Research on Mixed Teaching Design of Information Retrieval Course under the Background of "Internet +"

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Abstract

With the development of science and technology and the trend of informatization, the Internet is becoming more and more popular. However, information retrieval technology plays a very important role in current social learning and work. It is of great significance to popularize information retrieval skills by using the Internet to conduct mixed teaching design of information retrieval courses. Based on the course of information retrieval, this paper analyzes the effects of mixed teaching with Internet on the course of information retrieval.

Keywords

1. INTRODUCTION

With the progress of science and technology and the development of informatization, Internet technology is widely used. Premier li keqiang of the state council elevated "Internet +" to the level of national strategy in the 2015 government work report, and academic researchers applied it to the level of education and extended it to the mode of "Internet + education"[1]. In order to improve learning efficiency, stimulate students' learning enthusiasm, and help the majority of students to master knowledge efficiently, the mixed teaching mode has been widely cited. The mixed teaching mode advocates student-centered and student-centered teaching, with the teacher as the organization and guide of the teaching process, to promote the majority of students to take the initiative in learning, mobilize students' learning initiative, and cultivate students' learning ability. Network application promotes the development of mixed teaching mode and provides a platform for teachers and students to communicate online, share learning resources and inquire information. In order to adapt to the era of rapid development of information network, information retrieval course is widely promoted, and it is of great practical significance to conduct mixed teaching design of information retrieval course under the background of "Internet +"[2].

2. INFORMATION RETRIEVAL COURSE

2.1. Information Retrieval Course Introduction

Information retrieval is a process of finding the required effective information from various information sets. The course of information retrieval in colleges and universities is a course that mainly introduces the searching methods and skills of various information resources[3]. By learning information retrieval courses, students can improve their sensitivity to information resources and information literacy, so that they can skillfully and efficiently use various retrieval

technologies to acquire information or knowledge accurately. Information retrieval course is conducive to training students' ability to obtain information and analyze data, providing new ideas for students to solve problems, promoting the development of students' comprehensive quality, and improving their competitiveness in future study and work.

2.2. Information Retrieval Course Status

(1) DOMESTIC STATUS

In China, information retrieval courses have been established for many years, and most schools offer information retrieval courses. Through the teaching practice results of information retrieval courses in some universities, it can be seen that information retrieval courses are beneficial to stimulate students' awareness of independent learning, improve students' cognitive ability, and develop students' innovative thinking.

But because of the requirement of information retrieval courses required is not high, with the introduction of the information retrieval course in colleges and universities, propaganda is less, most students have no access to information retrieval related concept and curriculum, students to learn the will of the information retrieval course is low, so that the information retrieval course in colleges and universities lack of emphasis, set the course for more elective courses. Due to the lack of attention to the curriculum, some schools do not invest much in this course, such as insufficient computer room and aging teaching equipment. It is difficult to further develop information retrieval courses in colleges and universities due to lack of attention and investment [4]. At present, the teaching and practice of information retrieval courses in China's colleges and universities have not been further reformed, and most colleges and universities still adopt traditional methods in the course teaching, failing to ensure that the knowledge acquired in education relates to the major and future work. As a result, the information literacy of college students in China is low, and there are serious deficiencies in information acquisition, data analysis, problem solving and intellectual property protection.

(2) FOREIGN STATUS

Take the developed countries in the United States and Britain for example. As the most developed country in the world in information technology, the United States has a lot of experience in setting up information retrieval courses. The course names of information retrieval set up by some universities in the United States can directly reflect the digitization and networking of information search, and the core words of course names directly indicate the key points of information query, and these information retrieval courses are developing towards the trend of subject refinement [5].

Britain also have done a lot of research in information retrieval, colleges and universities in Britain, many junior has courses in information retrieval, easy to conduct the thorough research to the senior, the information retrieval course teaching in colleges and universities in the UK a variety of forms, and as a foundation course, but the UK courses in this school is not much, and studying the course for students to have certain professional requirements, curriculum mostly prefer to science and engineering major, the inspection method is not perfect[6].

3. MIXED TEACHING DESIGN OF INFORMATION RETRIEVAL COURSE UNDER THE BACKGROUND OF "INTERNET +"

"Internet +" is the further practice result of Internet thinking and a new form of network development in the current environment[7]. "Internet plus" is a combination of innovation of the Internet and various industries. The "Internet plus" mode is conducive to the rational and efficient distribution of all kinds of social information and materials and the optimization of the allocation of social resources. The network provides a good platform for communication and learning.

3.1. Application of Mixed Teaching in Information Retrieval Courses Under the Background of "Internet +

Exam-oriented education leads to some college students to adapt to teacher-centered "indoctrination" education and lack of awareness and ability of independent learning. The mixed teaching mode aims to transform students into learning centers, enabling students to study independently and consciously under the guidance of teachers. The mixed teaching mode breaks the tradition of the traditional teaching mode, which enables students to learn knowledge through a variety of ways other than classroom and stimulates students' learning enthusiasm.

With the development of information technology and the popularity of the Internet, the Internet is gradually integrated into the educational cause, promoting the development of mixed teaching. The network platform can take video, pictures, audio and other media to provide students with a variety of information and learning materials. At the same time, the network provides a convenient way for teachers and students to communicate, so that teachers "preach, impart knowledge and solve problems" are not confined to the classroom. Information retrieval course, as a kind of course, has been tending to be digitized and networked. Mixed teaching under the background of "Internet +" is conducive to the promotion and development of the course.

3.1.1 Teaching Mode

The traditional teaching mode not only makes students in a passive state of learning, but also restricts the communication between students and teachers to some extent. In order to enable students to take the initiative in learning and strengthen the communication between teachers and students, so that teachers can solve students' problems, the teaching mode can be combined online and offline.

There are various online learning modes. With the help of the Internet platform, teachers create learning groups on the Internet, select text materials and micro-lessons video for students and then arrange them in learning groups, so as to provide students with online learning in spare time and improve their ability to independently arrange learning time. Teachers can also group students into groups, so that each group can learn online according to different problems, and feedback the learning results to the learning group, so that teachers can timely evaluate them. When students encounter difficulties in online learning, they can also form online groups with teachers and classmates, or search for information through various software, or even ask questions on relevant websites or learning software through the Internet, so as to solve problems in the learning process in time.

Offline class is not constrained by the teacher lecture mode, according to the content of online learning, students are required to prepare all kinds of related information, into the form of PPT, develop the students' ability of logical thinking and integration of information, information retrieval experience, let the students to communicate learning experience, training the students' oral expression ability. In class, teachers can ask students questions based on current events or new technologies, and ask students to conduct group discussions and draw conclusions, so as to improve students' learning interest and independent thinking ability, and strengthen students' sense of cooperation. After the end of the students' speech, teachers can comment on it, analyze difficult problems, and solve classroom problems in a targeted way to deepen students' memory, guide students to think about problems actively, solve problems independently, and improve learning efficiency.

3.1.2 Teaching Content

The variety of teaching modes determines the flexibility of teaching contents. Online learning mainly includes theoretical knowledge and operational methods related to information

retrieval courses, such as the introduction of big data and informatization and the use of retrieval tools. Mainly rely on the teacher first for students to draw out the learning content and guide students to study independently, and combined with the relevant learning materials inquired by students themselves, the teacher can also use the network to find the question bank, screen the questions in the question bank, and combine it with the assigned learning content. In addition, students can preview and review online materials to consolidate knowledge.

Because most of the domestic college education of information retrieval course less attention, less investment, domestic existing information retrieval course teaching material content, most of the lack of the latest information technology theory content is old, it is difficult to solve new problems along with the time development, so in the offline classroom teaching content should be timely supplement some missing in the textbooks, advancing with The Times, the content of the students are more interested in[8]. According to the actual situation, teachers can supplement relevant learning materials for students, and try to quote some examples in the materials. The explanation of actual cases is vivid, easy for students to understand, and can stimulate students' interest in learning. In offline classes, students' online learning achievements can be summarized, knowledge points can be supplemented and improved, and key questions selected from the question bank can be explained. It can also test students' online self-learning achievements and arrange online learning tasks according to the offline teaching effect.

The course content should be combined with the background of times and students' majors. Through the professional characteristics of students, understand the main characteristic of the information resources of the major, choose suitable professional search site, retrieval methods to focus on its advancing with The Times, choose the latest database, data processing and analysis method, to help students in their own professional field can skillfully use retrieval skills required for data, to achieve the effect of their major.

3.1.3 Assessment Form

Since information retrieval is a kind of course which is inclined to technical operation, the examination mode which only adopts the form of text affects teachers' understanding of students' information acquisition skills and application methods to a certain extent. In order to make the assessment more scientific and standardized, and ultimately to evaluate students' learning effects objectively, impartially, truly, comprehensively and accurately, it is necessary to establish and perfect assessment standards and teaching evaluation system suitable for practical teaching, and innovate examination and assessment methods of relevant courses[9]. As a practice-oriented course, the assessment form should be mainly based on paperless computer operation. In order to ensure that students can master the ability of information retrieval, online class after class, teachers can use learning software or other form, arrangement of classroom learning corresponding practice content, students proficiency operation, inspection on-line learning situation of students, by examining the students of technology, can be targeted to supplement relevant knowledge, help the students master knowledge operation.

In addition to practical content, the examination should also test students' theoretical knowledge. Can be assigned for students learning experience or small papers, text homework can exercise students' writing ability, improve students' ability to summarize, in the context of students writing, but also conducive to the cultivation of students' logical thinking. In order to avoid the influence of plagiarism on teachers' judgment of students' ability, some text assessment methods are carried out in class. The study of theoretical knowledge is conducive to students' review and thinking of practical content, which can not only consolidate the knowledge of practical operation, but also stimulate students to put forward problems, think about problems and solve problems.

4. THE INFLUENCE OF MIXED TEACHING DESIGN ON INFORMATION RETRIEVAL CURRICULUM UNDER THE BACKGROUND OF "INTERNET +"

4.1. Enrich the Course Content

The Internet offers a wealth of learning materials. Online learning students can learn from the official website or software for course related study materials and micro video class, add offline class the teacher tells the content, online learning is given priority to with video, video content including one-on-one explanation, animation, PPT, make online learning more interesting, more vivid image, easy to understand. Online text content is mostly in the form of combination of text and text, easy to view, more rich and diverse than book content. Students can also through the network of a large number of questions for self-learning testing, consolidate knowledge.

Since the course of information retrieval needs to strengthen the practice of operation, the learning software provided by the network platform can help students to solve problems in practical operation and fully integrate theoretical knowledge with practical operation. In view of the lack of teaching materials and the relatively backward knowledge in China, in offline classes, teachers can not only improve the lack of knowledge, but also provide a large number of practical cases, and understand the latest information and technology related to the curriculum through the network. Network materials not only possess text forms, but also include video, pictures, audio, PPT and other contents. Various forms and contents can enrich the classroom and stimulate students' learning enthusiasm.

4.2. Develop Independent Learning Ability

Online learning mainly relies on students' consciousness, including students' initiative to study and think independently. The time, place and duration of online learning are determined by students themselves, which can cultivate students' ability to reasonably plan their study time and combine work with leisure. Online learning is given priority to with students to explore, students are required to provide all kinds of information through the network, after analysis to understand the screening, to acquiring knowledge, this kind of thinking mode can not only help students to quickly master the required knowledge, make students form the habit of independent thinking, still can make students improve efficiency in the use of information retrieval skills.

Offline classes are still dominated by students' independent learning, including class speeches completed by students independently and group discussions. Students can use the relevant knowledge inquired by the Internet as the basis for speech or discussion, and meanwhile, they can put forward the unresolved problems in the online learning, so that teachers can guide them to learn and deepen their impression of knowledge points. Offline classroom assessment is completed by using learning software, which is conducive to the improvement of students' practical ability and the cultivation of innovative thinking.

4.3. Improve Learning Efficiency

Traditional classroom teaching makes it difficult for teachers to solve all students' learning problems. The mixed teaching mode based on the Internet is relatively flexible and convenient, which can help students learn knowledge according to their own conditions. Online learning flexibility is strong, you can choose weak knowledge points by yourself, according to their own situation, reasonable arrangement of time to learn, and be able to difficult key points repeatedly browse, consolidate knowledge points. In offline classes, teachers can focus on the questions raised by students and the knowledge beyond the textbook, and assign after-class learning tasks for more basic knowledge. Mixed teaching can make specific analysis of specific problems, make

full use of class time, solve various problems of students in a wide range, and enable students to master more comprehensive knowledge as soon as possible.

5. CONCLUSION

The promotion of mixed teaching mode based on "Internet +" can make course teaching get rid of the limitation of time and place, so as to better improve teaching quality, improve teaching efficiency[10], and cultivate students' independent learning ability and practical operation ability. Information retrieval course plays an important role in cultivating students' information literacy and information application ability, and can help students solve various problems encountered in professional learning. The mixed teaching mode of "Internet +" in information retrieval course can improve students' learning efficiency and increase the class interest. This paper analyzes the application and influence of mixed teaching mode in information retrieval curriculum under the background of "Internet +", and provides some references for the construction of more mature and perfect information retrieval curriculum system and teaching methods[11].

ACKNOWLEDGEMENTS

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