

Analysis and Study of Innovative Teaching Models in Table Tennis Education in Higher Education Institutions

Qiao Song

Central University of Finance and Economics, Beijing 054199, China.

Abstract: This paper addresses the existing challenges in table tennis education within Chinese higher education institutions by conducting a comprehensive study on table tennis teaching models. The emphasis is placed on the integration of information technology, the implementation of experiential learning, the application of diversified teaching methods, and the promotion of interdisciplinary integration. The paper introduces innovative solutions with the goal of providing valuable insights for table tennis education in Chinese higher education institutions.

Keywords: Higher Education Institutions; Table Tennis; Teaching Innovation Models; Interdisciplinary Integration

Introduction

In China, the current landscape of table tennis education in higher education institutions displays diverse characteristics while encountering common trends and challenges. Traditionally, the teaching model has predominantly centered on technical training, with teachers frequently adopting a “lecture-demonstration-practice” method that emphasizes the standardization of basic movements and repetitive exercises. Although this approach aids students in mastering fundamental skills, it can lead to monotonous teaching content, lacking in interest and hindering the stimulation of students’ learning enthusiasm and autonomy. Amid evolving educational philosophies, an increasing number of higher education institutions are exploring flexible and diverse teaching methods. For example, some institutions are embracing group cooperative learning, encouraging interaction and collaboration among students. This not only enhances technical proficiency but also fosters teamwork and social skills. Concurrently, the integration of information technology opens up new possibilities in table tennis education, incorporating tools such as video analysis and online teaching platforms to enhance interactivity and interest in teaching. Nevertheless, the implementation of these innovative models faces challenges related to resource allocation and teacher training. In summary, the table tennis education model in Chinese higher education institutions is gradually transitioning from a traditional teacher-centered approach to one that emphasizes individual differences and student experiences. However, this transformation necessitates time and further practical exploration.

1. Incorporating Information Technology

In the process of integrating information technology into the table tennis education model in higher education institutions, educators can employ a series of innovative methods. Firstly, high-speed cameras and motion analysis software can be utilized to capture detailed movement aspects of students. These technologies accurately record key parameters such as posture, force, and angles during students’ ball strikes, providing teachers with more targeted teaching references. Secondly, educators can establish online teaching platforms where table tennis instructional videos, lesson plans, and interactive courses are uploaded. By enabling students to study independently outside of class, it reinforces the knowledge they have acquired in the classroom. Moreover, these platforms support students in uploading their practice videos, allowing teachers to provide online comments and feedback, achieving personalized and immediate teaching. Virtual reality technology can be utilized to simulate various game environments and opponents, offering a highly interactive experience that allows students to engage in real-life scenarios within a virtual space. This immersive approach greatly strengthens their comprehension of game strategies and technical applications. Simultaneously, teachers can use data analysis tools to conduct in-depth analysis of students’ training data, accurately assessing their progress and challenges to formulate more suitable training plans. The integration of these technologies not only enriches teaching methods and content but also makes table tennis education more efficient and modern. Through such innovation, table tennis education in higher education institutions is progressing towards a more technological and intelligent direction.

2. Emphasizing Experiential Learning

The focus on experiential learning is mainly shown through the placement of students in a dynamic and interactive learning environ-

ment. Under this model, teaching goes beyond traditional lectures and demonstrations, creating a more vivid and practice-oriented learning scenario. To achieve this, educators can design a series of practical activities, such as role-playing competitive matches, skill challenge contests, and team-based table tennis competitions. These activities require students to apply and practice their table tennis skills while encouraging them to make quick decisions and strategic adjustments in real or simulated match environments. In this process, students experience the intensity and joy of table tennis matches firsthand, simultaneously learning communication and teamwork through collaboration and competition with teammates. Furthermore, educators can provide assistance to students through self-reflection and peer evaluations, enabling them to critically analyze their approaches and strategies from various viewpoints, leading to a more profound comprehension of the fundamental principles of table tennis. This teaching method encourages active student participation and independent exploration, making the learning process more dynamic and meaningful. Through experiential learning, table tennis education becomes more than just imparting skills; it transforms into a comprehensive sports experience covering aspects such as technique, strategy, psychology, and teamwork.

3. Diversifying Teaching Methods

Innovation in diversified teaching methods lies in the enrichment and diversification of teaching means and strategies. Teachers have the flexibility to employ a range of teaching strategies in order to suit the diverse learning needs and styles of students. Firstly, diversified teaching methods include flipped classrooms, where students learn basic table tennis knowledge and skills through reading materials or watching videos before class. Classroom time is then used for practical exercises and discussion. This method provides more opportunities for practice, encouraging students to actively participate under the guidance of teachers rather than passively receiving knowledge. Secondly, case-based teaching is another crucial aspect of diversified teaching. Teachers can analyze real or fictional table tennis match scenarios, helping students understand the application of match strategies, decision-making, and tactics. Studying practical cases helps students develop their analytical and problem-solving skills. Furthermore, peer teaching is included as one of the various teaching approaches, promoting students' communication and collaboration as they observe, provide feedback, and mutually evaluate each other to enhance their abilities and strategies in table tennis. In conclusion, arranging simulated table tennis matches and competitions can help motivate students to put their acquired knowledge into practice in a simulated match setting, ultimately strengthening their technical skills and decision-making abilities through competitive play. These diversified teaching methods effectively meet the diverse needs of students, making the table tennis education model more flexible.

4. Interdisciplinary Integration

To innovate the table tennis education model in Chinese higher education institutions through interdisciplinary integration, educators need to organically combine knowledge from different disciplines with table tennis education, making education more comprehensive and diverse. Firstly, the integration of psychology with table tennis education can help students better understand and manage match pressure. Teachers can instruct students in anxiety management techniques, attention control, and methods for psychological adjustment to improve their performance in matches. Secondly, the fusion of health education with table tennis education allows teachers to instruct students on nutrition, diet, injury prevention, and knowledge related to physical health to help them maintain good physical fitness. Knowledge from sports science can be used to explain the principles of table tennis techniques and body movements, helping students better understand and apply these techniques. Additionally, sociology can be employed to analyze the social and cultural background of table tennis as a competitive sport, teaching students about sports ethics and principles of fair competition. The integration of these interdisciplinary elements greatly enriches the content of table tennis education, enabling students to view table tennis from different perspectives and making the table tennis education model more comprehensive and profound.

5. Conclusion

The table tennis education model in higher education institutions is currently facing significant opportunities for reform and innovation. Universities should adopt innovative strategies such as integrating information technology, implementing experiential learning, applying diversified teaching methods, and engaging in interdisciplinary integration. These approaches strive to consistently enhance the teaching material, ignite students' curiosity in learning, and improve their overall skills and abilities. The goal is to make table tennis education more

technological, modern, and comprehensive.

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About the author:

Qiao Song is a male lecturer from Zibo, Shandong, of Han Nationality. His research direction for his Master’s degree is Physical Education Teaching and Sports Training.