

Research on the High-quality Development of Vocational Education Based on the Integration of Industry and Education

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Abstract: At the National Education Work Conference in 2019, Chen Baosheng, Minister of Education, proposed to launch a project of integration of production and education which can make vocational education closer to industry and let more students enter enterprises. The plan, the construction of high-level vocational schools and specialties with Chinese characteristics, can build a number of high-level vocational schools with Chinese characteristics and world-class specialties and encourage high-quality companies to set up high-quality vocational schools. By changing the traditional mode of higher vocational education and promoting the integration of industry and education and the cooperation between schools and enterprises, we can make vocational education become an educational system with Chinese characteristics.

1. Introduction

In early 2019, the Ministry of Education issued the Measures of Promoting School-Enterprise Cooperation in Vocational Education and the Implementation Plan of Vocational Education Reform which launched the project of "1+X" (diploma + vocational skill level certificate) which calls for the integration of industry and education and school-enterprise cooperation and promotes the transformation of school-running mode from general education to type education.

2. The Situation and Tasks of Higher Vocational Education.

2.1 We can improve the quality of education by returning to the Law of Education.

At the National Conference on Education in 2019, Chen Baosheng, Minister of Education, puts forward the idea of returning to the law of education including the basic principle of "four returns" and the proposition of "taking the essence as the basis". At the same time, we should be vigilant and make great efforts to achieve high-quality development. It is the mission of education to provide powerful human resources, knowledge and skills support for the development of the state.

2.2 We should accelerate the Modernization of Education to build a strong educational power.

2019 is the 70th anniversary of the founding of the People's Republic of China and the year of the implementation of the spirit of the National Education Congress. It requires the education system to adhere to the general tone of steady progress, high-quality development and implement the Party's educational policy in an all-round way to accelerate the modernization of education and education construction and build powerful country.

2.3 We should speed up the reduction of the educational gap between the East and the West.

The emphasis should be placed on supporting the construction of vocational education training bases and specialties in the central and Western regions, improving the quality and innovative ability of the population in poverty-stricken areas, and supporting colleges in the central and western regions to enhance their innovation ability. We will comprehensively implement the supervision, evaluation and monitoring work to accelerate the development of education, promote the improvement of conditions, level and quality of education in the central and Western regions, and effectively narrow the gap with the eastern regions.

2.4 We should deepen the reform of vocational education, aim at the target of service to achieve the high quality development of higher vocational education.

This year, vocational education should pay close attention to the reorganization of teaching order, create "golden college" and "golden course". At the same time, we should speed up the development of new disciplines including new engineering, new medical and new liberal arts and cultivate outstanding talents who can adapt to and lead the future development. We should actively develop "Internet +" education and promote the "2.0 action plan" of educational informatization so as to promote the sharing of high-quality educational resources and achieve the high quality development of higher vocational education.

2.5 Private vocational education in the new era should be "brought in" and "going out" which can deepen the opening of vocational education and promote reform.

In the new era of education opening to the outside world, we should link up the construction of "one belt and one road", focus on the work focus, resource allocation and power input and make an effort on "special" to create an upgraded version of educational action. We should carry out high-level cooperation with world-class resources of high quality. We will support vocational education to "go out" by building "Luban Workshop" and other brands and explore a suitable model for Chinese enterprises and products. Simultaneously, we can actively participate in international education governance to increase participation in the formulation of international rules and standards in the field of education and enhance the international influence of Chinese education.

2.6 We should implement high standards in our endeavors and creatively implement them.

We should highlight shortcomings and weak links and create conditions to promote implementation. We should properly handle the relationship between top-level design and grass-roots initiative according to the actual situation of our school and avoid the "one size fits all". At the level of local and directly affiliated colleges, they are encouraged to actively explore and implement the most breakthroughs, features and highlights of reform and development initiatives so that they can implement effectively and creatively.

3. The teaching reform of integration of industry and education is the inevitable way for the high-quality development of private vocational education.

3.1 It is favorable to promote the prosperity and development of local economy.

Professionals set up in vocational schools are closely related to local economic construction. Because school teachers have abundant professional knowledge and rely on science and technology to set up industries, they have a certain demonstration in the local area. At the same time, vocational schools have trained a large number of skilled and managerial talents. They will inevitably become experts in this field when they enter society, which is conducive to promote the adjustment of local economic structure and the development of local economy.

3.2 It is favorable to guide the healthy development of vocational education.

Vocational education is employment-oriented education, which trains high-skilled talents for production, management and service. This kind of talents have distinctive occupational, technical and practical characteristics. Therefore, the majors should be set up and the teaching plan should be formulated by taking the demand of the group for the knowledge, ability and quality of the talents as the highest principle. The thought of "to combine production with education and integrate school with enterprise" is the concentrated reflection of this demand, which should be vigorously promoted. At the same time, schools should also develop products and technologies needed by enterprises in order to realize the functions of training talents, developing products and technical services which can greatly promote the development of vocational education.

3.3 It is help to improve teachers' professional level.

Nowadays, teachers in vocational schools have abundant theoretical knowledge, but their ability to apply knowledge is not strong and their level of practical operation is not high, which greatly affects the improvement of teaching quality in vocational schools. The school establishes practice bases and professional industries which invites university teaching and research groups to provide docking guidance through joint teaching and research between schools and enterprises and constantly improves teachers' action strategies and classroom control ability of "integration of production and teaching", which provides conditions for professional teachers to participate in practice and improve their ability to work in practice. It is beneficial to combine teaching with scientific research to improve their professional quality and the quality of teaching.

3.4 The integration of industry and education enhances the enthusiasm of enterprises to participate in vocational education by "inviting in".

"Please come in" mode is to guide enterprises to enter school or invite industry experts to come to school regularly or irregularly to teach or give lectures. Under the condition of no transfer of property rights, we will introduce the related enterprises which are connected with specialties into the cooperative running of schools so as to realize the mutual benefit between schools and enterprises. The establishment of training bases in different types of enterprises can directly cultivate ideal talents for enterprises. This not only effectively solves the difficulties of students' employment, but also realizes the optimal allocation of resources and interactive utilization.

3.5 It is helpful to stimulate students' creativity.

It is a necessary supplement to invite enterprise experts to give lectures. After all, school resources are limited. Vocational school implements the integration of production and teaching where the ideas of the professionals who are invited to practice teaching are different from those of the teachers in the school. They analyze and solve problems differently from the teachers in the school. This is conducive to the study and improvement of students' ability in the workplace. At the same time, they adopt fixed-position practice and experience the real working scene which provides the necessary conditions and rare opportunities for students to practice. It enhances the abilities of applying knowledge and solving practical problems.

Moreover, the combination of production and education will stimulate students' enthusiasm for creativity and innovation and encourage them to explore and innovate constantly in practice. The cultivation of innovative consciousness, ability and talents is the direction of vocational education. Schools set up professional industries to enable students to participate in production or management and obtain certain remuneration, which objectively creates conditions for students to work-study combination.

4. Integration of industry and education is the basic thought of high quality development of private vocational education.

4.1 The present situation of the integration of industry and education in private vocational education

4.1.1 The integration of industry and education lags behind the industrial development and transformation, which has produced many negative effects.

The combination of industry and education in enterprises and schools is the rigid demand of both sides, which determines that the integration of industry and education is not an elective course, but a compulsory course. However, there is still a gap between the current situation of integration of industry and education and the requirement of "modern vocational education system". For example, many high-level training bases have been built in various places and colleges. However, because the lack of conformity with industry and the lagging of the technological innovation of enterprises, the phenomenon that "equipment will lag behind when bought back" often occurs.

4.1.2 Environment is poor for integration of industry and education.

Some local government departments do not have enough knowledge and support for the integration of industry and education and local education departments do not play a good role in coordination, guidance and standardization which make it difficult for vocational colleges to make full use of policy, information and other resources.

4.1.3 At present, the phenomenon of "school enthusiasm and enterprise indifference" prevails.

The purpose of vocational colleges is to cultivate skilled talents. The service object of running schools is enterprises, which needs the participation of enterprises in teaching and practical training. The development of enterprises needs skilled talents. Technical transformation, product development and staff training can not be separated from the support of schools. However, the main reason for the difference is that the rights and interests of enterprises in the cooperation are difficult to guarantee and there are potential risks in terms of more efforts, less returns and students' training safety.

4.2 Constructing a Win-win system of industry-education integration between schools and enterprises.

4.2.1 Both sides of school and enterprise should establish the cooperative idea of sharing resources and interests.

For both vocational colleges and enterprises, the integration of industry and education is a mutually beneficial system. Schools should give full play to the advantages of professional talent gathering, dock the technological innovation needs of enterprises, cooperate with enterprises in R&D of technology and products and enterprises should actively explore new cooperation modes in practice so as to achieve "win-win" through cooperation in tackling key problems.

4.2.2 More participants are needed to participate in the implementation of the integration of industry and education.

In the reform and innovation of school-running system, the state can encourage enterprises, especially large state-owned enterprises, to take part in the integration of industry and education through financial support, tax reduction and exemption. Vocational colleges can develop mixed ownership, attract private capital, explore joint-stock system and enterprise management and establish a talent training system that resonates with the market through the input of corporate culture and standards.

4.2.3 We should reshape the governance framework of vocational education.

The integration of industry and education is not a matter of colleges and enterprises. Besides government functional departments, it should also include relevant industry, social organizations, training institutions and so on. In practice, it is necessary to build a whole industry chain platform. In this framework, the responsibilities of government departments are very important who should focus on implementing relevant policies, guide schools to educate people to adapt to local development strategies and encourage enterprises to participate in the transformation and development of schools.

4.3 Specific approaches of private vocational colleges in the reform of industry-education integration.

4.3.1 On the realization form of the integration of industry and education.

At present, the School-running Modes of "school-in- factory" and "factory-in-school" in vocational colleges have achieved good results, but there is still a long way to go before school-enterprise integration. The Ministry of Education encourages the construction of classrooms in industrial parks, enterprise workshops and other production lines. Local areas can adapt to local conditions and build well-functioning vocational education parks to provide practical places and

demonstration space for the integration of industry and education.

4.3.2 For vocational colleges, we should specify the power of running schools to the secondary school-running units in the integration of industry and education.

For a long time, the dominant power of running schools in local vocational colleges is at the college level when the second-level school-running units such as departments are only the executors. However, it is the departments that are more sensitive to the development of the industry and the needs of enterprises. We can see that, at present, more secondary colleges are exploring joint-stock system and mixed ownership. Therefore, it is necessary for vocational colleges to decentralize the power of running schools. The main body of running schools should be moved down so that it can fully stimulate the vitality of secondary school-running units such as departments which will effectively promote the deepening of the integration of industry and education.

4.3.3 Vocational colleges need to set up and adjust necessary specialties in the integration of production and education.

In 2014, higher vocational colleges had voluntarily suspended or revoked 5,269 professional points with low correlation with local industries, high repetition rate and low employment rate. This is in line with the trend of integration of industry and education. As for Vocational colleges, they have joined the functional departments to understand the situations of national policies, key local industries and talent gap in various industries. They have also actively absorbed industry experts into professional construction guidance institutions and they have learned the skills requirements of enterprises for talents through the integration of industry and education.

4.3.4 We should cultivate "double teachers" professional teachers.

Professional teachers usually lack practical experience in production because of their long-term teaching of theoretical knowledge. Vocational colleges should integrate professional teachers with enterprise technicians who can send teachers to enterprises for training in a planned way to train and improve their practical skills. At the same time, they can also employ a large number of industry and enterprise experts and technical backbones as part-time teachers.

5. Conclusion

To fulfill the education tasks set in the new era, we need to build a win-win system for both companies and schools, and deepen the integration of industry and education. Only through the deep integration of production and education can we realize the stable and continuous development of the modern vocational education.

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