

# Research on Vocational Training System of "Develop both Education and Training" under the Concept of Educational Ecology

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**Abstract:** This study aims at the imbalance between the development of social training and academic education in vocational colleges, and the outstanding problems in the system and mechanism of social training in higher vocational colleges, The theory of educational ecology and human capital are used for reference, It explores and realizes the innovation of higher vocational colleges and promotes the construction of the system and mechanism of vocational training with high quality. The study aims to build a vocational training ecosphere Use the Binzhou Vocational College scheme as a template, Stick to problem orientation, To sort out the outstanding problems existing in the current social vocational training work, By optimizing the internal management mechanism of higher vocational colleges, Strengthen the vocational education system of collaborative education, Promote the integration of industry and education with local enterprises, Explore the development path of both education and training. It has realized the optimization and reconstruction of school-based social training work plan, It provides a practical paradigm for higher vocational colleges to carry out social training, It has formed a systematic social training and scientific operation mode, It provides a model of Binzhou Vocational College for vocational training that can be used for reference and popularized.

**Keywords:** Ecosphere; Vocational Training System; Government; Bank; Enterprise; School and Army; Develop both Education and Training

## 1. Introduction

In 2018, Opinions of the State Council on implementing the system of lifelong vocational skills training(Issued by the state(2018)No.11)pointed out that we should deepen the structural reform of the supply side of human resources, Lifelong vocational skills training system should be implemented, Carry out large-scale vocational skills training, Focus on improving the pertinence and effectiveness of training, Build a large army of knowledge-based, skilled and innovative workers<sup>[1]</sup>. In 2019, Implementation Plan of National Vocational Education Reform(Issued by the state(2019)No.4)pointed out that implement the statutory responsibility of vocational colleges to carry out both academic education and training, According to the combination of the Education and Training, the strengths and weaknesses and the Internal and external, Vocational training is provided for students and all members of society <sup>[2]</sup>. In 2020, Opinions of Shandong Provincial People's Government on Promoting Quality Improvement and Building Innovative Development Highland of Vocational Education in the Whole Province(Issued by the Shandong government(2020)No.3)also pointed out that to guide vocational colleges to implement the statutory responsibility of paying equal attention to both academic education and vocational training, Undertake more vocational skills and improve the task of action plan<sup>[3]</sup>.As required by the document, In addition to continuing to maintain and improve the social responsibility of training highly skilled personnel in the future development of vocational colleges, It should also shoulder the social task of vocational training, In order to better serve regional economic development, To meet the new requirements of the state for vocational colleges to carry out develop both education and training, In the meantime, Training projects feed back the academic education of vocational colleges, It will also further promote the level of education in vocational colleges, Implementation Plan of National Vocational Education Reform also pointed out that Vocational education has been basically completed mainly run by the government to managed by the government as a whole and the pattern

of social diversification in running schools, the change from pursuing scale expansion to improving quality, the change from the mode of running a school with reference to general education to the type of education of enterprise society, thus, greatly improve the modernization level of vocational education in the new era, Serve the development of civil-military integration, Vocational education related to the army should be incorporated into the national vocational education system, jointly do a good job in education and training for modern soldiers<sup>[4]</sup>.Based on this, Planning the role of government industry enterprises, schools, and military in vocational training, innovative existing vocational training models and systems to explore the new model of multi-body collaborative participation and co-construction, co-governance and sharing in professional training, sharing of shared and publication will be the Important research topics of my country's vocational education development.

## **2. The Current Situation of Social Training in Vocational Colleges in China**

In recent years, with the strong support and guidance of the government, vocational training in China has shown a good momentum of vigorous development. The national policy and financial investment in human capital are positive and steady, which plays an important role in supporting and guiding vocational training in China. It is mentioned in the action plan for upgrading vocational skills(2019—2021) issued by the General Office of the State Council that to implement the subsidy policy for vocational training, employees participating in the new apprenticeship training in enterprises will be given a subsidy of more than 4000 yuan per person per year for vocational training, The local governments at all levels must increase fund support and raising integration, and will certainly proportion of employment subsidies, local, talent funding and industrial development funds for vocational skills training, and 100 billion from unemployment insurance fund balances Coordination for vocational skills<sup>[5]</sup>.However, due to the large number of people in China, there is still a certain gap in my country's per capita vocational training costs, and the form of vocational training investment is still funded by financial funding, and the company and the subject have less , especially corporate parties concerns about the risk of human capital investment and gains. In addition, China's vocational training market has great potential, and the scale of vocational skills training market is growing rapidly. According to Frost and Sullivan, The total income of vocational skills education in China increased from 63 billion yuan in 2013 to 98 billion yuan in 2017, with a compound annual growth rate of 11.7%, nearly double the overall growth rate of the vocational education industry<sup>[6]</sup>.The rapid development of China's vocational training market reflects the increasing demand for high-skilled and high-quality labor force in China's economic and social development, and also reflects the growing demand for vocational skills upgrading and continuing education for Chinese workers. However, China's vocational skills training market is still not standardized, which is mainly manifested in the chaotic internal management of training institutions, complex external environment, low professional level of training teachers, uneven quality of training, incomplete qualifications for running schools, and high complaint rate of trainees. Because social training institutions are profit-making organizations, in the face of a large number of demand groups, collective bidding up leads to training costs, and the high market price makes low-income workers hesitate. All these have seriously affected the healthy development of vocational training in China.

Therefore, vocational institutions as public welfare organizations and professional education institutions should give full play to their own organization advantages, talent advantages and environmental advantages, and actively explore the innovative model system of vocational training, better service to regional economic construction and national economic society. Developing.

## **3. The Basic Contents and Ideas of the Study**

### ***3.1 The Basic Content of the Study***

#### ***3.1.1 Adhere to the Problem-Oriented System and Sort out the Current Situation of Vocational Training in China***

By starting earlier in vocational training in the United States, Germany, United Kingdom, Australia, the development of vocational training in several mature countries is analyzed and concluded, and it is believed that training legislation, training institutions construction, training management services, training qualifications and standard certifications. Aspects have a good reference significance for the development of professional training in my country<sup>[8]</sup>.On this basis, the paper systematically combs and

analyzes the current vocational training policy and the current situation of vocational training in China, and holds that the policy orientation of vocational training in China is active training, the demand is increasing, and the training market has great potential. However, there are still some problems and obstacles in China's vocational training, for example, enterprises have many concerns about the risk of human capital investment<sup>[9]</sup>; The time, energy, quality and capital investment of workers in participating in training lead to their wait-and-see attitude towards vocational training; The form of investment in vocational training is relatively single, and it is still mainly based on financial investment; The vocational training market is not standardized, and the training effect needs to be improved. Based on this, this study suggests that vocational training institutions should actively respond to the call of the government, enhance their social service functions, both education and training, and coordinate and cooperate to innovate and practice the new vocational training system.

### 3.1.2 The Definition of the Concept of Ecosphere Vocational Training System and the Establishment of the Basic Model

In the construction of vocational training system, the view of educational ecology is introduced, which holds that the ecological system of vocational training can be formed by the organic combination of government, industry, enterprise, school and army. Learn from the four rules of the ecosphere ,mutual benefit and symbiosis, survival of the fittest, interconnection and solidarity, The basic idea is to focus on the "enter the circle" with pluralism as the main body, "focus on" individual need, anchoring system chaining, guarantee mechanism "closed loop", Enabling factor "support", stereo model "running". Build two platforms: offline "Council", industry-education alliance and online "cloud platform"; Optimizing three systems: supporting policy, customer demand and factor integration system; Create an anchoring system composed of innovation chain, industrial chain, talent chain and education chain; Construct a closed loop of vocational training incentive guarantee based on training process, monitoring guarantee and multiple quality evaluation guarantee; The support structure consists of eight enabling factors, namely, financial support, policy tilt, training venues, training conditions, teachers, management service, technology support and teaching resource development. So as to establish the basic mode of training ecosphere construction with diversified subjects, full coverage of objects, personalized content design and three-dimensional presentation, See Figure 1.

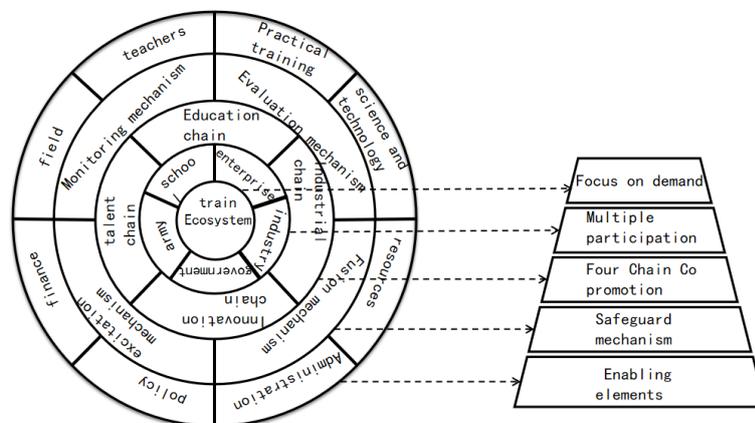


Figure 1: Basic Model of Ecosystem

### 3.1.3 Five Mechanisms Should Be Established To Promote the Innovative Development of Social Training in Vocational Colleges

Establish a standardized curriculum construction mechanism. To meet the needs of professional post groups, we should dynamically update the standard system of professional teaching, optimize the structure and content of courses, and improve the dynamic adjustment mechanism of professional courses. According to the enterprise industry standards, a standardized training course package can be built, and a diversified and shared element integration mechanism can be established. For the excavation of training elements, it is not limited to vocational training vocational colleges. Individuals have expanded the contents of training elements through correction joint, school-enterprise integration, and coincide with multi-shared elements integrated system through internal and external construction. Establish an integrated and endogenous teacher incentive mechanism. By improving the incentive

system, higher vocational colleges can promote the endogenous motivation of teachers to participate in social training and continuously improve the quality of training. Excellent trainees are commended to stimulate their enthusiasm for learning so as to ensure the learning effect of training. Establish a structured and fragmentary training implementation mechanism. Structured training and fragmented training are carried out simultaneously, Pay attention to the practicability and pertinence of training. Establish a curriculum system with content classification and hierarchical structure and flexible and diverse training modes for trainees with different foundations and needs to choose independently. Establish a three-dimensional and self-control performance evaluation mechanism, In particular, it is necessary to absorb industry enterprises and third parties to carry out social training quality evaluation in higher vocational colleges. Form vocational colleges to lead vocational skills training five mechanisms that linkage and cooperation mode, See Figure 2.

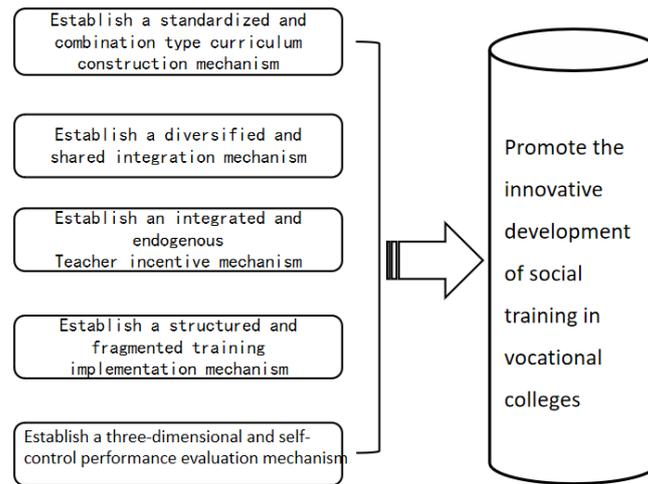


Figure 2: Five promotion mechanisms of Vocational Colleges

### 3.1.4 The Practice and Improvement of the Training System Will Form a Model of Binzhou Vocational College That Can Be Popularized

Combined with Binzhou Vocational College and the development of economic and social in Binzhou, fully launched school-based research, to create a vocational training ecosphere that government, administrative, enterprise, the school and army can collaborative participation. Through the offline Council platform, we can realize the optimal allocation of resources, the benign co-governance of multiple subjects, and establish the operation mechanism of positioning differences, clear division of labor, clear responsibilities and powers, and resource sharing. Through the online cloud platform, the credit bank system is introduced to innovate and develop the traditional vocational training form, solve the contradiction between training needs and learning time organization form, and provide life-cycle training services for trainees. On the basis of the school-based program, the vocational training ecosphere is flattened, the matrix efficient operation mechanism and innovative practice are carried out. In view of the practical effect, we should establish a dynamic, feedback, rectification and optimization mechanism to correct problems in time and improve the scheme. To build a sustainable and high-quality vocational training system ecosystem suitable for the development of the new era. Form the theoretical experience and practical scheme of Binzhou Vocational College training model that can be used for reference and popularized.

### 3.2 Research Ideas

The research idea is from the perspective of vocational training research, summarizing the problems of our current vocational training from five aspects such as enterprise participation, and then introducing an ecosphere concept and constructs the training system of ecosphere model, including five education subjects, two platforms, Three mechanisms, four anchor links, 8 give energy factors, which is “82348” patterns of model of Binzhou Vocational College, fully demonstrate the effectiveness of this template through practice, thereby solving problems in current vocational training to provide examples for vocational training.

#### 4. Research Conclusions

By introducing the concept of ecology, the study has five main bodies such as the government, industry enterprises, schools, the army to cooperate in educating people; Establish two platforms including offline Council, industry-education alliance platform and online cloud platform; Create an anchoring system composed of innovation chain, industrial chain, talent chain and education chain; Construct a closed loop of vocational training based on training process monitoring guarantee, multiple quality evaluation guarantee, vocational training incentive guarantee; Establish a knowledge structure composed of eight enabling factors: financial support, government inclination, training venues, training conditions, teachers, resource development and management services, and scientific and technological support. So as to establish a three-dimensional vocational training ecosphere with diversified subjects, full coverage of objects and personalized content design, and stereoscopic basic model. Firstly, the research combines the regional characteristics to carry out school-based research, and builds a vocational training ecosphere in which the government, industry, enterprises, schools and the army cooperate. Vocational training is carried out on the basis of school-based programs, with flat ecosphere, matrix efficient operation mechanism and innovative practice. In view of the practical effect, we should establish a dynamic feedback, rectification and optimization mechanism, correct problems in time, improve the program, and build a sustainable and high-quality vocational training system ecosphere suitable for the development of the new era. Increasing investment in vocational training and human capital is an important measure for China's economic transformation and upgrading, and the simultaneous development of education and training is a major reform in the development of vocational education in China.

Taking the road of deep integration of schools and enterprises, multiple subjects and collaborative education is an important way to achieve better development of vocational education. Lifelong learning is the basic demand of individual development, the new requirement of the state for workers, and the important responsibility of vocational colleges in the era. Based on the introduction of educational ecology concept, building a multi-main body, opening the door, building a jointly governed and shared vocational training ecosystem, and realizing training for the full life cycle, aiming to build a lifelong learning society. This study will continue to broaden our thinking, deepen the focus, refine the research of collaborative education mechanism, deepen the research of integrate the resources of enterprises with vocational schools and universities, continue to use scientific and technological forces to innovate training methods, to improve the training platform, continue to implement the credit bank system, and explore the way of interoperability and mutual recognition between academic education and vocational skills education.

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