

Digital Construction Paths for Business and Trade Professional Groups in Vocational Colleges under the Background of Industrial Transformation and Upgrading

Junfeng Di*

Laiwu Vocational and Technical College, Jinan 271100, Shandong, China

**Author to whom correspondence should be addressed.*

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Abstract: In the context of globalization and rapid development of information technology, the transformation of industrial structure has become a major force driving China's economic and social development. Under this situation, as an important component of China's higher vocational education, the information construction of the business and trade professional group is of great significance. The construction of informatization can not only improve the education quality of the business and trade professional group, but also closely connect with the needs of the industry, providing strong talent support for the transformation and upgrading of the industry. Aiming at the problems existing in China's current economic and social development, this paper proposes a new economic and trade professional system based on information technology, and puts forward corresponding solutions.

Keywords: Industrial transformation; Vocational colleges; Business and trade professional group; Digital construction

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1. Introduction

The business and trade major is a major branch of higher vocational education, which includes many disciplines closely related to industrial transformation and upgrading, such as e-commerce, marketing, modern logistics management, international business, etc. With the rise of the digital economy, businesses have put forward higher requirements for professionals with digital functions. In order to meet the needs of China's economic and social development, the digital construction of the business and trade professional group in vocational colleges is of great significance to promote China's economic and social development.

2. Significance of digital construction of business and trade professional groups in vocational colleges in the context of industrial transformation and upgrading

2.1. Aligning with industrial needs to enhance the quality of talent training

With the transformation of China's economic system, significant changes have occurred in the business and service industries, resulting in new characteristics of human resource requirements. The establishment of an e-commerce curriculum system in vocational colleges must align with industry needs, which is key to improving talent quality. By utilizing digital technology, various professional groups can track industrial development in time, grasp the latest requirements of enterprises for human resources, and stay abreast of technological advancements. This integrated approach to training, closely linked to enterprise needs, not only enhances the employability of graduates but also provides impetus for the sustainable development of enterprises ^[1].

2.2. Optimizing professional layout to enhance the advantages of professional clusters

The development of digital technology provides strong support for the rational allocation of business and trade majors in vocational colleges. By utilizing digital technology, a more scientific analysis of the internal relationships and mutual complementarity among various disciplines can be conducted, leading to a more reasonable disciplinary structure. This development approach facilitates industrial agglomeration, resource sharing, industrial collaboration, and coordinated development. Simultaneously, through the advancement of digital technology, dynamic reorganization and optimization of professional groups can be achieved, adapting to new professional requirements arising from industrial transformation and development. Timely adjustments to majors enable them to maintain vitality and competitiveness.

2.3. Improving the level of the teaching team to enhance teaching capabilities

With the acceleration of China's economic informatization process, the demand for teachers in business and trade majors in vocational colleges is increasing, presenting opportunities for educational practice. To meet the demand for teachers in digital education, it is necessary to improve teachers' digital literacy and educational level. The development of informatization creates a favorable environment for communication and collaboration between teachers and students. A high-quality teaching team is an important guarantee for achieving the informatization of professional groups and a crucial prerequisite for improving teaching quality ^[2].

2.4. Promoting the integration of industry and education to enhance the ability to serve economic and social development

The development of the digital economy has established a broader platform for deep exchanges between business and trade majors in vocational colleges and enterprises. Close school-enterprise relationships have been established through the creation of training bases, joint research and development projects, and the sharing of educational resources, forming tight collaborative partnerships. This cooperative approach not only helps professional teams better understand the needs of enterprises but also enables timely training adjustments, providing strong talent and technical support for enterprise development. Simultaneously, the application of digital technology allows professional clusters to better integrate into regional economic and social development, effectively utilizing their respective characteristics to positively contribute to local economic and social progress, industrial upgrading, and regional economic growth. The development model of industry-education integration not only enhances the overall competitiveness of professional clusters but also provides favorable conditions for their sustainable development.

3. Strategies for digital construction of business and trade professional groups in vocational colleges in the context of industrial transformation and upgrading

3.1. Constructing a digital curriculum system to meet the needs of industrial transformation and upgrading

With the rapid development of China's economy and society, business and trade majors in vocational colleges must keep pace with the times and establish a digital teaching system that meets the needs of the industry. The construction of this curriculum system should focus on both theoretical teaching and practical ability training, ensuring that students can timely understand the latest technologies and concepts in the industry. To achieve this goal, deep cooperation with enterprises is needed to jointly develop digital teaching resources.

For example, vocational colleges can collaborate with locally renowned e-commerce companies to offer a major in "E-commerce Operations and Management." Industry experts and college teachers can work together to integrate the latest industry trends, business strategies, and technological means into the teaching content, ensuring the practicality and forward-looking nature of the education. Additionally, the curriculum can include various practical components such as store decoration, product sales, and market promotion, allowing students to master practical skills through hands-on experience. Meanwhile, by utilizing technologies like big data and artificial intelligence, the industry's needs can be deeply analyzed to dynamically optimize professional courses. Through the analysis of labor market data, it has been found that the demand for cross-border e-commerce talents is growing. Therefore, the school can promptly introduce a course on "Cross-border E-commerce Practices" and invite executives from cross-border e-commerce enterprises with rich practical experience to share their expertise and skills with students ^[3]. This industry-oriented curriculum design and teaching model enable vocational colleges to closely align their teaching with reality, cultivating a high-quality pool of digital technical talents for industrial transformation and upgrading.

3.2. Building a digital teaching platform to enhance teaching interaction and efficiency

In the information age, digital teaching platforms have become crucial tools for vocational colleges to improve teaching quality and efficiency. By creating a digital teaching platform that integrates functions such as online teaching, resource sharing, and interactive communication, vocational colleges can greatly enhance the interactivity and efficiency of teaching.

Vocational colleges can invest significant resources in building a fully functional digital teaching platform. On this platform, teachers can easily conduct online classes, imparting knowledge to students through various formats like videos, audio, and PPTs. Additionally, the platform provides real-time Q&A functionality, allowing students to ask questions during the learning process and receive prompt answers and assistance. This online teaching method not only breaks the limitations of time and space but also improves the flexibility and convenience of teaching. Teachers can upload the latest teaching courseware, case materials, etc., which students can download and learn from anywhere at any time. This resource-sharing approach not only enriches the teaching content but also promotes interactive communication between teachers and students. For instance, in a marketing course, the teacher uploads a recent case study on marketing strategies. Students download and study the material after class and share their views and insights on the platform. Through this feedback, teachers can timely understand students' learning progress and thoughts, providing valuable reference for future teaching.

3.3. Strengthening the construction of digital training bases to improve students' practical abilities

In the context of industrial transformation and upgrading, practical training bases play a crucial role in cultivating students' practical abilities in business and trade majors at vocational colleges. In the process of digitalization, it is essential to enhance the construction of digital training bases, introducing advanced technologies such as virtual reality and simulation to create a realistic business environment. This allows students to conduct practical operations in virtual business scenarios, thereby improving their practical abilities.

Taking the logistics management major at a vocational college as an example, the school has introduced internationally advanced logistics simulation software and virtual reality technology to construct a realistic logistics operation environment. This enables students to complete practical tasks such as loading and unloading, transportation, and storage of goods in such an environment. Through simulated training, students gain an intuitive understanding of the enterprise logistics operation process and a certain understanding of logistics work methods, which provides guidance for their subsequent career development. By using simulation software, students can experience various aspects of logistics work, feel the real working environment and process, and enhance their training effects.

For instance, the marketing major has established a digital marketing training base, introducing internationally mature marketing simulation software and data analysis tools. This allows students to perform practical tasks such as market research, marketing planning, and advertising placement in a virtual environment. Through practical training, students can gain a deeper understanding of market operation mechanisms and workflows, improving their practical application abilities and professional literacy.

Additionally, schools can collaborate with enterprises to establish off-campus training bases, providing students with opportunities to participate in production practices. For example, a school has partnered with a well-known retail enterprise to establish a chain operation management training base within the enterprise. Under the guidance of enterprise mentors, students can directly participate in the enterprise's business activities. By engaging in tasks such as merchandise display, inventory management, and customer service, students gain a more intuitive understanding of the operational mode and management methods of retail enterprises, enhancing their professional literacy and employment competitiveness ^[4].

3.4. Enhancing the digital literacy of the teaching team to ensure teaching quality

In the construction of business and trade professional groups in vocational colleges in the context of industrial transformation and upgrading, the teaching team plays a crucial role. The digital literacy and teaching level of teachers are closely related to the effectiveness of digital teaching. Therefore, it is necessary to strengthen digital training for teachers and enhance their digital literacy and teaching abilities.

Vocational colleges can organize various training programs through multiple channels, offering a series of digital teaching training courses and inviting well-known experts in the industry to teach on campus. The course content covers the use of digital teaching software, access to and integration of online teaching resources, and digital teaching design and implementation. Besides offering training courses, vocational colleges can organize various teaching seminars, academic exchanges, and other activities. For example, the college can hold a seminar on "Digital Teaching," inviting experts and scholars from related fields at home and abroad to conduct in-depth discussions on the concepts, methods, and technologies of digital teaching. Through seminars and exchanges, teachers can learn from and inspire each other, promoting the development and improvement of their own digital teaching abilities.

Furthermore, it is essential to strengthen teachers' practical training in enterprises so that they can better understand the actual situation of industry development. Schools should establish cooperative relationships with multiple enterprises and organize teachers to participate in enterprise practical training and engineering projects. Through enterprise practice, teachers can gain a deeper understanding of the business model and management methods of enterprises, grasp industry development trends and technological needs, and integrate these situations into classroom teaching. This makes classroom teaching more practical, forward-looking, and targeted.

3.5. Promoting the deep development of industry-education integration to achieve win-win cooperation

In the context of industrial transformation and upgrading, the integration of industry and education is a crucial path for achieving digital development in business and trade majors at vocational colleges. By deepening close ties with enterprises and promoting the in-depth development of industry-education integration, we can achieve complementary advantages between schools and enterprises, leading to a win-win situation. To accomplish this goal, cooperation with enterprises can be established to jointly build research and development institutions or laboratories, and carry out scientific and technological research and development activities.

For instance, a vocational college has partnered with a domestically renowned e-commerce enterprise to establish an "E-commerce Technology Research and Development Center." This research and development center consists of a team of teachers, students, and enterprise technicians who conduct research and technological breakthroughs on current hotspots and difficult issues in the field of e-commerce. Through collaborative research and development, the college's scientific research strength and level have been enhanced, while also providing strong support and solutions for the enterprise's development and innovation.

Schools can also collaborate with enterprises on industry-university-research cooperation projects, jointly developing an information technology-based logistics management collaboration scheme. This project, led by school teachers and students, aims to build an information management system suitable for logistics enterprises. In this process, students not only learn relevant professional knowledge and skill theories but also gain a deep understanding of the actual needs and operational methods of enterprises, laying a solid foundation for future employment.

Simultaneously, enterprise experts can be invited to participate in the planning and development of digital projects, providing industrial perspectives and suggestions for the projects. Enterprises can also provide supporting services such as digital teaching facilities and software for campuses, thereby enhancing the level of digital teaching on campus ^[5]. Through enterprise participation, communication and collaboration between schools and enterprises are strengthened, promoting the digital development of business and trade majors.

3.6. Establishing a digital evaluation system to ensure the effectiveness of digital construction

To ensure the effectiveness of digital construction for business and trade professional groups in vocational colleges, it is essential to establish a scientific digital evaluation system. This system should include evaluations of various aspects such as student learning outcomes, teacher effectiveness, and the construction status of training bases, to ensure the comprehensiveness and effectiveness of digital construction.

In terms of evaluating student learning outcomes, various forms of evaluation such as online testing, project assignments, and practical operations can be adopted. For example, in a digital marketing course, teachers can

use online tests to assess students' mastery of course knowledge, assign project tasks to have students complete a specific marketing plan using what they have learned, and conduct practical operations to allow students to engage in real-world marketing scenarios. This diversified evaluation approach can comprehensively reflect students' learning achievements and proficiency levels.

For evaluating teacher effectiveness, multiple methods such as student evaluations, peer evaluations, and teaching supervision evaluations can be employed. For instance, an online evaluation system can be set up to allow students to evaluate teachers' teaching attitudes, content, and methods. Peer teachers can be organized to observe and evaluate each other's classes, promoting communication and learning among teachers. Teaching supervision experts can be invited to monitor and guide teachers' teaching processes, providing suggestions for improvement. This multi-dimensional evaluation approach can objectively reflect teachers' teaching effectiveness and proficiency.

Regarding the evaluation of training base construction, various aspects such as facility conditions, management level, and utilization efficiency can be assessed. Regular inspections and maintenance of training base facilities and equipment should be conducted to ensure their integrity and usage rates. Management systems and processes for the training base can be established to standardize its management and utilization. Statistics and analysis of the training base's usage can be performed to understand its efficiency and effectiveness. This comprehensive evaluation approach can ensure the scientific and effective construction of the training base.

4. Conclusion

In the context of China's economic and social development, the digital construction of business and trade professional groups in vocational colleges is a systematic project that requires the participation of multiple parties including the government, enterprises, and schools. By establishing a school-enterprise cooperation talent training mechanism, optimizing professional groups and curriculum systems, promoting the digitalization of educational resources, enhancing the digital capabilities of teachers, and constructing intelligent and personalized teaching models, we can facilitate the digital construction of business and trade professional groups in vocational colleges and achieve tangible results. In the future, with the continuous development of the digital economy and the deepening of industrial transformation and upgrading, the digital construction of business and trade professions in vocational colleges will embrace broader development opportunities and prospects.

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