization, this study aims to contribute a small yet significant piece to the larger puzzle, hoping to inspire further innovations in the realm of physical education and beyond.

Objectives

To develop a basketball teaching model under the concept of outcome-based education.

Literature Review

In recent years, the approach to physical education has evolved considerably. One of the primary thrusts in this shift is the Outcome-Based Education (OBE) concept, which emphasizes the results of the educational process rather than merely its content. Specifically, for the universities in Xi'an, Shaanxi Province, basketball, a popular sport, has become a focal point for implementing this pedagogical transformation.

Historical Context

Historically, physical education in China has been closely intertwined with the cultural, economic, and political dimensions of society. The roots of sports in ancient China can be traced back to the Zhou Dynasty, where sports served both for entertainment and military training. In the modern context, basketball has grown in popularity among university students, becoming an integral part of their physical education (PE) curriculum (Wang Zhongbo, 2017).

Conceptual Framework of OBE

Outcome-Based Education is a paradigm shift from traditional teaching methodologies, emphasizing the importance of the results of the educational process (Soh et al., 2010). Instead of focusing solely on content delivery, OBE revolves around achieving specific outcomes, often encompassing knowledge, skills, and values. In physical education, this would translate to not just learning the sport but mastering the skills,





understanding the game's strategic elements, and imbibing values like teamwork, resilience, and sportsmanship.

Current State of Physical Education in Xi'an Universities

Presently, the PE curriculum in universities focuses on the multi-faceted development of students, considering physical, cognitive, and emotional dimensions (Ji Liu, 2019). The seven principles, ranging from ensuring student interest to the integration of humanistic aesthetics, hint at a comprehensive development model. Yet, there's a growing realization that merely following a structured curriculum might not yield the desired results. This gap brings us to the applicability of OBE in basketball teaching.

Basketball in Xi'an: A Case for OBE

With basketball's rising popularity in Xi'an, there's an increasing demand for a more refined teaching approach that aligns with the sport's dynamic nature. The traditional teaching model, where the emphasis was on rote learning of moves and strategies, might not cater to the diverse needs of the students (Sang Xuehui, 2019). The introduction of OBE, focusing on the end skills and knowledge students should achieve, can make the basketball learning experience more holistic. For instance, instead of merely teaching a layup shot, students would learn the strategic importance, the right situations to use it, and the underlying biomechanics – ensuring a comprehensive understanding.

Practical Implementations and Challenges

Several researchers have ventured into incorporating the OBE framework into different educational disciplines, with tangible success. Mokhtar & Adnan (2017) found that students perceived learning assessments positively when the OBE approach was adopted. The sentiment was echoed by Takahashi & Kosano (2015) in the context of medical education. However, implementing OBE in basketball teaching presents unique challenges. The vast differences in physical abilities, inherent skills, and interest levels among students make standardized outcome measurement complex. Moreover, while the conceptual backing for OBE is robust, there's a dearth of extensive empirical studies linking OBE to basketball teaching, especially in the context of Xi'an universities.

Conclusion

The transition towards Outcome-Based Education in Xi'an's university basketball training appears to be the logical next step, given the global shifts in educational paradigms. By focusing on results and holistic understanding, students can experience a more enriching and comprehensive basketball education. However, this transition requires methodical planning, continuous feedback, and adaptability, keeping in view the unique challenges presented by sports education.





Conceptual Framework

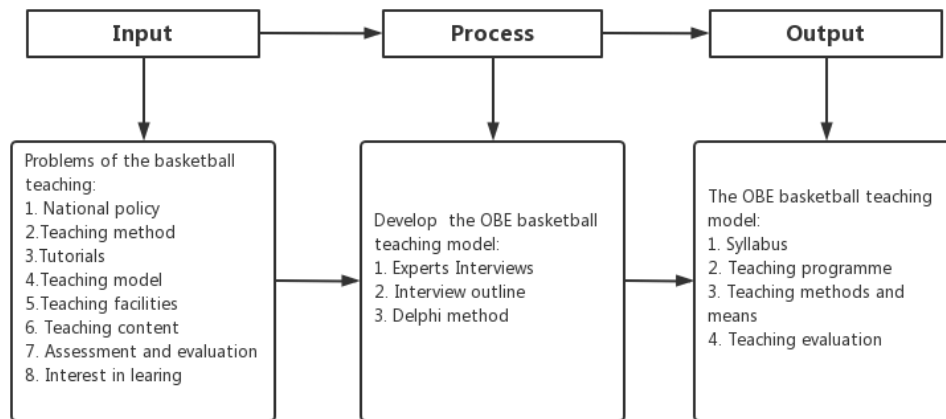


Figure 1 Research Conceptual Framework

Methodology

Population and sample: Population: The population of this study was selected from 45 teachers and 5,000 first-year students of the compulsory basketball course at Xi 'an A University. 5,045 people in all. Sample: 370 students were selected by purposive sampling, 45 teachers including OBE education experts, teachers engaged in OBE education research, college basketball teachers, and teaching administrators. 21 Delphi experts include 6 sports researchers, 7 teaching administrators, and 8 university basketball teachers.

Research tools: (1) Interview form, and (2) Questionnaire

Collecting data process

1. Data collection of teaching model status survey. Questionnaires were distributed to 45 teachers and 370 students in the form of semi-open questionnaires. Questions were set around the teaching model of university basketball courses. Use the Questionnaire Star software to distribute and collect questionnaires.

2. Data collection at Delphi: (1) To extract the OBE basketball teaching elements framework. (2) To develop the first draft of the OBE basketball teaching model framework. (3) IOC inspection Specialist. (4) Delphi consensus modify expert. And (5) Focus Group.

Data Analysis

1. To use SPSS26.0 software to analyze the survey results of students and teachers.
2. To use NVivo12.0 software to Extract the OBE basketball teaching elements framework: (1) To use NVivo12.0 software to analyze high-frequency vocabulary and extract the elements of the OBE basketball teaching model. And (2) To invite 5 experts to analyze, summarize, and summarize high-frequency vocabulary with the help of NVivo12.0 software, and form the first draft of the OBE basketball teaching model.

3. To use EXCEL2019 software to calculate the value of the IOC inspection Specialist result.

4. To use the software to calculate the value of the Delphi consensus modify result.



Results

According to the survey on the current situation of the basketball teaching model in Shaanxi Province colleges and universities, and analyze the current problems. Based on the concept of OBE teaching and oriented to the cultivation goal of students, the study constructs a complete basketball teaching model in colleges and universities, which includes 4 First-level elements, 12 Second-level elements, and 34 Third-level elements (Figure 2). It lays a good foundation for improving the quality of basketball teaching in colleges and universities in Shaanxi Province and cultivating the overall development of students.

The OBE basketball teaching model is a curriculum model based on the teaching achievement goal, even if the goal is the achievement. The 4 First-level elements of the teaching model are the teaching structure of the whole basketball teaching model. Including Basketball theory, Basketball skills, and Physical and social adaptability. Among them, Basketball theory, Basketball skills, the basic content of Physical basketball teaching, and social adaptability are the applied results that basketball teaching will reflect. The corresponding outcome goals of Basketball theory, Basketball skills, and Physical are Cognitive objective, Skill objective, and Physical objective. The first is to make students understand the theoretical knowledge of basketball, the second is to let students master and use basketball skills and tactics, and the third is to improve the effect of physical fitness through physical training in class. Social adaptability corresponds to the achievement goal of the social adaptation objective. It is to improve students' Interpersonal Adaptability, Psychological Adaptability, and Rule Adaptability.

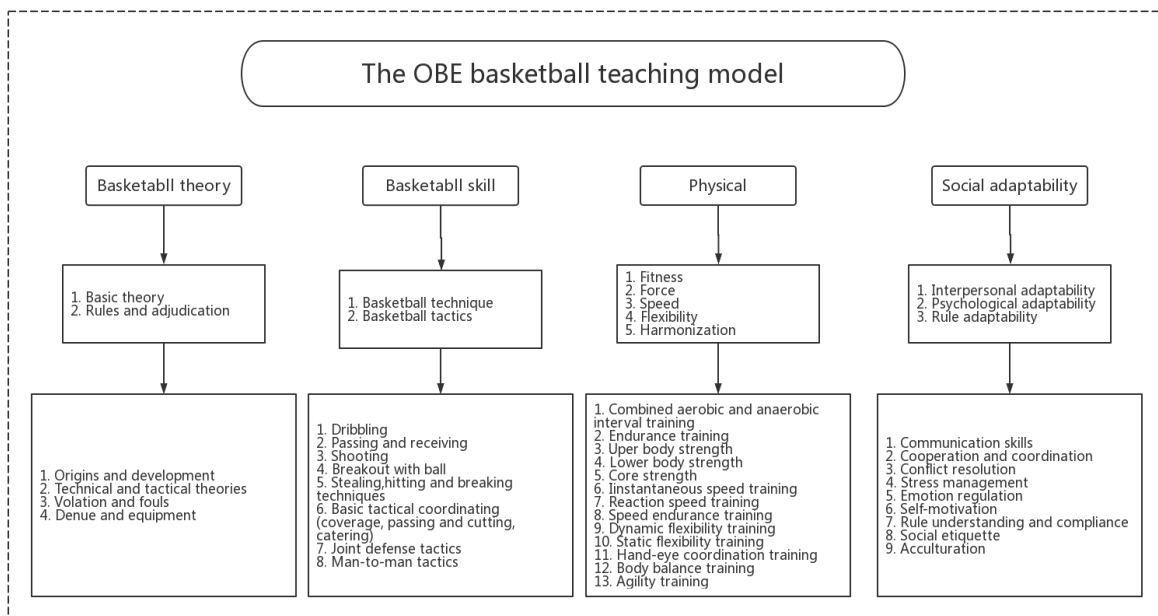


Figure 2 The OBE teaching model.

Discussion

The OBE basketball teaching model in this study is based on the fundamental task of China's Lide education, aiming to solve the problem of "who to train, how to train, and for whom to train", and taking the OBE education concept as theoretical guidance. Integrate the advantages of the OBE teaching and





education concept into the current education model. Its purpose is to achieve the Cognitive objective, Skill objective, Physical objective, and social adaptation objective of teaching outcomes.

1. Basketball Theory

Basketball theory is a component of college students' basketball curriculum system, and it is also a module that must exist in this curriculum model. The teaching content of Basketball theory includes the origin and development of basketball, basketball technique and tactics theory, violation and foul, court and equipment (Fang Yingjie et al., 2021). The core outcome of The OBE is to require students to master and apply the theoretical knowledge in the basketball theory part of the educational model. For example, when teaching the theoretical knowledge of basketball techniques and tactics, students should be trained to analyze the ability of basketball techniques or tactics. For example, when teaching the theoretical knowledge of the marching shot, it is necessary to clarify the difference between the movement essentials of the marching one-handed low-hand layup and the marching one-handed master layup. The wrist action of one-handed low-hand layup between marching is "pick the wrist and dial the finger". The wrist action of a one-handed master layup is "press the wrist and dial the finger". For example, when teaching basketball rules and refereeing law, cases should be displayed and analyzed intuitively through examples, video displays, on-site drills, etc. At the same time, students should be encouraged to act as referees in the teaching and competition links of practical courses.

2. Basketball skills

Basketball skills are a large part of the whole college students' basketball curriculum system, which is also an important part of this course model. The teaching content of Basketball skills includes Basketball Techniques and Basketball Tactics. For the OBE basketball teaching model, it is equally important to master the basketball technology and the theory of basketball technology, and equally important to master the theory of basketball tactics and the practical method of basketball tactics (Zhong Yawei, 2020). In other words, the core task of this course model is to master its principle and be able to flexibly use it to solve practical problems. For example, in the practice of passing and catching technology, auxiliary exercises for teaching competitions can be carried out, and the rules can be set as a game that can only pass and not dribble for shooting.

3. Physical

Building a "healthy China" is one of China's national development goals (Wen Hongze, 2021). Of course, the important task of improving the Physical education of college students falls on the physical education teachers (Li Yihao, 2021). Physical is very important in the whole curriculum system of college students, and it is also an important link in this curriculum model. The teaching contents of Basketball skills include fitness, force, speed, flexibility, and harmonization. In the course of teaching, the most advanced physical training methods should be introduced to explain and demonstrate. At the same time, students should be taught to play scientific sports. They not only train and improve Basketball skills in class but also urge and supervise students' running after class with the help of Walkway software. To help and guide students to develop scientific exercise habits.

4. Social Adaptability

Social Adaptability is the compulsory course of the student's growth journey the compulsory course here is not a course, but a must experience and necessary skills. Social Adaptability refers to people's psychological, physiological, and behavioral adaptive changes to better survive in society, a kind of





executive adaptability to achieve harmony with society (Lu Yuanzhen, 2001). At present, there have been a lot of studies in the academic circle to prove that sports can improve people's Social Adaptability. The Social Adaptability of this curriculum model is an invisible and latent element, including Interpersonal Adaptability, Psychological Adaptability Rule Adaptability. For example: In the teaching process, students are trained in Communication skills, Cooperation and coordination, Self-motivation, Rule Understanding, and Compliance through teaching competitions.

Recommendation

Based on the thorough analysis of basketball teaching models, particularly under the concept of Outcome-Based Education (OBE) in Xi'an universities in Shaanxi Province, the following recommendations are proposed:

1. Deep Integration of Theory with Practice:

Adopt OBE as it aligns with China's application-oriented talent training goals.

Combine basketball's theoretical and practical components. Integrating current advancements and breakthroughs in basketball theory can enhance understanding and application.

Utilize theoretical knowledge to address real-world basketball challenges. The active synergy between theory and practice can significantly enhance learning and kindle a student's interest in basketball.

2. Optimization and Innovation in Basketball Skills Teaching:

Employ higher basketball textbook theories as the foundational guide.

Capitalize on online teaching platforms, such as MOOCs for university students, to visually display advanced basketball techniques.

Establish a cohesive relationship between theoretical knowledge teaching and basketball skill instruction. This alignment can concurrently uplift students' theoretical understanding and practical prowess.

3. Path Enhancement for Physical Fitness:

Recognize the quintessence of fitness, strength, speed, flexibility, and harmony in elevating basketball performance and physical well-being.

Inculcate systematic and methodological fitness regimes during class: progressive exercise intensity, a blend of aerobic and anaerobic training, consistent monitoring through tools such as heart rate monitors, and promoting lifetime fitness habits like jogging.

Incorporate fitness evaluations into the basketball course assessments. This holistic assessment approach, which combines basketball theory, technique, physical fitness, classroom engagement, and attendance, can yield more comprehensive student evaluations.

Enhance and expand the available fitness equipment to facilitate an optimal physical exercise environment.

1. Augmentation of Social Adaptability:

Interpersonal Adaptability: Cultivate a communicative classroom environment promoting dialogues between peers and educators. Incorporate reverse class teaching techniques, allowing students to play the educator's role, and fostering collaboration and coordination skills. Design classroom activities that hone students' conflict resolution abilities.



Psychological Adaptability: Implement differentiated teaching strategies attuned to students' varying psychological needs. Offer positive reinforcement, especially to slower learners, instilling motivation and tenacity. Foster a collective sense of unity and perseverance.

Rule Adaptability: Engage students in judging roles during teaching competitions, fostering rule awareness and comprehension. Imbue students with basketball etiquettes like pre-game team handshakes, salutes to audiences, and post-game acknowledgments. This not only instills respect but also advances the rich tapestry of basketball culture ingrained with Chinese characteristics.

In essence, the recommendations emphasize the organic intertwining of theory with practice, the modernization of teaching methodologies, an all-rounded approach to physical fitness, and the nurturing of both interpersonal and psychological adaptabilities. By implementing these, Xi'an universities can be at the forefront of producing graduates ready to champion basketball both in skill and spirit.

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