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Exploration of University Inline Skate Ball Classroom Models

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Abstract: This paper explores an innovative teaching model for university inline skate ball classes, aimed at enhancing teaching efficiency and student motivation. Through theoretical analysis and pedagogical design principles, this study introduces a blended learning model that combines online teaching resources with physical classroom interaction to enrich the student learning experience and skill acquisition. The paper also discusses strategies for implementing this teaching model and the expected improvements in educational outcomes.

1. Introduction

With the diversification of sports and student interests, traditional physical education models face challenges, especially in teaching technically demanding sports like inline skate ball. This paper proposes a new teaching model designed to better meet students' learning needs and enhance teaching efficiency and student skill proficiency.

2. Theoretical Foundation for Innovation in Teaching Models

2.1. Analysis of Current Teaching Models

In traditional university physical education, inline hockey, as an emerging sport, primarily relies on face-to-face instruction and imitation learning. This model effectively imparts basic skills initially, but its limitations become apparent with higher skill levels. The main issues are: firstly, limited teacher resources cannot meet students' individualized learning needs; secondly, the lack of immediate feedback and personalized guidance makes it difficult for students to specifically improve their techniques; thirdly, classroom interaction is monotonous, lacking innovation and engagement, which fails to stimulate students' interest and enthusiasm.

Moreover, traditional teaching models have not fully utilized modern information technology resources, leading to relatively outdated teaching content and methods. This not only restricts the speed of skill improvement among students but also affects the maximization of teaching effectiveness. Thus, exploring and innovating new models suitable for inline hockey instruction has become essential for enhancing the quality of university physical education.[1]

2.2. Theoretical Support for Blended Learning

Blended learning, which effectively combines traditional face-to-face instruction with online learning, offers a new educational approach. It not only retains the advantages of direct communication from traditional teaching but also leverages the benefits of digital technology in resource sharing, interactive feedback, and learning flexibility. Blended learning theory emphasizes the design of personalized learning paths, using technological means to monitor and guide students' progress and performance in real time, thereby enhancing learning efficiency and outcomes.

In the teaching of technically demanding sports like inline hockey, the application of blended learning has significant advantages. Firstly, the online platform provides numerous video tutorials and technical analysis tools that help students independently learn off-class, deepening their understanding and mastery of technical moves. Secondly, through online interactive platforms, teachers can instantly understand students' learning conditions and provide personalized guidance and feedback, effectively addressing the issue of limited teacher resources in traditional models. Finally, blended learning enhances the fun and interactivity of teaching, helping to increase student participation and motivation.

Therefore, blended learning not only provides theoretical support for technically intensive sports like inline hockey but also offers a viable path for innovation in university physical education models. By deeply exploring and applying blended learning theory, it is possible to significantly enhance teaching quality and student skill levels, further advancing the development of university physical education.

3. Design of Blended Interactive Teaching Model

In the modern educational environment, especially for the sport of college-level inline hockey, which has distinctive technical features and demands high participation, traditional teaching methods no longer meet the personalized and diverse learning needs of students. Therefore, the blended interactive teaching model proposed in this paper aims to create a flexible, interactive, and personalized learning environment by effectively integrating online resources with offline interactions, thus promoting active learning and skill enhancement among students.

3.1. Framework of the Teaching Model

The core of the blended interactive teaching model lies in the effective integration of online resources and offline interactions, emphasizing the importance of personalized learning paths and systematic feedback mechanisms. The key components of this framework include.

3.1.1. Pre-course Learning

Utilizing the rich teaching videos and materials provided on online platforms, students can autonomously master the basic knowledge and skills of inline hockey before the formal face-to-face classes. This stage aims to ensure that students are fully prepared and have a solid understanding of the upcoming learning phase, laying a strong foundation for further in-depth study. Through this pre-learning model, students can adjust their learning pace, thus maximizing their personal learning efficiency.

3.1.2. Face-to-Face Interactive Courses

This segment focuses on customizing face-to-face course content based on the progress and feedback from students' online learning, incorporating various teaching methods such as group

discussions, case analysis, and practical drills. These methods aim to enhance students' classroom participation and strengthen their practical skills and teamwork capabilities. In this process, teachers act as guides and coordinators, flexibly adjusting teaching strategies and content based on students' feedback and learning situations to achieve the best teaching outcomes.[2]

3.1.3. Personalized Learning Paths

Considering the differences in students' learning progress, skill mastery, and personal interests, teachers in conjunction with a Learning Management System (LMS) customize individualized learning plans for each student. These plans not only include objectives and paths for skill enhancement but also cover directions for knowledge expansion and deepening. The design of personalized learning paths aims to guide students to selectively choose learning resources and activities based on their own conditions and needs, thereby achieving self-improvement during the personalized learning process.

3.1.4. Real-Time Feedback and Assessment

In the blended interactive teaching model, real-time feedback and assessment are crucial for ensuring teaching quality and student learning outcomes. With integrated Learning Management Systems (LMS) and various analytical tools, teachers can monitor students' learning progress, engagement, and skill acquisition in real-time. These technological tools make the feedback process more precise and timely, allowing teachers to provide personalized guidance and support based on the specific needs of each student.

Furthermore, through regular online quizzes and practical skill drills, students' learning outcomes can be effectively assessed, while also encouraging students to reflect on their learning methods and progress. This assessment not only includes the level of skill mastery but also involves students' problem-solving and teamwork abilities, providing a more comprehensive reflection of their overall capability enhancement.

In summary, real-time feedback and assessment mechanisms not only promote students' self-improvement and autonomous learning but also provide valuable information for teachers to continuously optimize teaching content and methods, ensuring that teaching activities are more closely aligned with students' actual needs and development trends, thereby achieving optimal teaching outcomes.

3.2. Application of Technological Tools

In the modernization of university inline skate hockey classes, the blended interactive teaching model is becoming an innovative educational trend due to its flexibility and efficiency. The essence of this model lies in integrating traditional teaching with modern technological tools, thereby optimizing the learning process and enhancing teaching effectiveness. Below are applications of several key technological tools that form the cornerstone of implementing the blended interactive teaching model.

3.2.1. Video Analysis Tools

The introduction of video analysis tools is particularly crucial for teaching inline skate hockey, a sport demanding high technical precision and detailed movements. Through high-definition instructional videos combined with advanced video analysis software, students can watch technical movements repeatedly without the constraints of time and place. They can even perform slow-motion replays and frame-by-frame comparisons to thoroughly analyze and understand every detail of the

movement. This deep observation and analysis enable students to grasp technical essentials more accurately, significantly enhancing learning efficiency and movement precision.

3.2.2. Online Interactive Platforms

Online interactive platforms provide a real-time space for communication and feedback between students and teachers. On these platforms, teachers can post course assignments, video materials, and tests, while students can submit assignments, take tests, and share learning insights. More importantly, these platforms support real-time discussions, allowing students to pose questions promptly and teachers to provide immediate feedback. Moreover, the interaction among students significantly promotes the socialization process of learning, increasing the enjoyment and interactivity of their educational experience.[3]

3.2.3. Learning Management Systems (LMS)

As a comprehensive learning resource management tool, Learning Management Systems (LMS) can track and record students' learning activities, such as study time, task completion, and test scores. By analyzing these data, LMS provides personalized learning recommendations and resources for each student, aiding them in self-adjustment and optimization along their learning paths. Additionally, LMS offers teachers an efficient course management platform, making the updating and distribution of teaching resources more convenient and effective.

Combining the applications of these technological tools, the blended interactive teaching model offers a new instructional solution for university sports courses like inline skate hockey. This model not only enhances students' learning motivation and efficiency but also strengthens the interaction and communication between students and teachers, providing a more open, interactive, and personalized learning environment. Through this innovative teaching model, we have reason to believe that students' skill acquisition and overall quality will see significant improvement.

3.3. Teacher Roles and Student Participation

The application of the blended interactive teaching model in university inline skate hockey courses not only revolutionizes students' learning methods but also sets new demands for teachers' roles and teaching methods. This model emphasizes closer interaction and cooperation between teachers and students as well as among students, aiming to promote effective skill and knowledge acquisition through a more flexible and interactive learning environment.

3.3.1. Transformation of Teacher Roles

In the blended interactive teaching model, the role of teachers fundamentally shifts from traditional knowledge transmitters to facilitators, guides, and coordinators of learning. This shift means teachers are no longer the sole source of knowledge in the classroom but become guides and partners in students' learning processes. Teachers need to use various technological tools to design and implement educational activities, encouraging students to actively explore and solve problems, while providing personalized feedback and support. Moreover, teachers are also tasked with managing both online and face-to-face learning environments to ensure that all students can participate effectively and benefit from the education provided.

3.3.2. Encouraging Active Student Participation

Under the blended interactive teaching model, it is particularly crucial to stimulate students' active participation. To achieve this, teachers can use technological tools such as online discussion boards,

interactive polls, and simulation games to design activities that are both challenging and engaging for students. Through these activities, students not only apply and reinforce their knowledge but also discover and solve problems in practice. Teachers should also encourage students to set personal learning goals and provide continuous progress tracking and feedback, helping students recognize their growth and enhance their intrinsic motivation.[4]

3.3.3. Promoting Collaborative Learning Among Students

Collaborative learning is another significant feature of the blended interactive teaching model, which can greatly improve learning efficiency and foster the development of social skills. To promote collaborative learning among students, teachers can create diverse team tasks requiring students to solve problems or complete projects while learning inline skate hockey skills and theoretical knowledge. By assigning different roles and responsibilities, each student can contribute their strengths within the team and learn from others' feedback and perspectives. Additionally, utilizing online collaboration tools, such as cloud documents and video conferencing software, allows students to collaborate effectively without geographical constraints, further enhancing the flexibility and interactivity of learning.

Through the repositioning of teacher roles and the reinforcement of student active participation and collaborative learning, the blended interactive teaching model provides a novel educational strategy for university inline skate hockey courses. This strategy not only elevates students' skill levels and knowledge mastery but also significantly boosts their learning motivation and engagement. Through real-time interaction and feedback, students can adjust their learning strategies on the fly, more effectively overcoming challenges in learning. Additionally, the promotion of collaborative learning also cultivates students' teamwork abilities and communication skills, laying a solid foundation for their future careers and social lives. Ultimately, this teaching model is not just a reform of inline skate hockey teaching methods but a creative attempt at transforming the entire university sports education model, pointing towards the future direction of education.

4. Implementation Strategies and Effectiveness Assessment of the Teaching Model

4.1. Implementation Steps

4.1.1. Preparation Phase

During the preparation phase, the first step is a thorough analysis of students' learning needs and skill levels. This step ensures that the teaching content and methods precisely meet the students' actual needs, thereby enhancing teaching efficiency and learning outcomes. Next, the focus is on integrating and developing resources suitable for blended interactive teaching, including but not limited to creating high-quality instructional videos, setting up online course platforms, and preparing interactive tools. The integration of these resources aims to provide students with a variety of learning materials and opportunities for interaction. Finally, based on the preparation of the previous steps, teachers need to design a detailed teaching plan covering the overall course structure, specific learning activities, and mechanisms for assessment and feedback, ensuring the achievement of teaching goals.[5]

4.1.2. Execution Phase

The formal start of the course during the execution phase marks the practical operation of the blended interactive teaching model. This phase combines online and offline teaching activities, offering students flexible learning methods. Teachers play a crucial role in this process, not only

continuously monitoring students' learning progress but also providing necessary academic and technical support to ensure that each student can keep up with the course, fully understand, and master the knowledge. Furthermore, fostering interaction and collaboration among students and between teachers and students is a vital task in this phase. Through online discussions and group assignments, teachers can effectively stimulate students' learning interests and participation, thus enhancing learning outcomes.

4.1.3. Feedback and Adjustment Phase

Continuous improvement during the teaching process is crucial for ensuring teaching quality. In the feedback and adjustment phase, teachers collect feedback from students and educators using surveys, interviews, and analysis of learning data. Analyzing and evaluating this information is vital for identifying strengths and weaknesses in the teaching process. Based on this evaluation, teachers can specifically adjust teaching content, strategies, or technological tools used to better meet students' learning needs. Additionally, viewing this evaluation and adjustment process as an ongoing cycle helps to continuously optimize the teaching model, thereby improving teaching effectiveness and student satisfaction.

Through these carefully designed and implemented steps, the blended interactive teaching model can be effectively applied in university inline hockey courses, not only enhancing students' skill levels but also igniting their learning enthusiasm, improving learning efficiency and satisfaction, and achieving high-quality educational goals.

4.2. Effectiveness Assessment Methods

4.2.1. Skill Enhancement Assessment

Under the blended interactive teaching model, the enhancement of students' skills is a core indicator of teaching success. We use a series of assessment tools, including but not limited to practical operation tests, skill demonstrations, self-assessment, and peer evaluation, combining quantitative and qualitative methods to precisely assess students' skill enhancement in inline hockey. Special emphasis is placed on assessing higher-order skills such as strategy application, teamwork ability, and rule understanding to ensure students comprehensively master the skills of inline hockey. This assessment not only reveals the students' learning outcomes but also provides feedback to teachers, helping them refine and optimize the teaching plan to meet students' personalized learning needs.

4.2.2. Motivation and Satisfaction Assessment

The comprehensive effectiveness assessment focuses on the impact of the blended interactive teaching model on students' academic performance, personal growth, and overall learning experience. By comparing students' academic achievements and progress, we can directly observe the effects of the teaching model on knowledge acquisition and skill enhancement. Furthermore, by summarizing feedback from teachers, students, and educational administrators, and through in-depth analysis of typical learning cases, we comprehensively assess the suitability, advantages, and potential improvements of the teaching model. This multi-angle, multi-level comprehensive assessment not only verifies the effectiveness of the blended interactive teaching model in university inline hockey courses but also provides important references and insights for future teaching practices and research.[6]

4.2.3. Comprehensive Effectiveness Assessment

The comprehensive effectiveness assessment focuses on the overall educational outcomes of the blended interactive teaching model, including students' academic achievements, progress, and the broader impact of the teaching model. Analysis of grades and progress directly reflects changes in students' knowledge acquisition and skill enhancement. At the same time, by summarizing teaching feedback and case studies, we can deeply understand the suitability and effectiveness of the teaching model in different teaching environments and among different student groups. This comprehensive assessment not only helps teachers and educational administrators grasp the overall effect of the teaching model but also provides valuable experience and insights for teaching practice, thereby promoting continuous improvement and innovation in teaching models.

5. Conclusion

The blended interactive teaching model proposed in this article provides an innovative teaching solution for university inline hockey classes. By combining online and offline teaching resources and activities, this model effectively enhances students' learning motivation, participation, and skill mastery. Preliminary implementation results show that students are highly satisfied with the blended learning model, and significant skill improvement is evident. Therefore, the application of this teaching model not only provides a new perspective for inline hockey teaching but also offers a viable reference for innovating teaching models in other sports, contributing to the advancement of university sports education.

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Research on the "Three-Classroom" Model of Provincial Top-Level Inline Skate Ball Courses and the Cultivation of University Students' Innovative and Entrepreneurial Abilities (jw2023016).

References

[1] Jun Tian. Exploration of innovative teaching models for college inline skating courses [J]. Sports Goods and Technology. 2019(20): 85-86.
[2] Shen Ma. Reform and practice of inline skating courses under the perspective of course ideology and politics [J]. Journal of Social Sciences of Jiamusi University. 2022, 40(04): 246-248.
[3] Siqiao Zheng, Xunleng Huang. Research on inline skating course development under the teaching model of university sports clubs [J]. Journal of Shaoguan University. 2023, 44(02): 79-84.
[4] Aichen Zhang. Research on tactical training in inline hockey [J]. Popular Standardization. 2021(01): 101-102.
[5] Ruiqing Xie. Research on the development of inline hockey in China under the context of "rotational ice" [J]. Innovation in Ice and Snow Sports. 2023(10): 10-12.
[6] Lingyu Zhang, Chenguang Han. Improving the quality of inline skating teaching and addressing sports injuries in general colleges [J]. New Sports. 2023(22): 70-72.