

Teaching Reform and Network Information Teaching in the Age of Big Data

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Abstract: Taking the big data as the background, the application-oriented science and Technology University is the research object and the application-oriented talent training mode and teaching method combining network teaching and traditional teaching are discussed. Promoting the digitalization, networking and globalization of higher education will promote the diversified, personalized and applied talent training models in local colleges and universities.

1. Introduction

How to effectively use the online learning platform for colleges and universities to design an application learning environment, develop adaptive learning courses, improve their own teaching practice and promote the development of disciplines is an important development in the process of college education informationization. One of the directions. Create a cross-teaching mode of traditional classroom and online teaching in the era of big data, transform the traditional face-to-face teaching mode, further stimulate the autonomy and enthusiasm of students and use the integration of interdisciplinary knowledge to stimulate students' innovative ability and enhance student independence. problem solving skill.

2. Analysis of network information teaching mode in Chinese colleges and universities

Online courses are a very important part of educational resources. The network has created a separation of time and space between teaching and learning activities. Teachers are no longer direct educators. Educational goals are achieved through online courses. Teaching activities revolve around online courses. The biggest shortcoming of college students in China is the lack of initiative and they must be driven by the task. In the past, teachers and instructional designers of online courses were thinking about ways to drive learners' learning, such as establishing diversity of learning resources, controlling online time and specifying browsing documents and scope. At present, the online course still has the following problems: First, the school does not strengthen the application of its teaching while paying attention to the comprehensive construction of the online course. The online course is just completed, plus a large number of course introductions and course evaluations, features and there is not much practical content, which reduces its application value. Second, the interactive effect in the teaching process is not good. The network courses of colleges and universities are lightly applied and re-developed. Therefore, there is basically no perfect

teaching activity design, which leads to the interactive functions of online courses, Q&A, forums and other online courses, which can not effectively promote learning. Third, the lack of online course teaching materials cannot meet the individualized learning needs of learners, some online courses have not provided complete teaching courseware, extracurricular reference materials, classroom teaching and other resources to the learners, which makes the online courses unable to properly supplement the role of classroom teaching and its role is difficult to play. Fourthly, the content of the online course is not updated in time. The website builder does not understand the teaching content and the update frequency of the website content is relatively slow. Some websites lack the process of updating and adjusting the content, which leads to the outdated status of resources. To a certain extent, the enthusiasm of school learners is reduced. It can be seen that the online course education in China's colleges and universities is still in its infancy and there is no systematic and perfect network education theory and training system. It is urgent to continuously improve and deepen in practice. The online classroom innovation model has a long way to go. The distribution trend of information-based classrooms in China is shown in figure 1

Histogram

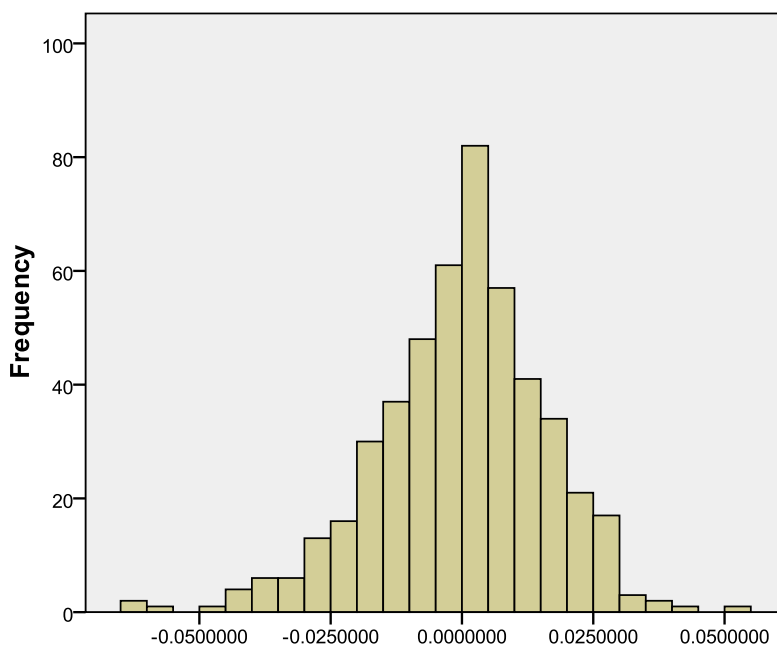


Figure 1 distribution trend of information-based classrooms in China

The teaching faculty of applied universities in China presents two large and small hourglass structures: experts and professors have rich teaching experience and professional qualities, while young teachers have strong practical ability and innovative vitality and there is strong academic research ability in the middle. Teachers with practical guidance skills are relatively scarce. Since the best video resources can be obtained free of charge, the classroom teaching mode of colleges and universities can be well-innovated. Young teachers can play an auxiliary role in the classroom and the teaching content can be taught through network video resources, that is, overcoming in the single network teaching, students should have the conscious and active deficiencies and it is beneficial to the classroom interaction between teachers and students. Therefore, studying the high-quality curriculum system applicable to online education has become a very important process for the development of information education in China. A large number of educational resources have been accumulated in the construction of resources in the traditional sense. However, the main

teaching work has not been met. A personalized way of learning for the main way. The new resource concept is a new change in the concept of resources in the traditional sense. First of all, the main users of the micro-classroom concept are students. From the perspective of big data resources, micro-classroom resources have potential value in the field of learning and business, thus ensuring a virtuous circle of development. Secondly, the micro-classroom is generally based on students, which can strengthen students' ability of individualized learning and self-learning and cultivate students' interest. Finally, the initial developer of the micro-classroom is a teacher and the teacher can realize the effective use of resources to maximize Realize the effective use of resources. The foundation of the development of the data age is the combination of resources, cloud resources and big data. The new resource concept in the context of big data favors cloud resources and the massive amount of information is stored in the "cloud". Needless to say, whether it's video, audio, text, or images, you can easily search by typing in keywords^[1].

3. Establish multi-disciplinary, multi-disciplinary online classroom and traditional classroom cross-education mode

We will establish a three-dimensional teaching system with students as the center and teachers as the guidance and unified management by the school, so as to gradually establish a cross-based teaching mode with classroom teaching as the main and network teaching as the supplement. The goal of classroom mode construction is shown in figure 2.

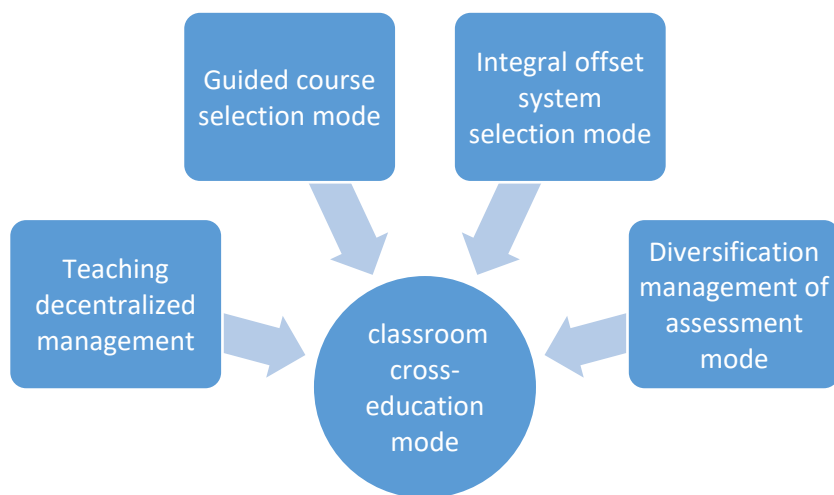


Figure 2 goal of classroom mode construction

3.1. Teaching decentralized management

In combination with the current employment characteristics, in order to cultivate high-quality new compound talents and meet the needs of students of different disciplines to master multiple skills, it is required to meet the requirements of the face-to-face courses of teachers in this major and to provide real-time teaching effects to students of non-specialized subjects. Through the characteristics of students of different majors and different grades, different teaching contents and teaching progress are arranged to realize the decentralized management of teaching.

3.2. Guided course selection mode

On the basis of the original course selection mode, the professional subject selection course is taught by the teacher to guide the students to establish a directional course selection mode according to the characteristics of the subject and the students' interests. For example, if a non-computer major student has a computer hobby, the computer professional teacher can organize these students to conduct guided course selection at the beginning of each semester and realize diversified systematic study of various disciplines.

3.3. Integral offset system selection mode

Use the student number as the account number to establish the student's file and allocate an independent cyberspace. Select the online course outside the credit system to accumulate points. If there is no bad record, you can motivate the student by offsetting some credits by a certain percentage. Learning initiative.

3.4. Diversification management of assessment mode

Traditional teaching, network teaching and cross-style teaching all adopt the same curriculum, classmates and classmates. The assessment mode is composed of attendance rate, completion rate, question rate, volume test and machine test^[2].

4. Establish a network information teaching service platform

4.1. Construction of network information teaching environment

Based on the existing teaching resources, improve the hardware facilities of real-time cross-teaching of traditional classroom and network teaching, including necessary facilities such as server, storage space, multimedia, camera; make full use of existing teaching resources and will use classroom teaching, multimedia and things. The platform should be compatible with software and hardware to meet the management of multi-level, interactive application teaching in the era of big data^[3].

4.2. Designing a networked management and service platform

The platform includes a management operation system, a credit system network course selection, a credit network bank and many other management and service sub-platforms. It is required to establish a structure of mutual support and seamless flow of information between multi-level management and service links and at the same time, it must meet the credit system teaching management mode of multi-level structure of schools, colleges, disciplines and majors. At the same time, students should be provided with independent network space to realize students' learning and collection of resources of interest; they can record video uploading and sharing in their own fields of expertise; they can also use a general mobile phone text message to remind a certain quality course or specific time of the course; Through interdisciplinary discussion forums, students in different disciplines can communicate with students in different disciplines by text, voice, video, etc. and broaden their thinking to obtain the best solution^[4].

4.3. Develop mobile phone network boutique micro-course APP

The mobile-end network boutique micro-course APP can transform the traditional centralized

learning method into a decentralized learning method, which can make full use of the scattered time and improve the quality and efficiency of learning. The mobile mobile terminal has the characteristics of randomness, rapidity, infinity and interactivity: first, randomness. Mobile mobile service meets the requirements of college students to freely learn, retrieve and download at any time, any place and in any way. The network information platform is used as a port for portable learning. Second, rapidity. Mobile services provide a convenient search engine that allows users to quickly query the information they need. Third, infinity. Mobile services are not limited to reading in the teaching building. Students and teachers can also browse in the office, at home or on the road, without being limited by space and without time constraints, which increases the infiniteness of learning^[5].

5. Conclusion

In the context of the era of big data, the use of network information technology and multimedia teaching platform to create a cross-style teaching method of traditional classroom and network teaching and study the cross-space teaching model platform to improve teaching quality and promote balanced development of education. To cultivate a new type of compound talents with a combination of initiative, innovation, knowledge and ability for the society.

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