

# Research and Practice of Reform of Intelligent Teaching Mode of Physical Education in the 5G Era

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**Abstract:** In this paper through the literature, logic analysis, the 5G era university sports professional wisdom teaching mode reform and practice, and the wisdom teaching mode of domestic and foreign research status, value, reform content, objectives and the feasibility problem to be solved and other related content to elaborate and explore. Found should firmly grasp the 5G this opportunity, guided by the wisdom education concept, through exploring the university sports professional wisdom teaching mode reform research and practice, make full use of a new generation of information technology advantage for short, solid advantage, the innovation wisdom sports teaching mode, establish the wisdom of the sports professional teaching system, in order to adapt to the development of information technology iteration at the same time, stimulate college students to sports professional learning interest, improve and cultivate students' autonomous learning and innovation ability, improve the teaching system, and actively promote college teaching wisdom teaching mode reform.

**Keywords:** 5G era; University; Sports major; Intelligent teaching mode

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With the advent of the era of 5G, big data, artificial intelligence, cloud computing, Internet of things, such as a new generation of information technology is widely used from all walks of life, to people from all walks of life bring huge impact and change, especially the education industry, the arrival of the era broke the traditional education area restrictions and time and space limit, has a profound influence on traditional teaching methods, to promote the traditional "knowledge teaching" is to digital, intelligent "intelligent teaching". With the clear proposal of intelligent education in the 14th Five-Year Plan, the state and the Ministry of Education will focus on the reform of intelligent teaching and the rapid development of modern information technology. Therefore, under the support of a new generation of information technology to build intelligent, efficient "wisdom teaching" condition is relatively mature, people's communication boundary extension and way of thinking also in the major change, traditional teaching mode has been unable to meet the demand of modern teaching, therefore, the wisdom education development has become the current important subject of urgent research.

## 1. Research status of issues related to smart education model at home and abroad

### 1.1 The research status on issues related to intelligent education model in China

Domestic related research mainly focuses on four aspects: (1) research on mixed teaching mode. In 2022, Yang Chongjun believes that the hybrid teaching mode can make full use of online resources to stimulate students' interest in sports, and effectively broaden the scope of space and time of physical education teaching; in 2023, Xu Zhen Huawei promotes the implementation of SPOC hybrid teaching mode, and proposes data-driven decision-making thinking to build intelligent sports classroom.(2) Research on the integration of teaching modes. In 2021, Wei Jianlin believed that the integration of smart sports and the traditional physical education teaching mode in universities, to cultivate students' sports skills, operational ability and professional quality with the help of different educational methods; (3) research on the construction of teaching mode. In 2022, Li Juan advocated the comprehensive integration of modern information technology, the construction of three-dimensional intelligent physical teaching process, and the reconstruction of

physical education ecology in the information age. In 2022, Liu proposed the innovation of higher education, which focuses on "big data", "online and offline integration" and "teaching by learning".(4) Practical research on teaching mode. In 2020, Xu Jie believed that students generally support the teaching mode of "smart sports" aerobics course, and that they can learn more knowledge and ability in limited classes; In 2020, Zhu Peng made a detailed exploration on the current situation of low teaching efficiency, low efficiency of learning and low sense of participation.

## **1.2 Research status of foreign issues related to intelligent education mode**

Wisdom classroom research earlier in the development abroad, research mainly focuses on the wisdom classroom environment design, space technology design, system design, teaching mode, application practice, earlier apply the network technology in the process of college teaching, at the same time, network technology applied in colleges and universities has been widely promoted, and its application in colleges and universities. For example, as early as 2001, the Massachusetts Institute of Technology used the electronic textbooks in college physical education, and the teaching content of various physical education in the teaching of college PE, greatly improving the flexibility of physical education in colleges and universities. Thus it can be seen that the technologies and methods and modes of foreign information education and teaching have developed rapidly, and have successful results and experience, which are worth our learning and reference.

## **2. The value of the intelligent teaching mode reform and practical research of college physical education major in the new era**

Since the concept of intelligent education has only been clearly put forward in recent years, the development of intelligent education in universities is in the initial stage, the research is not mature, the relevant theoretical basic research of intelligent teaching is not deep, and the integration, construction and practical research of intelligent teaching mixed teaching mode are not enough, the interaction is not sufficient, and the empirical exploration is insufficient. therefore, This research is based on the concept of "the 14th Five-Year Plan", "Exploring the use of new information technology and index technology to reconstruct the teaching ecology of intelligent education", In view of the practical problems existing in the intelligent education and teaching of physical education majors in colleges and universities, According to the positioning requirements of the training goal of applying intelligent sports talents in the new era, On the basis of in-depth analysis of the characteristics of college sports students and the social demand for the employment of sports talents, Combined with the characteristics of the teaching mode of physical education and the practical experience of intelligent teaching mode, Study the innovative construction of intelligent teaching mode from the aspects of intelligent teaching objectives, teaching contents and teaching methods of physical education majors, Further improve the smart physical education teaching system, In order to cultivate high-quality sports talents with independent learning and innovation ability. Therefore, this study can make up for the deficiency in this aspect, innovate, and has certain research value.

## **3. Analysis of specific reform content of physical education in universities in the new era**

Follow the instruction of exploring the use of new information technology to reconstruct the teaching ecology of intelligent education, analyze the current research status of the intelligent teaching mode in colleges and universities, and combining the characteristics of physical education teaching, change the traditional physical education teaching mode, and strengthen the construction of the intelligent teaching mode of physical education major. Specifically, it includes the intelligent teaching objectives, teaching contents, basic teaching conditions, teaching teachers, syllabus, and the connection and integration between teaching and traditional physical education; and then constructs the intelligent teaching system of "guiding the demand of social employment for sports talents, taking students as the main body, improving the ability, the intelligent teaching mode as the main line, and the physical education courses as the basis".

## **4. Specific reform objectives of intelligent teaching of physical education in universities in the new era**

### **(1) Highlight the application, combined with the construction of physical education discipline, improve the intelligent teaching mode system**

Correctly handle the relationship between intelligent teaching mode and traditional teaching mode, and improve the intelligent teaching plan. Only by establishing a relatively independent intelligent teaching mode system, can intelligent teaching not become a subsidiary of traditional teaching and play its due role. Therefore, we should increase the proportion of intelligent teaching in the whole teaching plan; In the perfect intelligent teaching plan, according to the requirements of sports major, actively explore and

increase the design, research and comprehensive teaching content, reduce the single boring content, focus on cultivating the students' thinking ability and innovation ability.

## **(2) Strengthen the practical teaching of the intelligent teaching mode of physical education major, so that the intelligent teaching theory and practice complement each other**

Applying the theoretical system of intelligent teaching mode of physical education major to practical teaching, Breaking with the traditional teaching model, Make the intelligent practice teaching have the initiative, efficient and scientific nature; Improve the materials of practical teaching, With the training of sports talents as the goal, Systematic preparation of the practical teaching syllabus, instructions, reports, Strengthen the guidance of the practical teaching of the intelligent teaching mode; Change the traditional teaching methods and means, Make full use of modern information technology to construct the practical teaching environment where reality and virtual coexist, Formulate a scientific and perfect practical teaching evaluation system, According to the requirements of applied undergraduate sports talent training for students' practical ability, Develop a practical and practical teaching evaluation system, Ensure the teaching quality of the intelligent teaching mode of physical education majors.

## **5. Conclusion**

This study tries to the wisdom of culture, teaching, technology into the whole process of sports teaching, to promote the all-round development of students' knowledge, skills, ability, character, improve the sports teaching quality in colleges and universities, so as to achieve high quality talent training, for teachers and students to provide a good intelligent interactive platform, also create conditions for wisdom sports teaching and scientific research. At the same time, follow the talent training goal of "applying innovative sports talents", improve the talent training program of physical education majors in colleges and universities, explore and construct the intelligent teaching system of physical education majors, so that the trained sports talents can better meet the needs of employment in the new era, and further accelerate the construction of physical education disciplines and majors in colleges and universities. Therefore, this study has theoretical and practical significance for the training of sports talents in universities and the teaching reform of physical education majors in the 5G era, and has certain reference value for the construction and refinement of college education level evaluation and its evaluation system, thus laying a theoretical foundation for promoting the high-quality development of sports majors.

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Huijun Wang (1986-), female, master, lecturer, research direction for physical education and training, social physical education.