Research on the WEB-based Online Study System Design

Jin-Huan WANG* and Geng-Lei CAOa

Intelligent Science and Information Engineering College, Xi'an Peihua University Xi'an 710125, China

*360635476@qq.com, a2282905579@qq.com

Keywords: WEB; Online teaching system; The educational administration management system.

Abstract. The growing development of science and technology has pushed the use and role of computer and network platform into more important status. In view of the many problems existing in the current teaching system, such as teaching mode, teaching activities and teaching content cannot meet the individual learning needs of students and teachers, and the interactive function of the system is inconvenient, this paper puts forward the research based on the new teaching mode to diversify the learning methods, thus arousing the interest and enthusiasm of the learners.

Introduction

Long-distance online video teaching is an advanced online video learning technology, which combines the advantages of traditional teaching, multimedia technology and network communication technology, completely changes the passive mode of traditional teaching mode, and realizes learning content according to students' own needs. The WEB-based online study system, not limited by time and geographical space, is featured with low, fast update of teaching content, unlimited teaching time, diversified teaching process, and flexible study schedule, so it is well welcome by the learners.

System Design

The functional platform of Web-based remote video teaching consists of four systems: an online course recording system; an administrator management system; a student inquiry, selecting course system and a teacher management teaching resource system. The main functions of the platform are four aspects of services: administrator resource management, teaching resource uploading and sharing, learners searching for course resources, and online viewing learning materials.

Online Teaching System

The online teaching system is a set of system software that provides remote teaching services. It takes online video teaching courses as the core, uses video teaching resources reasonably and efficiently to offer high-quality services for the implementation of modern remote video teaching across regions with the support of the educational management system, thus innovatively incorporating the online video courses and remote video teaching services in universities. The remote video teaching system is not only the embodiment of advanced computer science and technology, but also more importantly, it is in line with the general sublimation of modern science education, and can provide an efficient and modern technology education method for remote video education.

Lecturer Publishes Courses Online. The first step of remote video teaching is to upload the teaching resources to the web platform. The system provides administrators to strictly check the uploaded material before publishing to the platform, and with the function of publishing multiple video teaching files online, students can select their own courses to learn by logging on to the website.

Teaching Activities Design and Management. WEB-based online study system provides teachers with multi-function modularization to assist teachers in teaching form management and planning.
(1) Evaluation system

The remote video teaching system should support the instructor to limit the student's operation permissions based on the teaching content, and use the account to restrict the user to modify the identity restriction information such as user name and student number. The online teaching system is convenient to make exchanges between teachers and students.

(2) Student management system

The evaluation system provided by the remote video teaching system includes a video teaching resource list, a learning resource search system, and a message discussion system. Teaching video resource upload will be classified according to the category. After logging in to the account, students can directly select the learning video in the video classification. And some courses cannot be found in the list and categories of the learning resources search system.

(3) Study management tool

Tracking of student information: During online teaching, the identity of the teacher has changed from the lecturer to the learner’s guide and servicer, who needs to track and understand the student’s learning situation, understand the learning achievements that have been achieved, and the student’s learning progress, and timely correct teaching situation and guide students to study well.

Management of study progress: It is inevitable to provide one-to-many coaching, collaborative discussions, troubleshooting, learning progress management, homework management, performance inquiry, etc.

Online Educational Administration Management System

The purpose of online video teaching is to train high-quality talents, complete teaching tasks and realize the teaching tasks prescribed by the national teaching. The top priority of remote video teaching is to put teaching management at the first place, and play an important role of managing teaching resources and arranging teaching tasks.

The Educational Administration Management System. Student file management: Students’ status management includes records of students from admission to university for many years, such as course selection, graduation, examination, study, etc.

Video management: After entering the system, the teacher can upload and delete videos, simplify and unify the video management, and ensure the security and efficiency of online teaching.

Data statistics and analysis: collect the information in the teaching tasks, make statistics and management on time, classify them and send the feedback to relevant personnel through forms, emails, etc., which contributes teachers to improve teaching plans and students to learn more efficiently.

Video query: Students, teachers, and administrators can find corresponding video learning information through the WEB within the corresponding authority.

Student learning record: investigate the number of student attending the courses, and what interactions/cooperative behaviors they have.

Curriculum and Professional Management. Curriculum and professional management: the management and setting of professional courses, the formulation and arrangement of training goals. Teachers and related managers are required to add, delete, and modify operations within the allowed permissions.

Released courses: Upload the courses developed by teachers to the corresponding remote learning system, publish them online, and implement online teaching.

Course selection management: Students can check the teaching arrangements for this school year in their personal information, select certain courses to study according to the teaching arrangements given by the school, and the course selection system automatically allocates resources for course learning for students, and records the course learning process.

System Management. System setting and maintenance module: responsible for the daily operation of the system, parameter setting, and data deletion and backup. The security and consistency of the system and data are completed by this module.
Permission management: divide users into different roles with various permissions and functions. For users with different permissions, it can provide the graphical interface that he can access to control unrelated operations.

Backup data: Save and back up the system data regularly and record the operation of the backup file. Once the data is lost, the system can retrieve it based on the backup record data and backup data.

System Resource Management

Teaching resources include media material library, test material library, case library, online courseware library, online course library, literature database, etc. The main function of the teaching resource management system is to collect, manage, retrieve and use various teaching resources, and to separately index the resources for quick query, browsing and access.

Conclusion

On the one hand, the system provides self-learning online services to meet the needs of users to learn based on respective needs, diversify the channels for learners to acquire knowledge, on the other hand, it also blazes a new trail of learning and teaching mode by breaking through the traditional distance education which cannot implement fast communication and geographical restrictions. Furthermore, the teaching mode also requires students to change their traditional learning perspectives and methods: autonomous learning changing from teacher-oriented imparting; self-learning activities including online learning, after-class quizzes, discussions, quiz exercises, browsing related extracurricular resources, note-taking transforming from class-based learning.

Acknowledgement

This work was supported by Special research project of Shanxi Provincial Department of Education in 2018, No.18JK1084. and the thirteenth “Five-Year Plan” for Education Science in Shaanxi Province in 2018, No. SGH18H509.

References


