

Research on the Application of Micro Course in Badminton Teaching in Colleges and Universities

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Abstract: The full name of Micro Course is “Micro Video Network Course”. Its appearance has changed the classroom teaching mode, allowing the key and difficult knowledge to be displayed in a more concrete and targeted situation. As a product of the teaching reform in the information age, microcourse is causing a new round of discussion and exploration on the classroom teaching reform in the education field. Micro Course mainly uses video teaching and uses modern methods to carry out comprehensive teaching. In the actual teaching process, students can quickly understand what they have learned in class through video. This paper combines the whole semester teaching experiment of Public Physical Education in Colleges and universities, dialectically absorbs the previous research results of sports micro Course, and studies the teaching effect of using sports micro Course in public physical education classes of different majors in Colleges and universities. At the same time, from the use of Micro Course in badminton teaching as the research content, the advantages and characteristics of Micro Course are analyzed, and its impact on physical education is put forward.

1. Introduction

The development and progress of informatization have promoted the development of our country's economy and society, the level of our country's education has also been greatly improved, and there are more and more kinds of teaching methods. A series of new teaching methods, such as flip class, Micro Course and internet, appear in our class [1]. The students are very interested in these new developments, and their interest in learning and efficiency are greatly improved. The full name of Micro Course is “Micro Video Network Course”. Its appearance has changed the classroom teaching mode, allowing key and difficult knowledge to be displayed in a more concrete and targeted situation [2]. Micro Course has developed rapidly at home and abroad. The theory, design, development and application research of Micro Course has become one of the hotspots of online learning and mobile learning research [3]. As a teaching method that has emerged in recent years, Micro Course is mainly based on video teaching and uses modern means to conduct comprehensive teaching. In the actual teaching process, students can quickly learn the knowledge learned in the classroom through video [4].

As a new thing in the field of information technology, Micro Course has been widely concerned by teachers and students, and its application and research are the focus of current education reform [5]. The application research results of Micro Course are also focused on exploring the theoretical level, and the research results in the application and production of physical education curriculum are minimal. After the use of Micro Course technology in college badminton teaching, the teaching efficiency has been significantly improved, and its teaching value can be seen [6]. This paper studies the teaching effect of Micro Course in college badminton elective course, and explores the difference between teaching and traditional teaching methods.

2. The Advantage of Micro Course in College Badminton Teaching

Technical movements are the foundation of badminton. In traditional teaching, teachers take the way of explanation and demonstration to make students get a preliminary impression, then guide students to practice repeatedly and master the essentials of technical movements. The Micro Course

teaching method is relatively simple. in each class, the teacher only teaches a few relatively simple knowledge points and does not teach specific characters. The overall microcourse teaching gives people a very scattered or lack of systematic feeling, which causes many people not to fully realize the effect brought by microcourse. The ultimate goal of badminton teaching is to enable students to fully learn a basic sports skill, which requires them to flexibly master new skills in various sports [7]. Badminton seeks speed and accuracy and needs to complete many difficult movements in a short time. In order to improve teaching efficiency, physical education teachers should first give correct demonstration and explanation in class so that students can have a full understanding of the application. Through the Micro Course, teachers can break down and show these actions, and students can watch them repeatedly.

The concept of microcourse has been developing and improving, and different researchers have different understandings from different angles. Micro Course breaks the space and time limits of the classroom and lays the foundation for students to learn autonomously anytime and anywhere. In the actual teaching, aiming at the teaching content of each class, the method of watching the Micro Course first and then entering the classroom learning is adopted, so that the students can record the action experience after watching the Micro Course and enter the classroom practice with questions. Students should actively study in this process. If some demonstration actions in the classroom are effective, it will definitely affect the overall teaching effect. In the process of teaching in colleges and universities, there are many specialities, and there are also many courses that need to be studied around a certain speciality. The teaching methods and means of different specialities are greatly different [8]. Badminton is very time-consuming, so it is impossible for students to read class notes while playing on the court. However, microcourse has a large storage capacity and will not disappear as long as it is properly preserved. Through teaching in the form of Micro Course, students can not only fully understand the teaching content, but also have a comprehensive understanding of the whole class content, and fully master various skills learned in class.

The construction of the three-dimensional curriculum resources support platform in colleges and universities is mainly based on the requirements of the relevant documents of the Ministry of Education, and at the same time all the contents of the curriculum construction are reasonably classified. In teaching, students' social development is mainly realized through communication and cooperation. Communication and cooperation between students and students and between students and teachers are beneficial to students' social development. The interactive relationship between students' social development is shown in Figure 1.

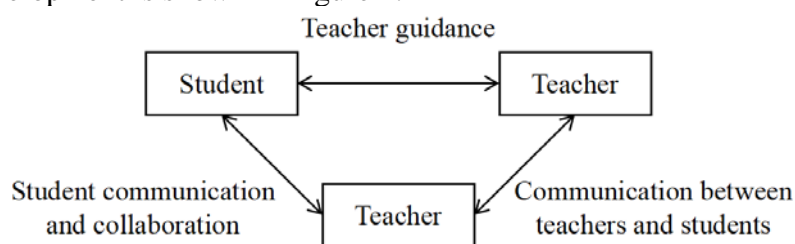


Fig. 1. Student social development interaction

The teaching reform of colleges and universities is aimed at social needs. The training goal of college talents is to adapt to the needs of society. As a representative of the advanced productive forces of the society, university teachers must not only teach advanced knowledge, but also have a vision of foresight. In badminton class, the teaching of technical movements is very important, and it is also the focus and difficulty. In particular, some difficult movements must be completed within the required time. University education is more flexible than primary and secondary education, students have more freedom in learning, and because Micro Course is online learning, college students have more opportunities to learn online than primary and secondary school students [9]. During the students' practice, the teachers collect the wrong movements of the students' badminton related techniques, and use Micro Course to show them. At the same time, they compare the correct movements, which can better correct the wrong movements of the students. In order to effectively

prevent students from making mistakes, educational demonstration should be based on correct actions and timely methods of actual work errors. The emergence of Micro Course has subverted the traditional teaching mode, and has also brought impetus and injected new vitality into the teaching reform of colleges and universities.

3. Micro-Course and Teaching Reform in Colleges and Universities

3.1. Developing Students' Interest in Learning

The appropriate addition of Micro Course teaching method in physical education can ensure that the whole teaching process has a higher scientific effect, actively play the subjective initiative of students, and then quickly grasp sports knowledge and skills. Many students have just come into contact with badminton. They can't understand what the PE teachers are explaining, and they can't grasp the main points of the action in time. Micro Course is easy to disseminate and preserve, and can break the boundaries of the classroom. Therefore, Micro Course is also applicable to the supplementary part of university badminton teaching after class. After class, students can learn badminton skills through Micro Course anytime and anywhere according to their own needs. In the pre-study stage, micro Course is introduced actively to reform the students' passive and slow state in the classroom through micro Course. When learning badminton forehand hitting high-range ball, teachers can show students the essentials of forehand hitting high-range ball by using Micro Course.

For the badminton course, it is necessary to gather all the teaching teachers of the badminton course to discuss the Micro Course setting for a specific course together, just like the syllabus of the course, to formulate the Micro Course micro detailed instructions for the course. On the whole, the path analysis between the three dimensions of the teaching process and between the three dimensions and the learning effect in the scale is verified by model fitting degree. Through confirmatory factor analysis, it is assumed that the model fitting index results obtained by model evaluation are not significant. This indicates that the data and the model have very high fitness, as shown in Table 1.

Table 1 Estimation results of interpersonal support and situational support for learning behavior

Constant	Standard error	Standard coefficient
Learning behavior	2.531	0.412
Interpersonal support	1.307	0.206
Situational support	0.775	0.329
Learning effect	0.463	0.442

3.2. Help to Unify Technical Action

Teachers' professional skills, physical quality and teaching site will affect the demonstration of movements, and cannot guarantee the accuracy of demonstration movements. As for the requirements of the new curriculum reform for junior high school English teachers, more than half of the teachers feel that they are not particularly comfortable in the use of multimedia. At the same time, I also feel that some of my educational concepts need to be updated and I should improve my professional level in an all-round way. Learning behavior, interpersonal support and situational support are also significantly positively correlated with learning effect. This shows that the three dimensions are all correlated with the learning effect, further reflecting the higher internal consistency reliability of the overall scale. As shown in Table 2.

Table 2 Three-dimensional correlation analysis results of effective classroom environment construction

	Learning behavior	Interpersonal support	Situational support	Learning effect
Learning behavior	1	0.658	0.609	0.635
Interpersonal support	0.671	1	0.524	0.676
Situational support	0.643	0.612	1	0.771
Learning effect	0.612	0.567	0.673	1

University teachers have better information technology level and ability to accept new things. University teachers have obvious advantages in the research of Micro Course production technology and the research of Micro Course presentation form. For institutions of higher learning, they should support and encourage the development of microcourse, provide training and guidance on the production technology of microcourse, and provide corresponding online platform websites for microcourse works. Teachers need to make Micro Course according to students' performance, technical essentials, error prone points, etc. in badminton classroom teaching and upload it to the network platform for students to download and watch, so that students can complete review and consolidation after class [10]. Micro Course's playback function has an advantage, that is, it allows students to synchronously compare while training, correct their wrong actions in time, and constantly consolidate their skilled related action skills. Micro Course can minimize the interference of the external environment by shooting related actions into videos in advance, and can also select the most standard action videos demonstrated by teachers to be included in the Micro Course.

4. Conclusion

Micro Course is a product of the education field in the information age. As a university, it should seize this opportunity to combine microcourse with the teaching reform in universities so that microcourse can serve the teaching reform in universities. Physical education is the key to show quality education. If the Micro Course teaching method is added to the course, students can fully grasp the learning points and technical specifications, improve teaching efficiency and ensure the actual effect of teaching. Badminton teaching, which combines strength and beauty, is an important sport to improve college students' physical quality. Micro Course is a new teaching method based on the development of modern computer technology. The use of microcourse in university badminton teaching, which is novel in form, meticulous in content and convenient to store, can maximize its value. Teachers should change their ideas and actively cultivate the awareness of using microcourse. Through continuous research and practice, and under the supervision of unified standards, microcourse teaching can really serve teaching, thus improving the quality of badminton teaching. In badminton teaching, because the Micro Course teaching method can implement standardized teaching, so that students can quickly master basic knowledge, making the action of hitting the ball meet the standard requirements.

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