# Study on the Matching and Effective Ways between Higher Vocational Education and Regional Industrial Development Needs

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**Keywords:** Vocational education; Regional industrial development needs; Matching adaptation; Effective approach

Abstract: As the economic foundation, regional economy provides material guarantee for the emergence and development of vocational education. It plays a decisive role in the emergence and development of vocational education. The implementation of the plan should focus on promoting the coordinated development of ecology and economy, with institutional innovation and technological progress as the driving force, transforming the development mode, innovating the development path, and accelerating the pace of development. With the development of economic construction and the optimization of industrial structure, vocational education has taken on the important mission of providing vocational training for rural population to enter the secondary and tertiary industries, providing re employment training for laid-off workers, and providing continuing education and training for enterprise employees. It can be said that the level of regional economic development directly determines the development scale and speed of vocational education, determines the development goals, educational content and means of vocational education, and determines the entire system and structure of vocational education. We will continue to prioritize serving the local economy and society, continuously increasing our contribution to the regional economy through our services, in order to cultivate high-quality skilled plowing talents, fully utilize high-quality educational resources to carry out various types of training, technical services, and counterpart support, and achieve a win-win situation for schools and ceremonies.

#### 1. Introduction

With the development and application of new technologies, the mode of economic growth has changed from extensive scale expansion to intensive expansion, in which knowledge and technology have become the decisive factors of economic growth. To a certain extent, economic development determines the demand for human resources, which has a strong driving effect on education and can trigger a series of changes and improvements in the scale, level, quality and structure of education. Higher vocational education, with its school-running characteristics of "facing regional economic construction and social development, adapting to the actual needs of the job market, and cultivating practical talents needed by the front line of production, service and management", has played an indispensable role in promoting the economic and social development of various regions and has been highly valued by the central and local governments [1-2]. Enterprises must strictly implement the regulations of "training first, employment later" and "training first, employment later" when recruiting employees. The labor and social security departments, personnel and business administrative management departments should increase their law enforcement efforts on employment access. Whether it is an established manufacturing power like Britain and Germany, a powerful country in science and technology like the United States and Japan, or a rising economy like Singapore, South Korea and Taiwan Province, all have developed vocational and technical education with their own characteristics. As the economic base, regional economy provides material guarantee for the emergence and development of higher vocational education. We should be good at using these three basic forms of education to organically combine them. Differences in educational content, choosing favorable educational opportunities, adopting the best educational methods, and forming educational synergy to enhance the effectiveness of education and achieve educational goals. Establish a teaching management system, incentive

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assessment system, and project evaluation and feedback system that meets the needs of "school enterprise cooperation, work learning integration". Take institutional innovation and scientific and technological progress as the driving force, change the development mode, innovate the development ways and accelerate the development pace [3]. Strive to build an eco-economic demonstration zone in which ecological civilization and economic and social development are coordinated and unified, and people and nature live in harmony. Then, how to make higher vocational education play the greatest role in the local economy of our province and our city, fundamentally change the pattern of single subject and single educational form of higher vocational education, meet the diverse needs of the people to receive higher education, and meet the needs of the economy and society for high-tech applied talents [4-5].

## 2. The Development of Higher Vocational Education Adapting to the Development Needs of Regional Industries

## 2.1. Give full play to the guiding and radiating role of exemplary vocational colleges in the region

The so-called demonstrative higher vocational education aims to highlight the demonstration, guidance, and radiation role of higher vocational education in "development, reform, and management", drive all vocational colleges in the region to follow the path of connotation development to achieve further development in vocational education, more attention should be paid to the existing problems, starting from them, solving them, and achieving more long-term development [6-7]. The current problems in vocational education are specifically reflected in the following three aspects, as shown in Figure 1.

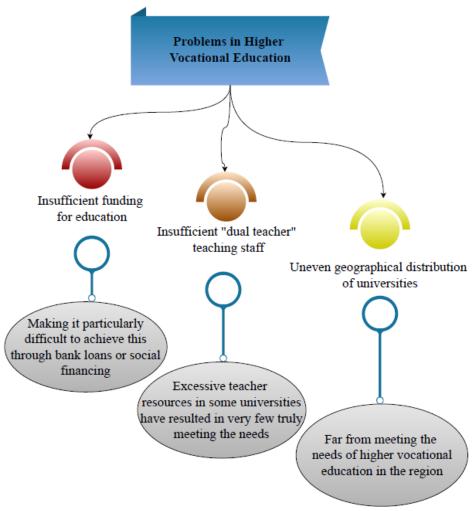


Figure 1 Problems in Higher Vocational Education

We organized a large-scale discussion on the liberation of the mind, requiring all faculty and staff to stand at a high level, comprehensively examine the reform, construction, and development of the college from multiple perspectives, and strive to form a consensus on the interactive development between the college and the regional economy [8]. Vocational education must closely rely on regional economy, cultivate a large number of high-tech applied talents with necessary professional theoretical knowledge and strong practical abilities, and meet the needs of regional economic development. We will continue to prioritize serving the local economy and society, continuously increasing our contribution to the regional economy through our services, in order to cultivate high-quality skilled plowing talents, fully utilize high-quality educational resources to carry out various types of training, technical services, and counterpart support, and achieve a win-win situation for schools and ceremonies[9].

### 2.2. Create a high-quality teaching staff

Opportunities and challenges coexist. Although higher vocational education has an advantage in the post setting of students after employment, its coordinated development with regional economy involves the tripartite relationship among local governments, enterprises and higher vocational colleges. With the development of economic construction and the optimization of industrial structure, higher vocational education shoulders the important mission of vocational training for rural population to enter the secondary and tertiary industries, re-employment training for laid-off workers and continuing education and training for enterprise employees [10].

In order to establish the further training system for health association teachers in higher vocational colleges, we can rely on the provincial Yingdian practice training base to carry out special training and assessment on the skills operation of teachers. Implement internship guidance for visiting engineers and students. Improve the ability of personnel training and social service through reform and innovation. Realize the historic leap of connotation development and strive to build modern higher vocational education with China characteristics. Encourage teachers to keep close contact with industry enterprises while teaching and scientific research, and carry out professional practice and project research and development. Higher vocational education has problems that are incompatible with regional economy in terms of system and mechanism, education management, school-enterprise cooperation and talent training mode. Therefore, innovation and reform have become a part of joint thinking of the government, schools and enterprises. We should provide more policy guidelines for the development of higher vocational education under the concept of collaborative innovation and promote its interactive development with regional economic construction.

## 3. Effective Approaches to Higher Vocational Education and Regional Industrial Development Needs

## 3.1. Strengthen the construction of teaching staff

Vocational colleges can adopt the "go out, please come in" approach. On the one hand, they regularly send their existing full-time teachers out for further education, so that they can meet the "dual teacher" requirements as much as possible; On the other hand, channels can be opened up to hire a group of part-time teachers with high professional level and practical ability from other universities, enterprises, and society, to carve out the concept of 'borrowing brains to cultivate talents', and timely introduce new technologies and information to schools to promote the improvement of teaching quality. Vocational education cultivates professional and skilled talents who meet the specific job requirements of enterprises, so the development of vocational education must adhere to market orientation. Establish market research institutions, strengthen market research, optimize professional settings, and adjust course systems based on market demand.

Adhering to the principle of prioritizing strength and balancing, while emphasizing exemplary nature, we should start from the strategic height of national economic construction and social development, taking into account vocational colleges in different regions, development foundations,

types, and hosting departments, to achieve a prominent focus and reasonable layout. We have selected teachers to study and train in Hong Kong and Thailand to improve our curriculum development and reform capabilities. We have hired a group of well-known frontline technical personnel from enterprises to serve as part-time professors at the college. While imparting knowledge and skills, we have also provided vocational ethics and professional literacy education, which has improved the structure of our teaching staff with high quality.

### 3.2. Form a consensus with the needs of regional industrial development

Serving regional economic development is not only the responsibility of local higher vocational colleges, but also the basis for their survival and development. We organized a large-scale discussion on the liberation of the mind, requiring all faculty and staff to stand at a high level, comprehensively examine the reform, construction, and development of the college from multiple perspectives, and strive to form a consensus on the interactive development between the college and the regional economy. Adjusting the specialty structure, teaching content and training mode in time, and taking the road of regional development. It can also make higher vocational education form its own characteristics and solve the problems of its own survival and development. Through analysis, we can see that the development of education and regional economy are complementary and inseparable, so this paper makes bold inferences and summarizes three countermeasures, as shown in Figure 2.

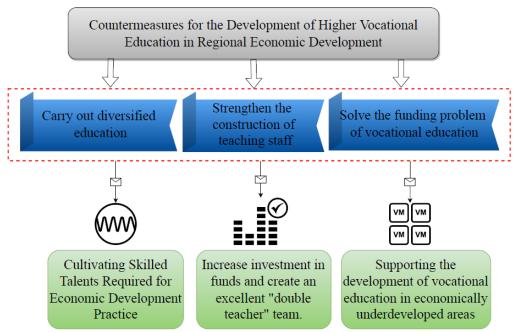


Figure 2 Strategies for the Development of Higher Vocational Education in Regional Economic Development

Strictly enforce the labor access system, accelerate the formulation and improvement of employment access regulations and policies, and promote and standardize the vocational qualification certificate system. Enterprises must strictly implement the regulations of "training first, employment later" and "training first, employment later" when recruiting employees. The labor and social security departments, personnel and business administrative management departments should increase their law enforcement efforts on employment access. Strive to create a national backbone vocational college and provide strong talent support for local economic construction and social development. In accordance with the construction standards of national demonstration vocational colleges, deepen education and teaching reform, and focus on strengthening connotation construction.

### 3.3. Realize social sharing of educational resources

The decisive role of regional economy is dominant. It is required that higher vocational

education must adapt to the development of regional economy, while the reaction of higher vocational education requires that higher vocational education must be given enough attention in regional economic planning. We will continue to take serving the local economy and society as the top priority, and constantly improve our contribution to the regional economy in order to cultivate high-quality skilled plough talents. Make full use of high-quality educational resources to carry out variety training, technical services and counterpart support to achieve a win-win situation between the school and the ceremony. Take institutional innovation and scientific and technological progress as the driving force, change the development mode, innovate the development ways and accelerate the development pace. Strive to build an eco-economic demonstration zone in which ecological civilization and economic and social development are coordinated and unified, and people and nature live in harmony. Using the two different educational resources of schools and enterprises to complement each other and deeply integrate the educational resources of both sides, we can carry out formal teaching according to the talent training mode and requirements of our college, and we can also set courses according to the actual needs of enterprises.

#### 4. Conclusions

The relationship between vocational education and regional economy indicates that vocational education is constrained by two major laws: education and economy. Its development must simultaneously follow two major laws in order to achieve mutual promotion and coordinated development with the regional economy. We will continue to prioritize serving the local economy and society, continuously increasing our contribution to the regional economy through our services, in order to cultivate high-quality skilled plowing talents, fully utilize high-quality educational resources to carry out various types of training, technical services, and counterpart support, and achieve a win-win situation for schools and ceremonies. The service of universities to regional economic construction needs to be guided by correct concepts, supported by various platforms, strengthen positive interaction with the region, and rely on their own advantages to carry out rich and diverse service activities. The national policy on the development of higher vocational education and the prospects and predictions for long-term development, as well as the attention and policy guarantees of local governments towards higher education, especially higher vocational education. In the practice of ideological and political education. We should be good at using these three basic forms of education to organically combine them. Differences in educational content, choosing favorable educational opportunities, adopting the best educational methods, and forming educational synergy to enhance the effectiveness of education and achieve educational goals. Establish a teaching management system, incentive assessment system, and project evaluation and feedback system that meets the needs of "school enterprise cooperation, work learning integration".

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- 2) The fifth issue of the Jiangsu Province Vocational Education Teaching Reform Research Project: "Research on the Dynamic Construction Mechanism of Specialities Based on Industrial Transformation and Upgrading" (Fund No.: ZCZ137)

#### References

- [1] Tang G, Sun H, Zhang G, et al. Research Report on the Development of Liaoning Higher Education and Vocational Education in Promoting the Revitalization[J]. Modern Education Management, 2022, 9(3):44-51.
- [2] Xia C. Research on the Cooperative Development Mechanism of Higher Vocational Education and Regional Industry in Hubei Province—Based on the High-Quality Development Perspective

- of the Yangtze River Economic Belt in Hubei[J]. Jiangsu Commercial Forum, 2021, 55(12):10-23.
- [3] Lund, Karlsen. The importance of vocational education institutions in manufacturing regions: adding content to a broad definition of regional innovation systems[J]. Industry and Innovation, 2020, 71(20):33-48.
- [4] Lund B. The importance of vocational education institutions in manufacturing regions: adding content to a broad definition of regional innovation systems[J]. Industry and innovation, 2020, 27(5):56-74.
- [5] Lu S, Moriki T. Between Economics and Education: Orientation and Trend of Vocational Education—Dialogue on the Development of Vocational Education between Lu Suju and Terada Moriki[J]. Journal of East China Normal University (Education Science Edition), 2021, 56(2):56-66.
- [6] Zheng W J, Wang Y P, Chen-Feng Y E, et al. The Interaction Research between Higher Vocational Education and Regional Industrial Economic Upgrading—Taking Jinjiang City as an Example[J]. Journal of Heilongjiang Vocational Institute of Ecological Engineering, 2022, 69(10):16-27.
- [7] Kang S, Yang X F. Study on the Interaction between the Major Setting of the Higher Vocational Education and the Regional Economic Development—Taking Yichun Vocational College as an Example[J]. Journal of Heilongjiang Vocational Institute of Ecological Engineering, 2019, 10(4):15-28.
- [8] Gao H, Zhao M C, Education S O, et al. The "People" Dimension in the Quality Assessment of Industry-Education Integration In Higher Vocational Education[J]. Journal of Soochow University(Educational Science Edition), 2023, 46(14):51-63.
- [9] Zhao J. Study on the Regional Distribution Change Mechanism and Characteristics of Vocational Education in China[J]. Evaluation & Management, 2022, 48(12):45-63.
- [10] Fan Y C. "Suitable Vocational Education": Development Pursuit of Integration of Production and Education[J]. Jiangsu Education Research, 2022,, 45(12):16-23.