



# Practical Dilemma and Development Strategy of Online Teaching of “College Physical Education” Against the Background of Informationization

Shuangyan Shi<sup>(✉)</sup> and Fei Dai

School of Physical Education, Wuchang Institute of Technology, Wuhan 430065, Hubei, China  
772620979@qq.com

**Abstract.** In the context of the information media era, how teachers and students use the Internet to carry out physical education has become the focus of college physical education teachers. This research uses the methods of literature materials, case analysis, interviews and other methods to study the practical dilemma and development strategies of the online teaching of the “College Physical Education” course. Taking the online teaching of “College Physical Education” in Wuchang Institute of Technology as an example, the “College Physical Education” course of Wuchang Institute of Technology is integrated with the online platform teaching. In the actual practice process, it is found that the main problems faced by the current online teaching of the “College Physical Education” course are: the teaching content is not novel enough, the curriculum construction is not perfect; the teachers’ online teaching ability is lacking; the online teaching course evaluation is relatively monotonous. In view of the problems existing in the online teaching of the “College Physical Education” course, the ways to optimize the online teaching of “College Physical Education” in colleges and universities are as follows: enriching the online teaching content of “College Physical Education” and speeding up the construction of online courses, changing ideas and improving teachers’ informatization literacy, strengthening online teaching evaluation and supervision, and continuously optimizing the effect of online teaching.

**Keywords:** Online teaching · “College Physical Education” · Practical dilemma · Development strategy

## 1 Introduction

College physical education is based on physical exercise as the basic means, with the learning of physical education and health knowledge as the main content, and plays an important role in improving students’ physical health and developing the habit of

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Project: 2020 Provincial Teaching Research Project of Hubei Province universities, Project No. 2020715, Research on the resource structure model of the online open course of “College Physical Education” based on the OBE concept in the “Internet+” era.

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A. Volodin and I. Roumbal (Eds.): ICECIDT 2022, ASEHR 677, pp. 497–505, 2023.

[https://doi.org/10.2991/978-2-494069-02-2\\_55](https://doi.org/10.2991/978-2-494069-02-2_55)

lifelong physical exercise [1]. Online physical education teaching is the content teaching of physical education courses conducted by teachers and students relying on electronic equipment as an intermediate medium. Online physical education teaching breaks the traditional classroom teaching. Teachers guide and communicate with students through video and voice to ensure the completion and completion quality of teaching content. How to improve the quality of online college sports teaching, and to analyze the practical dilemma and development path of college sports online teaching have become the current mainstream.

## **2 Analysis on Online Teaching Practice of “College Physical Education” in Wuchang Institute of Technology**

A questionnaire survey of “Online Teaching Status of Physical Education in Wuchang Institute of Technology” was conducted among 3,029 students in the 2019 and 2018 classes of Wuchang Institute of Technology and 22 teachers in the Physical Education Department of Wuchang Institute of Technology. The specific content is to investigate the content, tools, methods, and supervision methods of online teaching. The specific findings are as follows.

### **2.1 The Content of Online Teaching**

The university public physical education course is a compulsory course for freshman and sophomore students [2]. In order to ensure the high-quality and orderly progress of teaching work, the School of Physical Education of Wuchang Institute of Technology, from the perspective of students, selects the teaching content that can meet the students’ basic knowledge and skills of sports, as well as the teaching content that can enhance students’ physique and improve their immunity. Therefore, Wuchang Institute of Technology has retained the original martial arts courses and added physical fitness training courses in the online teaching practice of the original 15 optional physical education courses. The 2019-level students are taught the martial arts routine “Long Box of Routine”. The freshman students have completed the study of 24-style simplified Taijiquan and have a certain martial arts foundation. By learning “Long Box of Routine” at home, they can not only cultivate students’ awareness of self-exercise, to achieve the purpose of home exercise, and at the same time to retain the teaching content consistent with the offline courses. The 2018 grade students are taught physical fitness training. The original offline course setting is to choose 14 optional courses. Due to the high requirements for venue equipment and other options, and students have limited space for home exercise, when choosing the teaching content, the school took into account the limitations brought about by this factor and opened a new physical fitness training course. The content of the online course was recorded by the full-time teachers of the School of Physical Education.

It can be seen from “Table 1” that the satisfaction levels of the 2019 and 2018 students with the online teaching content of “College Physical Education” of Wuchang Institute of Technology are 74.5% and 82.5%, respectively, indicating a relatively high degree of satisfaction. In the selection of the content of the physical fitness online course, according to the difference between male and female students, the corresponding course

**Table 1.** Content and satisfaction of online teaching (n = 3029)

| Course content   | Long Box of Routine | Physical fitness training |
|------------------|---------------------|---------------------------|
| Grade            | 2019                | 2018                      |
| Number of people | 1651                | 1378                      |
| Satisfied number | 1230                | 1130                      |
| Satisfaction     | 74.5%               | 82.5%                     |

content is set differently, which has been well received by the students; Long Box of Routine requires higher strength and physical coordination, and is more skillful. During online teaching, teachers pay attention to the explanation and guidance of decomposing technical movements, and record decomposing demonstration movements and complete demonstration movements respectively according to the teaching content. The learning effect of students is obvious. Most students are able to complete a complete set of movement demonstrations independently. From the student feedback data, it can be seen that the overall satisfaction with online teaching is relatively high in both grades.

## 2.2 Tools and Teaching Methods for Online Teaching

Electronic equipment is a prerequisite for online teaching. Physical education teachers rely on various network platforms to conduct online teaching and provide guidance for students in different projects. According to the valid questionnaire for 3029 students of Wuchang Institute of Technology, the teaching platform Tencent QQ used by teachers accounted for 68.16%, and WeChat accounted for 31.84%. According to the survey, Wuchang Institute of Technology only selects WeChat and QQ as the online teaching platforms of “College Physical Education” course, which are familiar to students. Although the WeChat and QQ platforms are very practical, the functions of the WeChat and QQ platforms are not complete and cannot fully meet the needs of teaching. There are many tools for online teaching, such as Tencent Classroom, Chaoxing Xuexitong, Tencent Meeting, DingTalk and other comprehensive APPs. Each APP has different functions and has its advantages and disadvantages. For further convenience and management, in the later courses, teachers can analyze the functions required for online teaching of “College Physical Education” according to the characteristics of each software tool, and take the most direct and effective measures to conduct online teaching.

## 2.3 Supervision and Evaluation of Online Teaching

In the assessment of the “College Physical Education” online course of Wuchang Institute of Technology, it not only attaches importance to the evaluation of students’ learning process, but also pays attention to the comprehensive evaluation of students’ learning effect. Therefore, the proportion of the online examination results of “College Physical Education” is the usual assessment (40%) and the technical assessment (60%). The usual assessment results mainly consist of three parts: 40 points for usual attendance, 40 points for homework, and 20 points for interactive communication. The specific content

of the online technical assessment is that students complete the Long Box of Routine (2019 grade students) and physical fitness (2018 grade students) prescribed movements according to the requirements of the teacher, and shoot videos and upload them to the class teaching group. The teachers will grade the video according to the grading criteria.

### 2.4 Feedback on Online Teaching

3029 students of Wuchang Institute of Technology in 2018 and 2019 evaluated the overall effect of online teaching and the teaching ability of teachers.

Through the study of the “College Physical Education” online course, students made an evaluation of their online sports learning effect. From the data in “Fig. 1”, it can be seen that 24% of the students were very satisfied with their sports learning effect, and 45% of the students were satisfied with the results of their sports learning. The proportion of students who expressed general satisfaction was 27%, and a small number of 4% students expressed dissatisfaction with their physical education results. From the overall survey data, it can be seen that the students’ satisfaction with the effect of their physical education courses has reached 97%. To a certain extent, students’ affirmation of the effect of self-learning can reflect that students have a good grasp of the content of the online “College Physical Education” course and are able to complete the learning tasks.

Students who are very satisfied, relatively satisfied, generally satisfied, not very satisfied, and very dissatisfied with the overall situation of online teaching ability and teaching organization of classroom physical education teachers, account for 21%, 27%, 29%, 22%, and 1% respectively. According to the survey data, 77% of students believe that teachers’ online teaching ability can only basically meet their needs, and 23% of students believe that online teaching and other factors cause teachers’ teaching ability to fail to meet students’ classroom needs.

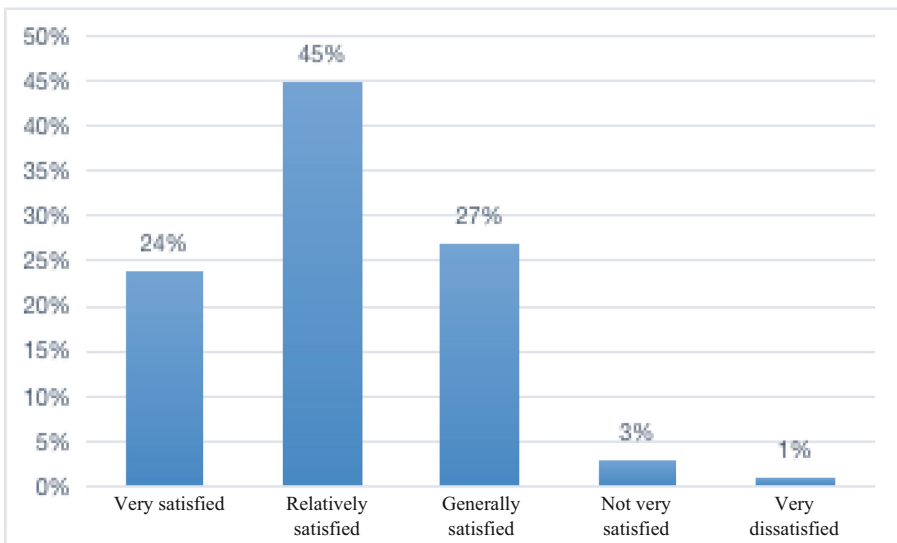


Fig. 1. Students’ satisfaction evaluation of their physical education learning effect.

From students' feedback on teachers' online teaching ability, it can be seen that although the online teaching ability of physical education teachers of Wuchang Institute of Technology can basically meet the needs of online teaching, it is still necessary to further improve teachers' online teaching ability in many aspects.

### **3 The Practical Dilemma of Online Teaching of “College Physical Education”**

With the continuous development of the Internet era, China has entered the information age, informatization has become the trend of social development, and education informatization is an important part of informatization [3]. The course of “College Physical Education” has its particularity. Compared with offline teaching, online teaching has certain limitations. Through literature review, student questionnaire analysis and interviews, it is concluded that the main difficulties of online teaching of “College Physical Education” are as follows.

#### **3.1 The Teaching Content is Not Novel Enough, and the Curriculum Construction is Not Perfect**

By visiting Hankou University, Wuhan Media Institute and other 5 similar sister colleges, it was found that the content of online physical education courses in some colleges and universities is still consistent with the content of offline courses, and does not combine the characteristics of online teaching to carry out physical education courses suitable for home exercise. In online teaching, teachers simply transmit traditional classrooms online through video, resulting in boring and monotonous teaching content, insufficient innovation in teaching content, low enthusiasm for students to learn online, and average online teaching effect.

#### **3.2 Teachers Lack Online Teaching Ability**

A questionnaire survey of 22 physical education teachers in the School of Physical Education of Wuchang Institute of Technology shows that teachers who are very satisfied with their online teaching ability, account for only 22% of the total number of people surveyed. Teachers who believe that their online teaching ability generally account for 48%, and teachers who are very dissatisfied with their online teaching ability account for 30% of the total number of respondents. From the feedback information of teachers on their own teaching ability, it can be seen that online teaching ability is relatively lacking, which is mainly manifested in inability to use teaching software proficiently, lack of relevant experience, single teaching method, difficult teaching design and organization, inability to effectively screen and utilize teaching resources, and the lack of interaction with students during the long-term online learning and teaching. Most of the time, the teachers output one-way communication, which affects the effect of online teaching.

### **3.3 The Course Assessment is Simple**

Through expert interviews, it can be seen that the online course of “College Physical Education” has the problem of simple teaching quality assessment and evaluation methods. College public physical education courses have strong practicality, and teaching evaluation is relatively clear. Teachers can evaluate students’ learning effects more intuitively through students’ body movements. In the online teaching evaluation of “College Physical Education”, teachers only get the students’ mastery of motor skills through the video uploaded by the students. They cannot evaluate students’ learning attitude and learning process as intuitively as offline teaching. Therefore, the feedback and communication of online teaching is far inferior to that of face-to-face teaching, which is easy to cause misunderstanding and deviation in teaching evaluation. This requires the development of a more comprehensive online teaching evaluation management system in order to better evaluate the effect of online teaching.

## **4 Countermeasures for the Development of Online Teaching of “College Physical Education”**

In order to fully understand the specific situation of the online teaching of “College Physical Education” in Wuchang Institute of Technology, at the same time solve the challenges and problems faced by online teaching, and further improve the teaching quality of physical education teachers, through the questionnaire survey of students and teachers and the summary and summary of interviews with experts, the following optimization strategies are obtained.

### **4.1 Enriching the Online Teaching Content of “College Physical Education” and Speeding Up the Construction of Online Courses**

The schools should set up a research and development team. In terms of teaching content, they should clarify their own positioning, identify the entry point of course content, fully demonstrate their own advantages and characteristics, and at the same time meet the curriculum items for home exercise [4]. The teaching content provided by online teaching can be more diverse and sufficient. The online teaching content should attract students. Teachers can try to make teaching videos as short and delicate as possible, edit them into interesting slow-motion playback, and conduct online teaching in a way that students like to hear and see. The learning method can be planned in more detail. It is necessary to make full use of high-quality online teaching resources, pay attention to students’ experience and gain, start a student-centered online course design, formulate content suitable for students to exercise at home, provide scientific and effective exercise methods, and regularly carry out quizzes and feedback [5].

In the questionnaire survey of “Online Teaching Status of Physical Education in Wuchang University of Technology”, in the survey of whether students agree with the teaching mode that combines online and offline, 90% of students agree with the combination of online and offline teaching mode. Students’ recognition of the teaching mode combining online and offline has laid a good foundation for the future exploration

of the “College Physical Education” course combining big data and Internet teaching mode. Therefore, first of all, schools should attach importance to the construction of the online course of “College Physical Education”, encourage teachers to combine their own special skills to develop special online sports courses, and use the online “College Physical Education” course as an auxiliary course of offline sports courses, to speed up the construction of the “College Physical Education” online course, and provide a strong guarantee for the smooth development of the “College Physical Education” course in emergencies [6].

#### **4.2 Changing Ideas and Improving Teachers’ Informatization Literacy**

In online teaching, teachers will inevitably face the problem of online course production. Therefore, there is a must for them to strengthen their online teaching skills training, including the recording of teaching videos, specializing in online teaching methods, and the use of computers. Teachers need to further improve the basic ability of online teaching, be familiar with the functions of online platforms, and comprehensively improve the online teaching level of teachers, so as to improve the effect and quality of online teaching. Schools can try to establish an online teaching skills training mechanism for physical education teachers, focusing on teachers’ ability to use modern teaching methods, teaching software and teaching platforms, especially whether teachers are proficient in making teaching videos and teaching audio, etc., so as to improve teachers themselves informatization literacy.

#### **4.3 Strengthening Evaluation and Supervision, and Continuously Optimizing the Effect of Online Teaching**

Online teaching is a brand-new teaching method for schools, teachers and students. The teaching management system is not perfect enough. It is a necessity to strengthen the management and supervision of online classrooms, adopt various forms and means to guide and inspect teachers’ class situations, and timely understand students’ learning effects, so as to continuously make improvement. At the same time, the syllabus and teaching design of online teaching should be improved, and appropriate and targeted teaching evaluation and student evaluation systems should be established. Teacher evaluation, student-student mutual evaluation, and student self-evaluation need to be introduced into the online teaching evaluation system, and class interaction should be included in the evaluation to reflect students’ learning achievements from various aspects.

### **5 Conclusion**

By studying the practical dilemma and development strategies of the online teaching of “College Physical Education” against the background of informatization, this paper provides a theoretical reference for the current college sports curriculum reform and the orderly development of online sports teaching. The main problems faced by the online teaching of the current “College Physical Education” course are: the teaching content

is not novel enough, the course construction is not perfect, the teachers' online teaching ability is lacking, and the course evaluation is relatively monotonous. In view of the problems existing in the online teaching of "College Physical Education", the paths for optimizing the online teaching of "College Physical Education" in colleges and universities include: enriching the online teaching content of "College Physical Education", speeding up the construction of online courses, changing ideological concepts, and improving teachers' knowledge Information literacy, strengthening evaluation and supervision, and continuously optimizing the effect of online teaching. This paper analyzes the practical dilemma of the online teaching of "College Physical Education" in colleges and universities, combines the practical research on the online teaching of "College Physical Education" in Wuchang Institute of Technology, and constantly explores the development strategies of online teaching in practice, which can effectively improve the quality of online teaching of "College Physical Education" in Wuchang Institute of Technology. This paper can also provide a certain reference for the development of online teaching of "College Physical Education" in colleges and universities.

**Authors' Contributions.** Shuangyan Shi finds out the research status at home and abroad, determines the research theme, formulates the research framework and writes papers. Fei Dai assists in the formulation of research framework, interview and questionnaire design, collects, integrates and classifies thesis data, and puts forward measures for the problems existing in online teaching.

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