

# Collaborative Mechanisms for Building Innovative E-Commerce Teaching Teams: A Professional Development Framework for Vocational Colleges

Pengbo Yang, Haonan He, Liu Ziyu

Xidian University, Xi'an 710071, Shaanxi, China

**Abstract:** *Considering the distinctive characteristics of the e-commerce discipline and the corresponding industrial demands, this study explores professional standards for e-commerce educators within the context of building teaching innovation teams in vocational education. The proposed framework introduces innovations across multiple dimensions, including teaching philosophies, instructional models, content delivery, pedagogical standards, and collaborative teamwork. In tandem, it establishes elevated requirements for teachers' ideological and political competence, professional ethics, and subject-specific proficiencies. Aimed at cultivating technically skilled talents capable of meeting the evolving needs of the e-commerce industry, the study articulates a set of professional standards grounded in the development of vocational education teaching innovation teams. These standards serve to codify the essential qualifications of e-commerce instructors, promote their sustained professional growth, and ultimately provide robust faculty support for the continuous improvement of talent cultivation quality.*

**Keywords:** Vocational education, E-commerce, Innovation team, Professional standards.

## 1. Introduction

With the continuous deepening of the reform and development of higher vocational education in China, the construction of the vocational education teacher team has received high attention. The teacher team is the first resource for the development of vocational education and the key force to support the reform of national vocational education in the new era. As the leader of teaching activities and the practitioner of teaching reform, teachers shoulder the heavy responsibility of cultivating technical and skilled talents in the new era. To promote the development of vocational education teachers, in May 2019, the Ministry of Education launched the construction of vocational college teacher teaching innovation teams and issued the "National Vocational College Teacher Teaching Innovation Team Construction Plan". In January 2021, six departments including the Ministry of Education promulgated the "Guiding Opinions on Strengthening the Reform of the Construction of the Teacher Team in New Era Colleges and Universities", clearly stating that it is necessary to build a high-quality, professional, and innovative college teacher team with excellent political qualities, Exquisite business skills and superb education level

As a professional selected for the first batch of national vocational education teacher teaching innovation teams, the e-commerce major has selected professional teams from 9 schools across the country for project construction. After nearly two years of construction, the overall level of team construction and the ability and quality of team teachers have been greatly improved. Establishing professional standards for e-commerce teachers that are compatible with teaching innovation teams plays an important role in promoting team construction, improving teachers' comprehensive qualities, and promoting teachers' growth.

## 2. Analysis of the Current Situation of Vocational Education Teachers

Compared with the new requirements of the national vocational education reform, there are still problems in the vocational education teacher team, such as insufficient quantity, single structure, low attractiveness, weak practical ability, and inflexible management systems and mechanisms. There is a lack of "dual-qualified" teachers with both theoretical teaching and practical teaching abilities. These problems seriously affect the reform and development of vocational education and urgently need to be solved.

### 2.1 Lack of Work Experience in the Profession

Most vocational education teachers in China are graduates from regular institutions of higher learning who have received systematic disciplinary education. They go directly from school to school to work, and the education they receive is mainly academic education, lacking professionalism and having weak practical abilities, unable to meet the needs of vocational education for cultivating technical and skilled talents. Especially for emerging professional disciplines such as new-generation information technology and e-commerce, there are few graduates or no graduates yet, and most of the old teachers have transferred from related majors. The "National Vocational Education Reform Implementation Plan" issued by the State Council in February 2019 and the "Implementation Plan for Deepening the Reform of the Construction of the "Dual-Qualified" Teacher Team in Vocational Education in the New Era" issued by the Ministry of Education and other four departments in September 2019 clearly state that in the future, vocational education teachers will no longer be recruited from fresh graduates other than those from the "dual-qualified" vocational and technical teacher majors, but will tend to recruit personnel with a higher vocational education degree or above and more than 3 years of work experience in enterprises.

### 2.2 Incomplete Professional Standards

Teacher standards are the basic requirements for teacher quality. Without standards, there is no quality. At present,

China has not yet introduced professional standards for higher vocational teachers. In 2013, the Ministry of Education issued the "Professional Standards for Teachers in Secondary Vocational Schools (Trial)", which clarified the basic conditions for the professional qualities of secondary vocational school teachers and the basic norms for carrying out education and teaching activities, and put forward requirements for teacher training, access, training, assessment and other work. The "Implementation Plan for Deepening the Reform of the Construction of the "Dual-Qualified" Teacher Team in Vocational Education in the New Era" proposes to build a hierarchical and classified teacher professional standard system in the future to standardize links such as teacher training, qualification access, recruitment and employment, professional title evaluation and appointment, assessment and evaluation, and salary distribution, and promote the scientific process of teacher employment management.

### 2.3 Insufficient Attractiveness of Job Positions

According to the statistics of the Ministry of Education, as of the end of 2019, there were 498,000 full-time teachers in national vocational colleges, and about 65,000 vocational college teachers needed to be supplemented every year. The graduates of vocational technical teacher majors in colleges and universities cannot meet this demand, and it is necessary to recruit high-educated professional talents from ordinary universities and introduce and cultivate master craftsmen from enterprises for supplementation. To address the 师资缺口, first, the academic entry threshold should be lowered, and the job attractiveness of vocational education teachers should be improved. By increasing educational investment, reforming the teacher title evaluation and appointment system, and raising salary and treatment, the problem of insufficient job attractiveness of vocational education teachers can be solved.

## 3. Basic Concepts of Professional Standards for E-commerce Teachers

Teacher professional standards are guiding documents formulated by the state based on certain educational purposes and teacher training objectives, which specifically stipulate the implementation standards and methods for each item in the professional structure elements of teachers. A qualified teacher professional standard includes content such as teacher ethics, professional ability, professional knowledge, educational ability, and lifelong learning ability. The teacher standards for teaching innovation teams have higher requirements in aspects such as ideological and political qualities, teacher ethics, and professional abilities than previous standards.

### 3.1 Having the Educational Sentiment of Cultivating Virtue and Nurturing People

The objects of vocational education are complex, including recent high school graduates, secondary vocational school graduates, as well as enterprise employees, veterans, migrant workers, etc. Some high school graduates and secondary vocational school graduates have poor learning self-awareness, insufficient understanding of the importance

of knowledge and skills, and no interest in learning; most social personnel can personally experience the importance of knowledge and skills, have a strong learning willingness, and clear purposes, but there are large differences in age structure, work experience, and learning ability. Therefore, vocational education teaching is difficult, and teachers must adhere to professional spirit, vocational spirit, and craftsmanship spirit, be full of love, responsibility, patience, and carefulness, and have firm ideals and beliefs and an educational sentiment of fostering virtue through education. Higher vocational teachers deeply understand the fundamental educational issue of "what kind of people to cultivate, how to cultivate people, and for whom to cultivate people", and cultivate diverse technical and skilled talents for society, enabling everyone to become talented and achieve success.

### 3.2 Having the Ability to Adapt to Multiple Levels, Environments, and Methods of Education and Teaching

Adjust teaching methods and content according to different levels of vocational education objects, and teach students in accordance with their aptitude. For example, for those who are already engaged in e-commerce related work in society, the main goal is to cultivate work standardization and technical comprehensiveness. Vocational education focuses on the cultivation of practical abilities, requiring teachers to not only have the ability of classroom teaching, but also be able to undertake practical teaching in practical places, apply professional theories to post practice; not only be able to adapt to offline classroom teaching, but also be able to carry out online teaching and online-offline hybrid teaching; be able to integrate information technology and develop various teaching resources.

### 3.3 Have the Ability of Lifelong Learning

Keep learning new professional knowledge and vocational skills, learn national vocational education policies and theories, and update vocational education concepts. Learn the vocational education experience of developed countries and provide reasonable suggestions for localization. Regularly participate in on-the-job practice activities in enterprises, master the development of the e-commerce industry, industry needs and changes in vocational positions, and update the knowledge and skill structure. Participate in teaching ability training, implement teaching reform, and set an example of lifelong learning for students.

## 4. Knowledge and Ability Requirements for Teachers in the E-commerce Teaching Innovation Team

commerce is an interdisciplinary subject that combines computer science, management, marketing, logistics, etc. Teachers can come from majors such as computer, management, marketing, international trade, logistics, e-commerce, etc. and have experience in online store operation, management, and network marketing. They should possess the ability to implement modular teaching design, develop curriculum standards, conduct teaching evaluation, teamwork, and apply information technology.

### 4.1 Professional Knowledge and Skill Requirements

Comprehensively master the knowledge system of the e-commerce discipline, be familiar with the business of opening, operating, managing, and promoting stores on mainstream domestic and foreign e-commerce platforms, and be good at multiple technical directions of e-commerce positions. Have a keen market insight and data analysis ability, be able to accurately select products and position the target market of products, and Explore the selling points of the product Have enterprise practice experience and be able to guide students in the whole process of e-commerce post work tasks from market research, product selection, store opening to online store operation and promotion. Keep abreast of professional trends, follow new e-commerce business forms and models, and actively adapt to new occupations and new positions.

#### **4.2 Educational and Teaching Ability Requirements**

Master the knowledge of pedagogy and psychology, understand the characteristics and growth laws of higher vocational students, and explore educational approaches to stimulate students' innovation vitality and learning motivation in combination with the practical and innovative characteristics of the e-commerce major. Design the teaching process and teaching scenarios based on the work process of vocational positions, scientifically design teaching objectives and teaching methods, and incorporate new technologies, new ideas, and new norms of e-commerce into the curriculum standards and teaching content. Develop teaching resources, collaborate among team teachers to carry out modular teaching, and undertake teaching and research projects. Be familiar with the "1+X" certification standards related to e-commerce and have the corresponding certification training qualifications. Guide students to scientifically formulate career and employment and entrepreneurship plans, and evaluate students from multiple dimensions and perspectives in combination with the characteristics and cultivation laws of technical and skilled talents.

#### **4.3 Requirements for Professional Construction Competence**

Promote the construction and development of the major, participate in professional construction tasks such as market research on the demand for e-commerce talents, formulation of talent cultivation plans, development of curriculum standards, school-enterprise cooperation, construction of training bases, guidance for internship positions, and employment tracking throughout the process, providing a basis for adjusting teaching content and teaching methods. Form a social service team, undertake social service projects and transform them into teaching processes. Promote the implementation of the talent cultivation model of integrating work with study and integrating production with education, and temper the "dual-professional" quality. Guide students to participate in skill competitions and use the competitions to promote the improvement of professional skills.

#### **4.4 Requirements for the Ability of Incorporating Ideological and Political Education into Courses**

Explore the ideological and political education resources of professional courses and give play to the educational role of

professional courses. Combine excellent e-commerce corporate cultures, and naturally integrate the vocational qualities of craftsmanship spirit, excellence pursuit, dedication and trustworthiness, and courage to innovate in vocational education, as well as e-commerce business concepts such as "customer first, teamwork, honest operation, and law-based business" into the educational process. Cultivate patriotism, develop correct values, aesthetic views, and emotional views, and cultivate excellent workplace comprehensive qualities and the ability to cope with various risk challenges in the real e-commerce operation environment.

### **5. Cultivation Paths for Teachers of the E-commerce Teaching Innovation Team**

The difference between the teaching innovation team of vocational education teachers and the previous team construction lies in "innovation", including innovation in teaching concepts, teaching models, teaching content, teaching standards, and team collaboration models. The construction of innovation teams is one of the important tasks for building high-level higher vocational schools and majors with Chinese characteristics in the new era. The goal is to demonstrate and lead the construction of high-quality "dual-professional" teacher teams, deepen the reform of "teaching staff, teaching materials, and teaching methods" in vocational colleges, and provide strong teacher support for leading the reform and innovation of education and teaching models and promoting the continuous improvement of talent cultivation quality.

#### **5.1 Strengthen the Construction of Teachers' Professional Ethics and Build a Team of Teachers with Noble Professional Ethics**

Improve the institutional norms for the construction of teachers' professional ethics, establish an institution for supervision and assessment of teachers' professional ethics, and enhance teachers' ideological and political qualities and their sense of responsibility and mission in teaching and educating people through forms such as special meetings on teachers' ideological and political work, professional ethics training, and special reports on model teachers of professional ethics. Utilize online and offline publicity platforms to promote typical examples of teachers' professional ethics, tell good stories about professional ethics, guide the construction of professional ethics with true feelings, and create a good atmosphere of advocating professional ethics and striving to be a model of professional ethics. Give play to the leading and exemplary role of model teachers of professional ethics, cultivate the concept of curriculum-based ideological and political education and the thought of "whole-process, all-round education", closely integrate the construction of teachers' professional ethics with teaching and educating people, cultivate the craftsmanship spirit, and improve the comprehensive quality and humanistic cultivation of teachers.

#### **5.2 Strengthen School-enterprise Collaborative Education and Build a "dual-qualification" Teacher Team**

School-enterprise cooperation and integration of production and education are the key differences between vocational

education and other types of education. Establish a collaborative development mechanism for teachers, such as mutual employment of school-enterprise personnel, two-way secondment for on-the-job training, and horizontal joint technology research and development, to temper the "dual-qualification" quality and build a "dual-qualification" structure team integrating excellent school teachers and industrial tutors. Jointly build school-enterprise practice bases, industrial colleges, teacher development centers, master studios, teacher enterprise workstations and other teacher enterprise practice bases inside and outside the school, support in-school teachers to practice in enterprise work positions and participate in new technology training in terms of professional titles and treatment. Break the employment mechanism and salary system that only focus on academic qualifications and professional titles, and hire or flexibly introduce business backbones and technical personnel with rich practical experience from enterprises to supplement the teaching staff. Support teachers to participate in overseas training, broaden the international vocational education perspective, learn the vocational education concepts of developed countries, and promote the internationalization process of China's vocational education.

### **5.3 Optimize the Personnel Allocation of the Team and Cultivate High-level Professional Leading Talents**

Integrate the resources of full-time teachers on campus and part-time teachers outside the school, establish classification and hierarchical management and cultivation standards for newly recruited full-time and part-time teachers, "dual-qualification" teachers, backbone teachers, professional leaders, famous teachers and master craftsmen, and conduct differentiated training. Employ senior technical personnel from enterprises as industrial tutors to guide professional practice, curriculum development, and participate in talent cultivation. The school and enterprise jointly introduce and share masters and master craftsmen in the e-commerce field, keep up with the development trend and industry dynamics of the e-commerce industry, stand at the forefront of professional development, and grasp the direction of professional construction and development. Implement the dual-professional-leader responsibility system between the school and the enterprise, improve the selection, evaluation, assessment and incentive systems for professional leading talents, select and cultivate professional leading talents with high moral character, strong ability, excellent expertise and rich experience, and lead the construction of the teaching innovation team.

### **5.4 Strengthen the Connection Between Schools, Enterprises and Different Schools, and Promote the Joint Construction of Team Collaboration Communities**

Taking the enterprise high-quality resource sharing platform as the carrier and the new partnership between schools as the link, establish a collaboration community with high-level professional teams in the field of e-commerce majors. Carry out training and exchanges on talent cultivation models, curriculum teaching, resource development, information technology application, professional teaching standards, vocational skill level standards, etc. among the teachers of the community, improve the teachers' modular teaching design

and implementation ability, curriculum standard development ability, teaching evaluation ability, and team collaboration ability, jointly promote the classroom revolution, and achieve the balanced development of high-quality education teachers.

## **6. Conclusion**

The construction of the teaching innovation team for vocational education teachers is a necessary condition for the reform of vocational education. As a new thing, there is no unified teaching innovation team teacher standard yet. Based on the original professional standards for secondary vocational school teachers and combined with professional characteristics, innovation should be focused on aspects such as educational teaching concepts, curriculum systems and teaching models, team composition and operation methods, and team construction paths and methods. Aiming at cultivating technical and skilled talents that meet the development needs of the e-commerce industry, explore the professional standards for e-commerce teachers based on the construction of the teaching innovation team for vocational education teachers, form a vocational education teaching innovation team with Chinese characteristics and world-class level, and enhance the international influence and competitiveness of China's vocational education.

## **References**

- [1] Ministry of Education. Guiding Opinions on Strengthening the Reform of the University Teacher Team in the New Era, [EB / OL]. [http://www.moe.gov.cn/srcsite/A10/s7151/202101/t20210108\\_509152.html](http://www.moe.gov.cn/srcsite/A10/s7151/202101/t20210108_509152.html), 2021- 01-27.
- [2] Duan Qiling, Wu Ping. Exploration on the Path of Higher Vocational Colleges to Implement the "Vocational Education 20 Articles"[J]. Hebei Vocational Education, 2020(04): 5-9.
- [3] Liu Songdi. Comparative Study and Enlightenment of Teacher Professional Standards - Taking China and Australia as Examples[J]. Continuing Education Research, 2021(01): 80-84.
- [4] Bai Xingliang, Niu Tongxun. Research on the Construction of Teaching Innovation Teams for Vocational Education Teachers[J]. Exploration of Higher Vocational Education, 2020(05): 45-50.
- [5] Yuan Jingjie, Su Zhilan, Su Guohui. Construction of "Double-qualified" Teaching Innovation Teams under the Background of the "Double-high Plan" - Taking Lining Vocational University as an Example[J]. Textile and Apparel Education, 2020(08): 295-298.