

Application and Research of Information Education Technology and AI Technology in E-commerce Teaching

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Abstract. In order to explore the application and research progress of information education technology and AI technology in e-commerce teaching, an application and research method of information education technology and AI technology in e-commerce teaching has been proposed. Firstly, this article introduces the application of information technology in e-commerce teaching and the characteristics of e-commerce professional courses; Secondly, this article explores the application of AI technology in e-commerce teaching. AI technology can achieve personalized teaching through intelligent teaching systems, customizing learning content and paths for students based on their learning progress and abilities. Finally, this article summarizes the current research on the application of information education technology and AI technology in e-commerce teaching. Among them, teachers need to have a deeper understanding and proficient use of these technologies in the teaching process to fully leverage their advantages; At the same time, education departments and schools need to increase their support and investment in information technology and AI technology to provide better teaching environments and resources for teachers and students. Introducing artificial intelligence into teaching information technology provides extremely rich information resources and constantly updated knowledge, allowing students to freely roam in the ocean of knowledge, giving wings to their imagination, and having enough information to support their exploration and imagination. Their abilities and creativity are leisurely born in the process of exploration.

Keywords: e-commerce; Information technology; model of instruction.

1 Introduction

Information technology is developing by leaps and bounds and constantly creating new areas, especially the creation and widespread use of Internet technology is becoming important, which is bringing everyone's life into the era of network marketing. Social media is a huge part of business and development in today's world. Information technology, multimedia technology and communication technology with network technology have become creative tools for developing people's abilities. It has affected every aspect of the life of the alert person and has caused the world to change[1]. Information education technology mainly refers to the application of modern information technology in the field of education to assist in the reform and development process of education. The main characteristics of information education are intelligence, networking, digitization, and multimedia. The basic characteristics of information

education technology design include information openness, information sharing, user interaction, and user collaboration. The openness of information in education refers to the school as the center, carrying out educational liberalization, socialization, and autonomy. The sharing of information in education is an essential feature of information technology education, which mainly aims to achieve the sharing of educational resources. The user interactivity of education mainly refers to the ability to achieve "communication" between users and computers during the education process, achieving user to user interaction, thereby promoting communication between teachers and students, students and students, and students and other personnel in the school. The user assistance of education refers to the ability of education to provide a better platform to help students and teachers collaborate to complete a certain task. Informatization education has essentially changed the traditional teaching mode, which is a change in the History of education[2-3]. Therefore, in the information technology environment, it is necessary to break the traditional closed teaching and separate training mechanism between schools and enterprises, update educational concepts, innovate teaching management, and build a new teaching model that is student-centered, closely combines theory with practice, closely cooperates with schools and enterprises, and promotes competition and research, so as to be conducive to the cultivation of e-commerce talents in higher vocational colleges and deliver qualified talents to the society.

2 Framework design of information education system

The structure of the information education system design adopts the J2EE framework, which is a relatively mature framework. The network deployment structure diagram of the evaluation system mainly starts from the perspective of system network deployment and network operation. After the development of the evaluation system is completed, it needs to be used on the internet. In order to ensure the security of the data, a backup database is used. Due to the use of an external network connection, it is necessary to go through multiple layers of firewalls when connecting the database server and the application server[4]. To ensure the security of the system, the structure diagram of the information education system is shown in Figure 1.

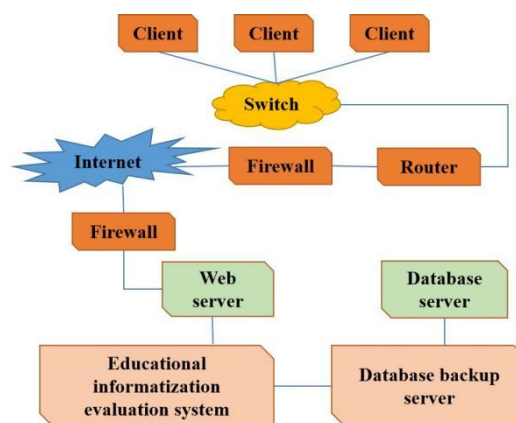


Figure. 1. System Network Deployment Structure Diagram

3 E-commerce teaching mode design under the information technology environment

3.1 the advantages of e-commerce teaching mode in the information technology environment

(1) The curriculum integration of information technology education and e-commerce can deepen subject teaching. As the most advanced teaching media, information technology is superior to any other teaching media in its most remarkable feature: interactivity. With interactivity, information can be fed back in time, two-way communication between teachers and students can be realized, and the whole learning process of students can be individually guided in real time, thus teaching students in accordance with their aptitude can be truly realized[5].

(2) Using information technology, the expression of knowledge can be multimedia. Illustrated and colorful forms of knowledge expression can not only effectively stimulate students' interest in learning and generate strong learning motivation, but also provide comprehensive stimulation of various senses, increase the number of information obtained, prolong the retention time of knowledge and master more knowledge[6].

(3) Using information technology, we can not only build an individualized learning environment, but also create a collaborative learning atmosphere, so we can not only meet learners with different cognitive levels and styles, but also implement collaborative learning strategies, providing learners with conditions for comparison, analysis and thinking of different viewpoints on the same issue, and deepening their understanding and mastery of knowledge on the basis of brainstorming.

(4) The integration of information technology education and e-commerce curriculum is an effective way to cultivate talents with innovative spirit and learning ability. Information technology provides extremely rich information resources and all kinds of knowledge that are updated from time to time, allowing students to roam freely in the ocean of knowledge, giving their imagination wings, having enough information to support their exploration and imagination, and their ability and creativity are born leisurely in the process of exploration[7].

3.2 E-commerce course teaching mode design method under the information technology environment

The basic professional skills that students should master include:

(1) master network technology, be able to skillfully use the Internet to obtain data and information and process information;

(2) Have basic knowledge of computer software and hardware configuration, network operating system, etc., and be able to make web pages and establish, publish, maintain and manage e-commerce websites;

(3) Understand the functions and business processes of the e-commerce trading system, master relevant operation technologies, be able to conduct online transactions, offline services and security maintenance of the e-commerce system, and have comprehensive professional abilities;

(4) Master general business knowledge and marketing knowledge, and be able to use the network for product promotion, customer service and management[8].

According to the above requirements, we have determined the training objectives of this course, as shown in Table 1:

Table 1. Training objectives of e-commerce courses

Knowledge teaching goal	Enable students to systematically understand and master the basic theory and composition of e-commerce.
	Have a comprehensive and general understanding of e-commerce specialty, so that students can initially plan the general business process of e-commerce.
Ability training goal	Make students understand the relevant knowledge of e-commerce, such as the basic concept, function and structure of e-commerce.
	Enable students to learn how to access business websites, inquire about relevant information, purchase online, apply for domain names, set up personal websites, pay online, conduct transactions, provide services and support. Such as the business process and main links of e-commerce, and the technical realization of e-commerce.
	Learn the relevant knowledge of network marketing, so that students can master the business information dissemination mode, marketing strategy, marketing technology and other contents under the network environment.
	Cultivate students' ability to continue learning under the vast network resources in order to meet the needs of the rapid development of e-commerce.
Ideological education goal	Cultivate students' ability to analyze and solve problems.
	Develop innovative ways of thinking and habits.

Teaching situation is the concrete realistic environment for students to participate in learning. "Knowledge is situational and is part of the product of the applied culture, background and activities. Knowledge is generated through activities in situations. " Concrete, emotional and rational teaching situation is the fundamental guarantee to motivate students to actively participate in learning. The creation of teaching situation refers to the creation of a situation that is conducive to students' understanding of the theme of what they have learned, and is an important link in teaching design[9].

In its broad sense, situation refers to the objective environment that acts on the learning subject and produces certain emotional reactions. In a narrow sense, it refers to the teaching process that acts on students and causes positive learning emotional response in the classroom teaching environment. Both the external form and the content of the situation will make the production have a positive emotional response. The design of classroom teaching structure must consider teachers' leading activities, students' participation in activities, the organization of teaching content, the use of teaching media and their interrelationships. In addition, because of the special role of formative practice in classroom teaching, it should also be considered when designing classroom teaching structure. Therefore, the specific design content of the classroom teaching structure can be shown in Figure 2.

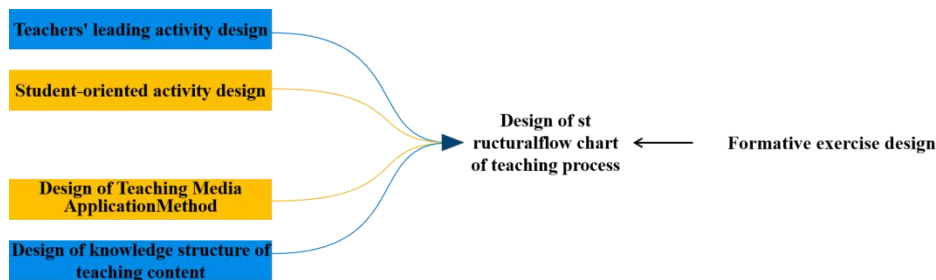


Fig. 2. Design content of classroom teaching structure

In the teaching process of e-commerce, modular teaching can be divided into two parts: computer module and business module. It can be divided into theoretical teaching, network teaching, case teaching, experimental teaching and teaching evaluation and testing. While attaching importance to e-commerce theory, we should make full use of modern information technology to cultivate students' information literacy and practical ability, enhance their learning initiative and cultivate their innovative spirit[10].

4 Conclusion

The application of information technology in e-commerce professional courses has changed from a teacher-centered teaching mode to a student-independent learning mode. Modern technology is used to urge students to keep learning and assign tasks in sections, which effectively prevents students from being lazy in learning, so that students can have tasks to follow in each class and have clear learning goals. The information platform can effectively present all kinds of data in time, which is convenient for teachers to find and solve problems. The integration of information technology into the teaching of e-commerce specialty enables students to complete autonomous learning under the lead-in learning mode, meets the cognitive characteristics and study habits of higher vocational students after 00, can effectively stimulate students' interest in learning, cultivate students' innovative ability, increase the chances of solving problems independently, and lay the foundation for students to solve problems independently after entering the job.

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