

The Research and Practice of the Literature Retrieval Class Based on the Domain Electronic Classroom

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Abstract. The article proposes the use of a domain of electronic document retrieval classroom teaching models and examination mode of the literature retrieval class using electronic classroom, basing on current situation and existing examination mode for Shenyang Aerospace University literature retrieval class. It introduces the teaching process, characteristics, advantages and the teaching reform of the examination mode. Ministry of Education issued “Library Regulation of Chinese University” in 1981. It is the first time that the course of literature retrieval has been assigned as one of the task of university library. Since then, Ministry of Education and Former National Education Committee have released three guidance documents, “Comments on offering the course of literature retrieval and application in university” in 1984, “Several comments on the improvement and development of teaching literature retrieval” in 1985 and “Basic requirements” in 1992 respectively. Our university has offered the course of literature retrieval for nearly a decade. The name of the course has changed from literature retrieval to technical information retrieval. In such a networked and informative era, network has become the major media. Several issues have been revealed in the traditional way of teaching under the information resource digitalization and information system virtualization, such as lecturers’ group, course setting and assessment. Therefore, university library has reformed the way of teaching and assessment of the course “technical information retrieval”[1].

Summary of Domain Electronic Classroom

With the development of media, teaching method and teaching technique have greatly improved. A new teaching method has realized in the domain electronic classroom. The course of literature retrieval of our university has been taught in the domain electronic classroom in 2011. The teaching effect has significantly improved after three years practice. Several functions have been realized in the computer classroom by means of domain network platform, such as screen broadcasting, class management, students presentation, monitor relay, long-distance control, document management, screen recording, screen playback, voice teaching and system lock. Communication between classrooms and students has achieved. Not only is it a leap of teaching method, but a significant breakthrough of teaching technique. In practice, lecturers properly applying the electronic classroom has greatly enhanced the initiative of students and obtained the best effectiveness of teaching and learning. In addition, task-driven method can be realized by the teaching software, enabling the

course to be more vivid. Both actual skills and creative skills can be enhanced in such a great way[2,7,8].

Features of literature retrieval class under the electronic classroom environment

Traditional teaching process typically includes knowledge transfer and within the knowledge of the two phases. Imparting knowledge taught by teachers in the classroom to complete, within the knowledge of the needs of students in after-school through the job, to complete the operation or practice[6]. After using electronic teaching classroom teaching, this form of limit can be further improved, students can watch in the classroom teaching video, you can quickly through the network to receive the retrieval task, the database using the interpretation of the classroom on the classroom, the students in the student end syncing, and digestion and absorption in the classroom, using the retrieval task to carry out the internalization of knowledge, and improve the retrieval ability. The reform of the teaching process, and in the process of classroom learning each link has been changed. Also presented the new features such as teaching methods.

Table I The comparison table of Electronic classroom classroom with the traditional classroom

The classroom Teaching elements	Electronic Classroom	Traditional classroom
Teachers	Platform management, task release	Knowledge teaching
Students	Task completer	Passive recipients
Teaching form	Classroom inquiry	Classroom instruction
Teaching content	Retrieval task and Knowledge explain	Knowledge explaining
Evaluation way	Electronic document reviewing and Paper synthesis report	Traditional paper-based test
Technology application	Electronic classroom software	Projector Slideshow

Timeliness is high. Using the electronic classroom, the teacher-side courseware can switch directly to the student-side using the screen broadcast capabilities ,and Students can simultaneous view courseware and the content of the presentation by teacher through computer. The courseware will be more quickly sended to the student-side than the slide projector way of multimedia teaching. At the same time, teachers can retrieve the design task, and the students are grouped using electronic grouping modules in the domain electronic classroom, furthermore each team can use electronic classroom "Network Session" module, group discussion, communication within the group, fully mobilize the enthusiasm and initiative of all group members to complete group tasks together[3] .

Interaction is strong. Literature retrieval class is a practical lesson , fully mobilize the enthusiasm of the students, in order to improve teaching effectiveness of the Literature retrieval class. At present, Literature retrieval class no longer use paper-based search tools to search, extensive use of digital resources and search engine to search, so can greatly improve the ability of students, then the task-driven method is applied to the Document Retrieval Course by electronic classroom tasks giving the student terminal, students can raise their hands in the student-side at any time, and electronic classrooms document delivery, fast file delivery to every student side, you can also use the presentation function asking a student to search demonstration. This approach can

enhance the teaching interaction, so that the students can interact with their teachers at any time during the retrieval tasks.

The concrete implementation of the Literature retrieval class using electronic classroom

The teaching process. The teacher designs the task of teaching according to the curriculum, save the task in a word document.

The use of electronic document distribution in the classroom will transmit the document to the specified path of the student computers.

Students retrieve documents according to the task, and name the word document with “Student ID + name”, then the answer directly be inputted into the word document.

Before class, students transfer their documents to the teacher-side according to the requirements of the teacher ,for teacher performance evaluation.

Course assessment and reform. Currently, the assessment of traditional literature retrieval class presents diverse assessment methods, there is a review test method, which requires students to combine their thesis, term paper or other specialty paper writing themes, custom Coverage and Summary of topics, or the reference topics prepared by the teacher, retrieve relevant literature for the topics, by sorting, reading, analysis through the literature, writing an review research, that is the review test method. There is a student group collaborative assessment method, which assesses students into groups, three or four students as a group, collaborative complete final examination. When the assessment, students are grouped division, completed the topic, the implementation of search, retrieval report writing, presentation design, presentation and defense and other tasks, finally scoring teachers according to each student and completion of tasks undertaken. There is a diversification assessment, which considers a variety of elements. Student achievement have five parts ,such as classroom questions discussed by the class, homework, retrieval practice, writing a review, final exam. There is online assessment, which uses the computers and networks for online examination [9-10].

Assessment methods above can be summarized as a comprehensive report and the machine test. Comprehensive reports can be more comprehensive test students' mastery of learning content, but because it is an open book exam, it is difficult to avoid plagiarism, and a comprehensive report to the teacher marking requirements are relatively high. The machine test can reduce the workload of teachers 'marking, but it is very random, pumping problem way in a short time is difficult to test the students' mastery of what they learn. In 2008,Our school Dean approved the reform issues of the literature retrieval class about Questions and Answers database construction, but in the actual teaching, this method appears above problems, so after years of teaching summary, we are now using electronic classroom teaching, giving tasks and by electronic questions on classroom lessons, presentations and exchange. There are the following compositions in the score assessment based electronic classroom platform:

Assessment content	Assessment method	Assessment ratio
Class activity	Statistics using electronic classroom software	10%
Retrieval task	Busch mission by electronic classroom software, recycling task document before class is over	30%
Comprehensive search report	Submit paper comprehensive report	60%

The improvements of the literature retrieval class teaching by electronic classroom technology

Using electronic classroom in the literature retrieval class can overcome some of the problems of the literature retrieval class by the traditional teaching mode, not only provides a good means of human-computer interaction, but also provides a powerful technical support. for the literature retrieval class which attaches great importance to the practice links.

Achieve “theoretical-experiment Integration” teaching. In the electronic classroom environment, teachers and students can better interact, breaking the previous phenomenon about the theory and practice. The content which teacher teaches and the demonstration can immediately imitate and experience of students in the classroom. By setting teaching tasks and teaching objectives, so that teachers and students both sides while teaching, learning, learning by doing, the whole build quality and skills development framework, enrich classroom teaching and practice teaching. Students get the most vivid impression through field exercises, timely exercise functions of the electronic classroom offered the greatest extent possible to avoid forgetting knowledge, in line with the law of Educational Psychology[4-6].

Improve the teaching effectiveness. Electronic classroom software uses multimedia computer and network transmission means, capable teacher computer operating presentations simulcast on each student computer's display, so that each student receives a satisfactory and consistent visual effect, to overcome the traditional media means difficult to guarantee defects consistent results, with the electronic classroom software image, intuitive technical characteristics can stimulate students' interest in learning. It can create an interesting learning environment for students and stimulate students' enthusiasm and initiative and improve learning efficiency and improve learning.

Teachers have the efficient management. Teachers have the task of "teaching", they also have a the task of “tube”, which is to coordinate, control of various factors and their relationship in the classroom teaching, so as to form an ordered whole, in order to ensure the smooth progress of teaching activities. Electronic classroom software can help teachers achieve electronic roll call, group instruction, monitor student screens and other actions , then to improve the efficiency of classroom management.

Support the personalized teaching. Electronic classrooms provide group teaching, teachers and students online quiz features ,it makes it easier for teachers to do individualized. The one-way Teaching be changed into a two-way interactive process, the students who learn knowledge, get better play to the subjectivity and initiative. Electronic Classroom provides monitoring student computers, so students face more pressure supervision, they can question without disturbing other students. The convenience of communication makes every student received a feeling of be separate counseling, so as to improve the study enthusiasm. It promotes the changing role of both teacher and student The new classroom teaching methods in electronic classroom make the activities both

sides are changed, thus changing the traditional teaching model, but also makes both teaching and learning is changing in terms of roles and responsibilities become more rich in modern.

Conclusions

Now is the period of rapid development of information technology, as is closely connected with information technology, the literature retrieval class of the teaching methods, means and examination methods of great changes have occurred, how to improve teaching effect and improve students' enthusiasm in class, we need to continue to study the reform and innovation of the literature retrieval class, and achieve the real implementation of the teaching purpose for the literature retrieval class with "to improve students' information literacy and lifelong learning skills" .

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