Research on the Application of Blended Learning Models in College Sports Education Theoretical Courses

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Abstract: With the rapid development of information technology, traditional teaching models for theoretical courses in college sports education can no longer meet the learning needs of modern students. At the same time, changes in the teaching environment also require college teachers to reform teaching models to meet new teaching requirements. Facing the challenge of how to optimize shared teaching resources and improve teaching efficiency has become a difficult problem for college teachers in the new era. This paper will research the application of blended learning models in theoretical courses of college sports education from four aspects: demand orientation, instructional design, teaching effectiveness, and response strategies, aiming to provide references and lessons for the training of teaching talents in college sports education.

1. Demand Orientation of Blended Learning Models in Theoretical Courses for Sports Education Majors

1.1. Educational Orientation in the Information Technology and Internet Age

The advent of the information technology and internet age has had a profound impact on education and teaching. The model of education and teaching has shifted from traditional face-to-face instruction to online teaching supported by information technology. Therefore, theoretical courses in college sports education also need to integrate information technology and adopt a blended learning model to adapt to the educational orientation of the information technology and internet age. Blended learning models not only combine the advantages of traditional teaching, such as face-to-face lectures and interactive communication, but also integrate the benefits of modern information technology, such as online learning platforms and multimedia teaching. Under the blended learning model, students can freely choose the time and place for their studies, teachers can conduct remote teaching and online tutoring through online teaching platforms, and also expand and enrich teaching content through online resources[1].

1.2. Orientation towards the Optimization and Sharing of Educational Resources

The sharing and integration of educational resources to improve teaching effectiveness and resource utilization are the driving forces behind modern educational reform. With limited teaching resources in colleges, how to optimize and share teaching resources to improve teaching efficiency has become a challenge for college teachers. In traditional teaching models, the dispersion, duplication, and waste of educational resources are common, leading to a lack of support and assistance for students in their learning process and making it difficult for teachers to access comprehensive and high-quality educational resources. The blended learning model addresses this issue by sharing and integrating educational resources through online platforms, thus improving the efficiency and quality of resource utilization. Students can access rich and comprehensive educational resources online during their learning process, such as textbooks, teaching plans, exercises, audio-visual materials, etc., and can also interact with teachers and classmates to study, discuss, and solve problems together. Teachers can also share and publish teaching resources through online platforms, promoting the optimization and sharing of educational resources.

1.3. Changing Teaching Environments Lead to New Teaching Models

The teaching environment refers to the physical and virtual settings within the classroom. Traditional teaching environments are primarily composed of physical elements such as classrooms, desks, blackboards, and lecterns, with teaching resources mainly provided by teachers in the form of printed or electronic textbooks and PowerPoint presentations. However, as the teaching environment evolves, the traditional face-to-face teaching model no longer meets the learning needs of students. Changes in the teaching environment have led to the development of blended learning, where the emergence of virtual teaching environments enables students to learn anytime and anywhere. Blended learning adapts to the rapid development of MOOCs in the "Internet+" era and the needs of undergraduate teaching reform in new periods. Moreover, the blended learning model can flexibly switch between online and offline modes, effectively respond to emergencies, and ensure the continuity and stability of teaching. Through the blended learning model, students can freely arrange their learning time and location according to their own progress and needs, while teachers can interact with students online to enhance the teaching effect [2].

2. Blended Learning Design for Theoretical Courses in Sports Education Majors

2.1. Blended Learning Content Design for Theoretical Courses in Sports Education Majors

The blended learning content design for theoretical courses in sports education majors needs to fully consider the students' needs and the characteristics of the subject. The design mainly involves five key elements: clear teaching objectives, analysis of key points, diversified teaching resources, interactive teaching activities, and review and testing of key points, combining online and offline teaching content. The specific design is as follows (See Table 1):

Table 1 Elements of Blended Learning Content Design for Theoretical Courses in Sports Education Majors

Element	Instructional Content Design
Clear teaching objectives	Establish clear teaching objectives for each course, specifying the knowledge points and skills students need to master, and develop corresponding teaching content and strategies.
Key point analysis	Analyze course content to determine which parts are suitable for online learning, which need classroom instruction, and how to organize these components.
Diversified teaching resources	Teachers should select a variety of teaching resources, including text, audio, video, images, etc., to facilitate students' learning of course content in different settings.
Interactive teaching activities	Promote student communication and interaction through interactive teaching, such as pre-class task driving, classroom feedback, group discussions, online forums, etc., to increase student engagement and learning outcomes with the course content.
Review and testing of key points	Design online tests and exercises to help students consolidate learned knowledge points. Identify problems in students' mastery of course content promptly and correct them to improve learning outcomes.

The content design for blended learning in theoretical courses of sports education majors needs to accommodate both online and classroom teaching resources, designing diversified teaching resources. The blended learning content should be a series of tasks where students grasp the core knowledge of the course and can apply what they have learned in practice, receiving constructive feedback. Firstly, it's necessary to organize and filter the content of offline teaching, keeping the key content for classroom explanation; secondly, the content of online teaching should correspond to offline teaching to achieve deep integration. At the same time, it's important to focus on students' initiative and

participation in the course content design, enhance the interactivity of the course, encourage students to ask questions and discuss in class, increase the interest and practicality of the course, and improve students' participation and learning outcomes.

2.2. Platform Selection for Blended Learning in Theoretical Courses in Sports Education Majors

Choosing the appropriate platform is very important for blended learning, requiring consideration of the platform's features and characteristics, such as whether it supports online teaching and interaction, and whether it offers multimedia teaching functions, etc., to ensure a good user experience and a stable learning environment for students. For instance, some platforms may be more suitable for student communication and discussion, while others may be better for teachers to distribute assignments and exams. It is necessary to comprehensively consider course objectives, teaching content, and teaching methods to select the most suitable platform to support the implementation of blended learning. Blended learning platforms can generally be divided into self-built platforms and those utilizing third-party services. College physical education theory teaching needs to keep up with the times, changing its classroom teaching methods in the context of the internet and new media to promote better dissemination and application of knowledge. In practical teaching, college physical education theory teachers should break free from the constraints of traditional teaching concepts and adapt to the requirements of information technology education[2].

Self-built platforms require more human, material, and financial investment from schools or institutions. The advantage is that they can better customize the platform's functions and teaching processes, ensuring the security and confidentiality of teaching content, promoting the sharing and optimization of teaching resources within schools, and improving teaching outcomes. Third-party platforms offer greater convenience and popularity, with the advantage of providing many advanced teaching tools and resources. The downside might be data security and privacy concerns, requiring schools or institutions to evaluate and compare when choosing platforms. For example, platforms like China University MOOC, Yinghua Academy, Moodle, Edmodo, and other blended learning platforms are very popular.

2.3. Determination of Blended Learning Types for Theoretical Courses in Sports Education Majors

Table 2 Selection of Blended Learning Types for Theoretical Courses in Sports Education Majors

Type	Specific Manifestation
Flipped Classroom	Inverts the traditional teaching model by pre-positioning classroom teaching content and homework. Pre-class tasks drive learning on online platforms or other forms of practice discussion and inquiry, with in-class targeted explanations, guidance, and task feedback for interactive communication to deepen students' understanding and consolidate learning outcomes.
Blended Online Learning	Combines traditional face-to-face teaching with online learning. Students can use online learning platforms for online studies and task submissions, while also participating in face-to-face teaching activities, such as discussions, group activities, experiments, and practical work, to achieve learning objectives.
Collaborative Learning	A learning model where students learn from each other through group collaboration, discussions, etc., to jointly explore and solve problems. In blended learning, collaborative learning can be supported by online learning platforms or other forms of online learning resources to promote communication and cooperation among students.

The determination of the type of blended learning for physical education theory courses should take into account factors such as teaching objectives, teaching content, student characteristics, and course features. Common types of blended learning include flipped classrooms, online discussions, and group cooperative learning. Promoting a revolution in classroom teaching, actively spreading reflective-small class teaching, blended learning, and flipped classrooms based on network teaching

resources, and constructing a teaching model that combines online and offline elements can enhance the utilization rate of online platforms, reasonably increase student workload, and strengthen extracurricular learning guidance, which is conducive to improving learning outcomes (See Table 2) [3].

Based on the characteristics and teaching objectives of theoretical courses in sports education majors, suitable types of blended learning can be implemented. For example, for theoretical courses in sports education majors, a flipped classroom model can be adopted, where students are encouraged to pre-study and explore on online learning platforms before class, and then engage in interactive communication and deepening in class, breaking away from traditional rote teaching methods.

2.4. Assessment and Evaluation Indicators for Blended Learning in Theoretical Courses in Sports Education Majors

The assessment system for blended learning in theoretical courses in sports education majors is an important guarantee for teaching effectiveness. In the blended learning model, due to increased student participation and diversified teaching forms, traditional assessment methods may no longer fully meet students' needs. A reasonable evaluation system must be designed to ensure students' learning outcomes and teaching effectiveness (See Table 3).

Table 3 Assessment and Evaluation Indicators for Blended Learning in Theoretical Courses in Sports Education Majors

Evaluation Type (Weight)	Evaluation Method	Assessment and Evaluation Indicators	
Formative Evaluation (40%)	Offline	Classroom Performance (20%)	Attendance (10%)
	Online + Offline		"Star of the Week" Outstanding Students (5%)
	Offline		Pre-class Task Completion Feedback (2.5%)
	Offline		Group Discussion Outcome Sharing (2.5%)
	Online	Extracurricular Participation (20%)	China University MOOC, Micro-courses, etc., Learning Situation (5%)
	Online		Submission of Photos, Videos (5%)
	Offline		Extracurricular Reading Notes Excerpts (2.5%)
	Online		Participation in Online Forums (2.5%)
Summative Evaluation (60%)	Online	Course Mastery (60%)	Chapter Tests (5%)
	Offline		Comprehensive Exam (60%)

Under the blended learning model, the evaluation system also needs to change and adjust accordingly. The evaluation system should consider the integration of students' theoretical learning outcomes and practical operations, assessing students' participation in offline courses as well as their online learning situations and effectiveness, using various methods for evaluation, including online tests, online debates, small group projects, video submissions, etc., to comprehensively evaluate students' learning outcomes.

3. Effectiveness of Blended Learning Models in Theoretical Courses for Sports Education Majors

3.1. Blended Learning Models Enhance Students' Enthusiasm for Fragmented Learning

Blended learning models can effectively enhance students' enthusiasm for fragmented learning. Traditional teaching methods often require students to concentrate in class, but with increasing life and study pressures, students' available time and energy for learning have become more limited. Students are more adapted to learning in fragments anytime and anywhere through various channels.

This mode of learning not only demands teachers to provide teaching models that better match students' learning habits but also poses a challenge to teachers in choosing blended teaching paths (See Table 4).

Table 4 Impact of Blended Learning in Theoretical Courses for Sports Education Majors on Students' Enthusiasm

Impact Dimensions	Specific Positive Impact Manifestation
Flexible Time Arrangement	Online learning allows students to freely choose their learning schedule within different time slots, avoiding the issue of having to arrive at the classroom at a fixed time as in traditional teaching modes, enhancing the autonomy and flexibility of learning.
Diversified Learning Methods	The blended learning model offers a variety of learning methods, including videos, audio, images, etc., enriching students' learning experience, increasing their interest and enthusiasm for learning.
Personalized Learning Experience	The blended learning model allows for personalized teaching arrangements and guidance based on the students' learning situations and levels, enabling students to learn according to their needs and interests, thereby improving learning outcomes and enthusiasm.

Traditional face-to-face courses are limited by fixed teaching schedules and hours, imposing certain restrictions on students' time arrangements. Blended learning models can also provide students with more feedback and support. Online learning platforms usually offer functions for online discussion and interactive communication, where students can communicate with teachers and peers, sharing views and experiences to receive feedback and support. This process of interactive communication can encourage students to participate more actively in the course, enhancing learning outcomes [4].

3.2. Blended Learning Models Foster Higher Levels of Student Interaction and Participation in Professional Theoretical Instruction

Under traditional teaching models, students often play a passive role in receiving knowledge. With blended learning models, the level of interaction and participation between students and teachers is significantly enhanced. Online discussion platforms offer a channel for communication between students and teachers, where students can pose questions or concerns to teachers at any time and engage in exchanges and discussions with classmates for a better understanding of the course content. For example, teachers can use online polls or quick response activities to guide students in thinking about issues, thereby boosting classroom participation while fostering students' independent learning and creative abilities [5].

3.3. Blended Learning Models Effectively Promote the Deep Integration of Professional Theoretical Knowledge and Practical Exploration

The advantage of online learning is that it can provide more flexible learning modes and rich learning resources, including online courses, instructional videos, and online discussions, while offline teaching can offer students more realistic scenarios and experiences, such as experiments, field trips, and experiential teaching. Through this organic combination, students can better understand professional knowledge and integrate theoretical knowledge with practical operations, thereby forming a more comprehensive and in-depth professional competence (See Table 5).

Table 5 Paths for Effective Integration of Theory and Practice through Blended Learning Models

Integration Path	Specific Manifestation of Blended Learning Models
Utilizing Online Resources to Enrich Learning Content	Teachers can provide students with a wealth of learning resources, including courseware, videos, audios, and papers, offering robust support for students to delve into professional theoretical knowledge and practical exploration.
Utilizing Online Communication to Enhance Student Interaction	Enhanced student interaction through online discussions, blogs, WeChat groups, etc., fosters communication and cooperation among students, allowing them to explore professional theory and practice issues more profoundly, enhancing their thinking and innovation abilities.
Utilizing Offline Practice to Strengthen Student Abilities	Offline practice sessions can be used to strengthen students' practical skills, allowing them to apply theoretical knowledge in practice, deepening their understanding and mastery of professional knowledge, and improving their practical abilities and levels.

Blended learning models can also enhance students' innovation consciousness and practical skills. In the online environment, students can engage in innovative thinking and practice through course assignments and project design, while offline teaching provides opportunities for practical operations and experiences, allowing students to better transform theoretical knowledge into practical abilities.

4. Response Strategies for Blended Learning in Theoretical Courses for Sports Education Majors

4.1. Strengthening Quality Control of Online Learning in Blended Learning Models

Blended learning models require a comprehensive learning monitoring mechanism to ensure effective guidance and support for students during online learning. Schools can also set up teaching feedback mechanisms through online teaching platforms, guiding students to timely feedback on their learning experiences and course difficulties. For issues that receive more feedback from students, teachers can make targeted adjustments and optimizations (See Table 6).

Table 6 Quality Control of Online Learning in Blended Learning Models

Specific Monitoring Stages	Specific Monitoring Measures
Providing Clear Online Learning Guidance	Guidance on how to use online learning platforms, submit assignments, participate in online discussions, and tests. Develop a course plan and timetable, informing students in advance about the learning content and tasks.
Designing Effective Online Learning Activities	With a certain level of interactivity and engagement, ensure the design of activities aligns with course objectives, making sure online learning activities help students master professional knowledge and skills.
Offering Online Q&A Services	To assist students in resolving issues encountered during online learning, teachers need to provide online Q&A services, promptly answering students' questions to facilitate their learning process.
Monitoring the Online Learning Process	Teachers need to regularly check students' online learning progress and assignment submissions, promptly identifying and addressing issues in students' learning processes to ensure learning quality and academic integrity.
Conducting Online Learning Evaluations	Teachers need to evaluate students' online learning, including the quality of assignments, quality of discussions, and level of participation. Based on students' online performance, adjust the course design and teaching methods to enhance the effectiveness of online learning.

4.2. Enhancing the Development of Teachers' Application Abilities in Blended Learning Models

Schools can improve the level and quality of teaching and help teachers better apply information technology in teaching through teacher training and workshops, enhancing classroom interactivity and learning outcomes. Training content can include the use of blended learning platforms, selection and application of online teaching tools, course design and teaching evaluation in blended learning models, etc. In addition to training, schools can also provide technical support and instructional guidance, such as offering online teaching technical support to help teachers solve technical problems and difficulties. Schools can also organize teaching observation and exchange activities, encouraging teachers to learn from each other's experiences and continuously improve their application abilities and teaching levels.

4.3. Perfecting the Course Evaluation System for Blended Learning Models

Blended learning models require the establishment of a scientific course evaluation system for both quantitative and qualitative assessment of teaching quality. Schools can monitor and evaluate students' learning outcomes through a variety of assessment methods, such as online quizzes, assignments, discussions, etc., to timely identify and solve problems in students' learning (See Table 7).

Table 7 Course Evaluation System in Blended Learning Models

Primary Indicator	Secondary Indicator	Tertiary Indicator
Course Evaluation	Course Teaching Design	Scientific and Reasonable Design of Online and Offline Course Content
		Integrated Design of Online and Offline Course Structure
		Innovation in Online and Offline Teaching Methods
	Application of IT in Teaching	Construction and Integration of Online Teaching Platforms
		Reasonableness of Online Teaching Applications
Teacher Evaluation	Teaching Preparation	Online and Offline Teaching Design and Arrangement
		Application of Online and Offline Teaching Resources
		Offline Teaching Routines
	Teaching Process	Offline Teaching Organization
		Online and Offline Teaching Monitoring
	Teaching Outcomes	Achievement of Cognitive Goals in Online and Offline Teaching
		Achievement of Skill Goals in Online and Offline Teaching
		Achievement of Affective Goals in Online and Offline Teaching
Student Evaluation	Learning Attitude	Offline Classroom Learning Performance
		Online and Offline Learning Feedback
	Learning Outcomes	Mastery of Course Theoretical Knowledge
		Application of Practical Skills
		Enhancement of Professional Competence

The blended learning model for theoretical courses in sports education majors needs comprehensive research and exploration from aspects such as demand orientation, design, effectiveness, and response strategies. It is necessary to establish a diversified evaluation system adapted to blended learning to accurately assess students' learning outcomes, to better guide the teaching practices of students and teachers.

5. Conclusion

With the continuous development and popularization of information technology, the internet has become the main way for people to access information and interact. Blended learning models, using modern educational means such as multimedia and online teaching, enable the centralized integration and sharing of educational resources through online platforms. This transformation makes traditional teaching methods no longer suitable for the learning needs of modern students. Therefore, blended learning is a better model to adapt to students' learning styles and needs. By designing online and offline teaching content and relying on modern online platform resources, determining blended learning types suitable for the characteristics of sports education majors, establishing a diversified evaluation system adapted to blended learning, continuously optimizing teaching models and methods, we can enhance students' learning enthusiasm and outcomes, contributing to the improvement of the quality and level of talent cultivation in sports education majors.

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