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Practical Analysis of Information-based Teaching Methods in E-commerce Courses

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Abstract: ***With the continuous transformation and development of information technology in the current world, e-commerce is also undergoing continuous optimization and transformation, the teaching methods of e-commerce professional courses also need to be continuously optimized with the development and changes. This article explores the practicality of information technology teaching methods in e-commerce courses, and discusses the problems in evaluation and standards during the teaching process. By analyzing the specific application, implementation effects, and evaluation methods of information technology teaching methods, it attempts to establish a scientific and dynamic practical evaluation system suitable for the school's main majors, in order to better serve the practical effects of information technology teaching in e-commerce courses at this school. By combining student feedback indicators and teacher evaluation data during the teaching process, we hope to accurately reflect the feedback and effectiveness of our school's information technology teaching, and provide certain reference basis and ideas for the reform of e-commerce professional teaching.***

Keywords: Information-Based Teaching, Electronic Commerce, Practical Analysis, Teaching Reform.

1. Introduction

With the widespread application of new technologies such as AI and big data analysis, the requirements for talent in e-commerce have also undergone a significant transformation. Previously, e-commerce practitioners gradually shifted from pure computer operation needs to composite talent needs such as digital analysis, high-quality technology, and business ideation abilities. This change has also prompted the synchronous optimization of e-commerce teaching in universities, especially the practical application of information-based teaching methods and the establishment of a practical evaluation system. Although the information-based teaching method has been applied to some extent in the current courses of e-commerce majors in universities, the practicality and analysis of its effects often lack scientificity. Traditional application standards mainly focus on surface indicators such as hardware facilities and traditional software platforms, while ignoring the deep impact of information-based teaching on students' learning ability cultivation and comprehensive quality improvement. Therefore, establishing a practical standard system suitable for this subject and conducting comprehensive and effective analysis is the key to the high-quality development of information technology teaching in e-commerce courses. Based on existing practical cases and the teaching experience of our school's curriculum, this article attempts to explore the practical issues and analysis of the application of information technology teaching methods in e-commerce courses, hoping to provide certain teaching ideas and practical references for the teaching reform of e-commerce majors.

2. Explanation of Related Concepts

2.1 Informationized Teaching Methods

The information-based teaching method refers to the comprehensive and in-depth use of modern information tools (such as new media, artificial intelligence, big data, etc.) in the educational process, optimizing and innovating teaching resources, teaching processes, and teaching evaluations, helping to build an innovative teaching model such as situational innovation, resource sharing, and self-directed learning, ultimately providing assistance to teachers in cultivating students with innovative abilities and practical qualities. In short, it is not just about using computers for classes or making PPTs, but a shift from a teacher centered to a student-centered teaching paradigm based on information technology. In the context of e-commerce, information-based teaching methods mainly include core elements such as digital teaching resources, intelligent teaching tools, and blended learning models. Digital teaching resources mainly include online courses, virtual simulation platforms, digital case bases, etc., such as "ERP manual sandbox simulation", "e-commerce and online shopping mall", "digital intelligence enterprise electronic sandbox simulation training", etc. of the Taihu Lake University Business School in Wuxi. Intelligent teaching tools mainly include AI application technology, learning analysis tools, and teaching assistance methods of adaptive systems. For example, using AI functions in the Learning Classroom activities to help some students with relatively poor foundations, and providing specific recommendation strategies for procurement and marketing in a certain quarter during practical training. The blended learning mode mainly includes a teaching organizational form that integrates online and offline learning, manifested as a blended learning mode of theory + case + project practice.

2.2 E-commerce Courses

E-Commerce is an interdisciplinary and application oriented comprehensive course, which systematically studies and teaches how to use the Internet, mobile network, information technology and other modern information means to conduct commercial transactions of goods, services, capital, information, and covers all business processes, strategic planning, technical support, marketing methods and legal issues related to it. In short, e-commerce is not only about teaching students how to sell online, but also a comprehensive course on knowledge, skills, and strategies for building and managing a complete business system in the digital world.

3. The Importance of Information Technology Teaching Methods in the Application of Current E-commerce Courses

3.1 Improve Teaching Efficiency and Quality, Adapt to Industry Development Needs

E-commerce itself has the characteristics of rapid development and technology driven changes, so information-based teaching methods need to update teaching resources in real time, introduce real enterprise projects and cases. For example, information-based teaching can help break down resource barriers between schools and enterprises. By co building cloud internship platforms with enterprises, students can participate remotely in completed case projects such as live streaming and overseas social media operations. This enables students to master decision-making methods, skills, and business processes related to enterprise production, procurement and supply, human resource management, marketing management, and financial business processing, and play the roles of financial supervisors, production directors, marketing directors, etc, The roles of procurement supervisor and enterprise mentor are guided through the system for process guidance and final assessment. By combining digital system simulation with practical case simulation, the integration of industry and education is further upgraded, solving the geographical limitations of traditional internships and allowing students to adapt to the digital work mode of team collaboration in advance.

3.2 Expand Teaching Time, Space, and Resources to Promote Personalized Learning

The information-based teaching method breaks the time and space limitations of traditional classrooms. Through online learning platforms, micro course resources, and virtual simulation systems, students can arrange their learning according to their own needs and progress, greatly improving the flexibility and pertinence of learning. Some universities have collaborated to develop online courses such as “E-commerce and Online Shopping Mall”, with an average of over ten thousand views, indicating the promoting effect of high-quality online resources on the learning of such highly operational courses. Due to the inability of online teaching to monitor students’ learning progress in a timely manner, in order to ensure teaching effectiveness, students are grouped and each group is led by a team leader. The team leader is responsible for assigning learning tasks to members within the group and submitting relevant learning effectiveness materials. In order to help students better grasp the course content, the course content is conducted in a project-based manner, with each class completing a project and completing related assignments to consolidate the course knowledge points. In order to ensure students’ learning effectiveness, relevant practical exercises are recorded on screen and uploaded to the Smart Tree platform for students to review after class. The homework grade consists of two parts: teacher evaluation and student peer evaluation. We provide personalized learning paths and adaptive training content for students, meeting the differentiated needs of students with different foundations.

3.3 Deepen the Integration of Industry and Education and School Enterprise Cooperation to Enhance Students’ Practical Abilities

The information-based teaching platform provides a technological bridge and data link for school enterprise cooperation, enabling enterprises to deeply participate in the teaching process. Information technology teaching helps to break down resource barriers between schools and enterprises. By co building cloud based internship platforms with enterprises, students can participate remotely in completed case projects such as live streaming and overseas social media operations. This enables students to master decision-making methods, skills, and business processes related to enterprise production, procurement and supply, human resources management, marketing management, and financial business processing. They can also play the roles of general manager, financial director, production director, marketing director, human resources director, procurement director, and other related roles. Enterprise mentors use this system to provide process guidance and final assessment, and use a combination of digital system simulation and actual case simulation to further upgrade the integration of industry and education, solving the geographical limitations of traditional internships and allowing students to adapt to the digital work mode of team collaboration in advance.

This industry education integration model based on information technology platforms not only provides students with real project practice opportunities, but also solves practical problems for enterprises, achieving a win-win situation between schools and enterprises.

4. Practical Analysis of the Application of Information Technology Teaching Methods in the Specific Teaching of E-commerce Courses

E-commerce and online shopping mall has always been one of the courses offered by the Business School of the Taihu Lake University in Wuxi for many years. There are many majors involved in this course in the Business School. This article focuses on the teaching content of courses from 2023 to 2025, with three teachers teaching e-commerce and online shopping courses, and approximately 800 students from 24 classes in three majors studying the course as the research objects. The article focuses on how teachers and students involved in this course during the three years can analyze the practicality of evaluation criteria based on the evaluation of teaching content, teaching methods, teaching processes, and teaching evaluations under the information technology teaching mode.

4.1 Teaching Content

The information-based teaching mode has been increasingly widely applied in the teaching of e-commerce majors. Our school’s smart classroom teaching mode covers the entire process before, during, and after class. Tasks and resources are released through the information-based platform before class, and dynamic interaction among teachers, students, and enterprises is achieved during class. After class, there is

expansion, reflection, and continuous guidance.

The second semester of the 2023-2024 academic year, the first semester of the 2024-2025 academic year, and the first semester of the 2025-2026 academic year all use Shao Bingjia's "E-commerce Simulation Experiment Tutorial" as the main teaching material. The content includes focusing on building a virtual e-commerce operation environment. Through comprehensive e-commerce experimental teaching, students can master the relevant content of e-commerce market operation environment, e-commerce platform data analysis, e-commerce operation and decision-making. Through group game competition, they can achieve the improvement of team awareness, communication ability, systematic thinking and decision-making ability. Through the study of e-commerce courses, students can become familiar with the rules and basic operations of third-party e-commerce platforms, business promotion, and customer service on the basis of mastering the basic theories of e-commerce, e-commerce platforms, and related knowledge; Master the knowledge of e-commerce logistics and electronic payment; Master market network research, product selection, and procurement; Master the online quotation, release, and promotion of products; Master the handling of online inquiries, quotations, negotiation business, and customer relationship maintenance; Master professional knowledge and business operations related to the correct handling of issues throughout the entire process of e-commerce transactions.

4.2 Teaching Methods and Processes

The second semester of the 2023-2024 academic year and the first semester of the 2024-2025 academic year will be offline computer courses, and the teaching method will be based on traditional face-to-face teaching, with practical operation in fixed multimedia classrooms. Traditional information teaching methods such as PPT, with teachers as the main body, transmit knowledge points to students in a one-way manner, while students passively receive information, making it difficult to stimulate their learning enthusiasm. In the teaching process of the first semester of the 2025-2026 academic year, we will attempt to adopt blended learning, taking into account the advantages of both online and offline modes, while flexibly utilizing teaching resources and tools from different platforms to maximize the advantages of information-based teaching. Online learning allows students to freely form their own learning and collaboration teams, mobilize students to establish QQ or WeChat groups based on the class, and note their roles in them, strengthen team communication and coordination, share their learning achievements and experiences, and arrange for students to study MOOCs and other resources. In addition to traditional case teaching, online classes also allow students to complete check-in, discussion, investigation, testing, homework and other activities on the platform at any time, frequently changing teaching methods to allow students to actively participate, unleash their subjective initiative, let them feel the joy of learning, improve their learning efficiency and learning outcomes.

4.3 Teaching Evaluation and Effect Analysis

Under the traditional mode of e-commerce teaching, it is basically conventional. The learning of "e-commerce" courses is divided into pre class preview, in class explanation, and post class review. However, in the actual operation process, pre class preview often relies on the consciousness of some students to ensure, and most university students are not conscious enough. Therefore, in terms of pre class preview, the overall effect is poor, basically relying on the teacher's two 90 minute lectures in class to directly learn. However, in class, especially when some content appears boring, these students often find it difficult to concentrate for a long time to listen to the lecture. Unless homework is assigned in advance, there are few students who actively review after class. And information-based teaching has better compensated for the shortcomings of this type of teaching. Pre class preview can be posted online to students on the platform in advance, and students will often pay attention to their mobile phone information, so there will be an impression of completing pre class preview. Teachers can also supervise students who have not completed their homework in real time; During class, teachers can organize students to form QQ or WeChat groups for classroom learning, strengthening direct interaction between students and teachers. They can also combine various methods such as watching MOOC videos and online discussions to capture students' interests and concerns as much as possible and avoid feeling bored; After class, specific learning tasks or game based competitive assignments can be arranged to achieve the goal of consolidation and reinforcement, in order to achieve the best teaching effect.

The teaching evaluation of our e-commerce course generally consists of 40% regular evaluation and 60% final evaluation. Attendance, classroom performance, and homework are the main assessment indicators for regular evaluation, while final evaluation is conducted in the form of a final course paper and to some extent combined with the subjective evaluation score of the teacher to obtain the final result. And information-based teaching, which tends to combine online and offline teaching, is more focused on controlling process evaluation. Therefore, process evaluation accounts for 50% here, and result evaluation also accounts for 50%. Due to a sudden change in teaching mode, some students may find it difficult to adapt in a short period of time, and the learning process may be in a stage of adjustment. Therefore, students' evaluation of teachers may slightly decrease. However, through comparison and observation, students' overall grades are constantly improving, which is more humane and can to some extent promote good teacher ethics and style.

Firstly, the significant improvement in students' learning outcomes is the common result of information-based teaching methods, which can effectively help students enhance their interest in learning and develop their own abilities through diverse teaching forms and personalized guidance. Secondly, it is also beneficial for the gradual enhancement of teachers' teaching abilities. In the implementation process of information-based teaching methods, teachers constantly update their educational concepts, master new technologies, and design courses that are interesting and practical. At the same time, the level of school enterprise cooperation has been further deepened. The information technology teaching platform provides a new way for school enterprise cooperation, making the talent cultivation of students more in line with the actual needs of social development.

5. Conclusion

From our daily teaching experience, the new information-based teaching has become the main means and approach for the current e-commerce major courses in our school. This article combines the problems discovered in the teaching process over three semesters, as well as the evaluations of teachers and students, to demonstrate that practical evaluation analysis should consider multiple perspectives such as the teacher's teaching process, student learning outcomes, and teaching practicality. On the one hand, the significant improvement in students' learning outcomes is the common result of information-based teaching methods through rich and diverse teaching forms and personalized guidance, which can effectively help students enhance their interest in learning and develop their own abilities. On the other hand, this new teaching model is also conducive to the gradual enhancement of teachers' teaching abilities. In the implementation process of information-based teaching methods, teachers can continuously update their educational concepts, master new technologies, design interesting and practical courses. At the same time, the level of school enterprise cooperation has also been further deepened. The information technology teaching platform provides a new way for school enterprise cooperation, making the cultivation of students more in line with the actual needs of social development after graduation. In the future, with the continuous innovation of information technology and the continuous reform of educational concepts, the evaluation standards for information technology teaching in e-commerce majors will also be further adjusted and improved to better adapt to the new requirements and challenges of talent cultivation.

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