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The Study on the Development of Internet-based Distance Education and Problems

Gao Guohong^a, Li Ning^a, Xiao Wenxian^b, Wan Wenlong^c

^a*School of Information Engineer, Henan Institute of Science and Technology, Henan Xinxiang, China,
e-mail: Sanyuerj03@126.com, lining@hist.edu.cn*

^b*Network Center, Henan Institute of Science and Technology, Henan Xinxiang, China
e-mail: Xwenx@yeah.net*

^c*Foreign language department, Henan Institute of Science and Technology, Henan Xinxiang, China
e-mail: wanwenlong@hist.edu.cn*

Abstract

The modern Internet-based distance education is steadily moving forward, and has attracted more and more people's attention and gradually showed strong development momentum. But some pressing problems also exist. Based on the current situation of the development of distance education in China, combining many years of experience and practice of investigation in distance education, the characteristics of the development of distance education are elaborated in the article, the importance of multimedia courseware in distance education is pointed out, and the problems existed in distance education and their perfecting countermeasures are particularly analyzed.

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Keywords: Internet; distance education; problems; solution

1. Introduction

With the spread of such information technology as computer networks, satellite communication network, cable television networks, people's ways of living and learning are undergoing profound changes[1]. Modern distance education established on the basis of computer networks is booming in China, which exerts an important impact on the development of modern educational technology, and this new way of education is worthy of our in-depth study and discussion.

General speaking, the features of network distance education include multimedia teaching, interactive demonstration, interactive guidance, control of the keyboard, monitoring and remote control, classroom management, online examinations and so on. Compared with traditional classroom education, network distance education shows tremendous advantages with the features of the richness of its resources, sharing, interactivity and collaboration of teaching activities[1].

2.The characteristics of distance education

2.1.Openness

The so-called “openness”, is the opening of the goal, namely the schools are open to learning objects; educational resources or teaching courses are open; educational methods or the ways of management are open; educational facilities and time are open. In distance education, it is different from traditional education in education and teaching system which pays more attention to the cultivation of innovation ability. With the premise of ensuring the educated having the basic ability of learning, a "lenient entry, stringent exit" approach is taken, and the checking of the education quality is not put at the entrance, but on exit; in teaching management, instead of taking the principle of survival of the fittest, on the basis of ensuring the quality of basic education, many educational opportunities are provided for people as many as possible; in educational methods, the working reality of serving staff with the different professional backgrounds and working hours must be considered; alternative education services should be provided, in particular, a variety of educational resources should be optimized and combined to serve for the educated[2].

2.2.Flexibility

Flexibility of distance education shows as follows:

- 1) It is able to meet the individual requirements of the educated, to give greater autonomy to the educated. The educated can learn in the way chosen by himself to improve learning efficiency, and therefore change the passive learning to active acceptance. In distance education, the educated is responsible for the individual learning progress; learning evaluation is to focus on the progress of learning rather than the success or failure of their examination results. The learning of the educated requires the cooperation of the educated with teachers in order that the content of the learning is in line with job requirements. The learning of the educated is mainly autonomic learning while the school is to provide more learning conditions and services.
- 2) Distance education has wide coverage, flexible means of communication, and educational resources and learning are free from the constraints of time and place, able to provide education services for the educated at any time, anywhere.
- 3) Distance education units can achieve various forms of cooperation of many higher education units, and complementary advantages, fully playing the role of tertiary education.

2.3.The popularity

The advantages of the popularity is based on the first two ones: It is because of the openness of distance education, will it be possible to provide educational opportunities for the educated with the different basis and different experiences; at the same time, also due to the flexibility of distance education, it is possible for the educated with different backgrounds and different occupations to accept further education. Therefore, distance education has the characteristics of the popularity.

2.4.The sharing of social resource

Using the Internet, distance education provides the learners with the greatest wealth of information, so that the learning is changed from the process of passively recording outside information into the process of learner’s selection of information[3]. From the material sense, e-learning breaks the constraints of time and space; it is not necessary for schools to arrange classrooms for students, not even the solution of the accommodation for the students, and the time and cost of the students using for transportation can also be

greatly reduced. Teaching activities are out of geographic restrictions, and extend to country and the world, achieving the sharing and optimization of educational resources. In addition, because online learning information is in the form of an e-mail, a copy of the information is simple, rapid and economical, saving a lot of book costs.

3.The current problems in distance education

At present, the whole distance education market is growing rapidly, and has great potential. However, distance education in China is still in development stage, if the distance education of open university system is not included, a real sense of distance education just started in 2000. So far, there are still many uncertainties about China's distance education, and the future direction of development is still in a process of trial. There are several major problems after analyzing:

3.1.Quality of courseware

Distance education is taught through the medium of courseware. In the process of the courseware production, teachers provide static content, and the multimedia production staff digitalize it, which leads to the phenomenon that the one who is professional but does not understand technology, while the one who understands technology but is not professional. Therefore, how to improve instructional design and the quality of courseware is an important topic distance education faces.

3.2.Policy supports but the guidance direction is not sure

In distance education, our current national policy is very loose. According to relevant regulations of the Ministry of Education, the pilot institutions can implement self-management, having autonomy in enrollment, issuance degree, deciding of assessment methods, deciding of the professional direction. Particularly, in professions, appropriate to relax the policy to distance education. Distance education can breakthrough in the restrictions of 253 professions for current students, as long as having the process of scientific evidence by experts[4]. However, in the way of promoting the development of distance education and future development direction, there are still disagreements within the field of education. The policies relating to distance education which have been issued gave the various experimental college considerable autonomy, but the power conflicts with the responsibilities of relevant environmental authority. In addition, some experts believe that the pilot institutions do not have too much, and having 15 of them are enough. So far, China's online education colleges are pilot institutions, exploring the future scientific mode of distance education in China through pilot projects.

3.3.The fund is enough while the talents are lack

Most of the current distance education projects are carried out by means of the cooperation of schools and businesses. The companies are optimistic about the great development prospects of distance education in China, so they have invested abundant capital, technology in this market. Therefore, at present, the money is not the main factor for distance education[5]. At this stage, the biggest problem is the lack of talents. Distance education is a systematic project, which requires a combination of human and material resources from schools, businesses, society, a combination of traditional teaching methods and modern educational technology and a combination of education and teaching activities and business operation activities. It requires not only skilled professionals, but also management personnel who are familiar with teaching steps and the methods of business. Especially in the current period of initial development, more compound down-to-earth talents who have far-reaching vision are needed. But in fact, it is still lack of such comprehensive talents at present, which will have great impact on our future direction and the pace of development of distance education.

3.4. Lack of resources and duplication of similar projects

Shortage of resources is currently a common problem in the education information industry in China, because of which so many schools have put into force to conduct the associated development and construction. But now they are each doing their own, often multiple schools and companies make courseware duplication, resulting in a large waste of resources. Meanwhile leading to uneven quality of software resources and some are directly applied to the traditional paper-based lesson plans, lack of vitality. These products will affect the teaching effect; lose the advantages of information technology education, which also affected the promotion of distance education.

4. The solutions to the problems of the development of distance education

4.1. Construction of multimedia distance learning hardware and software platform with computer network as the core

To implement modern distance education, schools must first build the hardware platform of modern distance education, which mainly includes: configuring audio and video equipment, audio-visual classrooms, FM radio, computer and other media facilities, install satellite antennas, VBI and IP receiver equipment, set up applicable computer network, and launch a remote ATM video broadcast system, and increase the building of Internet technology -based distance education site.

In the construction of multimedia distance teaching platform, software is the key. The software system of distance teaching includes system software and application software, the core of system software is operating system. With the support of the operating system, language processing, database and other system soft wares and video playback software, email delivery software and other application soft wares provide teachers and students with tools and services. In the process of building distance teaching software platform in the process, we should pay attention to one principle: simple and universal, and thus facilitate students' access to learning resources.

4.2. Construction of Teaching Resources

Distance education software, hardware platform in many schools has taken shape, while what lacks most is teaching resources, which is also the key whether distance education has the ability to obtain good results. The building of distance teaching resources not only requires substantial capital investment, and requires lots of manpower, especially the need for the persons who have both teaching experience and knowledge of software development. Such talents have been very lack, and at the same time because the school teaching routine must be conducted, the manpower which can be put into distance teaching is limited, so the independent development of all new distance learning resources are very difficult to afford, and it is not necessary[5]. Therefore, the current schools should be adapted to local conditions, better and more economical to build distance teaching resources. General speaking, should take the following main ways:

- The collection, transformation, integration of traditional teaching resources
The early distance education accumulated a large number of texts, tapes, videos, pictures and other forms of resources. Through modern information technology they can be transformed and integrated into distance learning resources suitable for multimedia and computer networks teaching.
- The collection of sharing resources
Many shared resources online are completely free, or free of charge within the specified time, or are free in a certain function. We can gather a variety of free sharing resources through various channels to enrich distance teaching resource library.
- Purchase or exchange of multimedia network resources

If the required teaching resources are more mature, and the development is diseconomic, or unable to develop, you can buy them. Some teaching resources can be obtained by way of exchange, then save money and simplify matters, and can share resources with others.

- The new development of resources such as electronic lesson plans and online courseware

Some teaching content is not readily available, and the only way is to positively develop. There are many forms to develop resources; generally it should choose their own development, the development by commission or cooperative development based on specific circumstances. The reusability, portability and platform independence of learning resources and comprehension, diversity, simple operation and interaction of content should be achieved.

4.3. Strengthen the training of teachers to improve the level of modern distance education

In distance teaching, teaching center is changing from the "teaching" of the teachers in the traditional teaching into a student's "learning", students becoming the subject of teaching. But the leading role of teachers in teaching is still very important, and without the leading role of teachers, teaching is also difficult to carry out. Therefore, when building teaching platform and teaching resources, it should also enhance the training of teachers' quality in the teaching environment. This mainly refers to the required qualities teachers possess in distance education, which includes:

- The establishment of new teaching ideas and concepts, and the active exploration of new teaching methods

For many teachers, particularly older teachers have become accustomed to the traditional classroom teaching, and also accumulated a wealth of teaching experience in this respect. In the face of online distance teaching, they do not adapt to this new teaching environment first from teaching ideas and concepts. They will be excluded from new teaching methods in the psychology, still using traditional teaching methods to make it difficult to raise the quality of distance education. Therefore, the training of teachers should be strengthened to enhance their understanding of distance education, help them change educational ideas, face the new teaching environment with a positive attitude and explore new teaching methods.

- The master of the basic knowledge and basic skills in distance teaching

To fully play a leading role in distance education, teachers should not only update the concepts of education, but also master the basic knowledge and basic skills of online distance teaching, which mainly include: computer basics, multimedia teaching theory, the making of multimedia courseware, basic network knowledge.

4.4. Focus on students' ability to access to online teaching resources and master the learning method of distance education

Modern distance education resource is supported by modern information technology, which is an important tool and method achieved by open students. Students should be comfortable to accept distance education, master the basic knowledge and skills of online distance learning, which include: the using of the basics of computer, basic operation of Windows, browsing Web pages on the Internet, able to participate in BBS discussion, able to download the file, able to send and receive E-Mail and able to demand multi-media courseware. If students participating in distance education do not have the necessary knowledge of modern information about computer networks, even if whatever rich teaching resources, modern distance education will not succeed. Therefore, the top priority of making modern distance education successful is to carry out the education and training of modern information technology, to cultivate the students' learning self-government capacity access to modern teaching resources.

4.5. Strengthens the teaching reform and builds teaching quality assurance system

- The reform of teaching materials

The traditional materials are paper-made, and relatively old, basically for face to face classroom teaching. In order to adapt to different levels of individual learning needs, a variety of media materials must be prepared. At the same time of the preparation of the new textbooks, more efforts should be spent on the design of digital materials based on computer network teaching. An important principle reflected in teaching materials is: to guide students, and how to get other related materials, learning resources and how to get counseling should be introduced in the teaching materials.

- The reform of teaching forms

The aims of modern open education are anyone can get any course of education at any time and place, but the knowledge level, learning time, learning sites of students in distance education are not uniform, so in the organization of teaching, the teaching organization of individual learning as a center, and supplemented by collective teaching is generally used. The collective learning is mainly group learning-based.

- Broaden the educational ideas

The school running in the past is mostly the running path of independence. Because personnel, finance, and material of individual school are limited, so professional-caliber of running school and school size are affected. Adopting such full range of school running as taking joint schools can not only complement each other, share resources, but also expand the size of school, and improve operating efficiency. 4) Reform teaching management and achieve the modernization of management methods of teaching

The achievement of the modernization of teaching management mainly starts from the reform of administration contacts management and the strengthening of curriculum management, and establish a scientific integrate question bank and the scoring system, enabling assessment computerized. Computer scoring is fast and accurate, and can step on the questions for analysis to find some defective title, to improve test reliability and validity. The results of computer scoring can result in timely importing into line query system to facilitate the opening up students in timely cross-probing.

- The education departments at all levels should attach great importance to support the development of distance education

The key of whether a new thing can healthily develop lies in the attention and support of government. Despite our distance education to a large extent is taking the road of the market, but in many respects still needs the support and coordination of relevant government departments. The awareness of distance education of the leading cadres, determines its degree of support for distance education, but also determines whether distance education can rapidly develop. This requires that the leading cadres should have ideas of modern education and advance awareness, regularly participate in the training about the knowledge of modern education, improve awareness, emancipate their minds and change their ideas. Attach importance to the whole society, the rapidly growing popularity of distance education can be.

5. Conclusion

In short, Internet-based distance education is a sunrise industry, with full development potential. Distance education in china will be continuous, rapid development in the coming years. We should use our advantage of specialized courses of computer, as well as the advantage of teacher profession, to produce more and better courseware and related software in network distance education, and do our best to make due contributions to the cause of distance education in China, making distance education in our country develop along the vigorous and healthy path and making modern means of education benefit millions of students and the vast majority of the educated.

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