

## Discussion on Teaching Mode of Document Retrieval in Architecture Colleges under the Background of "Internet +"

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### Abstract

With the continuous development of "Internet +", the teaching technology of "document retrieval" course has undergone great changes under the network environment, and the teaching mode of "Internet +" course colliders with the traditional teaching mode. In order to better research under the background of "Internet +" architecture colleges of the curriculum teaching mode, literature slowdown in architectural colleges "information retrieval" course as the research object, in the "Internet +" under the background of teaching model were discussed, and its related problems, the present situation has a clear, conducting adapted to provide reference for the relevant teaching.

### Keywords

"Internet +"; Architecture schools; Teaching of document retrieval.

### 1. Introduction

With the continuous development and popularization of the Internet, college courses usher in a new era. The literature retrieval course is an essential part of the teaching of a course, and it already has more than 30 years of development, the literature retrieval course as an important part of quality education in colleges and universities, is the student to study the information knowledge, improve the ability of self-study, popularize the basis of the information literacy education curriculum, however, because of the literature retrieval course in the construction course, compared with other lower status, resistance is bigger, the commencement of the course and the literature retrieval course in the teaching idea, form, content and so on many aspects in the information age, has failed to keep pace with the trend of The Times and development [2]. Therefore, it is particularly important to discuss the teaching mode of document retrieval in architecture colleges under the background of Internet +.

### 2. Background Overview of "Internet +"

The concept of "Internet plus" was put forward in Yang's speech at the fifth mobile Internet expo in November 2012. He put forward "the nature of the mobile Internet it, leave the" Internet + ", in the future, "Internet +" formula should be our own industry products and services, with the more we see the screen cut cross-platform user scenarios combined to produce a chemical formula ", in November 2014, prime minister li keqiang pointed out that the Internet is a new tool of public entrepreneurship, peoples innovation [3]. Ma huateng also believes that "the Internet plus a traditional industry represents an ability, or an external resource and environment, to improve the industry." Simply put, "Internet plus" means "Internet plus various traditional industries". However, this is not simply a combination of the two, but a combination of the two using information and communication technologies and Internet

platforms to create a new environment for development and promote the evolution of new forms of economic and social development.

+ "in the first place," the Internet is not a single one-sided simple product, is a kind of new situation, the developing trend of The Times, it is the joint between the Internet and a variety of different industries, from education and teaching in terms of narrative "Internet +", this is the Internet for innovation education organization pattern, learning pattern, our country have not yet been established and the related system of the new situation, lead to low maturity, operability is not strong, but the "Internet +" background mainly guided by the network technology, information technology core, its associated with education, teaching can make teaching more efficient through the network, improve the quality of teaching, and, In the education courses of various universities and students' daily study, the Internet has been infiltrated, so the development trend of "Internet +" background has been in full swing.

### 3. Characteristics of Literature Retrieval Course

Literature retrieval is a course to cultivate students' retrieval and utilization of information and improve their self-study and scientific research ability. In 1984 the ministry of education promulgated the on literature retrieval and utilization course in institutions of higher learning to open opinions ", the literature retrieval course in colleges and universities, the opening of this course makes students more efficient to master their own professional knowledge, expand own aspect of knowledge, update knowledge skills, improve the ability of using information, strengthen the self-study ability and study ability.

The course "literature retrieval" has a total of 32 class hours. Theoretical teaching and computer operation are combined. Theoretical teaching includes basic theoretical knowledge and basic skills of literature retrieval. Principles of document information retrieval, retrieval language, retrieval tools, information retrieval methods and steps, computer retrieval methods, database retrieval, network information retrieval, analysis and utilization of document information, etc. Basic skills include: mastering various retrieval tools of Chinese and foreign language materials, searching for relevant and different types of articles in different ways; Master the retrieval of various types of electronic resources [4]. After learning the theoretical knowledge of document retrieval, the student union will carry out relevant computer operation, and finally conduct the final examination. The combination of the three makes students have a definite target for learning professional knowledge, which is more operational and practical.

### 4. Teaching Status of Literature Retrieval Course in Architecture Colleges

Teaching material is one of the important indexes that influence the course of document retrieval. The quality and quantity of teaching materials affect the development trend and process of document retrieval. At present, architectural colleges have compiled and co-edited many textbooks related to majors, including 15 professional theory courses and 9 professional skills courses. Among them, there are few teaching materials related to literature retrieval, and for the distribution of class hours in architecture colleges, the credit and credit hours of literature retrieval are also negligible. In addition, there are many problems in the content and structure of teaching materials, and the logic system of teaching materials is single [5]. Lack of clarity; The publication is not standard enough; Loose structure, grasp the key points; In particular, the relevant content of "document retrieval" is only a fraction of its length, and the amount of information is insignificant. Moreover, relevant knowledge points are out of date, unable to keep up with the development trend of the information age, and unable to adapt to the retrieval technology in the new era of "Internet +". Therefore, the existing relevant teaching materials should be adjusted to enrich the content, improve the teaching materials scientifically and conform to the development trend of The Times.

#### **4.1. Chinese Search**

Architectural schools do not pay much attention to the content of Chinese retrieval education. The current construction of the textbook used in colleges and universities, for only 5% of Chinese retrieval relevant part, and for the arrangement of the class and only 2-4 hours, and the related school credits are low, main reason is relative to the foreign language retrieval, retrieval in Chinese students there is no language barrier, and retrieval in Chinese search engine is relatively small, is not complicated, therefore, the Chinese retrieval course in teacher for students do not pay attention to, and that the student has the ability to retrieve alone, however, in fact, students though some shallow to Chinese retrieval skills, but do not take the result of teachers and the school, Students also have the idea of contempt for Chinese retrieval, so they can only master the knowledge and skills of Chinese retrieval surface, especially for students' related professional knowledge retrieval students are more unclear, and compared with foreign language retrieval, the frequency of Chinese retrieval is obviously higher than that of foreign language retrieval.

#### **4.2. Computer Retrieval**

Architecture colleges not only not value of Chinese retrieval education content, the teaching contents of computer retrieval is very lightly, length of the building in the colleges and universities teaching material computer retrieval and less than the length of Chinese retrieval of, only 4.5%, and only 2-4 hours of class time arrangement of [6], and even some buildings and universities don't courses in computer retrieval, and + times each other is not adapt to the Internet, however, computer field retrieval has been the trend of The Times, the domestic database by leaps and bounds, and also the development of Internet + in terms of education is in full swing, computer retrieval database, teaching material resources are Shared, Many world resources are free and open. The teaching content of computer retrieval has great advantages for students to improve the efficiency of information retrieval, so that students can get the latest worldwide relevant knowledge and improve the efficiency of students' learning of professional knowledge.

### **5. Advantages of the Teaching Mode of Document Retrieval in Architecture Colleges under the Background of Internet +**

#### **5.1. Combination of Theory and Practice**

Literature retrieval enables students to be familiar with and master the theoretical knowledge of literature retrieval by combining theoretical knowledge with practical operation, and then consolidate students' basic skills of literature retrieval through practical operation. For building schools, students generally have graduation design as a basis for the graduation reply, quite to the importance of the graduation design in architectural colleges students and graduate thesis, each specialty every year new graduation design topic, and each professional has 3-5 retrieval topics, students from sdi to carry out the project, literature retrieval played an important role in [7]. Students through the literature retrieval course to learn theoretical knowledge of graduation design and preliminary search related to this professional content, at the same time, the literature retrieval course in the actual operation is an important part of the course is the assurance of teaching effect, in order to let students to the completion of high efficiency, high quality professional related to design, under the guidance of tutorial teacher, students not only to complete a complete retrieval of the topic, but also to a large number of related literature, the thesis retrieval and learning, at the same time, as the Internet + for education reform and innovation of the industry of, So that colleges and universities teaching materials, database, document resources, such as limited to the internal resources, let the students to retrieve more quality and more abundant connotation, for example, in the

graduation design, if a student is relatively mature, set by the subject, such as building structure, water supply and drainage, can use the Internet in the world within the scope of retrieval, can draw lessons from the relevant technology of the latest directly. Among them, the emergence and promotion of open online courses provide many architecture colleges with free but important teaching resources. In addition, for academic search engines, people upload relevant articles to many websites, and students search for information related to majors more efficiently through the Internet +.

## **5.2. Make Effective Use of Teaching Time and Improve Teaching Quality**

With the continuous development of modern science and technology, the updating speed of all walks of life is upgraded and updated. Knowledge of many colleges and universities have failed to keep pace with the development of The Times, therefore, the "Internet +" for the optimization of teaching mode played a huge role, especially for the metabolic efficiency and rapid construction industry industry, all kinds of new materials to replace the old age of ecological pollution materials, promoting ecological science, when building schools and "Internet +" model, the combination of the literature retrieval course teaching can make full use of online education resources, students can be more efficient in the limited teaching practice inside the retrieved more information more effectively, and can timely update their relevant teaching achievement for construction industry, It will not be stuck in the situation of traditional building materials industry in the past [8]. In addition, for modern China has tremendous energy engineering construction, the continuous development of economy, construction industry play an important role in China's economy, national colleges and universities for buildings is becoming more and more attention, and for the construction of library collection in 2000 has reached 1986 kinds of journals, 39740 papers related to construction, therefore, such a huge building resources for building college students to learn professional knowledge has a lot of support, and, based on the pattern of "Internet +" the literature retrieval course can effectively absorb the vast knowledge, The Internet can also build these architecture-related resources into architecture-related databases and websites, making it easier for students to acquire the professional knowledge they want. With "Internet +" the backing, teachers can make use of the technology of the Internet, will own the courseware of "literature retrieval" uploaded to the site, students can also according to the knowledge content of the Internet screening your needs of autonomous learning, there may be some students learning process is different, also can choose according to their own learning process to brush the courseware, achieve the maximum efficiency of absorption of the literature retrieval course related knowledge.

## **6. Approaches to Teaching Document Retrieval in Architecture Colleges under the Background of Internet +**

### **6.1. Evaluation Method of Literature Retrieval Course**

In the context of "Internet +", the evaluation system of document retrieval is an important symbol to measure whether this course and Internet teaching resources are fully utilized [9]. Through the establishment of the evaluation system, the scientific, sharing, practical, academic and theoretical nature of document retrieval is tested. Its concrete operation is: through the literature retrieval course of the computer operation to test students' mastery of the course and the effect of classroom learning, practice is over, the students will be in the form of group, through the Internet to show the results to the other students, to analyze their own conclusions and experience, finally discuss each other between classmates and teachers, evaluation results are obtained. "Literature retrieval" is a symbol of the era of group education course, it needs to keep up with the trend of The Times, advancing with The Times, constantly according to the

science and technology, the change of teaching mode, education technology updates, and make the corresponding adjustment, adopt different teaching methods, at last, through the literature retrieval course of the actual situation and its own should match rules, construction and related evaluation system and method.

## **6.2. Construction of Literature Retrieval Teaching Resources Utilization and Sharing in Architecture Colleges and Universities**

Under the background of "Internet +", academic resources are presented in various modes. Among them, Internet network information resources are extremely rich and diverse, including network chat, user service information and other typical resources, as well as some public information resources, government information resources and commercial information resources. Besides the Internet information resources, academic resource pattern also contains free network academic resources and search engine, with the development of economy, the Internet is popular, the explosion of information made an unprecedented time, rich in content, free online academic resources more and more, at the same time, the free online academic information include academic resources, online courses, academic resources, engine, etc. For search engines, however, there are many inadequate in the scope and effectiveness of access to resources, but the related information resources at home and abroad, there are many search engines, such as Google, baidu, sogou, the search engine to search many information resources at home and abroad, but compared with other two kinds of academic resources model, the accuracy of the search engine is poorer [10].

There are many ways to use databases to search for information. For example, search by article title or title, search by author or responsible person, search by author unit, search by abstract committee, search by keyword, search by classification number and so on. These specific search methods can adapt to our different search information needs. For example, when searching the database, author, unit, keyword, time and other aspects can be set separately, so as to ensure that the searched literature is valuable and can be used. But in the ordinary search engine, can not achieve such effect, sometimes because the input limit is too much, resulting in the search literature is very limited. And sometimes the average search engine will show the literature is not particularly relevant, because users often have to go further to select, which increases the pressure on the searcher.

In addition to academic resource sharing, the practical teaching resource sharing of document retrieval is an important part of the teaching of this course. The open access of document retrieval course is a new mode of acquiring academic information. Users can obtain many academic information resources such as papers, journals and magazines through the Internet, which are widely spread on the Internet, promoting academic exchanges and improving the utilization of science and technology. Students can also search the relevant professional information through DOAJ, Chinese scientific papers online and other practical operations. In addition, the form of courses freely available on the network also gives students a lot of convenience, for building college students generally have the graduation design task, graduation design topic selection to the utilization of "literature retrieval" knowledge need to complete and detailed guidance teacher, under the background of "Internet +", students can discuss with the teacher through the network for online course, and search to the network in different colleges and universities teacher to related courses freely available resources for learning.

There is a lot of penetration between modern disciplines, and comprehensive retrieval tools can sometimes bring unexpected gains, especially some domestic retrieval tools, which are often arranged by classification, and some interdisciplinary literatures are often scattered in different classes. Therefore, more attention should be paid to the use of comprehensive retrieval tools. In the search, we should pay attention to the use of thematic bibliography and

comprehensive bibliography, thematic index and comprehensive index, professional database and comprehensive database. Chinese retrieval tools, such as China national knowledge network and wanfang data resource system, can only reflect domestic research results. It is important to make full use of foreign retrieval tools, such as EBSCOhost- full text database of foreign journals, Springer-Verlag, and WorldSciNet (WSN) full text electronic journals, to obtain the latest research trends in the world. Only by understanding the research trends at home and abroad, can the paper have a higher level.

## 7. Summary

Under the background of "Internet +", the course of "document retrieval" in architecture colleges can be carried out in various forms to improve the learning efficiency of the course of "document retrieval", improve students' access to and utilization of information, and stimulate students' thirst for knowledge and self-learning ability. Give full play to the advantages of the Internet, realize the collision of traditional teaching mode and modern trend, and combine theory with practice.

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## References

- [1] Luo Muhua. Research on teaching reform of library document retrieval in vocational colleges under the background of "Internet +" [J]. Henan library journal, 2019, 39(04): 48-49.
- [2] Zhang Jingping, Sun Deqiang, Cai Yinna, Ma Yongjuan. Task-based curriculum design of scientific and technological literature retrieval course [J]. Contemporary educational practice and teaching research, 2019(07): 51-52+87.
- [3] Rao Guowu, Zhong Weihui, Li Wen. Research on practical teaching mode of document retrieval and patent based on micro-course [J]. Journal of science, 2019(10): 24.
- [4] Liu Xiaojian, Ji Yongzheng. Literature retrieval and utilization of course teaching resources utilization and sharing system construction under the background of "Internet +" -- a case study of Qinghai University [J]. Library research, 2008, 48(02): 116-122.
- [5] Zhang Yantong, Zhang Yan. The essence and connotation of "Internet + education" [J]. Journal of national academy of education administration, 2018(01): 62-68.
- [6] Kang Meijuan. Discussion on project-based hybrid teaching model of flipped classroom literature retrieval course [J]. Wind of science and technology, 2016(17): 31-32.
- [7] Li Peipei, Yang Zhao, Wang Zaixue, Xu Yunhui. Research on teaching reform of literature retrieval course under the characteristics of "Internet +" era [J]. Knowledge economy, 2016(01): 157-158.
- [8] Weng Yingzi. Indirect effect of literature retrieval course on talent cultivation of architectural discipline [J]. Today keyuan, 2007(22): 288.
- [9] Liu Chunmei. Literature, CD-ROM database and Internet database retrieval of Chinese architecture [J]. Journal of Southeast University (philosophy and social sciences edition), 2002(S1): 37-41.
- [10] Pan Siya. My views on the teaching reform of literature retrieval course in architecture institutions [J]. Higher architecture education, 1998(02): 42-43.11.