Research on current situation and countermeasure of education informatization at china and abroad

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ABSTRACT: *In the information age, through our continuous efforts, education information development has become a brilliant landscape. Based on the preliminary understanding of the contents and strategies of educational informatization at home and abroad, this paper finds the main gap between educational informatization at home and abroad, knows the problems existing in the development of educational informatization at the present stage, and predicts the development trend, possible problems and improvement methods of educational informatization in the future.*
KEY WORDS: *education informationization, current situation and future development trend, the gap at home and abroad*

I. INTRODUCTION

In recent years, educational informatization has been developing rapidly and has become an indispensable part of educational system reform and social development. The development of informatization is not only conducive to the improvement of national economy, but also can make the global education system more perfect and provide strong support for educational reform in science and technology. Therefore, most countries have begun to implement the comprehensive coverage of campus network, each school also gradually began to establish their own educational information resources network and online video teaching and other related websites, so that students personally experience the benefits of information teaching. I believe that in the near future information will not only be used in the field of education, it will go deep into all aspects of people's life.

II. CONCEPT OF EDUCATIONAL INFORMATIZATION

Educational informatization refers to the process of promoting educational reform and development by using modern information technology in a one-sided and superficial way. Thus forming educational information integration. Education informatization can be viewed from the following two aspects: One is from the technical point of view, the basic characteristics of education informatization are digitalization, networking, intelligence and multi-media. From the perspective of education, multimedia classroom, globalization of resources, individuation of teaching methods, independent learning, fictionalization of environment, automation of management and education informatization are the inevitable trend of education development. From the historical development up to now, the presentation of characters and the creation of printing, the discovery of these advanced technologies has effectively promoted the development and reform of education. At present, information education, as the most influential technical means of education, has had a very important impact on the education of various countries, and this impact is continuing to expand and deepen. Accelerating the establishment of information infrastructure and vigorously promoting information technology has become an irresistible trend of development for all countries.

III. MAIN CONTENTS AND STRATEGIES OF FOREIGN EDUCATION INFORMATIZATION

Educational informatization began in developed countries in Europe and America. In the United States, Japan, The United Kingdom and other countries, information technology has been widely used in education, and

achieved remarkable results in classroom teaching. These developed countries have corresponding strategies and measures in the use of information technology in education, and have put forward clear requirements and principles for the application of information technology, or formulated corresponding evaluation criteria for the application of information technology.

3.1 Main contents and strategies of American educational informatization

As the world's largest economic power, the United States in the development of information technology constantly in the forefront of the world. The United States began to implement computer assisted instruction in the 1960s, and began to introduce computers to schools in the 1980s. In 1996, President Clinton and the United States Department of Education in the proposed national goals, after nearly five years of unremitting efforts, information technology has also achieved remarkable results. In 1997, the federal government set up the fund construction program of education informatization, which provided about 7.65 billion US dollars from the fund of education service and the fund of library to the outside world, and established the digital library and network education resources with this fund. By 2000, the campus network has been widely covered in various colleges and universities. In January 2001, President Bush put forward the layout of education action of "No Child left behind" and put forward the strategy of online learning. Network education committee to further strengthen the information of education put forward seven suggestions. After the implementation of the educational informatization development plan, American informatization technology has achieved remarkable results.

3.2 Main contents and strategies of Educational informatization in Japan

In Japan, as early as in 1985 has established the direction of the development of information technology in the field of education in 1992 put forward the application of information technology in the field of education, multimedia is widely used in education, thus the symposium in 1994 established and issued a series of policies and methods of the multimedia teaching, each school is equipped with 1995 computers, After training, teachers have mastered the corresponding application methods of computers. In December 1999, the implementation plan of education informatization was put forward, and it is planned that all primary and secondary school students in China will use information technology to learn all subjects by 2005. In 2001, the prime Minister and the main members of the Cabinet further defined the main content and target of the development of education informationization. At this time, 5.4 students have a computer, all schools began to implement computer broadband network teaching and the local network coverage of ordinary classrooms reached percentage. By 2006, every teacher will have a personal computer.

3.3 Main contents and strategies of educational informatization in the UK

As the earliest country to apply information technology to education, Britain has developed at a very fast speed. In 1978, the United Kingdom began to develop related programs, and in 1988, the Education Reform Act established the national Curriculum (National Curriculum). In October 1995, the Government formulated a five-year plan called "Internet in England" to provide information technology to all primary and secondary school students. The goal was that by 2002, all schools would be connected to the campus network. The man-machine ratio in secondary schools was 7.9:1, and that in primary schools 2.6:1. In 1997, "Virtual teacher-Center website" was established. In 1998, the national education portal was basically completed. In January 1998, schools began to implement E-mail, and the government gave all students free E-mail accounts. It is planned that all schools will have computers by 2002.

IV. 4.MAIN CONTENTS AND STRATEGIES OF DOMESTIC EDUCATION INFORMATIZATION

4.1 The government attaches great importance to it

With the development of information technology, educational informatization reform has become a necessary reform and an important part of the development of colleges and universities in Our country. The development tide of informatization is becoming more and more rapid. In order not to lag behind other countries, our government has made a series of development plans.

In 2010, the Outline of the National Medium and long term Education Reform and Development Plan was released. On September 5, 2012, the Vice Minister of Education proposed the construction goal of "Three channels and two platforms", which became the core task of informatization during the 12th Five-Year Plan period. By 2020, the digital education service system will be fully covered, so as to realize modern teaching content and teaching means, so that students can learn more knowledge than in the classroom without going out. In order to accelerate the modernization and construction of education, promote the development of education in a new information age, and promote innovation-driven development, education informatization 2.0 was formulated in combination with several national documents.

4.2 The application level of information technology has been significantly improved

Through the continuous improvement of information technology, the school has changed the previous way of education management. With the continuous improvement of educational management level, educational management methods and methods become more standardized and scientific.

Gradually from the traditional teaching mode into the informationization teaching mode, students will be able to faster and more convenient to accept the knowledge in the world have at present, no longer need to worry about learning materials and, no longer need to spend more money for learning materials, more convenient to find won't spend a few days to find a like previous data. The teaching mode is more and more standardized, and it is more convenient for students to manage. Information technology is not only applied in the field of education, it is also gradually entering the economic and social science research, factory management, entertainment industry, film and television production and other aspects.

4.3 Informatization construction is gradually strengthened

The teaching quality of primary and secondary school students has been gradually strengthened. With the continuous improvement of information technology, almost all primary and secondary schools in China have their own computer rooms, and more and more students accept information teaching. Schools also gradually began to establish campus network area, and coverage is also more and more big, part of the school has established the network education resources so that the students can access the part of the education by campus network of information resources network and get what they need, most schools also set up their own information network more system to manage student information, investigating the student information more convenient.

With the success of space satellite construction, the satellite video system has been gradually formed, and China's education TV satellite broadband and multimedia transmission platform construction project has been basically completed.

V. DEFICIENCY OF EDUCATIONAL INFORMATIONIZATION AND THE IMPROVEMENT COUNTERMEASURES

5.1 The construction of educational informatization environment has accelerated, but its application lags behind

In the multimedia classroom, campus network, regional education network, resource core and other hardware and application software construction gradually perfect in this process, schools around the world, almost all have established the education campus network. The network is connected to the teaching building, the laboratory building, the library, the office building, but also some of the school's student dormitory building and the teacher's residential building covered by the network. Through the information teaching mode, so that students no longer just stay in the books, almost every school has their own multimedia classroom, students can use the campus network and download the existing resources in the school education network for free, in spare time can also go to the empty computer room to study online.

However, with the continuous progress of information technology, the resources applied to education also have some inevitable problems. For example, multimedia classrooms put into use can not be fully utilized, people still stay in the era without the Internet. Some schools can not fully connect the network, affecting the use of teaching, so that over time, it will affect the teaching schedule.

5.1.1 The construction of educational informatization resources has been promoted, but the actual available educational resources are insufficient

Educational informatization resources play a very important role in educational informatization, including electronic audio-visual textbooks, media materials, courseware, cases, documents, question banks, teaching tools and so on. In recent years, colleges and universities have developed nearly 100 kinds of multimedia teaching software. According to the advantages of the subject, they have developed some software based on network teaching videos and materials, as well as some network courses. Online distance learning and teaching can be realized through resource sharing, but there are still insufficient resources.

5.1.1.1. Low resource integration

Present teaching software is mainly aimed at the design course, this course is a single, from the perspective of a single function designed software, the software of knowledge in various disciplines of the connection between the change no longer close, between each function cannot be combined with each other, may lead to resources can't compatible or operability.

5.1.1.2 Low availability of resources

At the moment, most creators are paying more for capacity as the standard, but getting less and less useful stuff. There is bound to be some gap between the content of resources and the actual needs of teaching practice. And with the current textbook revision, the knowledge contained in it is also constantly reduced, a lot of more

difficult knowledge points have been deleted.

5.1.1.3 Resource update problem

At present, teaching materials and syllabus are constantly changing, so that the network teaching video and the latest teaching materials do not match. The slow production of teaching videos may not keep pace with the updating of teaching materials. This is because information technology has accelerated the synchronization of online knowledge, so that it does not match the content on paper.

5.1.2 Information technology textbooks in primary and secondary schools and universities are incoherent and the knowledge is not novel

The textbooks of primary and secondary schools and universities are constantly revised, and the systematic knowledge is not enough, leading to the lack of coherence of the arranged textbooks, and there will be the problem of knowledge loss and repetition.

Similarly, the setting and composition of information technology courses cannot be connected effectively, and the old teaching textbooks are not conducive to information teaching. The weak faculty of the teacher team can not develop educational informatization well. The application of traditional teaching methods in the current information age of teaching, it seems so inadequate.

5.1.3 The lack of senior informatization talents has become the fatal defect of the development of education informatization

Now in urgent need of a large number of modern ability, information quality is relatively high all kinds of talents. Due to the lack of talents, information teaching cannot be applied to all subjects. Now, except for teachers of computer science, teachers of other subjects only know some simple basic application of software in the information age. The talents trained in this way are relatively unitary and cannot adapt to the development trend of the current society. It is difficult to train information-based senior talents, and they cannot be widely distributed in all schools, as long as a small number of key schools can be allocated to such talents.

5.2. Improvement methods for some problems in the development of educational informatization

5.2.1 Strengthen the development of educational informatization technology

Gradually strengthen the information technology of education, improve the development of software in the information age, apply it to education, improve the level of teaching, so as to promote the development of economy and society. Improve the information technology, strengthen enterprise management, development and engineering technology research and development, strengthen the construction of the university of science and technology, the development of important technologies such as automated production models, and the application of technology in education, increase the degree of education so that the students overall quality was improved, and then, after entering society return society, thus promote the improvement of economic level, To improve people's living standards.

5.2.2 Formulate policies and standards to promote the development of educational informatization

Educational informatization is a long-term strategic project, which must be guaranteed by corresponding policies and standards. It mainly includes the following strategies: the popularization of information knowledge, the cultivation of advanced information talents, the development strategies of related industries in the process of information development, and the strategies of education information related services. Complete relevant strategies to accelerate the development of educational informatization. Only by formulating relevant policies can we ensure the steady and accelerated development of information technology. In the formulation of policies, the characteristics and needs of each region should be considered, and the corresponding strategic policies should be given, so as to gradually form the standardization of education informatization and standardized management policies.

5.2.3 Further increase the investment in education informatization, comprehensively improve the level of informatization construction, and speed up personnel training

Strengthening the development of information technology requires a large amount of funds for research and development of various technologies. Therefore, the need to increase the investment of funds, can take a variety of ways and channels. There are mainly two ways: on the one hand, it is classified into the national fiscal revenue to ensure that a certain amount of funds is used for education expenditures; on the other hand, it is strongly subsidized by enterprises and society to education, especially to poor areas. Special funds are provided for the research of information technology, so that researchers can concentrate on the development of new technology, improve the level of information construction, and lead young people in the new area to enter the research and development of modern information technology, so as to cultivate more senior talents for the future society.

VI. GAP BETWEEN DOMESTIC AND FOREIGN EDUCATION INFORMATIZATION

Due to the isolation of our country, the economy and science and technology are lagging behind. However, China's economic development is still relatively rapid, since the reform and opening up, the country's economic strength and scientific and technological strength have been constantly improved, and even to rank

among the ranks of developed countries.

In recent years, the application of information technology in some foreign countries is more in-depth and practical. It is no longer a single auxiliary management, but more in line with the needs of the society at the present stage. However, the application of educational informatization in China is not thorough enough. Many technologies are only applied on the surface without any real changes. The application and teaching of information technology in the United States is mainly before and after class. In China, it is mainly used in classes. The UK began its education reform in 1988 and added the course of information technology, while the introduction of information technology in China is relatively late.

VII. THE DEVELOPMENT TREND OF EDUCATIONAL INFORMATIZATION IN THE FUTURE

In the future, education informatization will go deeper and deeper into people's lives, and people will be able to learn and master a technology through informatization technology anytime and anywhere. The information age will replace the routine of traditional education to make teaching more vivid and appropriate. We can personally feel the high-tech learning mode brought by the information age through every bit of life, and we can learn other knowledge more intuitively while learning one technology.

Of course, the rapid development of information technology will also affect students' learning, for example: mobile phones continue to affect students, the use of good can help us to solve the problems in the process of students, but if excessively addicted to other software will greatly affect the motivation of students to study. In a word, with the rapid development of information technology, people's education level is constantly improving, but it is also a double-edged sword. Only students can restrain their own behavior through self-discipline and effectively use educational information technology to improve their knowledge level.

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