



Research on the Teaching Model Focusing on Micro-courses in Sports Mixed Teaching Under the Club Model

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Abstract. This paper mainly summarizes the application of sports club teaching in China and foreign countries, the policy basis and significance of sports mixed teaching, as well as the problems in sports teaching and specific solutions using mixed and micro-course trinity teaching.

Keywords: Sports club teaching · Micro-course teaching · Mixed physical education teaching model

1 Introduction

In the era of highly developed Internet information, communication tools such as smart phones have brought great convenience to the learning of knowledge. In the context of knowledge networking, micro-courses emerge naturally with the development of the times and are favored by educators and students. “Micro-course teaching, flipped classroom, project teaching and discussion teaching have become the main teaching models” [1].

With the continuous advancement of the reform of physical education in Chinese colleges and universities, colleges and universities around the country closely follow the reform trend of the physical education model, and carry out the reform of the physical education model to varying degrees according to the school's own school-running characteristics and sports hardware conditions in order to meet the requirements of the talent training plan in the new era and actively explore more effective physical education methods that are more suitable for the physical and mental characteristics of contemporary college students. The club teaching model has been better improved in China [1]. In recent years, the application and improvement of the sports club teaching model have adapted to the interests and needs of learners. This teaching model has played an active role in promoting the reform of physical education teaching in Chinese colleges and universities. This paper uses the literature review method and logical analysis method to analyze the application of the mixed teaching model of micro-course teaching + sports club teaching in college physical education teaching, in order to propose teaching strategies with reference significance.

2 The Application of Sports Club Teaching

Sports clubs have long been used in the West in the 19th century. It is the main organizational form of a series of sports activities, including university physical education, implemented in many developed countries in the world. With the continuous promotion and development of sports clubs, the physical education teaching in colleges and universities around the world has gradually changed from a compulsory physical education course to a sports club teaching model, conforming to the development trend of club sports. Japan imitated the practice of European countries and gradually changed the compulsory physical education courses in colleges and universities into the club physical education teaching model. Subsequently, South Korea followed the reform steps of developed countries in Europe and Japan, abolished the compulsory measures for compulsory physical education courses in colleges and universities [2], and gradually transformed compulsory physical education courses in colleges into the club physical education teaching model. This model has greatly improved the students' self-learning ability and interest in sports knowledge and exercise methods in the above countries. At the end of the 20th century, Chinese colleges and universities also began to pay attention to and introduce the sports club model, which also triggered a new starting point for the study of sports reform in Chinese colleges and universities, and some new landmark topics quietly emerge. Relevant scholars have also published many journal papers and master theses. The main academic papers on the Chinese research status of this paper are as follows. The article "Study on the Management Mode of Sports Clubs in Henan Colleges" conducts a follow-up comparison of the students of college club teaching and traditional teaching through a questionnaire survey. This research shows that club teaching helps students maintain interest in physical exercise and develop physical exercise habits, playing a good role in cultivating college students' lifelong sports awareness and habits. The article "Research on the Components of Club Physical Education Teaching Model—Application of Club Physical Education Teaching Model in Colleges and Universities" believes that, the club physical education teaching model is a special course physical education teaching that introduces the club management mode and management methods. The teacher's teaching is fixed and the students can freely choose the physical education teaching process. In order to strengthen the construction of the soft and hard environment for sports in colleges and universities and provide students with a broader socialization space, the article "Research on the Status and Development of Football Clubs of Beijing University of Chemical Technology" explains that sports clubs are organizations that carry out sustainable physical activities to promote health and harmony. The significance and implementation of the paper defines club teaching as a teaching organization. This paper investigates and thinks about the implementation of sports club teaching model in colleges and universities and believes that club teaching is a model of organizing sports activities in the classroom according to students' abilities under the guidance of lifelong sports, quality education and the concept of health first, the main purpose of which is to satisfy the students' interest in sports, develop the learners' sports ability, cultivate the learners' sound personality and life, and discuss the independent team teaching method under the sports club teaching model. The overview of papers mainly includes "On the Significance and Implementation of Sports Club Teaching".

There are also some articles that mainly define the teaching concept of college physical education club and discuss its necessity, development trend and positive significance.

2.1 Policy Basis and Significance of Mixed Teaching

2.1.1 Policy Basis

In 2019, the Implementation Opinions of the Ministry of Education on the Construction of First-class Undergraduate Courses (Jiaogai [2019] No. 8) put forward requirements for the creation of five golden courses [2]: “The first is the offline golden course, the second is the online golden course, the third is the online and offline mixed golden course, the fourth is the golden course of virtual simulation, and the fifth is the golden course of social practice” [3]. It provides a fundamental guarantee in terms of policy basis.

It actively responds to the requirement of the Ministry of Education to create “golden courses” and provides relevant theoretical support and cases for promoting public physical education. The club online and offline mixed physical education teaching model has turned some students from spectators into event participants and gradually increased the number of college students participating in sports activities [3]. It promotes the effective development of mixed teaching, continuously improves mixed teaching on the basis of meeting needs, achieves remarkable results, effectively ensures that students have early access to excellent volleyball teaching videos and cutting-edge teaching concepts at home and abroad, and contributes to the development of college physical education teachers’ teaching ability and innovation ability.

2.1.2 The Significance of Sports Mixed Teaching

2.1.2.1 Theoretical Significance

It supplements the theoretical and practical significance of online and offline mixed teaching of physical education clubs, provides a reference for the research on sports club teaching and mixed teaching model in colleges and universities, and contributes to the research on the theoretical system of college physical education reform.

In traditional teaching, sometimes due to reasons such as older teachers, poor teaching environment, substandard teaching hardware conditions, or complicated technical movements, teachers’ demonstration movements are not standardized and students cannot see clearly. The emergence of micro-videos at this time is a timely help [4]. For example, when teachers demonstrate technical movements in Taekwondo or martial arts classes with complex teaching content such as horizontal bar gymnastics and parallel bars gymnastics, if they demonstrate at a slow speed, it will be difficult to complete, and if they demonstrate at a normal speed, it will be difficult for students to see clearly. Here, the multi-angle slow decomposition demonstration of micro-videos can easily solve this problem. Another example is the demonstration of tactical cooperation in basketball and other sports, which requires a large number of participants. If there is one small mistake, much time will be wasted. Using tactical boards and micro-course videos, students can selectively watch standard and classic sports technical movements through the mobile micro-course platform as needed. It can demonstrate movements

from different angles and links and slow down and magnify details, so that students can see more clearly, understand more deeply, and establish correct movement images as soon as possible, bringing great convenience to the movement demonstration of physical education teachers who are elder, in poor physical condition and with reduced athletic ability [5].

2.1.2.2 Enhancing Students' Autonomous Learning

When teachers guide students in cooperative inquiry learning, different groups of students may have different problems and teachers cannot control the overall situation. At this time, the role of micro-courses can be brought into play. The group can watch the video repeatedly, thinking and analyzing it over and over again. In guided tours, teachers can selectively inspire and guide students to maximize classroom efficiency.

When students practice in groups, especially when they practice in different levels, it is time-consuming and laborious for teachers to explain group by group. At this time, teachers can use the micro-video to show different practice content and practice requirements, and the students can see them at a glance. Problems can be easily solved when students need to learn and practice independently. The biggest role of micro-courses is to promote students' autonomous learning [1]. In this learning process, many tasks undertaken by teachers in traditional teaching have been replaced by micro-courses and there is no need for teachers to educate and guide throughout the process. Teachers can conduct micro-course teaching according to the learning objectives and release the learning task list, so that the students can complete their own learning tasks independently with learning objectives according to their own time conditions. Then teachers use a lot of time in the classroom to guide the students to practice, find out the problems in the students' practice in time, and use the micro-video to correct and strengthen the correct technical movements in time, so that the students can learn more interestingly and practice more actively.

In addition, when it is necessary to record and give feedback to students' practice, the mobile phone can record and play videos in real time to record students' practice, guide students to observe and study, and provide material guarantee. The situation where students practice is fleeting. It is a very intuitive and timely teaching method to use equipment to record and screen the typical movements practiced by students, and then play these movements to guide students to observe. In this way, students can see clearly and carefully and have timely and corresponding feedback for each exercise and learn solidly. The learning effect is far better than the repeated display of students' practice situations, and it can also urge students to practice seriously. This can make the learning process of students more concise and effective and create favorable conditions for deepening the depth of knowledge and improving the ability of technical analysis. Teachers can also arrange online self-study tasks and homework related to relevant techniques, so that students can learn independently. Teachers track evaluation and guidance throughout the process, and accurately and effectively grasp and understand the misunderstandings and deficiencies of students in autonomous learning, laying a good foundation for offline compensatory teaching. Through self-study, students can understand and become familiar with relevant technical movements in advance. In flipped teaching, teachers use the time of traditional teaching explanations and demonstrations for practical training,

which can effectively increase students' activity time and at the same time reduce teachers' over-fatigue in the teaching process to a certain extent. Teachers mainly solve the problems encountered by students in self-study, correct students' wrong technical movements in training, and provide targeted guidance to students who lack self-study ability when necessary, so as to improve teaching efficiency.

2.1.2.3 Improving the Teaching Atmosphere

Due to the pressure of the examination mechanism in traditional physical education, the process and environment of teaching and learning are relatively fixed and urgent. Teachers impart fixed physical knowledge and skills according to the teaching plan and students complete fixed training tasks as required. In this way, the learning content and methods are solidified and students cannot learn and explore independently or effectively improve their comprehensive sports quality. This not only makes it impossible for students to deeply understand the connotation and significance of physical education activities, but also fails to master the techniques and methods of physical education.

Traditional physical education methods don't adapt to the personality characteristics of contemporary college students and even affect students' enthusiasm to participate in sports to a certain extent, which will lead to students' resistance to physical education courses, which is obviously very unfavorable to the realization of physical education teaching objectives in colleges and universities in the new era.

The mixed teaching model of micro-course teaching + sports club teaching is not limited by time and space, creating enough space for students' sports cognition and practice anytime and anywhere, making students' learning more flexible and convenient, changing passive learning into active learning, making students actively complete physical education teaching goals, cultivating and strengthening their physical education self-study ability [6], consolidating and developing students' comprehensive level of physical education, and improving the atmosphere of physical education teaching. This can also strengthen interpersonal communication between students, cultivate and develop students' social communication skills, improve students' learning motivation, and activate the teaching atmosphere.

The mixed teaching model of sports club teaching + micro-course takes lifelong sports as the main line, adopts in and out of class integration, makes extracurricular exercise an extension of classroom teaching, "extends the physical education of college students to the whole process of higher education" [4], and promotes the construction of campus sports culture, which can be conducive to cultivating students' awareness and interest in exercise, cultivating students' awareness and interest in autonomous learning, "giving full play to the individual's physical ability and combining the university's talent training goals with the interests and hobbies of college students, so as to cultivate and establish students' lifelong sports awareness" [5], mastering 1–2 skills and methods for long-term physical exercise and laying the foundation for lifelong health.

2.2 *The Application of Sports Micro-courses*

"Micro-course, also known as micro-lecture, is a situational teaching method designed and developed for a certain subject knowledge point or teaching link with micro-teaching video as the main carrier. Micro-course refers to the short and complete teaching activities

carried out by teachers around a certain knowledge point or teaching link with video as the main carrier” [1].

“Sports micro-courses include categories of theoretical teaching, technical teaching, tactical demonstration, experimental teaching, sports appreciation, sports publicity, and teaching links” [1]. Compared with other disciplines, the most obvious feature of sports is that the practice of sports is greater than the theory and the demonstration is more than the preaching. “The application of micro-courses in physical education has both its consistent advantages and its unique charm. Through the research review, it is found that most of the previous research on micro-courses focus on the elaboration of concepts, and the research on the types, design, production and application of sports micro-courses is not deep enough” [1].

The elaboration of the above aspects provides many ideas for the construction of the “mixed teaching model of sports club teaching + micro-course teaching” in this paper. However, the club teaching model in the macro sense and the successful cases in practice may not be replicated. In view of the current situation of physical education teaching in Chinese colleges and universities, it discusses how to more effectively implement the mixed teaching model of sports club teaching + micro-course teaching. This also provides the necessary concept for mixed club teaching.

3 Problems Existing in Physical Education Teaching

3.1 The Shortage of Physical Education Teachers is a Common Problem

Many colleges and universities in China cannot achieve targeted education well because of the unreasonable ratio of physical education teachers to students and the large number of students. In addition, there are large differences in students' athletic ability and technical level, and students' mutual cooperation ability and team awareness are relatively weak, which leads to difficulties in teaching organization. In class, the teacher's demonstration is instantaneous and it is not easy for students to absorb. Teachers have to speak for a few minutes or more, which can easily distract students, and they may respond slowly and be nervous. The movement image formed in the student's brain is very vague and confusing. The student acceptance behavior is not effective.

3.2 Mixed and Micro-course Trinity Teaching

With the mixed and micro-course trinity teaching, the teacher platform can launch high-quality technical teaching videos to meet the learning needs of students [7]. Students can learn related techniques in advance and understand offline teaching and training methods and teaching organization forms in advance, which can effectively solve the difficulties of organizing teaching and solve problems such as confusion in training activities, nervousness of students, and slow response caused by too many students. Teachers can effectively organize more students' teaching activities, effectively solve practical problems such as shortage of physical education teachers, insufficient physical education teaching hours, etc., help students better learn relevant theories and techniques [8], and lay a solid foundation for improving the physical and mental health of college students and cultivating outstanding physical education talents.

3.3 Grouping and Developing Online and Offline Teaching Assistants

- Students are divided into several groups according to their extracurricular time and each group selects 1–2 online teaching assistants to assist teachers in supervising students' online learning.
- Each group selects 1–2 offline teaching assistants to assist teachers in supervising students' offline learning.

3.4 Micro-course Videos Can Be Constructed in SPOC

The online teaching content includes the integration of high-quality teaching video by teachers, so that students can learn independently in the mobile application classroom [9]. The system will automatically give corresponding scores according to the learning time and times of students, flip the problems encountered by students in offline teaching, and provide micro-video teaching for some common problems, allowing students to learn anytime and anywhere.

3.5 Increasing the Proportion of Performance in the Learning Process in Students' Overall Grades

According to the teaching content and process, teachers establish a set of evaluation indicator system that pays more attention to process evaluation, and comprehensively measure the effectiveness of online teaching, so as to obtain real and reliable evaluation information. For example, when a student completes a certain stage of online learning, the system will give specific scores [10] according to the designed relevant scoring standards, as well as the duration of online learning, knowledge test results, raise of question and solution, and other indicators, so as to divide the sections that should be paid attention to in the future study. By establishing a standard indicator system, students can recognize their own strengths and weaknesses in physical education and teachers can find the direction that should be paid attention to in online teaching, which helps to improve the feedback value of process evaluation methods.

3.6 Improving the Teaching Model and Curriculum Evaluation Basis, and Supplementing the Feedback Evaluation of Traditional Physical Education Teaching

“Micro-courses use smart device to record, evaluate and give feedback to students' learning and practice, which can be more intuitive and effective than teachers' oral evaluations, and can stimulate students' enthusiasm for learning and practice and further mobilize students' initiative” [6].

At present, physical education teachers can only understand students' actual physical education level and exercise load intensity through students' offline performance, so as to evaluate students' physical education learning status [11]. To a certain extent, it is still influenced by traditional teaching concepts, resulting in insufficient flexibility of physical education courses and one-sided teaching feedback evaluation. The teaching can be carried out according to the quality of the students because of the individualization

of the students. Due to the lack of relative accuracy, the feedback evaluation of physical education is one-sided.

Club mixed teaching uses the learning APP (Rain Classroom) to integrate students' sports data, and through the transmission and operation of these data, scientifically evaluate students' learning status, physical condition and learning ability. This enables teachers to adjust the intensity of physical activities according to the status quo in the teaching process, so as to better improve the effectiveness of physical education.

4 Conclusion

The mixed teaching model of micro-course teaching + sports club teaching conforms to the general development trend of deep integration of physical education teaching and information technology. It gives full play to the special role of online education through micro-courses, makes the process of teaching and learning more concise and effective, creates favorable conditions for deepening knowledge points and cultivating and improving students' ability to analyze sports knowledge, cultivates students' autonomous learning ability, "provides reference for the research on sports club teaching and mixed teaching model in colleges and universities, [12] contributes to the research on the theoretical system of college sports teaching reform" [7], and helps to solve the problems of large number of students, insufficient teachers and difficult teaching organization in physical education teaching. This model also actively responds to the requirements of the Ministry of Education to create golden courses, provides relevant theoretical support and teaching cases for promoting public physical education, improves the teaching model and curriculum evaluation basis, supplements the feedback evaluation of traditional physical education, improves the teaching atmosphere, extends physical exercise to the whole process of university study time, and lays a good foundation for lifelong sports. This paper has made innovations in the following aspects:

The first is perspective innovation. The effective online and offline and virtual and realistic combination broadens students' horizons while increasing the duration of their technical training. At the same time, with the form of club, the strong helps the weak, and the students capable help those incapable, which can not only increase the students' practical ability but also reflect the spirit of solidarity and friendship in sports.

The second is technological innovation. This research realizes information-based teaching management to a certain extent and simplifies the teaching management of a large number of students. Students' learning process is not limited by time and space, which provides technical support for the application of science and technology in physical education.

The third is content innovation. In addition to the prescribed hours of the curriculum, the volleyball club teaching form increases the training of students in their spare time. The club also designs the content of the competition organization, which fully reflects the characteristics of sports learning of "teaching, training and competing".

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