

Research on Model Innovation of University Teaching in Computer Network Environment

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Abstract: With the advent of the information age, the global computer network technology revolution has been launched, and the traditional industries have broken the conventions and opened new models one after another. Internet has constructed a new way of thinking for the development and reorganization of education, and has also provided effective help for the innovation of teaching models in colleges and universities. Internet has broadened audience group, changed teacher's role and enriched teaching resources. This paper analyses the innovation teaching models before class, while class and after class in colleges and universities under the computer network environment to provide some references for the relevant researchers.

1. Introduction

Network teaching is a new stage of education development, which is highly related to people's demand for quality education and technological maturity [1]. Essentially, computer network teaching is not only an inherent requirement to meet the learning needs of the network aborigines, but also an inevitable requirement for the development of education and teaching. It contains a learner-centered educational concept. The main body of "internet + teaching" should be all participants in teaching, not just students. Teachers should also pay attention to strengthening their own guiding power while giving students full voice. Teaching and learning are two sides of teaching activities. Learning is a process of continuous interaction between learners and learning environment. To a certain extent, it has its own technology and channels, and has become an important area of modernization construction. At the same time, it also promotes the all-round development of other industries. Therefore, the characteristics of students' thinking and personality are both the foundation of education and the premise of students' development. At present, the object of education is the children who grow up with computers and the Internet. They are the aborigines of the internet era. Their thinking has the Internet gene from the moment they were born. The access to information is no longer a single book and teacher teaching, but more from the network. The network provides a large number of learning resources. According to their own learning characteristics and wishes, students can actively choose learning content, learning time and learning progress according to their own learning methods, participate in learning independently and implement learning independently, which further improves the autonomy of thinking. The reform of the Internet is relatively thorough, prompting the rapid development of the national economy. Based on the advantages of computer network teaching system, we can establish efficient and shared learning resources to reduce teaching costs [2].

2. Impacts of Computer Network on University Teaching

2.1 Broaden Audience Group.

The internet has broken the barriers of traditional education because of its flexibility and richness [3]. It breaks the boundaries of space and time, breaks the barriers of identity, breaks the difficulties of economic conditions, and enables learners to enjoy higher education resources, regardless of age,

time, place and occupation. With the help of modern information technology and Internet platform, Mu Course attempts to transfer the classroom teaching activities of traditional colleges and universities to the Internet platform, so that more learners can learn freely in this virtual classroom. To a certain extent, it enlarges the traditional teaching content, improves the teaching efficiency and broadens the educational horizon. In addition, with the widespread application of mobile network and communication tools, online learning has become a new way of learning. By moving the classes of famous teachers to the network, anyone can enter the learning at anytime and anywhere, thus realizing the popularization of higher education and sharing of educational resources. The emergence of MOOC classes has broken the closeness of university teaching, mainly in two aspects. On the one hand, it breaks the boundaries between universities, and university courses belonging to different countries and regions can be uploaded to the MOOC Platform. On the other hand, it breaks the restriction of the service object, no matter the students or the social personages, they can freely register the courses on the platform of admiring courses. Participants in traditional classroom teaching are limited to teachers and fixed numbers of students. Interactive communication between teachers and students is limited to relatively fixed groups of people. The organizational form of the original teaching has been changed and greatly expanded. Hundreds of people and even tens of thousands of people can learn specific courses online at the same time, and through a variety of ways. The original one-way linear exchange has changed into multi-directional network communication, forming a huge learning community [4].

2.2 Change Teacher's Role.

Internet information technology has broken the premise of traditional teacher-student relationship and fundamental information asymmetry between teachers and students has undergone fundamental changes. With the support of Internet information technology, students can effectively obtain information on the Internet through computers, mobile phones and other mobile terminals, which changes the asymmetric status of teachers and students in relevant knowledge. Taking the common case teaching in college teaching as an example, when discussing a specific case, students can not only get the background knowledge and basic situation of the case quickly through mobile phones, but also get the analysis and comments on the case from different perspectives by consulting various network media. In this case, the information that students grasp is almost the same as that of teachers. In traditional teacher-centered teaching, teachers are the symbol of authority, teachers are the center of teaching, teachers control the classroom, dominate all teaching and learning behavior, and make all learning decisions for students. In learner-centered teaching, the task of teachers is to provide learners with various learning resources, create more opportunities for students to learn from each other and learn together, actively create a learning atmosphere for students, and let learners learn to discover and decide how to learn by themselves, rather than simply teach learners knowledge. It is not how the learners learn. What teachers should do in the learning process of learners is to promote learning. That is to observe and pay attention to learning state, when students need help, they will push or pull in time. Teachers put themselves together with learners, and always focus their attention, focus and focus on the learning process, becoming learners' leaders, guides, participants and promoters. Therefore, the traditional role of teachers will be dispelled. Teachers and students are equal partners in learning partners.

2.3 Enrich Teaching Resources.

Highly interactive Internet makes education everywhere. Driven by the big data internet, educational resources will break the regional restrictions of countries and become resources shared globally. Famous schools and famous teachers are no longer limited to geographical restrictions. On the Internet platform, in any corner of the world, you can enjoy the resources of famous schools and teachers thousands of miles away through the internet. We independently develop online learning courses. According to their own characteristics, each school will establish a learner-centered open resource bank, so that more students can go to university with the certificate. These schools provide learners with distinctive online courses and offline courses. Students can use mobile phones,

computers and other network terminals freely to choose learning time, place and content for course learning. Teachers can use the technology and resources of the network platform to carry out online or offline teaching activities. According to the data of students' behavior retained by the learning platform, the teachers analyze and record the students' learning process thoroughly and accurately, diagnose and analyze the learning situation, understand the level of students' knowledge mastery, and give timely guidance and feedback, so as to truly realize teaching students in accordance with their aptitude. Learners choose their own learning tasks. Under the scientific guidance of learning platform, learners choose to accept customized and individualized learning tasks and improve their learning tasks and progress independently according to personal level, forgetting rules and progressive knowledge itself. On the basis of big data, learning situation is diagnosed in time, and a new type of individualized teaching, which integrates network education with classroom teaching, is realized. The online and offline hybrid curriculum breaks through the original closed curriculum content, making it more selective, rich and open.

3. Model Innovation of University Teaching in Computer Network Environment

3.1 Model Innovation of University Teaching before Class.

Before class, students must analyze their emotions. After the analysis, according to different students to predict, and follow the principle of teaching students in accordance with their aptitude, make teaching plans for students. Teachers publish learning materials to improve abilities through public teaching platform, such as micro-lessons, learning courseware, etc. This is the most concise and convenient way for students. Students can use computers or mobile phones to log on to public platforms anywhere to view the knowledge uploaded by teachers and learn. In the process of learning, under the background of Internet + education, teachers can play the role of supervision and inspection. Pay attention to students' learning at any time, and analyze them through graphic display. Network-assisted teaching mode is an effective supplement to classroom teaching mode. It mainly consists of two modules: curriculum resources and communication and interaction. The core is to provide a convenient platform for student's self-study before class, teacher-student interaction and consolidation of classroom knowledge through assisting classroom teaching. The module of curriculum resources has some similarities with the traditional online top-quality courses. The difference lies in that the module focuses on providing basic teaching resources such as courseware, lectures, basic curriculum objectives, basic curriculum ideas, curriculum social status and use. Make students understand why to study this course, what basic knowledge they should master, and what role it will play in their growth and future employment. In order to stimulate students' interest in learning and enhance the purpose and enthusiasm of students' learning. Students can enter the module autonomously by computer or mobile phone network.

3.2 Model Innovation of University Teaching while Class.

In the classroom where teachers teach, the reform requires teachers to be the promoters and promoters of learning and development, as well as the developers and builders of courses. Quality education requires teachers to change their original teaching concepts and give priority to students, so that students are no longer simply listening to lectures, but let students start to talk more, and teachers guide them to make correct judgments, so as to enhance their learning ability and wisdom development. In this process, in the course of teaching based on computer network, the interaction between teachers and students and between students promotes the collision of thinking sparks among students in classroom. Teachers should let students learn to think. While guiding students to study independently, the first is the introduction of new courses. They can use the methods of situational creation, problem pre-position, story-telling and case analysis to introduce teaching contents, so as to stimulate interest in learning. In classroom teaching, in order to arouse student's enthusiasm, computer network-based courses should advocate assigning tasks to students. Teams have specific tasks, but team members should also participate in solving problems together, so as to increase

students' ability of unity and cooperation. In computer network-based courses, students should participate in solving problems. The degree of participation and the positive degree of students determine the learning effect of students. Therefore, teachers must always supervise, diagnose and evaluate, so as to avoid the emergence of students who have only done their tasks but have no gains. The rapid development of Internet technology has also forced teachers to stop complacent with the status quo. They must continue to learn and apply new knowledge and technology to daily teaching. It is a new task for university teachers to explore teaching innovation continuously by using Internet technology. Through self-regulated online learning, students can complete online homework, online exercises and tests at any time according to their own time. Teachers can evaluate the completion of student's tasks through mobile phones or computer networks, and input the results into the system, which automatically accumulates to the students' usual performance management module. Through group learning and discussion, innovative communication community, students can exchange and discuss the learning experience, learning methods, knowledge acquisition and so on.

3.3 Model Innovation of University Teaching after Class.

After class teaching, teachers will relax and indulge students after class. However, adhering to the idea of computer network courses and adhering to the background of "Internet + education", teachers should learn to make use of information technology such as teaching software and platforms to carry out personalized tutoring. After evaluating students individually, differently and conclusively, different counseling strategies are made for different students, and at the same time, questions and puzzles are answered for students on the information technology platform. Whether it is objective or subjective, teachers should be corrected on the platform and feedback to students. It must include modification of the proposal rather than the right answer. Moreover, students are urged to watch the information and knowledge packages uploaded by teachers on the platform carefully, and to record and display achievements by punching in the card, so as to urge students to learn and promote students' enthusiasm for learning and development. Teaching feedback mainly collects opinions and suggestions on curriculum content, teaching quality and network resources, aiming at helping teachers to improve their teaching level, timely reform, improve and update the content of textbooks. Expanding the world is composed of course animation, key knowledge, case appreciation, personal creativity and practice space. In the course animation module, teachers or students can show the classical content and knowledge points in the course in the form of animation. Animation can be created by students collectively or individually under the guidance of teachers, focusing on training student's practical ability, horizontal and vertical thinking ability, cultivating and tapping students' innovative potential, stimulating student's interest in learning and enhancing students' learning effect. Key knowledge explanation is a platform for teachers to summarize the essence and core content of each chapter of the curriculum in the form of micro-lessons, to help students systematically grasp the overall framework and key content of the curriculum, and to improve learning effect. Curriculum cases and stories can help students expand their horizons.

4. Conclusion

To a certain extent, the computer network has broken the wall of traditional universities and become a new force to change the mode of higher education. Universities should not only train socialist builders and successors with all-round development of morality, intelligence, physical fitness and beauty, but also train talents with innovative spirit and ability to acquire and analyze information. Under the computer network environment, universities must be bold in innovation so as to cultivate talents that the society needs.

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