# The Remote Transmission and Analysis Framework of Physical Guiding Data Based on Information Technology

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**Abstract**:Aiming at the problem that traditional physical education activities need to occupy a large space and more human resources, the paper analyzes and designs a remote physical education data transmission and analysis platform based on WEB server and information technology, SQL as the database. The platform combines RTP (Real-time Transmission Protocol) and RT-CP (Real-time Control Protocol) to realize the optimization of multimedia data transmission. The final test proves that the performance of the system is stable, which not only breaks the traditional teaching method, but also provides a new learning mode for students. In addition, teaching resources have been optimized, and teaching efficiency has been increased by 5.3%.

**Keywords**: Remote Transmission, Physical Guiding, Guiding Data, Information Technology

## 1. INTRODUCTION

Quality education continues to deepen, and the country pays more and more attention to the reform of basic education and the construction of core literacy. The redesign and development of the curriculum focuses on cultivating students' core literacy, improving students' comprehensive literacy, and promoting national progress. The new round of revision of senior high school curriculum standards regards moral cultivation as the starting point and end point of the revision of curriculum standards [1-6].

highlights the guiding role of developing students' core literacy in curriculum construction. The "New Curriculum Standards" clearly states that in the course of classroom implementation, high school physics courses should promote students' autonomous learning, and allow students to actively participate, be willing to explore, have the courage to practice, and be diligent in thinking. Through a variety of teaching methods, it helps students learn physical knowledge and skills, cultivate their scientific inquiry ability, and gradually form a scientific attitude and scientific spirit [1]. Physics is a basic natural science. Core literacy is a necessary common literacy that applies to all groups of people and disciplines. [7-14].

Using the teaching management information system, daily work is carried out on the Internet according to predetermined procedures, so that the work process is more standardized and transparent, the inquiry and feedback of various information is more convenient, and the teaching management is effectively open, informatized and holiday-free. In the subject of information technology, the connotation of core literacy is mainly reflected in the following aspects: First, core literacy cultivates students' information awareness. Correspondingly, as an important level of curriculum implementation and an important carrier for the implementation of curriculum standards, teaching materials can be understood as teaching materials based on core literacy. Then, what should an information technology teaching material based on core literacy look like and how should it be designed. The cultivation of innovation, inquiry, cooperation and other abilities requires that the teaching mode must be transformed from the teacher's "full house" and "cramming" into a learning mode of students' independent inquiry, independent learning, and cooperation to complete tasks. The interactive teaching mode of guided learning is based on "foreign thinking mode",

"study case guidance", "three doubts and three explorations. 3. The construction of information technology textbook structure design is in the construction of the basic framework of information technology textbook structure design, whether it is " Curriculum Standards" or others, all position the discipline goal on the cultivation of core literacy, when the framework is constructed. The new curriculum takes core literacy as the framework for the goal of educating people. Whether it is the "About Comprehensively Deepening Curriculum Reform and Implementing Moral Tree" issued by the Ministry of Education Post-95s students are trendy in thinking, like flexible teaching methods and a lively classroom atmosphere, and reject the immutable traditional "cramming". The characteristics of high school physics are abstract and difficult to understand. To generate interest in high school physics and maintain the interest in physics and actively participate in physics learning requires teachers to change their thinking and change the existing traditional teaching concepts. The CTACK framework should be effectively recognized first, because the framework It reflects the interdependence of computational thinking, activities, and subject knowledge, and is the basis for the design of textbook structure. In the core literacy of information technology, developing core literacy and enhancing the educational value of textbooks has become the essential pursuit of new textbooks. The functional orientation of "materials" will inevitably make the teaching materials change from the traditional "knowledge" as the main and the "activity" as the supplement, to the "activity" as the main and the "knowledge" as the supplement. [15-21].

The integration of information technology and physics curriculum can stimulate students' interest in learning physics and give full play to it. The role of students as the main body of learning improves the efficiency of classroom teaching, cultivates sustainable development talents that meet the needs of the times, and meets the needs of the society. [22-24]

## 2. THE PROPOSED METHODOLOGY
## 2.1 The Physical Education with Data Analysis

If you want to design the structure of information technology textbooks based on core literacy, you can directly use the CTACK structure framework as the Mainly, actively understand the logical clues of students' thinking

development, and design and design the content of teaching materials from macro, meso, and micro perspectives. Different understandings of the structure of teaching materials will inevitably affect the quality of subsequent teaching materials design, as well as front-line teachers and students' grasp of courses and teaching materials. The above phenomenon cannot be overcome in the traditional physical education teaching model. Everyone knows that there are a lot of flying, high-speed, and flipping technical movements in physical education textbooks. Simply put, the integration of information technology and curriculum is to integrate all available hardware and software related to information technology. of the actions. The teacher's slow speed affects the completeness and effect of the action. At this time, teachers can only demonstrate repeatedly and explain repeatedly. The final result is that the teaching process is affected. Moreover, too many explanations and demonstrations can easily make students misunderstand. Zen is also a difficult problem in the traditional physical education teaching model. The traditional teaching method one-sidedly emphasizes the teaching role of teachers, and only pays attention to the problem of how teachers teach, and ignores the dominant position of students. Purely competitive sports technology teaching is the main teaching method. Teachers only use a single explanation, demonstration, and students imitate exercises. Overemphasize The practice method is neat and uniform, ignoring the existence of individual differences among students, so that students are in passive practice. As a result, "I only don't understand, I only practice,' and I ignore students' emotions and experience, which ultimately leads to a situation where students like sports but not sports classes. The sports network teaching platform can support the development of sports courses through the network platform. Teaching: Full use of the campus network makes it possible to combine network technology and teaching.

Teachers can achieve their teaching goals through the guidance and practice of the network platform. Students can connect to the sports network teaching platform through the campus network to realize teaching interaction.

## 2.2 The Application of Information Technology in Physical Education

In the process of teachers' teaching and students' learning, the knowledge, phenomena and other contents based on information technology are effectively and reasonably integrated, and it is expected to achieve the optimization of the teaching and learning process and effect server, and then connect the server to a local area network that can be accessed by users.

When From a mesoscopic point of view, we should actively understand the internal activity logic and subject knowledge logic of textbook content, and pay attention to the diversified forms of textbook content organization under the logic. From a microscopic perspective, structural design can be specific to the curriculum. In the field of curriculum and teaching theory, there are many different understandings of the structure of teaching materials, which can be roughly summarized into the following four types of views: the view of elements and components, that is, the structure of teaching materials is regarded as an organizational form that conforms to the rules among the various elements and components within the teaching material. The server middleware used by the distance learning system is Tomcat 6.0. The database server adopts the Windows server 2008 operating system, and the hardware configuration is 8-core CPU, 16G memory, and 250G hard disk space. The database uses My SQL. In the testing process

of this module, it mainly tests the students' course selection function, score management and query function in the sports network teaching platform. The test case is the result of a student's selection of sports courses such as football, basketball, swimming, Tai Chi, and table tennis, as well as the student's performance data in each course. After testing, the system can effectively detect whether the credits, grades, etc. of the course selected by the student are out of bounds, and whether the input of the student or teacher user is reasonable.

## 2.3 The Remote Tradition and Analysis of Sports Data

The information technology studied in this paper refers to the digital information technology related to education based on computer multimedia and network. The information technology environment in this study refers to the information technology environment that is currently widely used in primary and secondary schools.

For the application of CTACK in course teaching activities, teachers should design higher-meaning acceptance, experiential and other micro-organizational structures according to its content characteristics and activity requirements. The above several types of viewpoints have their own rationality, or from the composition of elements, or from the form of presentation, or from the degree of appearance, or from the perspective of the system level, expounding the understanding of the structure of the textbook. But in general, the understanding of the structure of textbooks is purely from a certain perspective. The guided interactive teaching mode is a teaching mode that adapts to the needs of the times and implements the requirements of deepening the new curriculum reform. It is based on the learning theory of cognitivism and constructivism. This teaching mode is different from the traditional teaching mode, in that teachers are changing their teaching ideas and implementing quality education. The design of information technology teaching materials based on core literacy, its function is not only to impart knowledge, the rapid development of information technology. its interaction and integration with various fields of society, the amount of data soars. Combining the above viewpoints, this study starts from the viewpoint of structuralism, and integrates the elements view and system level view of the structure of textbooks to form a further understanding of the structure of textbooks: the structure of textbooks is a three-dimensional structure with two meanings. The interactive teaching mode of guided learning is a teaching mode with teachers as the leading role.

students as the main body, combination of guided learning and interactive teaching. It is derived from the "heuristic" teaching mode, which combines the characteristics of the "heuristic" teaching mode and the "inquiry-based" teaching mode, emphasizing students' autonomous learning under the guidance of teachers, and focusing on the cultivation of students' learning ability. The application of data management and analysis module is becoming more and more obvious, and the data management and analysis module can improve students' core literacy, improve students' data management and analysis ability, and make more effective use of data ability to promote social development. The elements of teaching materials mainly include knowledge, skills, ability elements and necessary non-cognitive elements such as emotional attitudes, ethics and morality.

## 3. CONCLUSIONS

The role of teachers has changed from authoritative knowledge instillers to classroom participants who are equal

to students. Teachers' work is no longer simply the transmission of knowledge, but has become a facilitator, organizer and guide of students' learning. Guide to promote learning, combine learning and thinking, and guide learning to interact", so that students become the main body of the classroom.

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