The New Teaching and Learning Modes Based on Internet for Deaf Students

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Abstract—**Network teaching and learning, particularly based on Internet, has had influence on traditional teaching and learning modes and will become dominant teaching and learning mode in new century. Due to the influential facts, such as the deaf student's characteristic, network teaching and learning has a great help for the education of the deaf students. This thesis tells main deaf teaching and learning modes based on network, and analyze features of each mode, it also points out some problem about deaf Network teaching and learning, gives some suggestions and puts forward the new internet education mode— network distance education for the deaf students.**

Key Words—**the deaf, Network teaching and learning mode**

I.   INTRODUCTION

Network is the essential base in this information society. In the deaf depend on network a lot. Both international deaf education and domestic deaf education need network tools, so the deaf education modes based on network has shaken traditional education and will become the main stream of education modes.

Domestic academics and researchers have explored new ways such as CAI, multimedia and network to improve teaching and learning courses and got effective progress. Nowadays, network teaching and learning goes on through network virtual classroom, campus wide web and Internet. Taking multimedia and network as tokens, new information technology revolution has changed deaf education and will promote deaf education system and modes to develop rapidly.

II.   NETWORK TEACHING AND LEARNING IS TREAD OF HIGH DEAF EDUCATION IN THE FUTURE

A.   Traditional Deaf Education Modes

In traditional education, teacher is the central and controls the class activities. Distance education such as correspondence education and LAN (Local Area Net) education have limited students' motivation and creative thinking and also prevented personality growth of deaf students. It's difficult for teachers to choose the teaching content, the rate of program and teaching outline, when students are in different levels."

B.   Features of Network Teaching and Learning

Network virtual classroom provides text, voice, video and graphics for learners at anytime anywhere. It also offers large knowledge base an information base designed with HTML, which fits in human memorizing characters. Thus it can easily arouse students' interests.

Network teaching and learning motivate students to take initiative. It may go on not only for individual but also for group cooperation. Still it can combine them together to become a new teaching and learning mode. It can meet some students' special need about the content, timetable, learning way, learning places and instructors.

Teaching and learning based on Internet can be undertaken without the limitation of time and places. Everyone can freely choose learning, read books of world famous libraries and get help from experts home and abroad only if they can dial up Internet.

III.   PRESENT MODES OF DEAF NETWORK TEACHING AND LEARNING

A.   Introduction

Nowadays, CAI courseware dominate education field. Their same technology feature is to be based on framework and adopt branch program with steps. As the users of software, students accept knowledge passively. In order to meet needs of teaching and learning, ICAI (Intelligent Computer Assisted Instruction) and NBCAI (Network Based Computer Assisted Instruction) are adopted. NBCAI is a kind of teaching and learning software by network through which students have classes, practice and tests. There are two forms of CAI: CAI based WWW and CAI based client / Sever. CAI based WWW is that instructors put course content into HTML or animation web and upload them on Internet or WWW server of Internet. Then students can use WWW browser to land some website to learn the content of Distance learning. It's very convenient to share learning information. Client / Sever based CAI is that instructors and students teach and learn course through each other's client software.

B.   Main Ways of Deaf Network Teaching and Learning

Now main ways of deaf network teaching and learning are as followings: virtual classroom teaching and learning, program teaching and learning online teaching and learning and client teaching and learning.

1)   Virtual Classroom Teaching and Learning

Virtual classroom teaching and learning can be undertaken on Intranet in small-scale or broadcast net like just-in-time

teaching in Television College. It's early period of network teaching and learning in order to share teachers' resource.

2) Courseware Teaching and Learning

It means some CAI programs that ate stored in the servers of campus wide web or computer lab. Instructors select some content to play for students' understanding and exercises. Usually, they are inserted in class as complementary forms for teaching.

3) Online Teaching and Learning

It means connecting computers at home or institutions with Internet, then students can freely choose time to receive education, and instructors can give students suggestions according to their feedback.

4) Client Teaching and Learning

It adopts CAI system regarding constructionist teaching and learning theory. Client (Instructors or students) can tell system their requirements, and then the system will automatically adjust and redesign the course content to meet client's satisfactory. In this way, cyber information can be used effectively.

IV. ANALYSIS THE NETWORK EDUCATION

A. CAI courseware

Common CAI courseware fits in traditional teaching and learning thinking mode and is accepted by most of instructors, while they lack flexibility. Students still remain passive learning environment. ICAI courseware is much flexible to draw students' attention. They also have pleasant interface between operators and computers, but they are not convenient to exchange ideas between instructors and students. NBICAI is the trend of CAI courseware. They provide better communication both for instructors and students, and yet the amount of Chinese CAI on Internet is not large.

B. Comparing Network Teaching and Learning Modes

Virtual Classroom teaching and learning and courseware teaching and learning usually are undertaken on Internet it is easily operated and also the cost of system is lower. Therefore it fits in with election courses. Now, it's applied in deaf education. Courseware teaching and learning especially some courses with mature content are widely used, but there are still some problems. On one hand, the quality of courseware is not so good; on the other hand, some people don't accept courseware for teaching because of old prevailing practices and only regard it as a complimentary form.

Online teaching and learning and client teaching and learning are undertaken on Internet. They have bright prospects. Their feature is that the whole teaching and learning program can go on at anytime and anywhere. Anyone who only needs a computer connected with Internet can begin his learning, he even can decide the rate of program, and so it is very attractive for deaf students.

C. The advantages of the deaf network education

The deaf network education has many advantages, such as it consists with the characteristics of strong visual of the deaf students, having a good interaction. It is in line with the learning psychological and fits the thinking characteristic of a one-way of the deaf students. The deaf students don't have study pressure. It breaks the constraints of time and space, so that the communications between people will not have constraints of physical properties of space. It replaced the old tradition which is teacher-centered, textbook-centered and classes-centered, building a new tradition: student-centered and following the educational philosophy of "people-oriented". The control device and methods of the teacher toward more scientization.

V. DEAF NETWORK TEACHING AND LEARNING BASED ON INTERNET

Deaf network teaching and learning based on Internet can use different ways such as WWW technology, E-mail, BBS and ICQ to go on teaching and learning, information feedback and interactivity. Instructors put course material such as teaching goals, content and assessment into HTML program or other forms of files and store on web server, and then students can browse these webs. They can ask and get help through E-mail and BBS when they have problems.

Instructors and learners share ideas just in time online and learners still communicate with classmate with classmates or other experts. Network teaching and learning can go on around the clock.

Every student can decide the learning time, content, rate of progress regarding their private life, and yet teaching & learning mode required motivated students, high-quality e-textbooks which fit into being displayed on network and rich information base related with the e-textbooks. This way is best choice for deaf high education.

Teaching plan is a guide to teaching/learning practice. The opening-feature require network teaching/learning, plan should be scientific, logical, flexible and easily operated.

Traditional education focus on the teaching way. But modern network distance education focus on learning ways. Therefore teaching & learning plan also should pay more attention to learning plan. The receivers of network distance education have different qualifications, education background and learning ability.

So the education institutions need to think more creatively abbot how to develop course designs that respond to a greater variety of learning styles and offer many more learning options within each course.

Teaching and learning online provide basis for course teaching& learning, but network education focus learner's self-learning, so the course guide need to provide some specific instructors.

Course material is essential medium for network distance education, and modern education put phases on students, therefore course material need to be learner-centered. With the advanced technology involved education, education information's delivery tent to be various. Written text is main form; some abstract content can combine with sound, video, VCD and CD-Rom.

Multimedia technology has developed rapidly; multimedia courseware has great influence on students' learning. During the courseware distance education, instructors and students are separated, then technology media get more and more important .In some way technology has taken place of teachers. Whatever printing media, sound media or computer decides the quality of network distance education. Only Via technology, can teachers' purpose and ideas be delivered. That's why people called network distance education a kind of new technologies and industrialized education.

Multimedia courseware designing need four kinds of workers, instructors soft engineer, art designer and psychologist of education. The courseware design team need carefully select course content, to make sure learning goals and anticipate individual student's needs. They also have to consider a series of facts such as selection of right technology medias, inserted pictures and animation, Video and design typical exercise for self-test .A successful and effective network courseware should try to reduce the influence of lack of face-to-face interactivities.

Personal home page is on Internet for deaf network teaching & learning. Home page includes instructors teaching ways; the content should be updated, words content and pictures be attractive; the program design be reasonable and take useless space as possible. Course content need focus students' attention on the critical information according to students 'ages and enable them think something. It also should introduce some satiable learning for students. Course designer choose right medias regarding the advantages of each media to help learning remember and master the learning. And also the tearing content should be accurate and fit into scientific theory to deliver Knowledge step-by-step .All the involved symbols need conform to the standard and can't get students' confused. Extending information should accord with students' cognitive regular patterns. Some training skills content should be convenient and brief to learn.

Online course evaluation includes teaching effect evaluation and leaning effect evaluation by combining quantitative analysis with qualitative analysis. Particularly valuing quantitative analysis to analyze learning phenomenon to draw scientific results.6.Prospects of Deaf Network Teaching &Learning Network teaching &learning has been widely valued by lots of people wish more and more obvious advantages. We should promote to develop network teaching &learning and make use of existing network classrooms, campus wide webs. Internet and education software and adjust them to serve teaching &learning. We also should adopt them to revolutionize education.

People have learnt more and more about network education, and mature software producer has improved network courseware. We believe network teaching and learning have bright prospects.

VI.   CONCLUSION

This thesis analysis the present modes of deaf network teaching and learning, the network education, and propounds deaf network teaching and learning based on internet. It puts forward network distance education is a kind of new technologies and industrialized education. Printing media, sound media or computer decides the quality of network distance education. At the same time course material and personal home page are also essential for network distance education. In practice, we should vigorously develop network teaching and learning, give full play to the advantages of the Internet, and make full use of network classroom, campus network, Internet and teaching software which already exist. We should also modify and replenish these sources, make a really use of these sources for the teaching of the deaf students and enter the teaching revolution deeply. As the concept of updating, the quality of network courseware continuously improving, I believed that in the near future, the deaf network education will have a qualitative leap.

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