

Countermeasures of College Physical Education Reform from the Perspective of Flipped Classroom

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Abstract: With the rapid development of the information era, flipped classrooms, as an emerging teaching method, have gradually become an important breakthrough in higher education reform. This article systematically researches and analyzes flipped classrooms at home and abroad through research methods of literature and logical analysis, and proposes to strengthen the construction of information management platform for physical education teaching, improve information technology literacy of teachers, cultivate independent learning ability of students, and establish a series of countermeasures such as the lifelong physical education consciousness of college students are hoped to provide useful reference and help for the reform of college physical education.

Keywords: flipped classroom, physical education, colleges and universities

1. Introduction

Flipped classroom refers to re-adjusting the practice inside and outside the classroom and transferring the decision-making power of learning from the teacher to the students. Under this teaching model, the precious time in the classroom allows students to focus more on active project-based learning, and jointly research and solve the challenges of localization or globalization, as well as the problems that other counties and cities are the interface leaders, so as to gain a deeper level understanding [1]. While supporting and promoting the development of education, science and technology information is also constantly evolving traditional education forms, and has the ability to transform education and learning methods. Flipped classroom is a product of the socialization of science and technology information. In the process of flipped classroom teaching, teachers use digital software to implement teaching management, teaching resource integration, uploading, and construction of a network teaching evaluation system; students complete independent learning through the network platform, communicate with teachers in real time, and feedback. All these teaching processes require information terminal equipment and the support of information technology can realize flipped teaching in the true sense [2]. Flipped classroom, as a form of learning, refers to teachers creating teaching videos based on teaching experience and curriculum standards before class. Students watch the teaching videos provided by teachers before class. In class, teachers and students face-to-face on knowledge points communication and interaction. Flipped classroom has attracted much attention as a research hotspot of teaching reform.

2. Flipped classroom to improve the value of physical education

2.1 Help to improve the application level of information technology in physical education

The implementation of the flipped classroom model in physical education can effectively improve the level of teaching information technology. Flipped classroom is a product of the development of information technology and a personalized teaching method based on high-tech education technology. Through the organic combination of information technology and teaching, with the help of the Internet, WeChat and other scientific and technological information to carry out new interpretations of the classroom, effectively improve students' interest in learning, meet students' requirements for physical education, and promote the reform and development of physical education information [3]. First, in flipped classrooms, teachers use online media to better display sports technology and spread the connotation of sports culture while monitoring student learning dynamics; second, students learn

independently through the teaching network platform, interact and reflect with teachers in discussion areas or WeChat. Not only can the correct physical skills be effectively formed, but also the correct learning experience can be consolidated, so as to gradually cultivate and form good physical learning habits. Every aspect of the flipped teaching process is permeated with the application of technology and information technology, whether it is teachers' selection of teaching resources, making teaching videos, uploading teaching information, evaluating students' learning, or students' online learning, watching teaching videos, and communicating on micro-platforms, terminal feedback fully demonstrated the role of information technology in promoting the development of physical education.

2.2 Help improve the quality of physical education

The traditional physical education teaching model is mainly based on teacher's explanation and demonstration. Students complete the mastery of sports movement techniques through imitating exercises; the dominant position of teachers and students' passive learning severely restrict students' subjective initiative and reduce it to a certain extent physical education teaching effect. The quality of physical education largely depends on the teacher's technical level, such as the standardization of action demonstrations and the accuracy of language expression. In the flipped classroom, teachers can first avoid their own advantages and disadvantages, relying on the online platform to select high-quality teaching action explanation videos, intense and interesting competitions or performance videos, which stimulate students' interest in learning and improve the teaching effect. Secondly, in the flipped classroom, teachers don't need to explain repeatedly, demonstrate actions, save time and energy, focus on paying attention to the actual problems encountered by students, and answer all questions, thereby improving the quality of teaching [4]. Finally, during the learning process, students can play the video at a slow speed to learn movement techniques in depth and meticulously. By watching the video repeatedly, they can form a deep impression on sports technical movements, and at the same time stimulate students to think deeply and help them understand sports knowledge, and memory, better help them better master and consolidate sports knowledge and skills.

2.3 Contribute to the optimization of physical education resources

Traditional physical education environment and resources are relatively limited. Public physical education in universities can't effectively use students' spare time to help students exercise scientifically due to the lack of class hours and space restrictions, to meet the actual requirements of students, and can't really improve students' physical fitness and improve their health. The flipped classroom effectively expands the physical education resources by making full use of the Internet teaching platform. Teachers select appropriate teaching resources based on the actual teaching and the needs of students to provide students with richer and optimized sports information resources. For example: national excellent teaching quality course resources, online course teaching resources of internationally renowned schools, Youku, Tencent, Tudou and other network teaching videos. Teachers can select high-quality teaching resources and students' actual needs through the network platform according to the teaching plan, content, and progress. The organic combination effectively expands and optimizes teaching resources [5]. In addition, students can use their spare time to study instructional videos through the network platform, or download video resources for life-long use. Teachers can monitor, guide and give advice in real time through WeChat or network terminals, gradually cultivate students' good exercise habits and establish a lifelong sports concept.

2.4 Help improve teaching pertinence

Flipped classroom can effectively improve the pertinence of physical education. The goal of physical education is to improve students' physical fitness, promote their physical and mental health, and cultivate students' exercise habits. There are large differences in students' physique, gender, comprehension ability, physical foundation and other factors. However, traditional teaching books are taught in class together, which cannot be tailored to individual circumstances, which severely restricts the effectiveness of physical education. Flipped classroom has changed the traditional teacher-student relationship in teaching. The power is delegated to students can learn physical skills according to their own time, actual needs and physical foundation, and arrange their own learning progress. Teachers encounter specific situations through online student learning, discuss and communicate in offline

classrooms to help students solve practical problems, thereby improving the pertinence of teaching and truly teaching students in accordance with their aptitude.

2.5 Contribute to the construction of a scientific physical education teaching evaluation system

Teaching evaluation is a value judgment on the teaching process and results. The traditional physical education evaluation is a total evaluation, that is, the completion of technical actions is assessed at the end of the semester to assess the student's academic performance or the level that has been reached. This kind of evaluation system is too one-sided, can't accurately judge the progress of students, is not conducive to mobilizing students' sports enthusiasm, and cannot provide students with more space to explore their sports potential. Flipped classroom adopts diagnostic evaluation, formative evaluation and summative evaluation in the teaching process, and implements the evaluation system of teacher-student mutual evaluation and peer evaluation, which fully reflects the diversified and scientific characteristics of teaching evaluation. Online pre-class evaluation is a diagnostic evaluation. Through online evaluation, students' feedback is provided, teachers have a comprehensive understanding of the problems and difficulties in student learning, reasonable arrangements, teaching students in accordance with their aptitude, and taking improvement measures. Through the interaction between students and teachers, classroom performance, feedback to students, correcting students' mistakes, and improving students' learning plans and methods during class are formative evaluations; summative evaluations are conducted after class, and students' learning performance is assessed through comprehensive assessments of students. At the level reached, students use online questionnaires to make subjective and objective evaluations of teachers' teaching effects, teaching quality, attitudes, content, methods, etc. [6]. In addition, experts and teaching groups can evaluate teachers' teaching effects through online student feedback and offline lectures, and promote the quality of university physical education with more scientific and comprehensive scientific evaluation methods.

3. Countermeasures of college physical education from the perspective of flipped classroom

3.1 Strengthen the construction of the information management platform of physical education in colleges and universities

Flipped classroom is a product of the development of information technology, a personalized teaching method based on high-tech education technology, through the organic combination of information technology and teaching, and the Internet, WeChat and other scientific and technological information to give a new interpretation of the classroom. Every aspect of the flipped classroom is permeated with the application of science and technology information technology. Whether teachers choose teaching resources, make teaching videos, upload videos, and evaluate student learning; or learn online learning, watch videos, and communicate through WeChat platforms, they all reflect the informatization of science and technology to the important role of flipped classroom. Therefore, the first step in the reform of college physical education based on the flipped classroom is to establish a scientific information management platform. The construction of the school sports information network teaching management platform mainly includes five modules: resource center, retrieval system, help system, forum and background management. School physical education information management needs to be open, safe, interactive and flexible. For example: teacher and student login is safe and fast; fast retrieval speed, large amount of information storage, convenient data statistics, simplified information transmission process, internal data sharing, and practical problems can be effectively communicated and resolved through the network platform at any time [7]. It can be seen that the construction of a teaching information management platform is a guarantee for the development of flipped classrooms and an important foundation for the smooth completion of flipped teaching. In addition, increase the school's support for sports informatization teaching and improve the conditions for sports teaching informatization teaching. Introduce advanced information equipment in real time, update and eliminate outdated equipment, and gradually improve sports teaching information equipment and facilities, so that informatization management has a good hardware and software foundation, so as to more effectively promote the construction of sports teaching information management the pace of development to ensure the smooth development of flipped classrooms.

3.2 Improve teachers' information technology literacy

Information teaching technology mainly refers to an integrated technology that takes computer as the core, teaching technology as the basis, and fusion of communication technology, which can process, edit, store and present multiple media information. With the rapid development of network information technology today, it is not enough to focus on professionalism. Physical education teachers need to master the principles and applications of information technology by participating in the training of information technology teaching, and have the ability to obtain information, transmit information, process information and apply information [8]. Only by improving the professional information quality of physical education teachers can we ensure the smooth implementation of the flipped classroom and achieve the ideal teaching effect. In addition to participating in information-based teaching technology training, physical education teachers also need to continuously accumulate, constantly update themselves, and improve their own information knowledge reserves. They must be good at digging, organizing and accumulating information resources that help students learn sports knowledge and skills, and flexibly master information technology, and can effectively use the online teaching platform to keep pace with the times and provide better services for students and society.

3.3 Cultivate students' ability to learn independently

The flipped classroom has subverted the dominant position of teachers in traditional teaching. Students have become the main body of teaching and learning. Students use teaching videos and network resources to complete knowledge construction. Therefore, "students' autonomous learning before class has achieved the effect of teachers' teaching in traditional classrooms, and the students in the classroom have completed the internalization of the content of this course," which has become the criterion for judging the success of a lesson rollover [9]. Therefore, in order to successfully flip in the classroom, students' independent learning must achieve the teaching effect of teachers in class, which requires students to have the ability of in-depth independent learning. Autonomous learning ability is the ability to discover, think, and solve problems. For physical education, teachers must first respect the individual differences of students, fully consider the physical factors such as gender, age, height, weight and physical fitness of students, and also need to pay attention to the psychological characteristics of students' learning motivation, attitude, interest, and confidence. Secondly, teachers need to guide students to formulate learning plans, cultivate students' self-study habits, encourage students to explore exploration, and enhance students' confidence in learning. Make students truly have the ability to actively undertake learning responsibilities and effectively use learning strategies for learning.

3.4 Help students establish a lifelong awareness of physical education

To improve the quality and effect of sports flipped classroom teaching, it is necessary to take and happy sports as the guiding ideology, from collecting teaching resources, making videos, classroom communication, feedback and evaluation after class, so as to stimulate students' interest in learning and arouse students' enthusiasm for active participation students feel that the physical education classroom is lively and interesting, the form is novel, and the situation is blended. Let students take the initiative to experience, challenge, think, and innovate, and they can practice while playing, practicing while having fun, and experience the joy of learning [10]. In addition, teachers need to pay attention to simplifying teaching difficulties, bringing teaching doubts into classroom discussion, actively communicating and interacting, achieving continuity of online and offline teaching, and cultivating the habit of students' extracurricular exercises so that students can consciously and consciously leave the physical education teacher. Actively and happily completing physical exercises will lay a good foundation for students to form a lifelong awareness of physical education.

4. Conclusion

At present, there are more and more theoretical discussions about flipped classrooms in the Chinese education circle, but the applied research of flipped classrooms in the field of physical education is relatively scarce and not systematic. Therefore, under the new pattern of reform and development of physical education informatization, relying on educational technology to study the value, significance, and strategy of flipped classrooms in Chinese colleges and universities physical education is of great

significance to the promotion of Chinese colleges and universities physical education reform. However, the construction of the flipped classroom model of college physical education is a long-term process, and we need to continue to explore, learn and in-depth research; the promotion and application of the flipped classroom model of college physical education requires us to continuously practice and practice according to the actual school physical education and students to sum up.

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