Research on Physical Education Teaching Model Based on Online and Offline Collaboration in the Colleges and Universities

Jingen Tang

School of Physical Education, Hunan Institute of Science and Technology, Hunan 414006, China

ABSTRACT. *As an important content of higher education in China, physical education plays an important role in enhancing the physical health of students in colleges and universities and cultivating their psychological quality and moral characters. Nowadays, the application value of Internet, cloud computing, big data and artificial intelligence has become increasingly prominent in the field of education. Against this backdrop, colleges and universities should actively use the information technology represented by the Internet to reform the traditional physical education teaching model and actively construct a physical education teaching model based on online to offline collaboration.*

Keywords: online to offline; physical education in colleges and universities; physical education; network

1. Introduction

For a long time, physical education in colleges and universities has always adopted the indoctrination model that "teacher gives lecture in class and students listen to it". Although there is multimedia equipment provided in physical education classrooms in most colleges and universities at present, the equipment is often just used as a "microphone" of the teacher. With the traditional education model, the students in colleges and universities are not much motivated and enthusiastic about the physical education, and the teaching quality of PE teachers is not high. Today, with the booming Internet technology, contemporary students in colleges and universities are already very familiar with the Internet and generally have high network application capabilities, so they are more acceptable to online physical education. In recent years, online education represented by micro-courses and MOOCs have developed rapidly, which provides a reference for colleges and universities to build a physical education teaching model based on online to offline collaboration.

2. Advantages of Physical Education Teaching Model Based on Online and Offline Collaboration in the Colleges and Universities

Compared with the traditional offline physical education teaching model, the physical education teaching model based on online to offline collaboration has great advantages. Understanding these advantages is an important basis for colleges and universities to build a physical education teaching model based on online to offline collaboration. Compared with traditional offline physical education, the physical education teaching model based on online to offline collaboration can give full play to the huge educational resources on the Internet, expand the breadth and depth of physical education, and break the temporal and spatial constraints of traditional physical education. In addition, PE teachers can make full use of various advanced scientific and technical technologies to assist physical education and improve the scientific and rigorous degree of physical education. For example, PE teachers can integrate online advanced cloud computing, big data, artificial intelligence and other technologies into offline physical education to optimize teaching content and teaching methods and and enhance teaching quality while improving teaching efficiency.

3. Construction of Physical Education Teaching Model Based on Online and Offline Collaboration in the Colleges and Universities

3.1 Construction of an Online PE teaching platform

Colleges and universities should establish a fully functional online PE teaching platform. Colleges and universities should require PE teachers to regularly upload the content and knowledge points of physical education courses to the platform for students to learn online. Taking the volleyball education as an example, teachers can clearly upload the contents of origin and development of volleyball, fitness value of volleyball, volleyball technical training, volleyball tactical training, volleyball physical training, volleyball game, and other units to the platform in the column of "Volleyball Course". Each unit can also be designed by pre-course guidance, list of study tasks, knowledge point micro-video, online examination and group collaborative learning. The contents of the online PE teaching platform are composed of text, pictures, animation and audio and video, greatly mobilizing the enthusiasm and initiative of students in learning.

3.2 Students' online learning and teachers' online question answering

Before teaching offline, teachers should let students prepare for the following lessons on the online PE teaching platform. Students can prepare for the lessons individually or with the classmates together. Through preparation, students can ask the teachers very clear questions when they study offline, and teachers can teach and guide the students very pointedly. After teaching offline, teachers should ask students to upload the completed homework to the platform in the form of text,

pictures or video, and then check them online. Students can also upload questions that they have not resolved in the offline learning process to the platform for resolution. They can put forwards their questions through QQ messages or forum posts. For students' questions, teachers should encourage other students to answer and express their opinions.

3.3 Offline interaction between teachers and students for deepening teaching

PE teachers explain the questions raised by most students online in class to enhance the effect of their memory. During the period, PE teachers should design similar application questions according to the online learning performance and questions of students, and ask them to discuss these questions in groups so as to make them better grasp and apply the knowledge they have learned and improve their knowledge transferring ability and innovation ability. In addition, PE teachers should analyze and organize the content of this lesson, and produce digital materials such as teaching videos, PPT or electronic textbooks. In these materials, PE teachers should clarify the knowledge points and key questions, and design the homework for students.

3.4 Post-class reflections of teachers and students

For PE teachers, it is required to regularly evaluate the effect of online and offline learning by means of examination and assessment. PE teachers should understand the opinions and suggestions of students on online-to-offline education mode through questionnaires (including online questionnaires), classroom questions and individual interview. PE teachers should continue to implement and further optimize the aspects which are affirmed and praised by students, while seriously reviewing these negated and resisted by students, and then improve the teaching plan in time on the basis of the "student-oriented" principle. For students, it is necessary to objectively analyze the problems and deficiencies in the process of online and offline learning through PE teachers' assessment results of them, and adjust the learning attitude and methods with the assistant of PE teachers. It should be emphasized that there is no much temporal and spatial constraints on students' learning activities in online education model, therefore students need to have strong self-reflection ability.

4. Conclusions

At present, online-to-offline collaboration has become an important trend in physical education teaching model in colleges and universities. With the rapid development of network information technology, cloud computing and big data technology in China, colleges and universities should actively construct a online-to-offline systematic model for physical education to help the healthy growth of contemporary students in colleges and universities.

References

[1] Zhou Huang, Gu Yahui, Liu Wei(2018). Opportunities and challenges for the professional development of PE teachers in the process of "Internet + Education" [J], *Journal of Shenyang sport University*, no. 01, pp. 26-29.

[2] Yang Gang(2018). Study on mixed teaching model of PE game course [J]. *Journal of Shandong University of Technology* (Social Sciences Edition), no. 01, pp. 123-135.

[3]Zhang Yuanyuan(2018). Construction of school sports intelligence platform based on MOOC model [J], *Automation and Instrumentation*, no. 08, pp. 89-92.

[4] Zhu Xiaolong(2018). Analysis of the value and implementation strategy of flipped classroom in physical education [J]. *Contemporary Sports Technology*, no. 22, pp. 12-13.

[5] Wang Zhen, Zhao Liancai, Li Junchen(2018). SWOT analysis of online education applying to physical education [J]. *Contemporary Sports Technology*, no. 10, pp. 313-316.