

Construction of a Long-term Application-oriented Talent Cultivation Mechanism for Universities in Jilin Province in the Context of Industry-education Integration

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***ABSTRACT.** As a result of deepening market economic system in recent years, Enterprises are being challenged by unprecedented competitions, of which the essence is the competition for professional talents owing to its important strategic role in their sustainable development. On the other hand, universities' cooperation with enterprises will help improve the quality of application-oriented talent cultivation due to their close interrelatedness because of universities' role as major suppliers of talents. This determines that their cooperation has become a new trend of the development of modern education. On the basis of a review on industry-education integration, the paper below made an analysis of current application-oriented talent cultivation in the universities in Jilin Province, followed by a study on the construction of a long-term mechanism.*

***KEYWORDS:** Industry-education Integration, Application-oriented Talent Cultivation, Current Situation, Long-term Mechanism*

Introduction

Industry-education integration, owing to its important role in national strategy of education, does not only apply to vocational schools but also guide the development of modern higher education. Its ultimate goal is to cultivate high quality application-oriented talents. However, it is still necessary to construct a long-term mechanism for application-oriented talent cultivation in the universities in Jilin Province in the context of industry-education integration so as to remedy current defects in the field as a result of various factors.

I. Overview of Industry-education Integration

Industry-education integration is defined as a strategy by which a vocational school tries to make it an education-industrial operating entity integrating talent cultivation, scientific research and technical service through mutual support and stimulation between industry and education by means of operating industrial enterprises in accordance with its educational programs. Nowadays, it plays a remarkable role in improving the connotative construction and educational quality of application-oriented universities as the major path to reorient some universities to application required by the national strategy to stimulate the diversity and uniqueness in the development of higher education. In the report of CPC's 19th National Congress, "deepening industry-education integration" was emphasized by General Secretary Xi Jinping. At present, along with the deepening understanding of educational circles, the strategy has involved not only enterprises and academic organizations including schools and scientific research institutes but also educational managing authorities and executive authorities. Guided by this new principle of cooperation and method of development, a talent cultivation-focusing community of shared interests has come into being, which is characterized with all round integration of all the elements for win-win of all the participants. It satisfies the developmental requirements of vocational education, links the supply and demand of education, helps stimulate students' capacity of innovation and creativity, improves their comprehensive quality on a wide practical platform to cope with the competitions in the future, and serves regional economic growth. In essence, all these values of industry-education integration are realized through talent cultivation, which favors a lot the application-oriented talent cultivation of universities.

II. Current Application-oriented Talent Cultivation in the Universities in Jilin Province

Remarkable achievements have been made in application-oriented talent cultivation in the context of industry-education integration as it satisfies the objective requirements of social economic development and is valued highly and supported effectively in national policies. However, it has to be pointed out that there are still defects to be remedied influenced by various factors so that it still needs further optimization. To be specific, school-enterprise cooperation should be the basis of application-oriented talent cultivation for universities because it helps with the integration of more excellent resources and improves the feasibilities of projects. However, no consensus has been reached among the participating parties, and enterprises' pursuit for benefits makes them focus on short-term interests and hope to maximize the output with the lowest investment. This contradicts the nature of university education in long-term cultivation and implicit effects, which results in enterprises' insufficiency in dynamics and consciousness to participate educational practice and the construction of a long-term mechanism for cooperation. Moreover, universities often set up impractical goals that fail to meet the requirements of the cooperating enterprises in their educational practice and overemphasize students' overall development instead of specific capacities, which gives rise to the difficulties,

e.g., formalization, that hinder the subsequent cooperation. Another problem is that the universities in Jilin Province have not been reoriented to application completely, which is reflected by their negligence of enterprises' demands in curricular design owing to the long-term influences of conventional examination-oriented education that favors theoretical instructions and the backward teaching organization that affect students' subjective experience. Among the essential causes of these problems, insufficient teaching resources may be a crucial factor because teachers' educational ideas, knowledge structure and practical experiences cannot meet the requirements of application-oriented talent cultivation.

III. Strategies to Construct a Long-term Mechanism for Application-oriented Talent Cultivation in the Universities in Jilin Province in the Context of Industry-education Integration

In the context of industry-education integration, it is necessary to build a more convenient environment for the implementation of the strategy in application-oriented talent cultivation so as to meet the demands of social economic development. On the basis of the analysis above, the following strategies to construct a long-term mechanism in the field were proposed:

1) Clarification of Goal Orientation

Scientific goal orientation, as a fundamental and crucial element, is a direct factor influencing the application-oriented talent cultivation in the universities in Jilin Province. As a market survey shows, higher educational institutions should design more specific goals for application-oriented talent cultivation in a redesigned plan to offer sufficient intellectual support to regional economic development as a response to enterprises' increasing attention to and demands over application-oriented and innovation-oriented talents. In practice, ideas and advice should be gathered from universities, students, industrial organizations and economists as intellectual support via industry-education integration to provide macro instructions for the goal orientation of application-oriented talent cultivation through an unrestricted channel. Additionally, universities should design practical specification and requirements for their goals of application-oriented talent cultivation in accordance with actual conditions and students' performance and show due respect to students' individual differences to clarify the directions, quantity and quality of talent cultivation fit for social development. In other words, the goals of students' growth at different stages should be practical enough so as not to destroy teachers and students' confidence. At the same time, higher education will not change its fundamental task to help with students' overall development when the cultivation mode is changed in the macro quality educational ecology, which indicates that "humanism" should be taken into consideration in setting talent cultivation goals to combine moral, intellectual, physical and artistic education in every part of teaching to improve students' capacities of learning, innovation, practice, communication and social adaptability with the support of resources of

industry-education integration and interdisciplinary instruction. In the process, more attention should be paid to the cultivation of students' practical capabilities and innovative spirits by offering practical and relevant courses, and the cultivation of students' global vision and capacities of international communication to adapt to social changes and international practice as a response to national strategies of reform and opening because of the new trend of building world-class universities in higher education, which has already been popularized in the era of knowledge economy. In brief, these goals determine the direction of universities' reform in talent cultivation.

2) *Guarantee of Teaching Resources*

Teachers are the key to education if the latter is taken to be the key to long-term success. A team of teachers is crucial for application-oriented talent cultivation due to its fundamental role in the existence of a university because teachers' comprehensive quality determines the success or failure of education. As Piaget said, "Insufficient teachers will result in the failure of any reform of education and teaching since all the problems in education and teaching are related to the construction of teacher resources. As a matter of fact, a teacher who only repeats what the textbook says cannot cultivate application-oriented talents with high practical capacity and innovative quality, whereas a teacher with low performance of scientific research cannot solve the problems in social economic development through his studies. Therefore, it is of great necessity to reinforce a teaching team in the construction of a long term mechanism for application-oriented talent cultivation in the universities in Jilin Province. To be specific, the teaching assessment system should be refined and perfected in the context of industry-education integration on the basis of improving students' practical and innovative capabilities so as to comprehensively evaluate teachers' academic performance, pedagogical reform, theoretical innovation and practical experience. In the process, relevant information feedback from both process assessment and result assessment should be utilized fully to enhance the effect of application-oriented talent cultivation based on industry-education integration. On this basis, diversified training programs should be offered to remedy the defects of current teachers, upgrade their educational ideas, reinforce their awareness of serving application-oriented talent cultivation, enrich their knowledge structure and practical experience, share the latest teaching research success, improve their intellectual performance and maximize their professional value. At the same time, the strategies of "bringing-in" and "going-out" should be implemented, of which the former means that the teaching resources should be diversified by recruiting new part-time or full-time teachers from the whole society, esp. those related enterprises to remedy existing teachers' defects in experience, relieve them from working pressure so that they can devote to teaching research, and the latter is to encourage teachers to work at certain enterprises and participate in their training programs so as to obtain more opportunities for professional practice, learn about new technology, ideas and products and maximize their value of working to serve the application-oriented talent cultivation.

3) Innovation of Teaching System

Curricular programs, including content design, teaching method selection, and assessment innovation, etc., play a fundamental role in application-oriented talent cultivation. In the context of industry-education integration, the universities in Jilin Province should pay special attention to the development of school-based curriculum and provide hot educational programs to satisfy the requirements of industrial chains, esp., those of regional economic structural transformation and upgrading, newly-rising industries and conventional industrial reform. They should also restrict the majors with low market demands, bleak prospect and poor employment performance for their development with respective advantages. Meanwhile, these universities should work together with those cooperative enterprises with useful resources through unblocked communicative channels to design core courses integrating new ideas, technology and achievements. In brief, these universities should keep pace with the times to design a flexible, advanced and practical curricular system to promote talent cultivation quality on the condition of ensuring the stability of kernel courses. On this basis, they should establish a comprehensive interdisciplinary curricular system to promote students' professional qualities while taking the developmental rules of students' cognition and techniques and the step-by-step principle into account. In the process, it is a complex systematic project to invest huge amounts of labor, financial and material resources in developing school-based courses focusing on application-oriented talent cultivation, but this may be achieved by means of making full use of the internet, strengthening the cooperation with other universities, sharing excellent curricular resources to avoid repetitive construction. This can even increase the speed of the reform on application-oriented talent cultivation to help these universities develop to a higher level. Besides, as the scientific teaching methods can often double the teaching effect, teachers should give up conventional examination-oriented educational modes and combine theoretical instruction and practical training in the activities like case study, situational teaching and task-based teaching by making full use of enterprises' resources and modern technology to improve students' capabilities of thinking, communication, learning and problem-solving through encouraging them to participate in these activities and visualizing abstract knowledge.

4) Reinforcement of School-enterprise Cooperation

In the context of industry-education integration, enterprises' participation is a crucial factor in universities' application-oriented talent cultivation due to their incomparable advantages in resources. To cope with the competitions within the industry, an enterprise's sustainable development more and more depends on those high quality talents who have already proved important strategic resource. Therefore, attention should be paid to the reinforcement of school-enterprise cooperation for higher quality talent cultivation through real deep integration of industry and education guided by the idea of mutual benefit on the basis of the close relationship between the two parties of talent supply and demand. In the process, governmental support and guidance are of necessity because the governmental authorities are able

to draw up a blueprint for development from the perspective of national strategies so as to clarify the future of universities' application-oriented talent cultivation, encourage different regions to offer vocational education in accordance with their own conditions, grant them more power of autonomy with relevant preferential policies and financial aids. At the same time, governments can stimulate enterprises to participate in the development of higher education with a series of preferential policies, regulate both parties' practice, resolve the conflicts between the cooperators, balance the distribution of benefits, and clarify both parties' rights and responsibilities to guarantee the application-oriented talent cultivation. As for universities, they should recognize the practical significance of industry-education integration for application-oriented talent cultivation, reveal their own advantages in education and scientific research, seek cooperation with related enterprises actively and optimize the environment for the development of education and teaching by means of field investigation and trial projects. On this basis, the universities should integrate application-oriented talent cultivation into actual production by way of reinforcing the construction of second classroom teaching, encourage students to participate in the layered periodical practical training tasks, which will enhance their direct experience and improve their comprehensive engineering capacity and professional quality. In this way, enterprises can gain more dynamics for their sustainable development because their pressure from talent insufficiency can be relieved to a great extent. Universities can reinforce students' awareness of application by building campus practical training bases, stimulate the incubation of innovative achievements and construct the campus practical culture with physical and intellectual support. They can also evaluate their performance during the whole course, which will provide guidance for further development.

Conclusion

All in all, the construction of the long-term mechanism for application-oriented talent cultivation in the universities in Jilin Province in the context of industry-education integration is of great significance because it is the only path for these universities to serve social economic development. For this complex systematic project supported by national strategic policies, the principles of orientation to problems, clarification of goal systems, guarantee of teaching resources, innovation of teaching system and reinforcement of school-enterprise cooperation should be followed to create a better environment for students' growth, achieve mutual benefit of cooperating parties and make a contribution to national economic development. It is hoped that researchers can focus on related studies to propose more effective advice from various perspectives according to actual conditions.

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