### The Application and Reflection of Informationization Teaching Methods in E-Commerce Majors in Vocational Schools

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Abstract: Informationization has had a significant impact on students' skill learning in the teaching process of secondary vocational education. The combination of new curriculum reform and internet teaching mode has enabled students to achieve personalized and autonomous learning, breaking free from the constraints of traditional teaching classrooms, stimulating students' subjective initiative, and enabling them to achieve comprehensive literacy improvement in a more diverse, relaxed, and free environment. This article analyzes the advantages of applying information technology in secondary vocational e-commerce teaching, the implementation of classroom teaching combining information technology with secondary vocational e-commerce teaching, and explores how to promote the application of information technology in secondary vocational e-commerce professional teaching.

**Keywords:** informatization; Teaching methods; Secondary vocational e-commerce

#### 1. Introduction

At present, most Secondary Vocational Schools in China have begun to introduce information technology teaching, so that students can better enjoy various teaching modes in the classroom, while effectively compensating for the problem of insufficient teaching ability of teachers. With the development of information technology in our country, it is an inevitable trend to introduce information technology teaching models into the teaching classrooms of vocational colleges. In order to improve the teaching level and current teaching situation, vocational colleges must keep up with the development trend of the times and strengthen the application of information technology teaching models in the classroom<sup>[1]</sup>.

# 2. The Necessity of Adopting Informationization Teaching Methods in Electronic Commerce Majors of Secondary Vocational Education

### 2.1. Fully utilize modern information technology to promote the development of e-commerce teaching

Digitalization, networking, and informatization are synonymous with the new media environment. Therefore, carrying out information-based teaching in e-commerce majors in vocational colleges is an inevitable requirement for the development of new media. In the context of new media, various information technologies and computer network technologies are constantly developing. Traditional teaching models have fallen behind social development and do not meet practical teaching needs. If only traditional teaching methods are still used, it will affect teaching efficiency and talent cultivation quality. The implementation of information technology teaching can adopt advanced technological means and teaching methods, which is conducive to achieving the informatization of education and teaching, and meets the requirements of the new media environment.

#### 2.2. Adapt to the needs of the country for professional and skilled talents in the new era

Secondary Vocational Schools are the cradle for cultivating professional and skilled talents, continuously importing a large number of talents into China's production frontline. Therefore, in

teaching practice, Secondary Vocational Schools should fully utilize modern information technology, regard the information classroom as the foundation for students to learn skills and knowledge, and comprehensively improve students' professional abilities. Therefore, applying modern information technology to the teaching practice of e-commerce in Secondary Vocational Schools is to expand students' comprehensive qualities

The effective way is to comply with the country's demand for professional and technical talents in the new era. The college should actively explore how to closely integrate students' professional skills and quality education, jointly explore new teaching models, fully utilize modern information technology, and explore effective ways to cultivate high-quality skilled e-commerce talents.

#### 2.3. Cultivating professional talents to adapt to international competition

As is well known, international trade is constantly changing, and without a complete and superior training plan, China will find it difficult to adapt to the competition in the international market. The development of e-commerce will effectively solve this problem. Whether in terms of trade scope or information collection, electronic trade methods will be the future leaders of international trade. Therefore, in the teaching of e-commerce in Secondary Vocational Schools, we should see the prospects for the development of this major. We should seize the opportunities of the times, meet the challenges of the market, utilize modern information technology, and cultivate professional talents suitable for foreign trade enterprises to create international trade competitive advantages.

#### 3. Advantages of Applying Informationization Teaching to Classrooms in Vocational Schools

#### 3.1. Expanding the openness of students' learning

Introducing information technology teaching into electronic commerce teaching in Secondary Vocational Schools allows students to access more online learning resources through information technology education platforms for online retrieval. The Internet has strong information sharing capabilities, and many high-quality teaching classroom resources are shared on the Internet with a wide variety of courses. Students can search for different learning resources based on their own interests and hobbies. Therefore, information-based teaching methods can provide students with rich learning resources and effectively meet their various learning needs<sup>[2]</sup>.

#### 3.2. Facilitate students' acceptance and understanding of knowledge

By introducing an information-based teaching model, teachers can effectively break the traditional teaching mode of the classroom, combining forms such as sound, pictures, text, and video to present students with a more diverse and sensory teaching classroom, allowing them to more deeply accept and understand knowledge. For example, in the e-commerce major of Secondary Vocational Schools, teachers can explain theoretical knowledge related to e-commerce by displaying concrete videos and business cases, helping students better understand classroom content, effectively improving traditional and boring classrooms, and enabling teaching classrooms to develop in a diversified and interesting direction, thereby reducing students' resistance to the classroom and stimulating their interest in the classroom.

#### 3.3. Digitizing the Teaching Process

Introducing the information-based teaching model into vocational e-commerce teaching can effectively promote the digital process in the teaching process, allowing teachers' teaching process to be recorded by the platform, and students' learning progress, homework situation, etc. can also be preserved and stored in the cloud. Teachers can access cloud data through the platform to correct homework at any time and provide timely feedback on students' homework situation [3].

#### 3.4. Improving Teachers' Teaching Efficiency

The traditional teaching mode of e-commerce in Secondary Vocational Schools is single, and teachers can only display e-commerce related operations to students through computers in the computer room, which makes it difficult to improve teaching efficiency. However, by introducing information technology teaching into Secondary Vocational School e-commerce education, teachers can use various

network platforms to transmit and communicate real-time resources with students. For example, teachers can conduct online teaching on online platforms such as MOOC, iBo, WeChat, and Tencent. Through students' platform accounts, they can understand their learning progress, situation, and difficulties, thereby reducing communication time and providing corresponding teaching assistance in a timely manner. This helps students answer questions and effectively improves teachers' teaching efficiency.

### 4. Strategies for Combining E-commerce Teaching and Informationization Teaching Methods in Secondary Vocational Schools

#### 4.1. Establishing the concept of information-based teaching

Informationization teaching is based on constructivist theory and involves four elements, namely context, collaboration, conversation, and meaning construction. From a certain perspective, the information-based teaching model is student-centered. Students should fully exert their enthusiasm and initiative in the context created by the teacher, construct a knowledge network, and solve practical problems through the knowledge they have learned. In the context of new media, Secondary Vocational School e-commerce teachers should continuously enrich their knowledge of information technology teaching and improve their level of information technology teaching. Firstly, teachers should increase their research on information technology teaching, clarify the connotation, characteristics, and requirements of information technology teaching, comprehensively analyze the issues that should be paid attention to when carrying out information technology teaching, and scientifically carry out teaching design work. Secondly, in the process of information technology teaching, teachers should transform from imparting knowledge to guiding students, and establish equal and good teacher-student relationships with students. At the same time, teachers should respect students' subjectivity, provide them with more opportunities to showcase themselves, and pay attention to their individual development. In addition, information-based teaching emphasizes the design of context, collaboration, environment, and the utilization of information resources. Teachers should increase their attention to these aspects, achieve collaborative learning among students through reasonable creation of teaching contexts, scientific creation of learning environments, and group collaborative learning. They should actively utilize various information resources to provide support for students' learning and improve teaching quality.

### 4.2. Building a Teaching Resource Platform

In the context of new media, in order to carry out information technology teaching in vocational e-commerce teaching, it is necessary to build a comprehensive teaching resource platform. Firstly, when constructing a teaching resource platform, it should be ensured that the platform has functions such as resource transmission, data collection and analysis, prediction, and display. The resource transfer function refers to the transfer of resources, in order to transfer relevant knowledge and provide convenience for students' learning; The data collection and analysis function records and analyzes various behaviors of students participating in teaching activities; The predictive function provides guidance and recommendations for students' learning; The display function allows teachers and students to view information such as teaching plans, teaching progress, and learning behavior at any time. Secondly, build a resource library to provide convenience for students' learning. When students use the teaching resource platform, their course usage, task completion, homework submission, and exam performance will be recorded. The platform will comprehensively evaluate students based on their actual online learning situation, clarifying their knowledge mastery. Teachers can supervise students through the platform and provide reasonable suggestions for students.

#### 4.3. Reasonable application of micro courses

Micro courses use short videos as the main carrier and can be combined with devices such as mobile phones and computers to provide fragmented online teaching for students. Micro courses are composed of classroom teaching videos, material courseware, teaching design, teacher comments, and teaching reflection, presenting multiple characteristics such as short teaching time, concise teaching process, small resource capacity, convenient resource use, prominent themes, and specific content. From the relevant research results, it can be seen that the teaching atmosphere affects students' learning efficiency. When teaching e-commerce majors, teachers should strive to make the teaching atmosphere

relaxed and pleasant, so that students can learn more actively and proactively. At the same time, e-commerce itself is closely related to information technology. It is difficult to stimulate students' learning interest if only teaching through blackboard writing and textbooks. Therefore, teachers can use micro courses to activate the teaching atmosphere, concentrate students' attention, and control the teaching pace, helping students build a knowledge system for e-commerce majors. In addition, teachers can also use WeChat groups to publish WeChat course content, allowing students to engage in online learning anytime and anywhere, thereby activating the teaching atmosphere.

#### 4.4. Utilizing Multimedia to Expand Teaching

Informatized teaching methods can better attract students' attention and provide them with better emotional experiences, thereby enabling them to understand the theoretical knowledge in textbooks and reducing the difficulty of learning theoretical knowledge. Therefore, teachers can use multimedia to create good teaching scenarios, using various methods such as animations, physical demonstrations, and music rendering to create more vivid work scenes. Teachers can provide students with expandable and interactive e-commerce teaching content through multimedia devices, allowing them to learn more knowledge and improve their e-commerce practical ability and employment competitiveness.

#### 4.5. Improving Teaching Quality through Flipped Classrooms

In the context of new media, the online teaching resources of e-commerce majors are becoming increasingly abundant, which can provide convenience for teachers to carry out teaching. Teachers can use online teaching resources to enrich the teaching content of e-commerce majors, avoiding the phenomenon of completely relying on textbook content. When teachers apply flipped classrooms in the teaching of e-commerce majors, they should not only respect students' subjectivity, but also set learning tasks for students based on the teaching content and their learning situation, and improve their professional literacy through task driven learning. Teachers can also add some e-commerce teaching content that is closely related to daily life according to teaching requirements, and improve students' knowledge application ability through corresponding tasks.

#### 4.6. Actively applying blended teaching mode

In the process of continuous development of information technology, the application scope of the Internet in various fields is becoming increasingly widespread, promoting the birth of online teaching. Blended teaching is mainly a teaching mode that combines offline and online teaching, transforming students' learning into deep learning by fully leveraging the role of online and offline teaching. Before applying blended teaching mode, teachers should comprehensively analyze the connotation, characteristics, and requirements of blended teaching mode, and enhance the scientific and reasonable teaching design through pre class introduction, classroom learning, and post class reflection. Teachers should use interactive teaching methods with students, and multiple apps can be used to assist in teaching. Enable students to expand their learning time and space. And teachers can also create some practical opportunities for students. Due to the current development of e-commerce, students have more opportunities and challenges. For example, teachers can use Tiktok to train students' ability to carry out short video marketing, use WeChat official account to let students feel the real process of operation, or use fighting fish to let students experience the fun of live broadcast.

# 5. Suggestions for the Development of Informationization Teaching in Electronic Commerce Majors in Secondary Vocational Schools under the Background of New Media

# 5.1. Establishing a teaching system that combines industry, academia, and research to cultivate applied e-commerce professionals

The teaching of e-commerce in Secondary Vocational Schools cannot be separated from practice. Therefore, in the new media informationization teaching of e-commerce in Secondary Vocational Schools, efforts should be made to build a teaching system that combines industry, academia, and research, and enrich the links of practical teaching. On the one hand, schools should provide students with practical equipment and facilities for e-commerce majors, such as building photography studios, live streaming rooms, and operational training online stores, arranging practical teaching activities, and achieving the integration of theory and practice; On the other hand, strengthen the school enterprise

alliance, integrate resources and improve functions to meet the practical needs of teachers in the same profession who are commonly and frequently used in teaching, reduce the pressure of teachers and students operating and switching platforms on multiple platforms, and enable students to practice the skills of e-commerce in the new media era through a real application environment, so that they can enter their roles more quickly when entering their future job positions.

# 5.2. Strengthen the concept of new media informationization teaching and promote the design of new media informationization teaching

For the e-commerce major in Secondary Vocational Schools, new media information technology can greatly improve teaching efficiency and enhance students' competitiveness. In secondary Secondary Vocational Schools, teachers not only need to understand the basic theoretical knowledge of their major, but also need to master the teaching mode of new media information technology, keep up with the times, update teaching concepts, timely update teaching content according to market needs, and innovate teaching designs based on the development of new media e-commerce, such as the current popular short video, live streaming, H5 and other new media marketing models, so that students can solidly update and master knowledge, and cultivate the concept of new media informationization learning, flexibly apply and adapt to new media in future e-commerce positions.

#### 5.3. Innovate teaching methods and leverage students' classroom role as the main body

In order to enhance students' enthusiasm in the classroom, information technology can be fully utilized to form diversified teaching methods, which can help improve the effectiveness of e-commerce teaching in Secondary Vocational Schools. Teachers should innovate teaching methods based on different environments, providing students with different teaching environments to enhance their enthusiasm and participation. In addition to classroom learning, there are also some e-commerce professional competitions held, such as e-commerce professional skills competitions. These activities require students to fully apply information technology to complete, which can effectively improve their enthusiasm for information technology learning, fully achieve a teaching method that combines theoretical and practical learning, and strengthen their understanding of theoretical knowledge, to lay a solid foundation for students' future work and practice.

#### 5.4. Play the main role of teachers and participate in the development of digital resources

In the process of mining and utilizing digital resources, the main function of teachers should be fully utilized, and summarized as follows: The professional knowledge and skills urgently needed by the training object, and enterprises should utilize their own conditions to integrate new technologies. New knowledge can be efficiently condensed, and the information resources excavated in this way can meet the demands of enterprises and demonstrate the level of school education. At the same time, it not only meets the needs of teachers and students to teach and learn, but also meets the needs of enterprises to carry out skill training, achieving a win-win situation for both schools and enterprises. Because teachers themselves participate in the development process of information resources, they can effectively prevent teachers from simply using information resources and improve the quality and efficiency of information resource utilization. High quality information databases have become the driving force for the transformation and development of network technology in vocational education. Especially in the development process of virtual simulation information resources, it is necessary to increase the participation of enterprises and teachers, and create a practical environment that is similar to reality for enterprises. However, according to the research results, it can be seen that teachers rarely use virtual simulation technology. It is necessary to increase the intensity of technical training, and also provide opportunities and platforms for enterprises and teachers to participate in the research and development of virtual simulation resources. This will truly change the problem of ineffective integration of teachers and technology, and inconsistency between student skills and enterprise needs, highlighting the characteristics and quality of school teaching.

#### 5.5. Enhance leadership skills and develop a school information technology development plan

School administrators and decision-makers are the most familiar with the school and its offered majors, as well as the gatekeepers of the school's teaching effectiveness. As the most critical guides of teaching activities, the attitude of relevant school leaders towards information technology, it plays a crucial role in the transformation of the school's teaching system and the improvement of teachers'

information technology teaching level. Leaders and school managers, based on relevant regulations and the actual situation of the school, formulate a plan for the development of school informatization, and overall control the improvement of teachers' informatization teaching level. In addition, relevant leaders of secondary vocational colleges should develop a set of information technology teaching level evaluation indicators consistent with the characteristics of teaching activities of school teachers in accordance with the concept of educational reform. The importance attached by relevant leaders to information technology has a significant impact on the level of teachers' information-based teaching. However, in addition to providing relevant training to school leaders, it is also required that relevant leaders continue to accumulate experience, master scientific application technology, and deeply consider the difficulties encountered in improving teachers' information-based teaching level based on the actual situation.

#### 6. Conclusion

In summary, with the development of information-based teaching models, the demand for talents in society is constantly adjusting. Teachers should also seize the characteristics of this era, in order to provide students with more diverse teaching classrooms, enrich their learning content, expand their learning resources, and create more realistic and specific scenarios for students, thereby guiding them to carry out teaching exercises and improving teaching effectiveness. Secondary vocational e-commerce teachers should actively seek a foothold for information-based educational resources in the classroom, enhance students' interest in learning, enhance their practical abilities, and encourage them to truly rely on information technology support to deepen their understanding of e-commerce professional knowledge in creating a modern education system. Today's vocational colleges should start from the actual needs of social development and apply information technology through the joint efforts of schools and teachers to cultivate more e-commerce talents for society.

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