Research on the Integration of Industry and Education in Higher Vocational Colleges Based on Public Policy

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Abstract: This paper analyzes the practical difficulties encountered in the deep integration of industry and education in higher vocational colleges, and puts forward the path and Countermeasures to realize the integration of industry and education in higher vocational colleges. Higher vocational colleges should actively explore the innovation of system and mechanism, actively connect the talent training chain with the development of industrial chain, construct the dynamic adjustment mechanism of professional education, reform the previous loose cooperation mode between schools and enterprises, and innovate the industry The education system is deeply integrated.

1. Introduction

The deep integration of industry and education embodies the interaction between higher vocational education and regional economic and social development. We can understand the connotation of deep integration of industry and education from both macro and micro levels. At the macro level, the development of higher vocational education and the overall industrial development planning of regional economy should coordinate and promote each other; at the micro level, the professional setting, curriculum system and teaching of higher vocational colleges should be connected with the post demand, professional ability and production process of enterprises[1].

In the past two years, although a series of macro policies and opinions on the integration of industry and education have been issued from the state to the provinces, higher vocational colleges have gradually realized that the deep integration of industry and education is the only way to achieve the high-quality development of higher vocational education. The innovation chain is connected in a shed to improve the ability of higher vocational schools to serve the local industrial development, which seems to be the king of higher vocational education The important strategy of quantitative development.

2. Problems in the Integration of Industry and Education

2.1. The Specialty Setting of Higher Vocational Colleges does not Adapt to the Development of Regional Economy

At present, most higher vocational colleges do not study the demand of regional economic, social and industrial development, do not actually investigate the demand of enterprise talents, are keen to pursue the hot spots, pursue the scale and quantity, the specialty setting is blind, the specialty setting is divorced from the development of regional industry[2], and the correlation is not high. On the one hand, the traditional mode of running a school is deeply rooted, and most of the majors cannot meet the needs of the deep integration of industry and education in terms of curriculum, mode of running a school and teachers.

On the other hand, with the development of regional economy and society and the transformation and upgrading of industry, the demand of enterprises for talents is constantly changing. Even though higher vocational colleges have made a correct prediction of the demand for talents in the

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market at the initial stage, and set up corresponding majors and courses to train counterpart talents, the traditional training of talents in higher vocational education has long-term, stability and systematic i-dust, while technology Upgrading iteration and industrial transformation make the market demand for talents change[3]. The supply side of talent training in higher vocational colleges is still difficult to adapt to the development of industrial demand side. Therefore, the integration of industry and education in higher vocational education requires the establishment of an effective communication village among the government, schools, industry associations, industries and enterprises, the construction of a dynamic adjustment mechanism of professional setting, the guidance of higher vocational colleges to adjust the mode of running schools and the direction of talent training, so that the professional setting of higher vocational colleges can adapt to the development of regional economic and social industries.

2.2. Imperfect Cooperation Mechanism

The cooperation relationship is not close, and the enthusiasm of enterprises to participate is not high.

Although the governments at all levels and the competent departments of education have issued a number of policies specifically to deepen the integration of industry and education, and fully realized the important role of the deep integration of industry and education in the development of higher vocational education, as the main enterprise of the integration of industry and education, the degree of participation is not enough[4], the lack of "industry" integration, the actual operation is only formality, staying on the surface, unable to continue, most of the integration of industry and education is only The "integration of production and education" is not really realized in the "school training, practice in enterprises" Jane Dan 1 - = face. The reasons for the lack of active I students in industry enterprises are multiple and complex. The following is an analysis from several aspects.

First of all, the importance of deep integration of industry and education in promoting industrial development is not fully understood. As the main body of the industry, the enterprise is an economic activity with the goal of pursuing economic benefits. The enterprise pays more attention to obtain the maximum benefit with the minimum investment in the short term. However, the cultivation of higher vocational education talents is a long-term process, which can not obtain the benefit in the short term, which increases the resource and time cost of the enterprise, and whether the talents that the enterprise participates in the cultivation can bring long-term benefits to itself The benefit of the company is inestimable, which is contrary to the goal pursued by the company. Most enterprises think that talent training is the responsibility and obligation of the school, while the responsibility and obligation of the enterprise is to provide products and services for the society, so they are not willing to pay extra costs to participate in the process of talent training in the school, and are more willing to recruit talents from the market.

Secondly, enterprises do not have a high degree of recognition for the skills of talents trained in higher vocational colleges. In order to reduce the cost of re training, enterprises attach great importance to the degree of matching the skills and positions of talents. At present, due to the closed process of personnel training in M --- Er r university, Li r education, teaching and scientific software in the University =;. Tolerance is out of line with the needs of production and social services provided by enterprises, lack of enterprises to participate in the training and assessment of students, lack of enterprises to participate in the design and development of projects with strong operational terrorism, resulting in weak theoretical knowledge and practical ability of students It is also not strong, the ability of sustainable development is poor, enterprises do not trust the skills of talents trained by higher vocational colleges, so it is difficult to meet the needs of enterprise posts.

Finally, the deeper reason is the lack of cooperative gate system. As a department of social management and service, the government department has the responsibility to establish a set of mechanism that can effectively promote the cooperation and training of talents among the government, schools, industry associations and enterprises. The integration of production and education is a comprehensive project that needs the joint efforts of multiple subjects. However, at present, there is a lack of firm and cohesive organization platform as the cooperation position

between the industry and education subjects. The cooperation between Higher Vocational Colleges and enterprises is loose, random, and sustainable. It is likely that the cooperation relationship between the industry and education subjects will be broken due to some emergencies, there is no repair mechanism, and the two sides of colleges and enterprises do not attach great importance to the construction of the operation mechanism of industry and education integration, resulting in difficulties in the implementation process It is difficult to fundamentally solve the problem of enterprises' participation in the integration.

2.3. The Rights, Responsibilities and Interests of Cooperation Subjects are Not Equal

Lack of interest balance guarantee

Although relevant documents have been issued, they are not specific, clear and comprehensive enough, they do not define the "rights, responsibilities and interests" among the various interest subjects, lack of interest balance guarantee shed system based on contractual constraints, and lack of operation in the actual level Degree integration involves multiple subjects such as higher vocational colleges, enterprises, industry associations, and governments. The rights, responsibilities, goals, and education concepts of each subject are different. They all take their own value orientation and actions as the starting point, do not put all parties in an equal position, and cannot seek common ground while reserving differences in the ugly process of cooperation, so as to achieve multi win demands. In practice, the cohesion between the main body of the integration of production and education is insufficient, and the enterprises and the specific teaching departments fall into a passive state, and so on. In order to solve the above problems, it is necessary to clearly list the "rights, responsibilities and benefits" in the form of contract between the cooperative subjects, and both parties should respect the spirit of the contract and act according to the contract.

3. The Development Path and Countermeasures of Industry Education Integration in Higher Vocational Colleges

There are many problems in the implementation of the integration of industry and education in higher vocational colleges[5]. To solve these problems, we need to consider many factors comprehensively. First of all, as the main body of running a school, higher vocational colleges need to conduct in-depth research and Analysis on the overall development plan of regional industry and the demand for post talents of specific industry enterprises, and adjust the training objective and direction of the talent supply side of Higher Vocational Colleges according to the demand side of industry. At the same time, the specialty setting, curriculum system and teaching process should be connected with the post demand, professional ability and production process of the enterprise, and the dynamic adjustment mechanism of Vocational Colleges' own specialty running should be improved to match the overall development plan of Vocational Colleges with the overall development of regional economic industry.

Secondly, we should fundamentally clarify the rights, responsibilities and interests of the government, higher vocational colleges, enterprises, industry associations and other multi stakeholders in the integration of industry and education, and take into account the principle of equality, mutual benefit and mutual benefit. We should build a perfect mechanism for the deep integration of industry and education in regional higher vocational education to achieve a win-win situation of the interests of multi stakeholders, and promote the efficient and orderly development and sustainable development of industry and education.

4. Talent Training Chain Actively Connects with the Development of Industrial Chain

With the regional economic and social development and industrial transformation and upgrading, it is difficult for the talents trained by the current higher vocational education talent training mode to meet the needs of the industrial transformation and upgrading for talents. This requires that higher vocational colleges should face the market, actively serve the adjustment and development of regional industries, and integrate the industry and education through "School Association and

enterprise" and so on! The project platform, more In depth understanding of the industry's demand for all kinds of talents and the requirements of professional posts on the level of talent skills. Under the macro-control of the market, we should constantly adapt to the needs of different development stages of the industry, establish a dynamic adjustment mechanism for the running of professional schools, keep up with the adjustment of industrial structure and the reform of courses[6], keep up with the progress of industrial technology, and keep up with the regional economic society by constantly adjusting the internal talent cultivation elements, such as optimizing the professional setting, improving the curriculum system and revising the talent cultivation scheme Will develop the balance. As shown in Figure 1

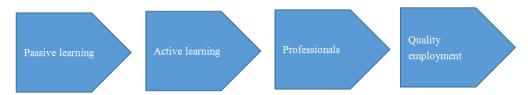


Figure 1 Overall education system

4.1. Optimize Professional Setting

The transformation and upgrading of industrial development will inevitably lead to changes in the demand for talent types and levels. One of the purposes of the deep integration of industry and education in higher vocational education is to improve the matching degree between the talent training of Higher Vocational Colleges and the talent demand of regional industrial development, which requires higher vocational colleges to establish a dynamic adjustment mechanism for professional running, optimize and adjust their professional settings. First of all, higher vocational colleges are required to set up specialties according to the development of regional related industries and the demand types of talents such as industry education integration cooperative enterprises, Qi industry associations, etc. Secondly, the professional setting should fully consider the development of chishi post group in E and related industries. Finally, the setting, adjustment and optimization of major should avoid the narrow range of major setting, try to consider the wide range of major setting, and strengthen the professional adaptability of higher vocational colleges[7].

4.2. Improve the Curriculum System According to Professional Standards

The curriculum system is the foundation of talent training, and the premise and basic condition for the realization of the talent training goal of nine vocational colleges. One of the purposes of the deep integration of industry and education in higher vocational education is to realize the effective docking of professional curriculum system and professional standards. Therefore, higher vocational colleges need to build the professional curriculum system according to the enterprise's job! Standard, and the content of professional curriculum should match the professional ability standard. First of all, the major of higher vocational colleges should be employment oriented. According to the needs of the relevant major corresponding to the position of the enterprise, there is a curriculum system for the major. Secondly, it is necessary to set up professional curriculum content according to the professional ability standard required by the enterprise post, and at the same time, it is necessary to ensure that the curriculum content has certain characteristics of "first f-path". Thirdly, the professional teaching process of higher vocational colleges should be combined with the working process of enterprises, so as to improve the comparison of practical teaching. Finally, the higher vocational colleges should adjust and update the contents of the course system in time, and improve the students' professional ability

4.3. According to Market Demand. Improve the Flexibility of Running a School

The purpose of the deep integration of industry and education in higher vocational education is to realize the transformation of professional teaching methods in higher vocational colleges. According to the market demand, we should reform the existing teaching mode, strengthen the application of practical teaching methods such as project teaching method and task driven teaching

method, so as to integrate the education, teaching and scientific research activities in Vocational Colleges with the production of enterprise products and the provision of social services, so as to improve the practical ability of students[8]. At the same time, a dual teacher teaching team composed of teachers in the school and experts in the business! IK should participate in the teaching process. In addition, regular arrangements should be made for students to practice in or out of school production teaching integration training base, so that students can access to the real production environment.

5. Build an Effective Operation Mechanism of Deep Integration of Industry and Education

5.1. Innovation of School Running System and Mechanism

Higher vocational colleges should integrate high-quality resources such as associations, enterprises, brother colleges and governments, explore and establish new school running modes such as school enterprise cooperative school running alliance Council, vocational education group, Vocational Education Alliance, and give full play to their own advantages of strong professional groups, talent resource convergence and geographical space, and abandon the traditional schools with loose, random and weak sustainable cooperation relationship In the form of enterprise cooperation, we will work with industry associations, enterprises, and government agencies to build science and Technology Industrial Park, industry and Education Park, and entrepreneurship Park, pay equal attention to service education and service enterprises, and deeply integrate the platform.

5.2. Guarantee the Deep Integration of Industry and Education

Higher vocational colleges can cooperate with schools and enterprises, activate the resources of the campus, build science and Technology Industrial Park, industry and Education Park, and entrepreneurship Park, cause human resources school, construct the operation mode of industry and education by contract, and realize the high-quality personnel training mode of integrating the education and teaching, scientific research activities, and enterprise product production, social services and other activities in the school. In the operation process of the park, focusing on the core of continuous improvement of students' professional ability, we should build an effective operation mechanism to ensure the deep integration and effective operation of production and education, and build a win-win development platform for school enterprise for practical training and innovation, teacher growth and improvement, and enterprise development.

6. Specific Measures

6.1. Establish Step-By-Step Operation

In the initial operation stage of the park, 206 attached conditions are adopted to set the entry threshold and formulate preferential policies to attract high-quality enterprises in line with the orientation of Higher Vocational Colleges and the development plan of professional groups to enter the park, drive relevant enterprises to enter the park, form a certain industrial cluster, build research and development organizations such as school enterprise collaborative innovation center, and improve the operation scale of the park in the short term Benefits and social effects. When the operation of the park is on the right track, according to the needs of the upgrading and transformation of regional industries and the development of the school's advantageous professional groups, the structure of enterprises entering the park will be continuously optimized by raising the threshold of entering the park, so as to lay a solid foundation for the sustainable development of the park.

6.2. Resource Allocation Contract Constraint Mechanism

For the enterprises entering the park, provide special practice and training places, training equipment and necessary consumables, internship and training stations required by students and positions for teachers' on-the-job training.

Formulate the exit mechanism for enterprises entering the park. Adhere to the introduction of industries that are consistent with the school's own school running orientation and superior professional clusters, and based on the principle of talent training chain docking with the industrial chain, eliminate a number of enterprises that are inconsistent with the development orientation of Vocational Colleges' own professional clusters through the elimination and exit mechanism. Enterprises that require to enter the park must provide vocational ability training posts for students, arrange industry experts to guide teachers' teaching and set up professional courses. For the cooperative enterprises that have entered the park, when the business of the enterprise changes and does not conform to the development orientation of the school's own professional group and cannot meet the requirements of students' internship and training, the relevant enterprises should adhere to the elimination and exit mechanism.

6.3. Establish Production Assessment Shed System

Every year, comprehensive evaluation shall be made on the skill training effect, curriculum construction effect, innovation and planning effect of the internship and training posts provided by the enterprises entering the park, the horizontal and vertical topics jointly declared by the school and the enterprise, collaborative innovation, production and education integration factors such as intellectual property output, transformation of scientific and technological achievements, etc. Formulate incentive mechanism for relevant stakeholders in the integration of industry and education. Higher vocational colleges should set up a special incentive fund to reward departments, majors, enterprises, industry associations, teachers and other relevant stakeholders who have made achievements in the integration of industry and education[9], give full play to the subjective initiative of relevant stakeholders, and improve the efficiency of the integration of industry and education in Higher Vocational Colleges. At the same time, for those enterprises that have made achievements in the integration of industry and education, special preferential policies shall be formulated one by one, and support shall be given in project application and fund.

7. Conclusion

The ability of higher vocational colleges to serve the local economy and industrial development is the core function and value of higher vocational education. To achieve this core function and value, we must rely on the high-quality development of higher vocational education, and the deep integration of industry and education is the important way to achieve the high-quality development of higher vocational education. Due to the late start of the integration of industry and education in domestic higher vocational colleges, there are some problems in the integration of industry and education in the process of development of higher vocational colleges, such as the mismatch between the professional setting and the development of regional economic industry, the imperfection of cooperation mechanism, the lack of close cooperation relationship, the low active participation of enterprises, the unequal accountability of cooperation subjects to "rights, responsibilities and interests", and the lack of interest balance guarantee mechanism. This paper puts forward the path and Countermeasures to deepen the integration of industry and education in higher vocational colleges, so as to promote the deep integration of industry and education in the region.

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References

[1] Sun H F, Xiao Z Y, Xia W U. (2018). Investigation and Analysis of the Internal Coordination

- between Middle and Higher Vocational Education from the Perspective of Modern Vocational Education System——Take Guangdong Vocational College of Science and Trade as an Example.
- [2] Li Jing. (2017). The Role of Interaction in Balancing Input and Output in Higher Vocational College. Overseas English, no. 8, pp. 226-229.
- [3] Angela Lin, Waseem Sharieff, Janos Juhasz,. (2017). The benefit of deep inspiration breath hold: evaluating cardiac radiation exposure in patients after mastectomy and after breast-conserving surgery. Breast Cancer, vol. 24, no. 1, pp. 86-91.
- [4] Zhou T, Chung F, Wang S. (2017). Deep TSK fuzzy classifier with stacked generalization and triplely concise interpretability guarantee for large data, vol. 25, no. 5, pp. 1207-1221.
- [5] Howard W. Barker, Zhipeng Qu, Stéphane Bélair. (2017). Scaling properties of observed and simulated satellite visible radiances. Journal of Geophysical Research Atmospheres, vol. 122.
- [6] Zhang S, Wang Y, Li P, et al. (2018). Interleaving pallidal deep brain stimulation improves the degree of benefit obtained in a patient with dystonia, vol. 66, no. Supplement, pp. S138-S141.
- [7] Daniel Graupe, Nivedita Khobragade, Daniela Tuninetti. (2018). Who May Benefit From On Demand Control of Deep Brain Stimulation? Noninvasive Evaluation of Parkinson Patients. Neuromodulation Journal of the International Neuromodulation Society, vol. 21.
- [8] Gianpiero Cossarini, Stefano Querin, Cosimo Solidoro. (2017). Development of BFMCOUPLER (v1.0), the coupling scheme that links the MITgcm and BFM models for ocean biogeochemistry simulations. Geoscientific Model Development, vol. 10, no. 4, pp. 1423-1445.
- [9] LI Xinliang. (2017). Study on the Construction of Maker Education in Higher Vocational Colleges in the Age of Internet Plus. Software Engineering.