

# *The Explore of College Talent Training Mode under the City of Production-Education Integration*

Jun Li\*, Heyao Wang

*School of Design and Art, Shenyang Jianzhu University, Shenyang, 110000, China*

*\*Corresponding author*

**Keywords:** Integration of production and education; personnel training; countermeasure

**Abstract:** The city of integration of industry and education refers to the city built according to Implementation Plan for the National Pilot Project of integrating Industry and education. It is an innovative practice to carry out the national strategy of the integration of industry and education to carry out the city point of the integration of industry and education, this measure has important practical significance for promoting regional industrial transformation and upgrading, educational innovation and development, and improving the overall strength of urban modernization. Under the background of the integration of industry and education, the cultivation of talents should adapt to the development of the current economy and society. This paper studies the training mode of modern industrial college and the talent training mode under the background of the integration of industry and education, It is found that there are some phenomena in the process of talent training, such as fuzzy cultivation consciousness and objectives, weak collaborative development ability, low level of cooperation, unbalanced allocation of teaching resources, and lack of effective talent evaluation system. Therefore, on the basis of considering our national conditions, some suggestions are put forward against the above phenomena.

## 1. Introduction

With the rapid development of society, technology and economy, education is becoming more and more diversified, so we must constantly reform and innovate the current education system. Since the end of the 20th century, talent training has gradually become an important issue in higher education at home and abroad. At present, China is promoting innovation-driven development and implementing major strategies such as the Belt and Road Initiative, Made in China 2025 Initiative and Internet plus Initiative, with the rapid development of 5G, Internet Plus and other new technologies, emerging industries are mushrooming. With the vigorous development of Chinese economy, more and higher requirements have been put forward for the training of talents, and it is also a new challenge to the training of traditional talents [1].

The integration of industry and education refers to the combination of enterprises, industries, education and teaching, it emphasizes the realization of the goal of talent cultivation through school-enterprise cooperation and the establishment of training bases inside and outside the school. Industry-education integration city refers to a city with strong economic and industrial foundation support and relatively concentrated educational talent resources, strong willingness to promote

reform, solid and effective reform measures and leading role of demonstration [2]. It aims to promote the organic combination of this model and traditional education and teaching model, further improve students' practical ability, and cultivate talents with profound theoretical basis and practical ability.

## **2. The Concept of Talent Training Mode under the Background of Integrating Production and Education**

### **2.1. Put Forward the Talent Training Mode of Integrating Production and Education**

China's local higher education institutions have always attached great importance to model reform and innovation in talent training, from the original "work-study integration" education model to the current "industry-education integration" education model, it fully reflects the importance of local higher education institutions in China to the reform and innovation of talent training model, At the same time, talent training in local higher education institutions is also closely linked with the development of the times, highlighting the phased development characteristics of talent training in local colleges and universities in China. Especially with the promulgation of the Decision on Accelerating the Development of Modern Vocational Education, it further clarified the talent training direction of higher vocational education and local undergraduate colleges, highlighted the talent training mode integrating production and education, and paid more attention to the cultivation of students' practical ability [3].

Compared with the traditional talent training mode, the industry-education integration talent training mode has the following changes. First of all, great changes have taken place in the orientation of personnel training and the development path of local higher education institutions. High-end skilled professionals have replaced the original high-quality skilled professionals training objectives, more in line with the development needs of the current era, service industry has become the main direction of employment for students in higher vocational education and local undergraduate colleges. At the same time, on the development road of local higher education institutions, the integration of production and education has become a new development road, which pays more attention to the quality of students and the development of school characteristics. Secondly, fundamental changes have taken place in the key content and main body of talent training mode [4]. Traditional local higher education institutions lack of internship platform in the practice of talent training. At present, local undergraduate colleges and universities pay more attention to the systematic design of talent training practice, further improve practical teaching, and encourage students to carry out productive training and internship. Finally, in the reform of talent training mode, we should pay more attention to the construction of multi-agent collaborative education mechanism.

### **2.2. The Importance of the Talent Training Mode of Integrating Production and Education**

The key to the integration of industry and education lies in how to integrate industry and education together, how to form a community of interests and destiny and achieve a win-win situation. Only by integrating the whole process of professional talent training with the industry, can we truly realize the docking of majors and industries, the docking of courses and jobs, and finally form a benign interactive ecosystem of integration of industry and education to cultivate high-quality technical and skilled talents in social demand. Practice is also a way of achieving educational goals. In different courses, students practice qualified products according to product quality standards, and only in practice can they gain experience and improve their understanding. In the reform of personnel training, we should try our best to let students get education in practice,

cultivate professional quality and integrate into society [5].

Under the background of socialism with Chinese characteristics entering a new era, the scope of school-enterprise cooperation is gradually extended, The talent training mode of integrating production and education further promotes the talent training and education of local higher education institutions, local higher education institutions began to pay more attention to industry and enterprise dynamics, take the integration of production and education as the main train of thought in talent training, keep up with the development of the times, and constantly innovate the talent training mode. The development of the integration of industry and education is mainly focused on the key areas of high-quality economic development, large enterprises play a leading role in deepening the reform of the integration of industry and education, and cultivate high-end talents and high-quality technical and skilled talents for the society [6].

### **3. Analysis on the Current Situation of Talent Training Mode under the Background of Integration of Industry and Education**

#### **3.1. Cultivate Old-Fashioned Consciousness and Vague Goals**

Education is an important plan of the country, education is the only way for the strong Chinese talent strength, but at present, there are still some schools in the new era of the need to locate the type of talent is unclear, Therefore, they fail to keep pace with The Times in their training programs and training models. Moreover, some colleges and universities still follow the traditional education and teaching methods of closed personnel training process and rigid thinking. In this way, the content and form of teaching cannot be properly adjusted according to the market demand for talents at all times, but also affect the full play of resource advantages of schools and enterprises. Meanwhile, the teaching work of each subject is independent, and there is a lack of communication between each other [7]. With the development of society and economy, this kind of thinking mode of teaching is not conducive to the cultivation of high quality talents. Through the analysis of the orientation of talent training objectives in some colleges and universities, schools attach too much importance to the imparting and explanation of theoretical knowledge, to some extent, the guidance and training of students in practice are ignored. In the long run, students will not be able to solve practical problems.

#### **3.2. Backward Mode of Cooperation**

The level of cooperation in the integration of industry and education is not high. The ultimate goal of the integration of industry and education is to achieve win-win cooperation and mutual benefit between schools and enterprises. Not only local undergraduate students can get practical ability training, but also enterprises can find high-quality talents suitable for the development of enterprises, which is conducive to the common development of universities and enterprises. However, due to the limitations of the existing system and mechanism, it is difficult for universities and enterprises to find a balance of interests in the process of cooperation under the background of the integration of industry and education. First of all, for enterprises, economic benefit is the primary goal of their development and survival, the sense of social responsibility is relatively weak, in the process of integrating industry and education with colleges and universities, they will consider their own interests more than the interests of students and local undergraduate colleges. As a result, the two sides of industry and education integration lack a solid foundation for cooperation, and the cooperation level and field are relatively narrow. Secondly, although local undergraduate colleges have a high enthusiasm for the integration of industry and education and school-enterprise cooperation, the theoretical research on the integration of industry and education is relatively

superficial. They have not concluded a talent training mode that is not only suitable for the development of enterprises but also conducive to the talent training of local undergraduate colleges. There is still a gap between local undergraduate colleges and local industrial development and the actual needs of economic transformation in terms of school running ideas, specialty setting, teaching practice and platform construction. Especially in the transformation of scientific and technological achievements, it is difficult for both sides to reach an agreed goal in the training of technical talents and high-quality talents, and it is difficult to achieve in-depth cooperation [8].

### **3.3. Inadequate Development of the Education System**

First of all, the foundation of technical skills accumulation in vocational education in the education system is weak, leading to the low level of school-enterprise cooperation. The lack of technical skills makes the innovation of vocational education lack of stamina, the coupling relationship with regional industrial enterprises is not close, the regional economic development mode and industrial structure adjustment requirements cannot be kept up, the integration ability of school-enterprise cooperation resources is not strong, and the lack of high-level school-enterprise cooperation platform directly affects the quality of school-enterprise cooperation level. Secondly, the professional construction of vocational colleges cannot keep up with the requirements of the regional industrial development situation, and the professional construction and adjustment mechanism has not been formed in line with the regional industrial development. Finally, the curriculum reform of vocational colleges is slow. The content of the course does not break through the current discipline system, The new technical standards, new process standards and new specifications of the leading enterprises in the industry are not integrated into the vocational education curriculum, which lags behind the actual development of the industry and enterprises, resulting in the failure of the students trained to meet the requirements of the enterprise posts for the core professional competence of talents [9].

## **4. Research Status of the Integration Mechanism of Industry and Education**

### **4.1. Foreign Research Status**

The research on the integration of industry and education started earlier in foreign countries. Developed countries such as the United States, Germany and Australia have all formed mature systems for the integration of industry and education, and formed the school-running mechanism of cooperation between government, trade unions, schools and enterprises, as well as the fund allocation mechanism and resource sharing mechanism of school-enterprise cooperation. Switzerland has formed a tripartite cooperation mechanism between the federal government, the state government and various industrial institutions. Vocational education is the common responsibility of the three parties; Vocational education committees shall be undertaken by vocational schools, enterprises and trade associations respectively. The research on the integration of industry and education in the United States mainly focuses on the cooperative education of community colleges and the five-year system of science and technology high schools, Germany mainly studies the "dual system", The integration of industry and education in Australia is mainly focused on TAFE institute research. Foreign research on the integration of industry and education mainly focuses on personnel training model and the integration of industry and education and dynamic mechanism.

From the perspective of the talent training mode of American community colleges, the "career education" in the United States relies on its own attractiveness, skill standards and sound legislation to attract stakeholders to hold vocational education. Through curriculum and industry interaction,

community education meets the national workforce development needs, as well as the needs of students, employers and local communities. From the perspective of the German "dual system" talent training mode, the German "dual system" talent training mode adopts the enterprise and school dual subject education mode. Students have the dual identity of "apprentice" and "student", the "dual system" of Germany cultivates a large number of technical talents for German industry, and the development of German industry is closely related to its emphasis on vocational education.

## **4.2. Foreign Research Status**

From the perspective of domestic research status, the research of industry-education integration mainly focuses on talent training mode, industry-education integration mode, educational administrative organization, etc. From the foreign research status, mainly from the curriculum system connection, professional construction and other aspects of talent training mode. Foreign countries have relatively mature research on the driving mechanism of the integration of industry and education. For example, the "dual system" in Germany clearly defines the rights, responsibilities and interests of enterprises, schools and other stakeholders through legislation, and the United States and other developed countries also have a sound institutional security system. The enlightenment of the experience of the foreign developed countries to our country mainly includes optimizing the legislative mechanism, optimizing the policy implementation mechanism, perfecting the appraisal mechanism, establishing and perfecting the curriculum system construction, funds investment mechanism and result transformation mechanism, etc. China's driving mechanism for the integration of industry and education started late, with few achievements and immature development.

For example, the dynamic system of integration of industry and education is not sound enough, based on a small amount of current literature on the dynamic mechanism of production-education integration, scholars have not shown a systematic trend on the construction of the dynamic system of production-education integration, and the research content is not systematic enough. Each research only focuses on a certain aspect of the dynamic system. The power system of industry-education integration is an operating system in which various stakeholders of industry-education integration participate and interact, Therefore, the construction of the dynamic system of industry-education integration requires not only the construction of the ecosystem of industry-education integration, but also the important support of supply-side reform. At the same time, it also needs to optimize the operating mechanism of the entire dynamic system of industry-education integration, and clearly define the functions of each element.

## **5. Countermeasures and Suggestions for Personnel Training**

### **5.1. Implement the Goal of Building a High-Quality City**

The government is the leader of deepening the integration of industry and education, the policy-maker and promoter of various implementation policies, and plays a pivotal role in promoting the construction of cities with integrated industry and education. The following aspects should be done well: First, design the long-term plan for the construction and development of an industry-education integrated city with systematic thinking, coordinate the layout of education and economic and social development, and give play to the decisive role of the market in allocating resources, Explore the construction path and specific implementation plans, set up special construction funds, form the correct policy orientation and reform thrust, and turn the "planning" of the integrated urban construction of industry and education into "reality" as soon as possible.

The second is to focus on the demand for the docking and integration of "production" and

"education", formulate standards to identify a number of municipal enterprises that integrate industry and education, introduce specific incentive policies, create a good public opinion atmosphere, and implement detailed rules for supporting finance, land, credit, finance and other aspects, At the same time, "the visible hand of the government" and "the invisible hand of the market" are used to do a good job in the allocation and optimization of school-enterprise cooperation resources, and give full play to their maximum effectiveness to achieve the optimal state. Third, build a batch of industry-education integration practice platforms. Break the barriers of policies and systems, combine the requirements of the 1+X certificate system pilot, actively introduce international high-quality teaching resources, embed the advanced technological processes and product standards of the industrial system into the teaching content of the practice platform, and promote the supply-side reform of high-skilled talents.

## **5.2. Implement Employment-Oriented Courses and Practical Teaching**

In teaching mode, teachers must break the cramming teaching mode and change the habit of instilling students' knowledge in one direction. The relationship between students and teachers should be two-way communication. With students as the main body and ability as the standard, we should build an employment-oriented curriculum system, strive to explore teaching methods that meet the needs of enterprises and are prominent in practice, and get rid of the talent training mode of "tight constraints". Not only that, in the process of building the curriculum system, we must first increase the proportion of practical training courses to maximize the degree of learning and practicing; Secondly, we must have a clear understanding of the development trend of the enterprise industry, formulate and adjust the original talent training objectives and adjust the unreasonable aspects of the syllabus and skill assessment system according to the actual needs of the market; Then, establish professional organization and guidance institutions to provide professional employment guidance for students; Finally, the flexible learning mechanism should be established, and optional courses should be added under the educational and teaching mechanism of the credit system to comprehensively develop students' knowledge application ability and practical operation ability.

## **5.3. Promote the Normalization of Social Participation in Education Governance**

Expand the power of industry enterprises to participate in education governance. The current educational governance is introverted. The government in charge of education and the school personnel directly involved in education and teaching activities are the leading forces of school governance, Industry enterprises have a low degree of participation in education governance, so education operation and school development pay more attention to the internal relationship of education and ignore the integrated development of education system and economic and social system. In order to cultivate talents in the process of building an industry-education integrated city, it is necessary to promote the transformation of education governance from an introverted type to an internal and external combination type, expand the role of industry enterprises in education governance and school governance, and strengthen the power and position of the board of directors and the council in school governance. In the process of innovating the governance structure, we must pay attention to maintaining the balance between the power outside the school and the power inside the school, maintaining the balance between academic power and administrative power inside the school, and maintaining the balance between power and responsibility.

## 5.4. Create a Good Environment for Innovation and Cooperation

Pay attention to the cultivation of innovative thinking and create a good atmosphere for innovation and entrepreneurship. In the final analysis, schools, industries and cities are the result of human activities. Only with the spirit of innovation can people find ways to promote the transformation of schools, industries and cities and seek the best way to organically connect the three. In the era of knowledge economy, industrial innovation depends on knowledge innovation, knowledge innovation depends on people's innovation ability, and people's innovation ability depends on innovative education. To build an industry-education integrated city, we should focus on cultivating people's innovation and entrepreneurship ability, transforming the concept and spirit of education, transforming teachers' thinking and teaching, transforming the quality and culture of schools, and cultivating students' innovative thinking and innovation ability, and then transforming new knowledge into new technologies and products, and closing the relationship between education and industry with new mechanisms, cooperation methods and organizational forms.

Pay attention to the expansion of cooperation consciousness, shape the new era of cooperation culture. To build an industry-education integrated city, it is necessary to promote the high division of labor between education and industry while realizing the deep cooperation between them. At present, due to conflicts of interest, information asymmetry, lack of resources, opportunistic behavior, institutional inefficiency, limited economic development and other reasons, the gap between industry and education continues to exist widely, and many cross-system cooperation is often unable to be achieved [10]. To get out of this dilemma of cooperation, we need not only to explore and evolve for a long time, but also to actively cultivate the cooperation culture of the new era, develop cooperation awareness, discover cooperation dividends, establish a trust mechanism, reduce cooperation costs, and build a free, fair, safe and win-win social cooperation network.

## 6. Conclusions

In the context of the new era, we should firmly grasp the opportunities for the development of national higher education, and implement the CPC and the state's deployment for the reform and development of higher education. Through the understanding of the mode of higher education talent training under the background of the integration of production and education, the analysis of the current situation and existing problems of talent training, it is concluded that schools need to liberate the traditional concept of education in the process of talent training, through the government actively promote practical education and theoretical knowledge learning. In the process of education and teaching, colleges and universities should make clear the goal of talent training, set up the modern concept of talent and teaching, effectively promote the construction of disciplines and specialties, build a strong team of teachers, and improve the teaching methods. Implement the improvement of teaching quality and talent training quality in colleges and universities, and make contributions to the development of social economy, science and technology and education. Finally, it will achieve the good results of the convergence and integration of intelligence, talent, technology, management and other related elements, as well as the mutual support and cooperation of policies. It will form a new development pattern of overall integration and benign interaction between regional education and industry, promote the transformation of old and new driving forces, and further promote the process of urban modernization and education power model in the new era.

## Acknowledgements

The 2022 undergraduate teaching reform research project of general higher education in Liaoning Province, the name of the project is "Research on the cultivation mode of modern

industrial college under the integration of industry and education"

In 2022, the collaborative education project of the Ministry of Education, the project name is "Research on the Construction of Productive Training Base for Environmental Design Specialty in Colleges and Universities Based on Virtual Reality Technology in the Context of the Integration of Industry and Education"

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