### Practice and Research of Co-construction between University with Enterprise

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**Abstract.** School-enterprise cooperation can focus on the practical skills of students on the basis of targeted cultivation of talent. This paper takes the cooperation between Luoyang normal University and Beijing Zhongqing Institute of Information Technology to establish the Electronic Commerce College as an example. This paper explores the mode and construction content of the cooperation between applied undergraduate colleges and private enterprises in the process of vocational education and e-commerce talents training, and consummates the training mode of e-commerce talents based on seniority structure. This cooperation between schools and enterprises play a role model for local colleges and universities.

#### Introduction

In the process of teaching and reform of applied undergraduate colleges and universities, school-enterprise cooperation has become the main mode of school teaching reform. School-enterprise cooperation can not only make college students obtain practical work experience, effectively improve students' professional ability, but also help colleges and students to master employment information and familiarize themselves with the requirements of the market for talent quality.

The key factor of good school-enterprise cooperation mechanism should first come from the real demand of the market, and be supplemented by reasonable and effective planning and design and policy support [1]. The essence of the cooperation between the school and the enterprise is to make the purchaser of the commodity (the employing unit) have the floor and participate in the decision-making power [2].

At present, the main mode of domestic school-enterprise cooperation is the order training mode, while the foreign development forms are quite diverse, such as the dual system in Germany, the cooperative education in the United States, the combination of production and learning in Japan, the sandwich model in the United Kingdom, the qualification framework system in Australia, and so on [3].

Its common characteristics are that the school and enterprise, as mutually beneficial partners, provide personnel training requirements and training bases, schools provide talents, the two sides cooperate to train applied talents, and the central or local governments support education investment and policy guarantee [4].

In August 2015, Luoyang normal University (hereinafter referred to as "our school") and Beijing Zhongqing Research Institute of Information Technology (hereinafter referred to as "Zhongqing Research") jointly launched and established Luoyang normal University Electronic Commerce College. Through the efforts of both sides for more than a year, the talent training scheme based on the qualification structure ability standard of e-commerce industry has been basically formulated and implemented, the curriculum system tends to be strong and rich, the matching degree between graduate students' post ability level and industry demand is improving day by day, and the quality of talent training is significantly improved.

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### **Current training Mode and Industrial Environment of Electronic Commerce talents**

In recent years, China has made great progress in Internet technology, industry, application and cross-border integration. The government has issued guidelines for actively promoting "Internet +" actions to speed up the deep integration and innovative development of the Internet and various fields. Electronic commerce has become a hot field and a new economic growth point in our country and even in the world. Compared with the traditional mode, electronic commerce breaks through the limitation of time and space, connects producers and consumers, reduces the intermediate link, improves the efficiency, reduces the transaction cost, and is easier to meet the personalized needs of users [5]. The state has issued a series of policies to support the development of e-commerce, e-commerce transaction scale, the rapid growth of e-commerce enterprises and buyers, the development space is huge.

E-commerce industry is a knowledge-intensive industry, human capital is the core factor of production, talent has become the key to drive industrial development and industrial structure adjustment and upgrading. In terms of quantity, it is predicted that in the three years of 2015 / 2017, the gap of e-commerce professionals in China will reach 5 million, in addition, the demand for indirect talents such as logistics, foreign trade, finance and so on will also double [6].

In terms of quality, the application-oriented, entrepreneurial and innovative professionals required for e-commerce have higher requirements for background operation ability, management ability, foreign language ability, and Internet thinking ability. At the same time, the rapid development of e-commerce has been changing and increasing rapidly. The talent has become the main bottleneck of the current e-commerce industry development [7].

In order to effectively support the development of e-commerce industry and speed up the industrial upgrading and economic structure transformation, it is necessary to cultivate a large number of complex talents with good comprehensive quality in accordance with the development demands of international industries in a large scale. The cooperation between the university and enterprises to formulate the training plan for professional personnel of e-commerce not only provides reference for the training of college talents, but also can also reduce the cost of employment, improve the labor efficiency, provide reference and assistance for the professional development of the employees and the decision-making of the government organs[8].

With the rapid development of electronic commerce industry, the rapid change of technology and the rapid change of external environment, the cultivation of talents in related industries in colleges and universities lags behind, students can not find jobs, and enterprises can not recruit employees. This is mainly manifested in the disconnection between production and study, the low matching degree between graduates' ability and the demand of industrial employment, the lack of educational resources, training environment and conditions for cultivating qualified talents in the industry, the lack of systematic talent training scheme for e-commerce industry, and the lack of training and guidance from industrial enterprise mentors.

### The advantages of Enterprises in the process of cultivating Industrial talents

Through the preliminary investigation of our school and the cooperation with Zhongqing Research for more than one year, the enterprise has the following resources and project advantages in the process of personnel training in e-commerce industry, which can ensure the smooth implementation of talent training.

1. Have a complete set of innovative talent cultivation solutions.

For the first time in China, Zhongqing Research has proposed an Internet and e-commerce talent cultivation solution with the aim of "ability" as the core and combining "education" education and innovation reform. It has cooperated with 211, 985 and other well-known enterprises at home and abroad, and has accumulated the cultivation of post skill talents and specialty, undergraduate, master's degree and doctoral personnel of more than 100,000 talents at all levels, and has been highly recognized by schools, students, parents and employers and generally praised by the society.

2. Competency Standard system of qualification structure in Electronic Commerce Industry with Independent copyright.

Zhongqing Research is the only training institution in China to carry out e-commerce vocational education with the competency standard system of e-commerce qualification structure as the core. The seniority framework is highly consistent with the key points of the latest vocational education plan, and has been widely recognized by ecommerce industry experts, the national credit bank project team, e-commerce enterprises and vocational colleges. It is the most scientific guiding standard for vocational education of e-commerce specialty at present. The integration of domestic e-commerce vocational education and general education fundamentally solves the seamless connection between school education and enterprise needs, and ensures the employment efficiency and effect of e-commerce students.

3. Initiation unit of national engineering laboratory of electronic commerce trading technology.

Sino-Qing Research is a joint sponsor of the National Engineering Laboratory of Electronic Commerce Trading Technology, and it is also its only training center, focusing on the training of "Internet" and e-commerce talents. Students trained in co-construction major can enter the national engineering laboratory talent pool of e-commerce trading technology, and are recommended to the laboratory co-sponsors and employment alliance enterprises for internship and employment.

4. Issuance of e-commerce post skills training certificate

Zhongqing Research provides e-commerce customer service, e-commerce logistics, Internet marketing, e-commerce data analysis, e-commerce supply chain management, cross-border e-commerce direction certificate training. By using the way of online training and online examination, the learning time is flexible and there is no regional restriction, which greatly reduces the cost of learning and obtaining certificates, and expands the knowledge and post skills of students.

5. With pre-employment service system and employment alliance

China Qing Research has a perfect service support system, including planning, teaching and research, project implementation, pre-employment service system and employment alliance established with various major Internet and e-commerce enterprises in China to provide students with high quality teaching and accurate, ideal employment services.

6. Strategic think tank with regional "Internet +" development strategy

The think tank is composed of economists, education experts, ecommerce industry experts, regional economic experts, Internet technical experts, agricultural research experts, business entrepreneurs and so on. Taking e-commerce education as the starting point, carrying out resource integration, building platforms, interpreting policies, strategic research and project supervision around the "regional Internet" can help cooperative colleges and universities to effectively serve the development and prosperity of regional economy. These advantages provide a good support for the determination of talent training objectives and the improvement of talent training quality.

# E-commerce cross-border e-commerce talent cultivation model based on qualification structure

The seniority structure, in essence, is to divide the qualifications of an industry practitioner into a number of levels of framework, usually in the form of seven. The ability criteria to be met for each qualification level are prepared and the knowledge and skills required to meet these competency standards are summarized, not only the knowledge and skills that are owned by the seniority holder, but also the learning, use objectives, The architecture also provides a level of access to seniority to enable the learner to know how to reach the target and to enable the employer to know how to select the appropriate employee.

This qualification framework of level 7 indicators is suitable for all fields and covers a wide range of qualifications in terms of academic education, vocational training and continuing education. Generic indicators describe the common characteristics of seniority at the same level, detailing the requirements for each level. Each level includes four categories: "knowledge and skills", "process", "applied ability, autonomy and accountability" and "communication skills, the use of information

technology and computing power". They are effectiveness-oriented and facilitate the connection between academic education and vocational training.

Through the investigation and study of more than 1500 ecommerce enterprises, more than 1500 posts are divided into abilities, divided into knowledge points, changed from knowledge points to training courses, and the employment qualification system and curriculum system of e-commerce cross-border e-commerce posts are formed, as follows:

According to market research, the cross-border e-commerce direction of e-commerce specialty is composed of four job groups: design class, operation class, sales category and supply chain management category; among them, the operation category post group is composed of six posts: operation assistant, copywriting planning, network promotion, search engine marketing specialist, ecommerce data analyst, cross-border new media marketing; search engine marketing specialist post is corresponding to one ability unit, including four knowledge points.

# Cooperation between School and Enterprise to deepen Educational Reform in Colleges and Universities

Around the talent training based on seniority structure, deepen the reform of university education, and focus on the following aspects:

Reforms of teaching ideas are follows. One is to adopt teaching methods based on modern information technology, such as Mu class, micro class, flip classroom and so on. The second is the unique and advanced teaching concept of "MOOC project leading", which combines online and offline to strengthen the training of students' technical skills and master professional knowledge and skills quickly. Third, the project manager enters the campus and adopts the compound training mode of "project exercise actual combat operation" and "simulated practical training" to provide a real training environment, quickly master the knowledge and skills of e-commerce, and accelerate the accumulation of e-commerce actual combat experience.

Under the guidance of the real enterprise business team and technical team, grasp the real-time dynamic of e-commerce at any time, master the new skills of the industry, and realize the real jump from students to professionals. In order to improve students' research ability, it is practical ability and management ability.

Change the mechanism of talent training. The first is to introduce the competency standard system of qualification structure of e-commerce industry, to revise and perfect the specification standard of professional personnel training, the second is to introduce industry enterprises to actively participate in talent training and realize the deep cooperation between schools and enterprises, the third is to introduce industry enterprise experts to set up professional teaching team, the fourth is to introduce the core technical standards of enterprises to revise and perfect the professional core curriculum standards. Fifth, it is the introduction of industry standards to revise and improve professional construction standards, professional qualification certification.

The construction of the technology-based educational resources is follows. One is to pay attention to the professional accomplishment of the teachers, to strengthen the construction of the teachers and the teachers, to improve the quality and the double-energy quality of the teachers, and to establish the professional access and early-warning and withdrawal mechanism, to establish a syllabus meeting the objectives and requirements of the personnel training, and to develop the application and the modular new curriculum.

Change the evaluation mechanism. The first is to reform the evaluation method of the students, the assessment of the course is focused on the assessment of the student's learning process, the evaluation of the practice link pays attention to the assessment of the improvement of the students' practical ability, the graduation identification pays more attention to the multi-form examination of the comprehensive application and the design ability of the students, and the other is the reform of the teacher evaluation method. To change the single to make a paper, the number of the project is the basis for the evaluation of the title, and the teacher-to-enterprise exercise is used as the promotion, assessment and evaluation basis, and the ability of the teacher-applied personnel training, the

research-research cooperation capacity and the application course development and the construction capacity of the teachers are strengthened.

Luoyang normal University and Beijing Zhongqing Research Institute of Information Technology have set up an e-commerce college, which is a beneficial attempt to transform the application of the school. It has cooperated deeply from the aspect of personnel training and has achieved positive results. It will further cooperate in the construction of the teaching staff, the construction of the curriculum system, the construction of the laboratory, and the overall solution of the regional "Internet." We will actively explore the way to develop school-enterprise cooperation in institutions of higher learning with applied technology with Chinese characteristics.

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