Application of New Network Interconnection Technology to the Development of Basic Physical Education based on Empirical Analysis

Meirong Yang
Yunnan College of business management, Department of finance and economics, Kunming, Yunnan, 650304, China

Abstract
The application of modern educational technology in college physical education, such as multimedia technology, computer technology, network technology and so on, has played a positive role in promoting the development of physical education. In this paper, the author analyse the application of new network interconnection technology to the development of basic physical education based on empirical analysis. Modern educational technology, as an innovative point of deepening educational reform, is closely related to physical education information, innovative talents training, and the establishment of lifelong learning system. The application of modern educational technology is the need of educational reform and development in the future.

Key words: Information system, Computer-aided, Motion simulation, Teacher training

1. INTRODUCTION

In the era of knowledge economy, the focus of international competition has become the competition between economy and science and technology, and the key is the competition among people, especially the competition of high-quality talents. Higher education shoulders the important task of training high-quality talents, but it is difficult to cultivate innovative and compound talents to meet the needs of the knowledge economy era by traditional educational concepts, educational models, educational means and methods. In order to be in an invincible position in the future competition in both developed countries and developing countries are actively in the reform of higher education, education reform, the change of educational ideology and microcosmic involving curriculum system, teaching contents and teaching methods of the reform relates to the macro. From the micro point of view, with the progress of science and technology, the application of modern educational technology in various disciplines has become one of the hot spots of educational reform. Modern educational technology refers to the use of modern educational theory and modern information technology, through the design, the process of teaching and learning and teaching resources development, utilization, management and evaluation, to realize the optimization of teaching theory and practice. It is an organic synthesis of modern educational media facilities technology, educational psychology technology, education information and communication technology, education management technology, education system technology and education planning technology. The problems to be solved in modern educational technology involve all levels of education, including educational planning, curriculum development, educational structure, educational evaluation, etc.. The modern educational technology as a key point to deepen the reform of education has gradually become the consensus of people, and with quality education, educational information, educational innovation, innovative talents cultivation, promoting major issues such as the establishment of lifelong learning system is closely related to. The application of modern educational technology is the demand of modern science and technology and social development for education, and is the need of educational reform and development.

The sports teaching practice teaching mode of image itself is very strong, the traditional way of teaching by the teachers’ demonstration of teaching, students are often very difficult to understand, although the traditional CAI system will be the preset teaching content in the courseware (Asamani,2013). But lack the necessary characteristics of intelligence, between teachers and students to communicate, with the continuous development of computer network artificial intelligence and cognitive theory(Wang, 2013; Guan, 2014), current research on teaching system on intelligent teaching system, students will be located in the center of teaching, using the computer to change the traditional teaching mode of CAI, easy to master knowledge and understanding, this paper mainly studies the design of an intelligent teaching system based on knowledge(Chen, 2014; Jiménez, 2015). Intelligent teaching system is a kind of teaching mode to realize the use of multimedia teaching, compared with the traditional teaching mode, the teaching mode to the targeted teaching, from teaching in accordance with the different models of learning ability, does not require a fixed time or place of teaching teaching.

Because the sports course itself is very practical, so the intelligent teaching system more applicable, the other students are very active in learning sports center mode of thinking, requires a lot of communication between teachers and students, the intelligent teaching system to meet the demand (Li, 2015). The design of intelligent teaching system has been studied for a long time, in the design of the traditional teaching system, the
function is weak, focus of teaching design on teaching materials in the teaching of the show, which existed in the teaching, teaching work teaching system is poor, it is difficult to do teaching and in the teaching, teaching cannot coordinate (Panikhina, 2012). Therefore, the teaching effect is not ideal, and it is difficult to get supervision and feedback. In view of the above problems, this paper proposes the use of intelligent sports teaching system. The design of the intelligent sports teaching system is mainly to realize the communication between teachers and students. Students can access the relevant information through the access of the teaching system and communicate with teachers. The teaching system can realize student’s online learning in the design, thus improving the teaching effect. This design of intelligent sports teaching system can stimulate student’s active learning, and management of students’ learning situation.

2. EVALUATION OF PHYSICAL EDUCATION TEACHING

2.1 Content framework

Any independent discipline has its own unique subject of study and distinguishes itself from other disciplines. Physical education teaching evaluation is no exception, but also has its own special research object. The research object of sports teaching evaluation is in terms of its scope, there are macro and micro evaluation of physical education teaching. Macro physical education teaching evaluation refers to the study of all the evaluation issues related to teaching activities in sports activities, such as in the competitive sports training and social sports guidance, there are teaching activities. Micro sports teaching evaluation is confined to the evaluation of physical education within the school. What we usually refer to is the evaluation of physical education teaching. In the micro sense, the meaning of PE teaching evaluation is divided into broad sense and narrow sense. Generalized physical education teaching evaluation refers to the evaluation of all factors affecting physical education activities, which includes both the evaluation of physical education, and the evaluation of teachers, students, teaching materials, teaching plan and so on. The narrow sense of PE teaching evaluation generally refers to the evaluation of physical education. From the point of view of modern quality education, the evaluation of physical education should be a comprehensive, three-dimensional and comprehensive evaluation of all the factors in school physical education.

2.2 The role of physical education teaching evaluation

The evaluation of physical education has a guiding direction of the object to be evaluated role of guiding role, because in the evaluation, for any object to be evaluated to make value judgments are based on certain evaluation objectives, evaluation criteria. The target, standard, index and weight of these evaluation, for the evaluation object, play the role of "baton", is the direction of their efforts.

1) Diagnostic effect: Physical education teaching evaluation has diagnostic function. The process of evaluation of PE teaching evaluation is the use of various evaluation methods, evaluation of the relevant information collected is analyzed, then based on the evaluation criteria of evaluation objects

![Figure 1. Education Evaluation](image-url)
which reached the goal, which did not reach the goal of value judgement, and find out the reasons for the existing problems, and then provide process improvement ways and measures for this the reason.

2) Incentive function: The incentive function of physical education teaching evaluation refers to the evaluation of the evaluation object has a stimulating emotion, encouraging morale, up and up the effectiveness and ability. The evaluation itself is not the goal, and it is the fundamental purpose to encourage the evaluation object to be improved and improved according to the evaluation and diagnosis.

At present, the research object of sports teaching evaluation involves almost all the factors in school physical education teaching. As for the evaluation of teachers involved in the work of PE teachers comprehensive quality evaluation, P.E. teaching quality evaluation, PE Teachers' comprehensive evaluation, evaluation of PE teachers, PE teachers title evaluation, P.E. Teachers' teaching ability evaluation, sports teaching behavior of teachers in Colleges and universities, different fuzzy comprehensive evaluation the title of public physical education teachers' professional ability of self evaluation, physical education teachers' teaching effect of fuzzy evaluation: evaluation of students involved with multi-level Fuzzy weighted linear analysis of the Department of physical education student achievement analysis, graduate students ability training demonstration test and evaluation, graduates of professional sports practice ability evaluation, college students of Physical Education Department of comprehensive to evaluate the ability of students in Physical Education Department of education, internship performance evaluation, professional sports college students ability Self evaluation, college sports, sports education professional practical evaluation talents evaluation, in recent years the sports college graduates, college students' comprehensive ability evaluation of public physical education achievement of fuzzy comprehensive evaluation, students' ability of physical education evaluation; in addition, there are different types of evaluation, physical education of sports teaching plan, the sports curriculum and other aspects of the evaluation. In general, sports teaching evaluation of the current sports teaching evaluation belongs to the micro, especially the sports teaching evaluation is the evaluation of physical education in the accounts for a large proportion, almost not involved in the sports teaching evaluation on the macro level.

Figure 2. Physical Education

3. DESIGN OF INTELLIGENT TUTORING SYSTEM

3.1 Design criteria of intelligent sports teaching system

The design of intelligent teaching system is not only to meet the needs of teaching, but also need to consider the design after the design of teaching system with scalability. In the design, the design of the hardware and software of the system should be continuous, and the program design needs to be modified to facilitate the later maintenance work. The design of the intelligent sports teaching system should be practical, requiring full design function, and convenient for the reform of school education.
We should not emphasize the novelty, but focus on practicability and comprehensiveness. In addition, we must pay attention to the design of the system to facilitate understanding and control, to avoid waste of resources phenomenon. The design of physical teaching system in intelligence is required to be caution and stability, which is the most basic principle, only to ensure safety in order to ensure the normal operation of each functional area, the choice of the corresponding products and technology, to fully consider all possible problems, so as to improve the stability intelligent teaching system.

### 3.2 Design goals of intelligent sports teaching system

The design of intelligent sports teaching system to campus network as the background, the application of multimedia design, enabling users to complete their own learning, you can choose the right content for student learning needs. In addition, in the design to ensure that the teaching process also requires flexibility, not limited by time and place, the system without the use of CAI courseware through the authentication, can automatically deal with the ambiguity may exist in teaching.

As a system, physical education in Colleges and universities not only includes teaching, but also includes curriculum, management, teachers, students and other aspects. In order to achieve the goal of educating people, physical education needs active cooperation in these aspects. Modern educational technology, as an advanced educational means, can only promote the development of physical education in Colleges and universities only when it is applied to all aspects of physical education. But at present the research on modern educational technology and physical education in Colleges and universities mainly concentrated in sports teaching and research of modern educational technology and curriculum of physical education, sports management, sports teachers are still scattered and superficial, but also relatively rare. Such studies are mostly from a macro
perspective of modern educational technology on the positive impact of the construction of physical education curriculum, sports management, teacher training, student quality training and other aspects of a specific, broad, but not deep.

Figure 5. Physical education curriculum plan

4. ANALYSIS OF PHYSICAL EDUCATION TEACHING EVALUATION SYSTEM

4.1. Systems analysis

Analysis of the teaching evaluation system of sports in physical education teaching evaluation system as the research object, using the system analysis of a series of theories and methods of sports teaching evaluation system, operation mechanism, elements, environment, system analysis. The sports teaching evaluation system is a complicated system with multi factors and multi levels, must be used in system science and the most effective system analysis theory and method of comprehensive, holistic, comprehensive analysis and research, science and understanding its operation law deeply. System analysis is a decision support technique. System method put forward various feasible solutions or strategies for the study, analysis, qualitative and quantitative evaluation and coordination, help decision-makers to improve the research on the issue of the clarity of understanding, so that decision makers choose the action plan. System analysis is an important part of the system method. It is system engineering and system management, together with the relevant professional knowledge and technology, applied to various professional in the field of planning, design and management issues. System analysis is the focus of the study of the system, the survey questions and determine the target, through the system design, the formation of the structure of the system, feasible scheme, comparative analysis and evaluation system to quantify through modeling, simulation optimization and evaluation technology of the various options and alternatives, and finally output the appropriate solution set and its possible effects, for reference. And system engineering activity also includes decision-making and the implementation of decision-making activities. System management is the management of the system that has been built from the viewpoint and method of the application system.

Figure 6. Sports action simulation

4.2. Composition of evaluation system
According to the system theory, the system is an organic whole formed by the interaction and interaction of various elements. The sports teaching evaluation is not the single factor, unilateral, is a complex system, the system is made of a sports teaching evaluation object, evaluation index system, evaluation organization and personnel, evaluation of laws and regulations and other factors or the system interaction and the formation of. The objects of PE teaching include physical education teachers, students, physical education, teaching plan and so on. The evaluation index system is a relatively complex subsystem, which consists of three elements: index item, weight set and evaluation method. It is the most complex and the most abundant subsystem in the PE teaching evaluation system. It is the central link of the PE teaching evaluation system and the main aspect of realizing the evaluation function of PE teaching. Sports teaching evaluation institutions and personnel include evaluation organization, management organization, business organization and personnel. Evaluation of business organizations and personnel can be full-time, specialized, or part-time, can be organized by the official educational administration, but also civil organizations; can be fixed or temporary. The evaluation system of sports teaching includes laws, regulations and systems related to it.

On the one hand, a sports teaching evaluation system of the elements or subsystems is an organic whole, elements and subsystems can play a role, the lack of which is an element or sub-system, will not be able to carry out the evaluation of PE teaching evaluation effectively or not, is not up to the basic requirements of sports teaching evaluation. For example, no evaluation index system, no evaluation institutions and personnel will not carry out the evaluation of PE teaching activities; no physical education evaluation regulations, although it can evaluate the activities, but it is difficult to ensure the scientific, reasonable and standardized evaluation of physical education. On the other hand, the elements or subsystems that constitute the evaluation system of physical education are interrelated and interactive. The objects of teaching evaluation are different, the purpose and requirements of evaluation are different, and the evaluation index system is different; the evaluation index system is different, and the requirements of evaluation institutions and personnel are also different. In sports teaching evaluation system, a certain element or subsystem changes, other elements and subsystems should also be adjusted accordingly, and the function and effect of evaluation will change accordingly.

### 4.3 Web server

The design of Web server is mainly to improve teaching strategies and facilitate teaching. The main contents of this design include user management module and teaching strategy module. The design of the user management module mainly realizes student login and management functions, and can store the student login information; courseware content display module in the design, according to the students' learning process, including browsing sequence and time etc.

The adjustment module of teaching strategy is the key part of the design. Because students have great differences in physical fitness and sports basis, they need to have specific teaching in their study. In this design, the learning record library is set up learning strategies to ensure that students learn according to their own needs, and improve teaching effectiveness. The design of the teaching strategy adjustment module is developed from the teaching strategy, and the teaching strategy based on the knowledge reasoning includes two kinds of forward and backward reasoning:

1) reasoning is mainly teachers play a leading role, process for the first to get the students and the characteristics of knowledge from the knowledge base and the student library, find the teaching method satisfies the two parameters, the formation of a variety of teaching action, this is a kind of teaching teachers in the teaching methods;

2) The problem of the reverse inference control strategy is mainly the teaching of a certain knowledge point, that is, the teaching model is more targeted and can adjust the teaching content according to the students' own needs. In the concrete reasoning, suppose the students put forward the teaching of a certain knowledge point, and then query the pre order set of the knowledge point from the knowledge base, and then check the learning situation. If students meet the requirements, it belongs to the forward inference control strategy, if it is found that the students' mastery of knowledge does not meet the requirements, with the knowledge as the goal, set the order of knowledge points again before the examination.

Standard motion analysis and learning module can provide query and statistical information, etc. teachers and students can query the categories and names of sports items through the system, and print through the specified actions of the browser. Review test feedback module can detect students' errors and reasons existing in the process, and then adjust the teaching strategies, to adjust the technology according to the sports ability and the cognitive psychology of students can be tested, in order to improve the students' interest in learning. In addition, the online discussion base is added to the design, which is not limited by time and place, and reflects the freedom of learning.

### 5. CONCLUSIONS
In the design and implementation of the intelligent sports teaching system, the key technologies include the connection between environment and Web and database. Client in the design can use Microsoft’s Internet Explorer, web platform. The connection between Web and database in the system can be realized by ASP, and the Web application performance is higher in this environment. In summary, this paper focuses on various existing sports teaching and CAI system, designed a kind of intelligent teaching system based on the dynamic characteristics of PE teaching, the system can make the teaching more flexible, not subject to the restrictions of time and place and in the process of teaching, and can meet the different needs of students. In addition, the system can realize the functions of teachers' online management of students' information and teaching information, so that students can learn in different degrees. Therefore, this design is more targeted than other systems.

REFERENCES