### 2019 9th International Conference on Social Science and Education Research (SSER 2019)

# Strategy of Physical Education Teaching In Colleges and Universities in the Age of Informatization

Ming Wang

College of sports science, Zhuhai College, Jilin University, Zhuhai, Guangdong, China wangming@jluzh.edu.cn

**Keywords:** Information age; Sports teaching and research; College sports

**Abstract.** The emphasis on student-centered college education, training talents for all-round development. This requires physical education teachers to use multiple resources to innovate the teaching form, promote students 'understanding of physical education knowledge, and encourage them to strengthen physical exercise to develop good habits of physical fitness. The era of rapid development of Information Technology provides a more convenient and broad development platform for university sports network teaching and research. Based on the background of the information age, this paper actively explores the mode of new teaching activities, puts forward the strategies of developing physical education activities in the information age, improves teachers' cognition of information, improves teaching content, stimulates students' interest, supplements knowledge, consolidates practice, and launches internet teaching and research.

Sports teaching and research is an important part of sports teaching. Under the background of the information age, it is the general trend to use the Internet to carry out sports network teaching. In this paper, the network teaching and research activities to explore and research, hoping to explore the network-based training model of excellent sports talents.

## Improve Teachers' Awareness of Informatization and Create a Good Informatization Learning Environment

In the modern information teaching system, we should take students as the center, make students become the main body of cognition, and become the active constructors of knowledge in a real sense. Teachers play a leading role in guiding and promoting students' learning. Physical education teachers should realize the importance of educational informationization, open their own thoughts, accept the guidance of ideas in the new era, and do a good job in teaching and management. The following methods can be adopted:

Rely on the network to answer questions. Teachers always encounter some problems in education and teaching. The teaching and research group creates teaching and research activities based on the actual situation and network resources. After summing up the puzzles and problems in the classroom, each teacher will look up and learn relevant materials through the Internet big data, and make a speech, discussion and exchange according to their own understanding of the puzzles and problems.

**Share resources with public account.** In the information age, the teaching and research group pays more attention to the collection and screening of information, which should be processed and put into practice according to the actual situation of the school, become the teacher's own materials, play the role of resources, change the concept of teachers, and promote the continuous growth of students. Open the public account, often push some more practical sports training teaching methods and some information, teaching cases, etc. at home and abroad, which is very suitable for fragmented learning<sup>[1]</sup>.

Observe the network quality course. In the information age, teachers can not only improve their classroom teaching ability by offering seminars, but also improve their classroom teaching ability by studying the courses in the network resources. Therefore, the combination of teaching and research and other network resources should be used to carry out regular class discussion activities. According to teachers' teaching, students' learning, field equipment, exercise density and other multi-dimensional activities, teachers' listening and evaluation activities should be carried out to promote the development of teachers' own ability.

**Building computer hardware environment.** A good computer hardware environment is the material premise of introducing information technology into physical education. If the hardware condition is deficient, even if there are teachers with computer ability and good innovation consciousness, they can not make full use of information technology in physical education teaching. Therefore, colleges and universities should increase capital investment, so that the computer can meet the needs of teaching reform of sports related majors. According to the characteristics of sports information, this paper trains the acquisition, analysis and application of sports information, hires relevant experts, introduces the use of sports application software, sports information acquisition, knowledge of courseware making, and lays a good material foundation for the application and development of information technology in sports teaching.

## Use network resources to carry out rich teaching and research activities

Today, with the development of Internet technology, there are many ways of network teaching and discussion, such as sports training, community activities, group gymnastics activity planning and organization, school-based curriculum development, etc. On the whole, it can be divided into three forms: video, picture and text, and voice. Each of the three

DOI: 10.25236/sser.2019.198

methods has its own advantages, which can be used alone or cooperated with each other. It mainly includes:

**Video teaching and research methods.** Including MOOC resources on multiple online teaching platforms, as well as all kinds of online video live activities, etc., through online live and other video forms, teachers and students can intuitively see the content and organization form of the classroom, and get more information.

**Teaching and research methods of image and text.** Using network sports forum or QQ group to discuss teaching content and expand students' knowledge online to improve teaching effect.

**Teaching and research methods of phonetics.** Through online classroom or wechat, QQ and other online communication tools, to achieve the purpose of timely communication.

With the development of information technology, there may be more abundant network teaching and research activities, but they should take solving problems as the core to promote the diversified development of sports specialty.

#### The Internet optimizes the teaching mode and improves the teaching content

In the traditional concept, the physical education classroom is mostly outdoor teaching, and the teaching form is mainly in the form of running, high jump, physical examination and free activities organized by teachers. In the process of teaching, teachers will intersperse some important sports knowledge and precautions. However, outdoor teaching students are often not focused enough and feel bored with the sports knowledge taught by teachers.

In order to change this situation, teachers should change the single teaching mode, introduce the Internet into the classroom, and promote the sports network teaching and research towards information and technology. For example, when teaching human body and movement, help students to understand their body structure, including the basic structure and function of bones and joints. First, ask relevant questions in the classroom, such as which part of the body gives movement force. Make students interested in the concept of bones and muscles. Continue to put forward the number of body bones and how bones move, arouse the curiosity of students. On the basis of students answering questions, guide students to watch multimedia cases, show the structure diagram of human bones, use dynamic video to reproduce the movement characteristics and coordination relationship with each other, so that students can further understand the structure and movement characteristics of bones. In the traditional teaching mode, the teaching mode of simple knowledge explanation and outdoor practice is single, which can not fully mobilize the subjective initiative of students, and does not integrate into multimedia teaching, so that the explanation of knowledge like bones, muscles and joints can only rely on theoretical knowledge in books, students lack intuitive understanding and feeling, and can not clearly understand what they have learned. The use of Internet multimedia teaching makes up for the shortcomings of Book Theory Teaching and outdoor practice teaching. Through the display of sound and image, students' attention is fully attracted and their interest in learning is aroused [2-4].

## Internet layout, consolidation and practice to supplement knowledge

Physical education teachers should keep pace with the times, grasp the advanced resources and conditions, run the Internet through the process of education and teaching, take "health first" as the guiding ideology, promote the healthy growth of students, increase the strength of physical education reform, not just in the form, with the goal of improving the overall health level of students, that is, the three-dimensional health concept of body, psychology and society, which is integrated into many disciplines. Relevant knowledge in the field, such as psychology, physiology, environment, society, safety, nutrition, health care, etc., and the construction of a new curriculum structure with parallel advancement in the fields of skills, cognition, emotion, behavior, etc. Pay attention to the layout of innovative exercises, highlight the main position of students, and stimulate students' willingness to exercise for life.

In the process of teaching, teachers should optimize the form of homework arrangement and stimulate the enthusiasm of students to participate in physical exercises. After teaching the relevant theoretical knowledge to the students in the classroom, we will instill more and more effective exercise methods to strengthen their physical functions. For example, use aerobics or jogging and other aerobic sports to shape, use tennis and badminton and other sports to exercise arm muscles, and enhance their lung capacity through swimming and other knowledge. Let students choose suitable exercise methods and encourage them to make short-term training plans. Guide students to carry out short-term app punch in the form of competition, group supervision and encouragement on the Internet, and persistent physical training to achieve the purpose of cultivating lifelong physical training.

## Internet teaching can strengthen the relationship between teachers and students

In the information age, the development and utilization of a large number of network resources and the use of mobile terminals accelerate the speed of information transmission, facilitate people's life, shorten the distance between people, and make the communication between people more convenient and quick<sup>[5, 6]</sup>.

The preparation of teachers is an effective means to enhance classroom teaching and enhance the ability of teachers. Teaching and research group regularly carry out teaching and research activities, each teacher for every week will be on the class simulation class, through the internet chat tool to share, members of the group to discuss. For example, a teacher will run the basic action of teaching, by simulating the class, teachers found that the teacher did not organize the practice of decomposition of the teaching process of technical action. This teaching and research group of teachers and technical action to further clarify. Through this group discussion of the preparation methods, from teaching design,

classroom organization, practice design and other aspects to enhance the quality of classroom teaching, especially for young teachers teaching experience is lacking, to carry out weekly activities help them to quickly enhance classroom teaching ability.

Through the network can also establish effective communication of students and teachers, with the rapid development of society and economic prosperity, people's pursuit of health itself more and more urgent, students and their families to strengthen the pursuit of more and more strong physical fitness, therefore, physical education teachers can by way of the internet, through a network platform for students to Therefore, the Diversified Communication mode in the information background makes teaching methods become diversified, and teachers should make rational use of information-based media to enrich teaching methods.

Under the information age, sports education and research group to follow the pace of the Times, innovative teaching and research activities, so that teaching and research activities can really facilitate the effective implementation, to help teachers and students to grow and develop together.

## Acknowledgements

This paper is strongly supported by "13th five-year plan" project of Guangdong education science in 2018 (2018GXJK249).

#### **References:**

- [1] Z.Y. Cheng: Foreign Entrepreneurs, Vol.22 (2019), p.166. (In Chinese)
- [2] H.L.Bao, H Ye: Physical Education, Vol.39(2019)No.5, p.54. (In Chinese)
- [3] Q.Lu: Research on the development strategy of sports muke in China under the background of Education informationization (Ph.D., Liaoning Normal University, China 2019), p.9
- [4] M.Huang: China rural education, Vol.24(2018),p.44. (In Chinese)
- [5] C.Liu, Y.He: Wine City Education, Vol.01(2019), p.5. (In Chinese)
- [6] H.S Guo. Journal of Changzhi Institute, Vol35(2018) No.5, p.84. (In Chinese)