

Talent Training Mode Reform of E-commerce Specialty in Higher Vocational Education Based on Synergy Theory

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Abstract—Against the background of innovation and entrepreneurship, aiming at the problem of how to train innovative high-quality technical personnel in higher vocational education, this paper analyzes the dependence relationship among "course, job skills, professional skill competition and Innovation ability" based on synergy theory. A "three levels — six modules" talent training model is constructed on the basis of the four-in-one personnel training mentality of "school enterprise cooperation — curriculum system construction — professional skills competition — innovation ability". The proposal provides a new way of thinking for promoting the reform of curriculum system and cultivating innovative and high-quality technical talents.

Keywords—talent training mode reform; higher vocational education; synergy theory; electronic commerce specialty

I. INTRODUCTION

Under the guidance of the national policy of vigorously developing vocational education, vocational education has made great progress. It has brought a large number of high-quality talents to the socialist modernization construction and made a great contribution to speeding up the development and strengthening of the modern industrial system. The National Plan for the implementation of Vocational Education Reform, published by the State Council in 2019, clearly pointed out that the vocational education should be put into a more prominent position in the innovation of education reform and the economic and social development. In recent years, the State Council has successively issued the "General Office of the State Council on the implementation of the Reform of innovative and Entrepreneurship Education in Colleges and Universities", and the "General Office of the State Council on deepening the Integration of Industry and Education". The policy documents provide guidance for the reform of vocational education, integration of production and education, cooperation between schools and enterprises, innovation and entrepreneurship, and vocational skills competition. Under this good policy environment, E-commerce as an innovative and dynamic system under the background of the Internet, it is one of the important problems to solve the collaborative development between innovation ability and enterprise demand in higher

vocational education. At the same time, the professional skill competition, as the touchstone of the training quality of higher vocational talents, has become an important content of the professional teaching. However, there are still some problems in the integration of the skill competition and the professional curriculum, and the competition education is not in line with the original intention of the skill competition and also affects the realization of teaching objectives. Therefore, the cultivation of e-commerce professionals requires scientific integration of post skills, innovation and competition skills into curriculum teaching, that is "Course, Post, Competition, Innovation" collaborative, to cultivate more to meet the social needs of professional talents.

In order to explore the training mode of e-commerce talents in accordance with the needs of the industry, many universities and teachers have made a lot of attempts. For example, Xu et al. starting with the analysis of the characteristics of the talent demand of the higher vocational and commercial talents, put forward the applicability of the training mode of the "post, class, certificate, race"-oriented talent training to the training of the professional talents in the business department [1]. Cao put forward that the curriculum system should be set up according to the requirement of "work process orientation" based on competition, so as to realize "class competition fusion, promote teaching by competition", promote the reform of the training mode of high-skilled talents, and improve the quality of talent training [2]. However, the research on the training model of the four-level co-operation of the professional "Course, Post, Competition, Innovation" of e-commerce is less involved. Xia et al. made a deep analysis of the problems existing in the practice teaching system of e-commerce major in higher vocational colleges, and explored the practical teaching mode of e-commerce major in higher vocational colleges driven by the "Project of online Entrepreneurship" [3]. Taking the reform and innovation of training mode of E-commerce majors in Henan Vocational College of Industry and Trade as an example, Wang puts forward the way of "course Certificate Competition" for E-commerce majors in higher vocational colleges [4]. Chen analyzes the benefits of introducing competition mechanism in E-commerce teaching to the reform of teaching mode and the cultivation of

students' innovation, entrepreneurship and practical ability [5]. Luo et al. taking the course "search engine Optimization" as an example, introduces the "Learning Competition and Innovation" integrated teaching mode of E-commerce major in higher vocational colleges [6]. Yu probes into the integrated mode of e-commerce talent training of "professional entrepreneurship" on the basis of conforming to the law of vocational education talent growth and the demand of social training, and construct the "job certificate class and competition integrated" mode of personnel training for E-commerce major [7]. Hence, although some higher vocational colleges have actively engaged in curriculum reform, Personnel training and enterprise's demand docking, education and practice of professional skills competition and innovation, but the research on of the "Course, Post, Competition, Innovation" collaborative talent training mode is still lacking, and does not achieve the expected effect of talent training.

II. BACKGROUND

With the development of Internet information technology, E-commerce has become the mainstream mode of commercial trade, and the demand of E-commerce talents is increasing day by day. E-commerce specialty has been carried out for more than ten years, through the continuous exploration of various universities, experts and teachers, a systematic training model has been formed, but the discipline system is still not mature enough. At present, there are still some problems in the construction of e-commerce curriculum system, which restrict the quality of talent training.

- Firstly, the direction of cultivation is vague, the core competitiveness is not clear. As an interdisciplinary profession, Students of E-commerce need to know a lot of professional knowledge in the process of learning, can engage in a variety of jobs, a variety of occupations, need to master different core skills. In the process of formulating talents training plan, colleges and universities may pursue all aspects too much, and ignore the core direction and core competence, so the aim of training is broad, which leads to the lack of core competence of e-commerce talents.
- Secondly, poor curriculum system. When setting up specialized courses, colleges and universities try to give consideration to the cultivation of E-commerce talents' multiparty abilities, such as innovative entrepreneurial ability, professional competition ability, as well as the basic ability of the post, etc. But at present, there are still some problems in the integration of professional competition ability training, innovative entrepreneurship training and professional curriculum. On the one hand, in order to obtain good competition results, affect the normal study of students, and affect the realization of normal teaching objectives. On the other hand, there is no aptitude for teaching, for example, not every student is fit to start a business or be interested in a skill competition.

- Last but not the least, the students have weak post skills and lack of practical ability. At present, most of the practical teaching of e-commerce in colleges and universities is mainly explained by teachers, and students' practical ability is poor. Some schools have carried out school-enterprise cooperation, establish in-school and out-of-school training bases, in order to provide students with a more realistic practice environment. However, the practice positions that school-enterprise cooperation enterprises can provide are limited, may not meet the needs of all students.

Hence, against the background of innovation and entrepreneurship, it is necessary to scientifically coordinate the relationship among post demand, innovation ability and professional skills training when formulating the training mode for e-commerce professionals, so as to realize the coordinated development of "Course, Post, Competition, and Innovation" and improve the quality of talent training.

III. PERSONNEL TRAINING MENTALITY

Synergy theory is an important branch of system science. According to synergy theory, a large number of subsystems, under certain conditions, can find out the controlling factors that affect the change of the system because of the mutual influence and cooperation among the subsystems [8]. Furthermore, the synergy action between subsystems in the system is brought into play [8] [9]. The system science theory is widely used in education, and the synergy theory is more suitable for the teaching system to promote the cooperation between the various internal elements of the teaching system, and the whole teaching system is in an orderly state so as to improve the teaching quality.

The cooperative training mentality of "Course, Post, Competition, Innovation" refers to that: When constructing the course system, the relationship between the post-skill training, the training of the competition skills and the cultivation of the innovative start-up quality is scientifically and reasonably coordinated around the work flow and requirements of the E-commerce post group, based on the learning characteristics of the students in the higher vocational colleges, to realize the integration of professional curriculum construction, post skills, skills competition and innovation development, and cultivate innovative high-quality skilled talents for the society.

This paper constructs a four-in-one personnel training mentality of "school enterprise cooperation — course system construction — professional competition — Innovation development" based on synergy theory.

According to the analysis based on synergy theory, the dependence relationship among "course, Job skills, professional skill competition and Innovation ability" can be described as "Fig. 1".

As shown in "Fig. 1", firstly, school-enterprise cooperation can provide more accurate job demand in the course of curriculum system construction, and improve the fit between talent training and actual needs. Secondly, the curriculum system can provide the basic knowledge needed

for the skill competition and the cultivation of innovative entrepreneurial ability. At the same time, the training and education of skill competition can improve the level of students' professional skills, inspire the potential of innovation, not only can provide more high-quality post-skill talents for enterprises, but also can open up students' thinking and enhance students' consciousness of innovation. In addition, enterprises can also provide practical environment and product, technical and financial support for skill competition and innovation team to further improve students' job skills and professional abilities. These four promote each other and rely on each other to promote the cultivation of innovative and high-quality skilled talents.

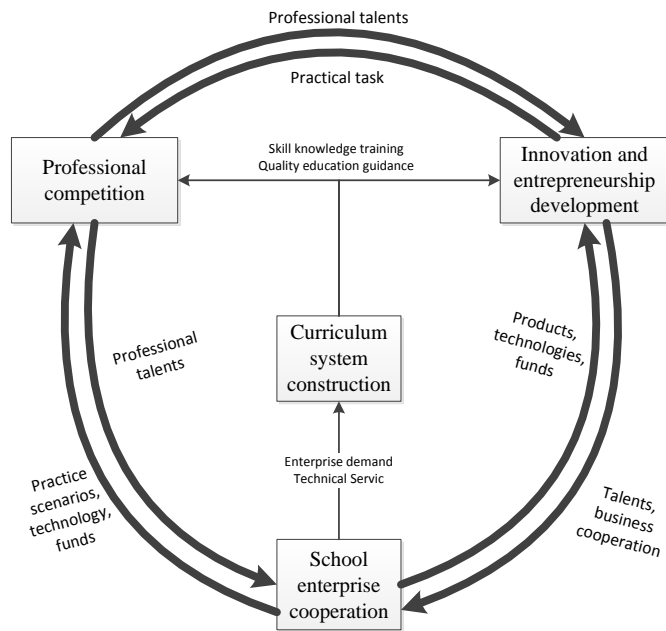


Fig. 1. The relationship of "Course, Post, Competition, Innovation".

IV. TALENT TRAINING MODE

The guiding ideology of running a school in vocational education of our country is "service-oriented and employment-oriented", the talent training of the higher vocational colleges should be located in the high-quality applied talents which is needed for the social development. Therefore, according to the development and change of professional talent demand, higher vocational colleges should make clear the target and direction of talent training, innovate the mode of cultivating talents of e-commerce specialty, and realize the organic combination and seamless connection between school and market.

This paper constructs the "three-level and six-module" training mode for the professional talents of E-commerce in higher vocational colleges, based on the "Course, Post, Competition and Innovation" four-in-one personnel training mentality.

A. The Goal of Talents Training

According to the development of E-commerce and the demand of market, the training goal of e-commerce specialty is divided into "three levels".

"Three levels" refers to: post skilled talents, high-quality skilled talents and innovative high-quality skilled talents. "Post skilled talents" development is the basic objectives of personnel training. On the basis of ensuring the completion of the basic objectives of personnel training, some interested and potential students should carry out for professional skills comprehensive training combined with professional skills competition, which can not only improve students' professional ability but also provide talent protection for skill competitions, to achieve the goal of high-quality skills personnel training. In addition, innovative high-quality skilled personnel are the ultimate goal of personnel training, which aimed to cultivate high quality talents with high quality professional skills and innovative entrepreneurial ability by incorporating the cultivation of innovative entrepreneurial consciousness in curriculum setting and teaching practice, responding to the call of the state to train innovative talents.

The relationships of the three levels are step by step; these not only can better practice teaching in accordance with their aptitude, but also can well achieve the goal of personnel training.

B. Curriculum System Construction

Higher vocational colleges should develop curriculum system according to the requirement of E-commerce post group, professional standard and so on, adjust and optimize the curriculum system through many kinds of skills competition and practice activities. It is necessary to pay attention to the analysis of students' study condition, teach according to their aptitude, innovate teaching method and improve teaching effect.

According to the demand of talents and the goal of "three levels" talents training, this paper constructs a "6 Module" course system. The "6 Module" includes the public basic course module + moral education and humanistic quality education module + professional basic course module + professional core course module + professional development course module + centralized practice module.

"Public basic course module + moral education and humanistic quality education module" are mainly to cultivate students, basic qualities and skills. "Professional basic course module + professional core course module" are constructed to develop students' professional post skills. "Professional development course module + centralized practice module" are aimed to improve students' vocational skills, cultivate students' ability of sustainable development and post transfer. The talent training mode and course system is shown in "Fig. 2".

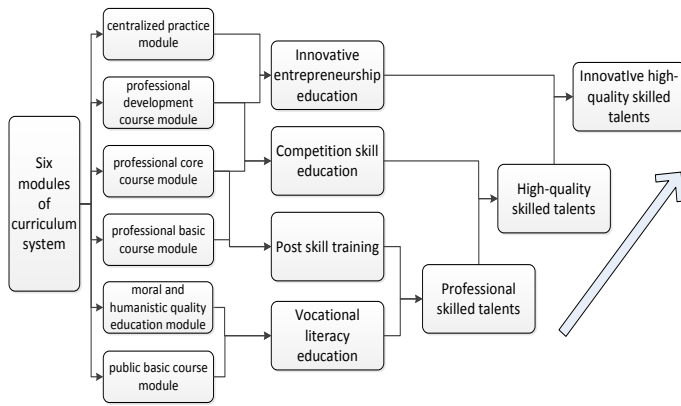


Fig. 2. "Three levels and Six modules" talents training Mode.

When constructing the curriculum system, the professional literacy requirements of the enterprise's employees were incorporated into the curriculum. This paper constructs the "science and practice integrated" professional curriculum system via focusing on the typical work tasks combining with the professional accomplishment and post ability, to realizes the talent training requirements of "The content of the course is in line with the professional standard, and the teaching process is in line with the production process".

In addition, on the one hand, it is necessarily to set up specialized innovative entrepreneurship curriculum and skills competition education curriculum. The public classes that helpful to advance the abilities of the expertise and skills required by the skill competition, and provide a communication and interaction platform for students interested in skill competitions should be set up. According to the needs of competition ability, it is necessarily to set up a cross-class and cross-major team, create a culture atmosphere of "interest-driven" and "take advantage of each", and give full play to the students' independent initiative, in order to realize the organic integration of competition project and course teaching; at the same time, it is necessarily to set up the innovative entrepreneurship education curriculum which accords with the professional characteristics, create a good atmosphere of innovative entrepreneurial culture, cultivate the innovative ability of students, and stimulate the students' entrepreneurial enthusiasm. On the other hand, it is necessarily to integrate the training of creative entrepreneurial consciousness and competitive skills into the teaching of specialized courses, and guide students to combine curriculum learning, participating in all kinds of related skills competitions and independent entrepreneurship. For example, in the teaching of professional courses such as "Management of online shops", while curriculum teaching tamps the theoretical foundation, the practical exercises are carried out in the form of entrepreneurial project planning, skill competition simulation, and so on, to stimulate the students' internal motivation of learning.

C. Safeguard Mechanism

In order to ensure the realization of the goal of talent training, it is necessary for higher vocational colleges to strengthen the deep cooperation with enterprises and pay attention to the important position of enterprise in order to construct the training model of e-commerce professional talents which is deeply integrated in "course post competition and innovation", so that students can grasp the theory and skills of e-commerce-related jobs, and provide high-quality and high-level talents for enterprises.

Meanwhile, schools and departments should build and improve professional skills competition and entrepreneurial team cultivation mechanism, so that students can get theoretical and practical training through skills competition, entrepreneurial projects and so on, so as to improve students' professional skills and innovative entrepreneurial ability.

In practice, the curriculum system of "three levels and six modules" should be dynamically adjusted and optimized to keep pace with the times and promote the E-commerce major to a better direction of development, according to the changes of the external socio - economic environment and the internal educational resources.

V. CONCLUSION

In order to cultivate innovative high-quality technical personnel under the background of promoting the integration of industry and education, the cooperation between schools and enterprises in vocational education, E-commerce, as a highly innovative specialty, needs to actively advocate the coordination of "course, post, competition and innovation" in the cultivation of its professional talents. This paper analyzed the dependence relationship of "course, job skills, professional skill competition and innovation ability" based on synergy theory, and constructed a "three levels — six modules" talent training model based on the "School enterprise cooperation — Curriculum system construction — Competition skills — Innovation and entrepreneurship ability" four-in-one personnel training mentality. The proposal provides a new way of thinking for promoting the reform of curriculum system and cultivating innovative and high-quality technical talents.

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