

## The Practice and Research of Industry Leading Vocational Education Group Running School

Li Zhidong

Tianjin Bohai Vocational Technical College, Tianjin, China

**Keywords:** Industry, Vocational Education, Collectivization

**Abstract:** This Study Discusses the Theoretical Basis, Model Construction and Practical Measures of Vocational Education Collectivization, Analyzes the Development Strategy, Organizational Structure, Management Mechanism, School Enterprise Deep Integration and Other Aspects of Vocational Education Collectivization, Discusses the Problems and Causes of Vocational Education Collectivization, and Proposes That Collectivization Can Be Used for Reference, Popularized, Replicable Experiences and Initiatives.

### 1. Introduction

The Mode of Running a School Based on Vocational Education Group is the Reform and Innovation of Vocational Education Mode, Which is a Complex System Engineering. It Appeared At the End of the 20th Century. It is the Product of the Development of Market Economy and the Inevitable Trend of Vocational Education Itself. It Aims to Conform to the Development of Social Economy, Integrate Resources and Improve the Efficiency of School Running. Vocational Education Originated from the United Kingdom, and Developed Rapidly in the 1960s and 1970s. in the Process of Vocational Education Group Running, the United Kingdom Mostly Adopts Inter School Mode, School Enterprise Mode and Comprehensive Mode. Apollo Vocational Education Group, the First Vocational Education Group in China, Was Founded in 1973 in the United States. in the 1980s and 1990s, the United States Has Shown the Development Trend of Various Vocational Education Groups. through the Development of Educational Reform Projects, the Integration and Improvement of Educational Resources Have Been Promoted. from the Perspective of the Development of Foreign Vocational Education, Although These Vocational Education Schools Have the Characteristics of Collective Education to a Large Extent, They Have Not Formally Put Forward the “Collective Education of Vocational Education” Model.

In China, the Cpc Central Committee and the State Council Have Formulated the Major Strategic Plan of “Accelerating the Development of Modern Vocational Education”. the National Conference on Vocational Education (2014) Put Forward New Requirements for Accelerating the Development of Modern Vocational Education. the Decision on Accelerating the Development of Modern Vocational Education Issued by the State Council Further Points out the Direction of Accelerating the Development of Modern Vocational Education and Establishing Modern Vocational Education System, Which Greatly Promotes the Formation of Vocational Education Mode with Chinese Characteristics. Subsequently, the Ministry of Education Issued the Opinions on Further Promoting the Collectivization of Vocational Education, Which Again Put Forward Clear Requirements for the Collectivization of Vocational Education.

In this process, we need to further promote vocational education group education. This practice has been carried out for more than 30 years, and has achieved certain results. However, in order to meet the new requirements of talent training in the new era, it is necessary to continue to carry out unswervingly, and to carry out continuous innovation through practice, so as to continuously transport high-quality talents for the social development and progress in the new era.

## **2. The Main Problems to Be Solved in the Group Running of Vocational Education Dominated by Industry**

### **2.1 The Concept of Vocational Education Collectivization**

Aiming at the problem that the main responsibility of vocational education group is not clear, this paper innovates the concept and mode of group education, and puts forward the concept of group education of vocational education, which is dominated by industry, so as to better adapt to the development of Vocational Education in the new era.

Based on the new demand of the development of the industry for skilled talents, the group run vocational education, which is dominated by the industry, further stimulates the enthusiasm of the enterprises in the industry to carry out the school running work, so as to increase the teaching pressure of the school through the way of competition, promote its continuous innovation and transformation, so as to more meet the needs of the times, and constantly enrich the new process and new technology to the professional training in time. In addition, it has effectively formed the “five industry linkage” mechanism of industry, industry, enterprise, occupation and specialty. From the theoretical point of view, it has further improved the theoretical system of the industry-leading vocational education group education, expanded the theoretical vision, deepened the understanding of the industry-leading vocational education group education, and better understood and grasped its essence.

### **2.2 Clarify the Function of Group Education**

In view of the unclear purpose and function of group education, the purpose of group education is to cultivate the relevant professional or technical talents needed by enterprises or industries with the needs of the industry as the core. To clarify the function of running a school as a group, which has the dual functions of academic education and skill training, and to face the pre post and post post personnel, so as to further try to break through the problem of “how to effectively unify learning and using” and realize the leap forward development of Education.

### **2.3 Improve the Overall Planning of Teaching Resources in Vocational Education**

In view of the problems that resources are hard to share and advantages are hard to complement in school enterprise cooperative education, it is proposed to rely on the industrial advantages of the industry, improve the overall planning mode of vocational education teaching resources, and make the effect of vocational education group more prominent.

1) Realize resource sharing. At the same time, the enterprise enjoys the school's training site, equipment, teachers and other resources; the school also enjoys the enterprise's production management, production projects and research and development technology resources.

2) Realize common management of processes. The school and the enterprise discuss and formulate the student training plan together, according to the special needs of the enterprise's large projects and new projects, strengthen the cultivation of the students' professional skills and professional literacy, and implement the whole process of joint education.

3) Achieve shared responsibility. In accordance with the articles of association of the school enterprise cooperation, bear the responsibilities and fulfill the obligations.

4) Achieve mutual benefit and win-win results. According to the production requirements, the enterprise will transfer the production plant, workshop, production equipment and production projects to the school. In other words, which major projects have been put into the enterprise, the school will establish the corresponding production training base. The company can also enjoy the advantages of the school's training site resources, technical service resources (teachers), human resources (students) and staff vocational training, and complete the tasks of production management and technical innovation. At the same time, the school has also completed the task of talent cultivation to achieve mutual benefit and win-win cooperation between the school and enterprises.

## **2.4 Mutual Employment of Teachers in Schools and Enterprises**

In view of the single composition of teachers in Vocational Colleges and the lack of practical production experience, we have carried out the mutual employment of teachers in schools and enterprises, and realized the innovation of the composition of teachers in vocational colleges.

We have innovated the construction of teachers' team, established the system of “double talents” mobile mutual employment between schools and enterprises, selected and hired “skill masters” of enterprises to teach on campus, and built a great craftsman. At the same time, teachers regularly go to the enterprise base to take part in training, and teachers directly participate in the enterprise project construction project.

## **3. The Construction of the Industry Leading Vocational Education Group Running Mode**

### **3.1 In the Aspect of Strengthening Industrial Transformation and Upgrading and Vocational Education, We Should Implement “Two Wheel Drive” and Achieve “Three Synchronization”.**

The development and construction of the industry needs a large number of high-quality skilled industry army to support. It is these high skilled talents that support the industry's demand for technical talents. Therefore, it is necessary to closely focus on the overall strategy of industrial development, implement the strategy of education first and talent first, and adhere to the priority of Vocational Education in the development position to provide talent support for industrial upgrading.

1) The development and construction of vocational education group should always be planned in step with the industrial development. In the process of concrete construction of the vocational education group, we must not be too radical, nor can we blindly carry out teaching. Instead, we should carefully consider the long-term planning from the perspective of industrial development, and then reform the supply of education from the demand side. Really cultivate high-end talents that meet the needs of enterprise development and the needs of national industrial development, and achieve the educational goals of a mature vocational education group.

2) The development and construction of vocational education group should be carried out simultaneously with the industrial upgrading. In addition to focusing on industrial development, the vocational education group should pay more attention to industrial upgrading, instead of directly imparting knowledge, but should really cultivate the ability of students to use knowledge to guide practice through the guidance of students, so as to lay the foundation for the subsequent industrial upgrading. Only such talents with self driving force and constantly updating their skills can truly meet the new era. The need of industrial development and upgrading can meet the rapid change of industry.

3) The development and construction of vocational education group should always be promoted simultaneously with technological progress. In the process of running a specific school, the vocational education group should increase innovation and not be subject to the traditional teaching mode. It is to rebuild a brand-new alliance of production, learning and research. Focus on scientific research projects based on industrial demand. The university should actively focus on the key projects of the industry and cooperate with enterprises to carry out scientific research and technological transformation.

### **3.2 In the implementation of the education and training of the old workers and the new successors, we should “make efforts in both directions” and build a “one-stop” talent training model.**

Through active innovation, the industry-leading vocational education group mode of running a school promotes the reform of teaching in an invisible way. It is an important attempt to the teaching mode. It formulates the articles of Association for reform and development, clarifies the orientation of running a school, the goal of running a school, the management and quality evaluation of the school, and promotes the training of professional talents in accordance with the conditions of running a school, such as the modern apprenticeship system and the integration of engineering and learning. According to the actual production of the enterprise, the flexible

education system should be carried out to organically combine the work content with the learning content, especially in the cultivation of skilled personnel, cultivate the spirit of craftsman and devote to the cultivation of applied innovative talents.

The “one-stop” mode of recruitment and employment is realized by order class, directional training and other ways. The “one-stop” mode of school running level is to build an overpass for the integration of middle and high school education and talents training, so as to realize the innovation of the integration of school running level. Academic certificate and vocational qualification certificate obtain “one-stop” to realize multi certification of technical skills and academic qualifications. The “one-stop” mode of education and teaching, the implementation of modern apprenticeship teaching to do integrated teaching method, break through the bottleneck of talent training mode. Lifelong education “one stop”. Adhere to the industry standard and pay close attention to the training of skilled personnel. According to the industry standard, the enterprise staff training plan is formulated according to the industry demand and the situation of skilled personnel team every year, and the vocational colleges are responsible for the specific implementation; to adhere to the school enterprise joint training of technical skill pacesetters and actively expand the channels of lifelong education for employees is to actively develop special safety skill training in the industry. Safety production is the top priority of the enterprise, and it is very important to train the personnel of the enterprise. Classified rotation training is carried out for senior managers, ordinary managers and safety technical managers of enterprises. In the new era, the competition for talents is more and more intense. Continuously strengthening the establishment of training mechanism is conducive to the establishment of a mature training system. Through systematic training activities, enterprises can be provided with more high-quality talents, so as to better promote the development of enterprises.

At the same time, we should adhere to the integration of industry and education, and improve service capacity. Always integrate their own development into the general trend of industry development to examine, plan and design, give full play to their own advantages and serve industry enterprises. In the process of school enterprise cooperation, the school running level is constantly improved, the ability of serving enterprises and social and economic development is constantly expanded in the development, and in the deep integration with enterprises, the service quality is improved and the influence is expanded.

### **3.3 In the implementation of the integration of production and education of school enterprise cooperation, we should “take multiple measures simultaneously” and implement the “five key points” of school enterprise cooperation.**

1) Adhere to relying on the industrial advantages of the industry, school enterprise cooperation to build professional. The major construction and teaching reform of vocational colleges should be started according to the requirements of industrial transformation and upgrading. And from the perspective of the long-term development of the industry, we should carry out the specialized reform, and apply the professional learning to the post practice, so as to cultivate the applied talents. At the same time, in the training of talents, we should strengthen the ability of dealing with practical work and the connection between knowledge and practice through the development of projects. Adhere to the construction of professional chain around the industrial chain and curriculum chain around the product chain. Curriculum construction is the breakthrough point and breakthrough point of implementing the project teaching mode of engineering practice innovation. When starting the specialty construction and teaching reform, we should follow the steps of “investigating the technical post, analyzing the production task, deconstructing the professional ability, building the curriculum system, designing the project curriculum, and tracking the graduation investigation”. When constructing the curriculum system, we should follow the requirements of “work process orientation, adapting to professional standards, progressive skills training”, complete the curriculum tasks and content selection reference points with work tasks, organize and implement the content of the actual project units and project activities as the main learning methods.

2) Adhere to relying on the technical advantages of the industry, school enterprise cooperation to

build the base. Always adhere to the overall development goal of the industry, unswervingly adhere to technological innovation, and strengthen the depth of cooperation, and jointly establish a practical training base to meet the needs of talent training. The training base is mainly based on the real production line, real situation, real technology, and focuses on the typical process of industrial production in the industry. The training base is mainly for students' practical training, supplemented by enterprise staff training, social personnel training, and teachers' practical training, and also undertakes the research of enterprise process improvement technology. By simulating the real working environment of the production line in the factory, students can fully understand and be familiar with the enterprise, highlighting the cultivation of students' operating skills in the productive training base, realizing resource sharing, process co management, mutual responsibility, mutual benefit and win-win. The training base provides students with basic experiments, professional training, simulation training, real scene practice and innovative practice.

3) Adhere to relying on the advantages of talents in the industry, and cooperate with schools and enterprises to build teams. In the process of teaching, a very important factor is the faculty, so it is a long-term key work to continue to strengthen the construction of teachers. In the process of teachers' construction, teachers should be trained continuously to make them realize that maintaining the traditional teaching method can not meet the needs of the developing society. Therefore, they should continue to carry out training and learning, and establish the belief of lifelong learning from the teachers themselves. The school should further strengthen investment, continuously strengthen investment in human resources, capital and technology in scientific research, so as to further improve the overall school running level of the school, strengthen education of industrial chain in curriculum teaching, and focus on cultivating high-quality talents facing the society and the future.

4) Adhere to relying on the cultural advantages of the industry, school enterprise cooperation and education. Inheriting industry enterprise culture and grasping the connotation of quality education of vocational talents. First, we should pay attention to the inheritance of the traditional history and culture of the Chinese nation. Second, pay attention to the inheritance of industrial enterprise culture. Let teachers and students feel the historical accumulation of industrial development, apply the scientific and rigorous spirit to the learning work, and achieve the inheritance and innovation of industrial enterprise culture; third, pay attention to the inheritance of advanced management culture. Introduce the modern enterprise management culture into the campus, bring it into the talent training, improve the students' professional quality, standardize and restrict the behavior of teachers and students; fourthly, pay attention to the guiding role of culture, and further strengthen the cultural construction. In the process of teaching, we should constantly enhance the integration and absorption of culture, so as to form a unique teaching culture, and further create a good atmosphere of combination of learning and application.

5) Adhere to relying on industry brand advantages, school enterprise cooperation to run the competition. Colleges and enterprises should take jointly hosting the competition as the key point of cooperation between colleges and enterprises. In the development and design of events, we should fully listen to the opinions and suggestions of enterprises, and take the national professional standards and professional ability requirements as the basis. Through skill competition, students' professional and technical skills should be comprehensively examined, and at the same time, students should be examined from more angles, so as to require students with high standards.

### **3.4 In the Group Running of Vocational Education, We Should Adhere to the “Five Development Concepts”**

1) Take the road of “innovative development” of vocational education group. Vigorously propose independent innovation, collaborative innovation and open innovation, build an innovation system with industry characteristics, expand the quality resources of vocational education, and enhance the ability of industry-leading vocational education to adapt to market changes and demands.

2) Take the road of “coordinated development” of vocational education group. Relying on the industrial advantages of the industry, fully integrate resources, expand cooperation fields, enhance

the breadth and depth of school enterprise cooperation, realize resource sharing, complementary advantages, sustainable and healthy development.

3) Take the road of “green development” vocational education group. Establish the concept of green development and lead the civilized development of the industry. Centering on the key projects of the industry and taking the green industry as the leading direction, a scientific and technological research alliance shall be established among the governing units to carry out scientific research and technological transformation.

4) Take the road of “open development” vocational education group. Improve the level of international exchange and cooperation of vocational education groups through open development. Relying on the international cooperative brand of Vocational Education - “Luban workshop”, we will help industrial enterprises go global. At the same time of holding Luban workshops abroad, we should pay attention to the local economic and social development and urgently need professionals and talents, and at the same time of training technical and technical talents for the local area, we should also transport the industry. At the same time, we will train local technical personnel who understand Chinese technology, technology and products for Chinese enterprises stationed abroad.

5) Take the road of “sharing development” vocational education group running school. Adhering to the concept of open cooperation, with the help of the information platform of the vocational education group, and through the sharing of teachers, training bases and curriculum resources, the blueprint of the modern vocational education system is drawn.

To sum up, relying on the advantages of the industry and taking the road of group innovation, it plays an obvious role in promoting the reform of school running mode, training mode, teaching mode and evaluation mode, formulating reform and development regulations, making clear the school running orientation, goal, school governance and quality evaluation, and thus promoting the reform of modern apprenticeship system, integration of engineering and learning and other professional personnel training modes suitable for school running conditions. According to the actual production of the enterprise, the flexible education system should be implemented, and the work content and learning content should be organically combined. In the training of skilled talents, the craftsman spirit should be cultivated, and the application and innovation talents should be cultivated, so as to better promote the deep integration of production and education, and the close cooperation between schools and enterprises.

## Acknowledgement

Tianjin education science “13th five-year plan” vocational education special key project “industry-led vocational education group education practice and research” (VESP1005)

## References

- [1] Xi D.M. “Bohai experience” of vocational education running in groups, Chinese Vocational and Technical Education, Issue 7, 2016
- [2] Decision of the State Council on accelerating the development of modern vocational education.
- [3] Construction plan of modern vocational education system (2014-2020).
- [4] Opinions of the Ministry of education on further promoting the collectivization of Vocational Education.
- [5] Rui F.H., Xing F.Z. Build a high-level chemical production training base with outstanding advantages and distinctive features, Technique & Education, 2016.
- [6] Wang M.L. Policy innovation helps vocational education group development, Chinese Vocational and Technical Education, 2014
- [7] Zhao L.P. Study on the collectivization of Vocational Education, Dissertation.
- [8] Yu Y. Study on the collectivization of Vocational Education in Hunan Province, Dissertation.