

# Computer Multimedia Technology Application in Physical Education

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**Abstract.** Computer technology is contemporary education technology an important content to physical education major as the main Physical Education Department in the reform and development, must be closely combined with the development of computer technology today, and strive to high-tech computer technology used in professional courses in the past, the existing computer applications on the basis of further in-depth study and really master one or two good skill to cope with future social development needs.

## Introduction

With the development of modern educational technology, the old model of education is gradually broken, the new educational model in gradually. Information networks and multimedia technologies are widely affect our educational activities for teaching activities to break time and space constraints, the specific image, vividly show the teaching content, teaching optimization to achieve the creation of the conditions. The advent of computers and the application of multimedia teaching methods in teaching, significantly change the existing teaching model to promote the renewal of teaching contents and the system, and promote the reform of teaching methods, to achieve the diversification of learning, subject of that physical education has entered a new era [1].

## Advantages of computer multimedia applications in teaching

In physical education, the change to a single means, a simple way to impart knowledge, make full use of modern teaching methods and the development of teaching information transfer students' thinking ability, cognitive ability and the ability to observe and analyze the problem of dialectical, will present a multimedia computer traditional educational methods cannot match advantage[2],shown in Fig.1.

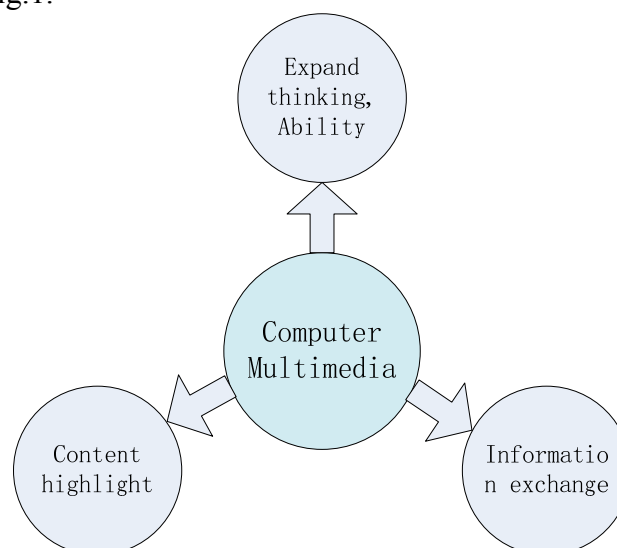


Fig.1 Advantages of computer multimedia applications in teaching

Computer Multimedia Teaching can expand thinking, develop skills. Computer multimedia applications to physical education, you can take advantage of multimedia technology, interactive tools combine to produce dynamic and static picture and intelligence enlightenment and guidance

function, so boring, not easy to understand the concept, the material becomes intuitive, concrete, rich appeal, so that students in the learning process of psychological factors of attention, emotion, interest[2], etc. in good condition, so that learning becomes fun boring, so as to effectively stimulate student interest in learning.

Computer Multimedia Teaching can focus and deepen understanding. With the comprehensive integration of computer multimedia teaching methods text, sound, graphics, animation and images to produce intuitive, vivid, real-time, image and other audio-visual effects. It can guide the students to experience the past situation, wander the halls of history, look to the future world, insight into the stars of the universe, and so that they get more profound perceptions in the study to better understand and remember what you've learned[2].

Computer multimedia applications in teaching can mingle with each other, scientific and effective. The computer can provide a wide range of multimedia features can be selected for the teaching and learning, while providing verification at any time of learning outcomes[1], learning timely feedback can be adjusted learning progress and learning path selection, which provides students with a regulate their own vision, hearing, reading, writing and doing creative integrated learning environment, and then act as a pacemaker and teacher mentor role, the students on the subject of the position, it allows students in the learning process make their imagination, creativity to play in a relatively large space.

### The role of multimedia in teaching computer applications

Computer multimedia applications in teaching, because of its inherent advantages and features, it has shown strong vitality in teaching, it has played an indispensable and irreplaceable role[3].

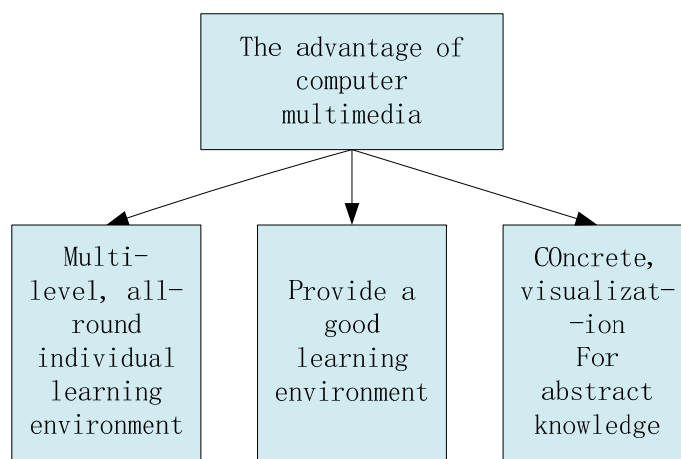


Fig.2The role of computer multimedia in teaching

**a.** Multi-level plays structures. A full range of individual learning environment is reflecting the role of learning autonomy status. Students' ability to accept differences is an objective reality, and different students the same learning materials in learning speed and degree of acceptance is different[3]. Computer multimedia technology into teaching, but it student-centered, man-machine dialogue, give full play to teachers' wake, motivation and inspiration "effect. Showing the state of teaching and learning a complex multi-level sport, individualized, stimulate students' enthusiasm and initiative, so that students can continue to create a "recent developments" in their level so that all students have received maximum development.

**b.** Played to create a good atmosphere for learning, engage students' interest in learning the role[3]. Computer multimedia use sound, moving images, text, graphics, animation, and other functions, multi-channel delivery of teaching information, with more realism and expressiveness, can lead to great interest and attention of students, to induce the students in emotion and behavior actively involved in mobilizing a variety of sensory eyes, ears, mouth, hands and brain into learning activities to make students' cognitive activity along with a wealth of emotion, pleasant moods. Enriches the

imagination of students, active thinking, it will create a good atmosphere for learning, improving learning efficiency enhancing learning.

c. Played so abstract knowledge concrete, visualization effect. Multimedia presentations can change computer graphics, simulation experiments and thought processes[3], so that abstract knowledge concrete, boring knowledge interesting, esoteric science popularization count, dynamic and static knowledge, the intangible knowledge into tangible intuitive knowledge demonstrated in front of students[4].

### Multimedia technology and artificial intelligence technologies application in physical education

The introduction of multimedia technology assisted teaching system can greatly improve the secondary education environment, but also easy to stimulate students' enthusiasm and initiative, which can significantly improve the effectiveness of teaching[4]. However, due to lack of support multimedia systems and inference mechanism student model, so we cannot determine their level of knowledge and cognitive characteristics; not to provide for the student's learning materials based on students' own willingness and ability to understand and make targeted guide that cannot be done individualized.

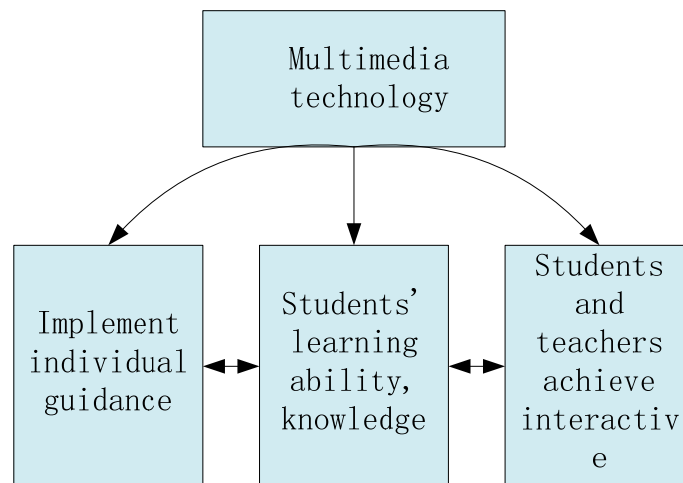


Fig.3 Multimedia technology and artificial intelligence technologies in PE Teaching

Intelligent Assistant Teaching System because of "instructional decisions" module (equivalent to the inference engine), "student model", the module (for recording student's cognitive structure and cognitive ability) and "natural language interface", which has with humans comparable to outstanding teachers the following functions[4,5]:

- a. To understand each student's learning ability, cognitive characteristics, and current level of knowledge;
- b. Be able to select the most appropriate teaching content and teaching methods based on different characteristics of students, and the students targeted individual guidance;
- c. To allow students to use natural language and interactive "computer tutor" (because the machine understand natural language issues remain unresolved, the vast majority of intelligent tutoring system is difficult to do[5]).

### How to use multimedia technology in physical education

Physical education at this stage of multimedia technology in general there are several methods of using the following main means of teaching which is the application of image processing, computer animation and sound to deal with physical education issues. In the whole of the system include: computer, projector, screen, sound, and scanners five parts; in the teaching content to adopt a progressive, gradual development of the principle, the traditional teaching methods and modern teaching practices combined. Teachers explain, guide, and combined with the system displays the

simulation. That is reasonable to arrange a time to leave enough time for students to discuss. Thus, to achieve the students from three aspects, namely, listening, watching, speaking (AC) to achieve 'knowledge, understanding and consolidate[6].

**Selection and image processing system environment.** In order to achieve good teaching, using support multitasking, multimedia Windows environment, development tools used are mainly PowerPoint, the software is well suited for presentation software. It has a wide range of templates that provide a variety of drawing tools, rich and other pictures and documents, and use it to make courseware can easily demonstrate[6].

**Dynamic display and color, sound technology.** People sensitive to something far less stationary sports stuff. In the classroom, always stationary image to see if the student, text and data, students fatigue, so feel boring, it will not be long before the attention of students dispersed. For this reason, we take full advantage of the rich, dynamic display capabilities of the software provided, so that the majority of the screen from the center of the screen and slowly expand to four weeks, and some from the next little bit open[7], but some top-down, from left to right, or lower left, top right, or fly from the corner of the old pastel show places so stark contrast to enable students to be able to closely follow the attention of teachers to explain, without half-hearted.

## Summary

The emergence of multimedia technology teaching brings physical education into a new era, to become a revolution in the field of physical education. Computer Multimedia Teaching for teaching has a very important significance. Teachers can be individualized according to the age characteristics, targeted to carry out teaching activities. Use of computer multimedia help to mobilize the enthusiasm of students, develop students 'thinking ability and creativity, improve students' ability to analyze and solve practical problems. Make full use of multimedia equipment at the same school, inherited the essence of traditional teaching, so that complement each other, for the society to cultivate creative, exploratory talent.

However, the computer multimedia technology in physical education, there are also some problems need to be solved:

**a.** How to achieve the effectively integrate between multimedia technology and traditional teaching? At the same time the use of multimedia teaching methods should not be overlooked using traditional teaching methods and means. Due to the use of multimedia teaching, courseware is well prepared in advance, so its playback sequence and schedule is established, forming a fixed teaching content, teaching process procedures drawbacks, teachers have a hard time to improvise, sometimes not even the student the reaction and targeted classroom atmosphere temporarily adjust teaching content, resulting in rigid modes of teaching, teaching flexibility is not enough, the effect is also very popular lecture affected[7]. Meanwhile, the students of focusing too much on the screen and sound, over time the effect of ignoring the teaching vivid body language and facial expression changes have upset the blackboard and the classroom teacher generated.

**b.** How to continue to play a leading role of teachers in Multimedia Teaching. The use of multimedia in teaching, source of knowledge is no longer confined to teachers and teaching materials, students will get a lot of information through the application of multimedia technology, however, cannot ignore the leading role of teachers in specific teaching. Because, with all the modern media technology is only an aid to teaching, but only to impart knowledge and training of teachers is a source of student ability, therefore, in the multimedia teaching, teachers are not the projectionist, students are not spectators, teachers and students to teach and contradictory studies can only be resolved through an interactive process leading teachers and student learning, multimedia technology cannot replace teachers on knowledge induction, summarize and deepen the function and role[6]. If we blindly pursue the application of multimedia technology and ignore the leading role of teachers, such as multimedia technology teaching is deviated from the original intention of applications.

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