

Study on the Mechanism of School-Local Cooperative Education of Local Application-oriented Universities in Heilongjiang Province

Mupeng Diao^{1,*} Fujun Wang¹ Xingwei Sun¹ Guohua Wang¹ Yu Zou¹

¹ Heihe University, Heihe, Heilongjiang 164300, China

*Corresponding author. Email: 108875686@qq.com

ABSTRACT

Cooperative education between government, industry and universities is an important way to cultivate talents in local application-oriented universities. The operating mechanism of cooperative education includes four aspects, namely platform and rules, communication and coordination, cooperation and sharing, and interest balance and sharing. In terms of practice, colleges and universities in Heilongjiang Province together with local governments and enterprises, have jointly constructed the practice and training education bases and industry-university-research bases through signing cooperation agreements and setting up platforms for cooperative education, conducted investigation and irregular visits for communication and coordination, and set up orientation, directed classes, order classes, school of enterprise and industry colleges. Joint internships and graduation job fairs are held to dock and share talents, scientific research resources and employment resources, etc., and collaboration between the targets, between their relationships, between the resources and between benefit of multiple subjects are carried out, so that the collaborative education can be realized.

Keywords: Heilongjiang, Local application-oriented undergraduate universities, School-local cooperative education mechanism.

1. INTRODUCTION

Local colleges and universities must adhere to the goals of "locality", "application-orientation" and "high-level", and rely on the regions to deepen the integration of industry and education and school-local cooperation, so as to promote in-depth transformation and realize application-oriented transformation in the economic and social development of their service area. Through a series of effective practices, Huangshan University has made rapid progress in its application-oriented transformation, which has certain reference significance for further promoting school-local cooperation against the background of the integration of industry and education in the new era.

2. TRANSFORMATION AND DEVELOPMENT REQUIREMENTS OF LOCAL COLLEGES AND UNIVERSITIES

It is a breakthrough point for the current higher education reform that local colleges and universities, based on regional education, promote deep transformation and realize application-oriented transformation in serving regional economic and social development, which is also a consensus. In the process of transformation and development, it is necessary for local colleges and universities not to only follow the basic rules of higher education development, but also give full play to their unique advantages, aim at the target, and focus on "locality", "application orientation" and "high level".

2.1 Adhering to "Locality"

Local colleges and universities should set a fundamental goal of serving the local economic and

*Fund: This paper is supported by "The Research Project of Higher Education Reform in Heilongjiang Province" (No.: SJGY20200484).

social development needs of Heilongjiang province and constantly improve four major functions, namely to meet the talent needs of local development through talent training, meet the needs of scientific and technological innovation of enterprises in the industry with scientific research results, shoulder the mission of local cultural inheritance through cultural construction, so as to realize the purpose of implementation with the benign interaction and coordinated development of regional economic society.

2.2 Emphasizing "Application Orientation"

They must keep a close eye on the local industrial needs. Efforts should be made to deepen the integration of industry and education, build application-oriented specialty groups in line with local key industrial chains, cultivate application-oriented talents that meet the core quality and ability requirements of enterprises in the industry, and produce applied technological achievements that can support the industrial transformation and upgrading of local enterprises.

2.3 Being Targeted at "High Level"

Only by taking root in the local soil of Heilongjiang Province, serving the local development, taking the initiative to combine school running with the unique industrial advantages of the region and city where it is located, and taking the path of differentiated development and characteristic school running, can local colleges and universities effectively avoid homogenized competition, rise like a new force, and achieve distinctive and high level development.

3. THE IMPLEMENTATION PATH OF THE DEEP COOPERATION BETWEEN SCHOOLS AND LOCAL GOVERNMENTS IN THE NEW ERA

The new era marks a new journey. General Secretary Xi Jinping made an important speech at the National Education Conference, pointing out that education should be rooted in the land of China; it is necessary to keep to the direction of market-oriented education, serving development and promoting employment, promote integration of industry and education, and cooperation between schools and enterprises, so as to train more highly skilled personnel. In order to deepen the integration of production and education, take the distinctive approaches of "locality", "application orientation"

and "high-level", local colleges and universities should further promote the key points and foothold of school-local cooperation and the close cooperation with enterprises. It is necessary to unswervingly deepen cooperation between schools and local governments and between schools and enterprises, build a comprehensive long-term mechanism for in-depth cooperation between governments, universities and research institutes, and win greater support from industries and local governments through taking the initiative to act and serving the overall situation. To achieve this, efforts should be made in the following aspects.

First, policy support can be used as a booster to improve the institutional guarantee mechanism. The two sides of the university and local government should fully implement their cooperation agreement. Through the study and formulation of supporting normative and legal provisions, they can further clarify the rights and obligations of the two sides and improve the incentive, punishment and support guarantee system, so as to truly bring the cooperation between the two sides into the framework of laws and regulations and improve the political positioning. In order to effectively stimulate the enthusiasm and creativity of the departments of colleges and universities, government units, enterprises and industrial organizations to participate in the cooperation, the two sides should formulate special awards and subsidies policies, further strengthen the policy orientation, and encourage and support the cooperation in multiple ways and themes. In this way, the both parties in the partnership can have start-up support, economic benefits, and more social value.

Second, development should be promoted as the driving force to form a mutually beneficial and sharing mechanism. Whether the school-local cooperation is stable and lasting depends on whether the community of interests, resource sharing, interactive development and mutual benefit can be built. Both sides participate independently, share weal and woe, and strive to build a long-term mechanism of cooperation in school running, education, employment and development. For enterprises, they can directly obtain specialized talents through "order-style" talent cultivation and vocational skills training, obtain scientific and technological achievements and knowledge innovation through industry-education integration and industry-university-research cooperation, and even obtain policy preferences and social dividends from local governments for objects such as high-tech enterprises. For institutions of higher learning, they should unblock channels for talent export, optimize

the structure of application-oriented teachers, and promote the transformation of scientific and technological achievements.

Third, focus should be put on project co-construction, to improve the mechanism for promoting projects. Specific projects are not only the starting point, but also the carrier for continuous progress. Only by making all kinds of cooperation deeper, more detailed, more solid, and as a highlight and benchmark, can we achieve sustainable development. The key reason why Huangshan University has achieved remarkable results in school-local cooperation lies in a number of visible, tangible, effective, mutually beneficial and win-win projects built through the sincere cooperation between the university and local government, and overcoming various difficulties. It is necessary to be directed by local needs, focus on resource sharing, coordinate the transformation and upgrading of local industries and specialties, ensure people's interests and wellbeing, promote a number of projects in a coordinated way, and demonstrate and reserve a number of projects. It is important to adhere to the principle of joint construction, and assign specific personnel to carry out projects under construction, and follow the process to ensure that they truly get results.

Fourth, take the target assessment as the key measure and establish the competitive incentive mechanism. Where there is cooperation, there are constraints. Only when there are constraints can there be norms, and only then can there be healthy development of school-local and school-enterprise cooperation. The two sides of university and local government, university and enterprises must be restricted by laws and regulations and social ethics, and accept the joint supervision of all aspects of society. The process supervision and performance assessment of the third party should be strengthened, so as to timely find problems, rationally analyze problems, and jointly solve them. It is necessary to establish a special fund investment mechanism and a special incentive competition mechanism. The capital investment of school-local and school-enterprise cooperation includes the joint investment of the government, enterprises (or industrial organizations), colleges and universities, etc.

4. THE CONSTRUCTION OF ALL-ROUND EDUCATION MODE

4.1 Paying Attention to the Whole Process of Education

The basic law of the gradual growth from junior grade to senior grade and the ideological characteristics of each period and the needs of talent are carefully studied and grasped, and the educational priorities and specific measures of different stages are planned in a scientific way and implemented carefully, so that the moral education can be targeted; the content of ideological and political education should be permeated into the whole process of students' study and life every week and every day, so that moral education is pervasive; every educational measure and activity should start well and end well and attention should be made to the process, details, the overall effect and imperceptible effect.

4.2 Implementing Multi-subject Cooperative Moral Education Measures, Expanding the Way of Moral Education, and Emphasizing the Coordination of "Two Courses"

Teaching and Citizen Quality Education The coordination with the quality education of science and humanities should be strengthened. Educational activities can be arranged such as offering elective humanities courses, holding humanities lectures, reading humanities books and other, to guide college students to love the motherland and the people and establish a correct world outlook, outlook on life and values.

4.2.1 Strengthening Coordination with Traditional Culture and Education

Traditional culture courses are offered throughout the school to organically integrate the essence of traditional culture into moral education, which expands the educational function of "two courses", improves the teaching quality of "two courses", and carries forward the excellent traditional culture of the Chinese nation.

4.2.2 Strengthening Coordination with Theoretical Lectures

In view of students' ideological doubts and academic confusion, "College Students Ideological and Political Education Theory Special Subject

Course Implementation Measures" was launched and implemented. A series of theoretical topics have been determined, and social celebrities and experts are invited to give a series of lectures by the leaders of the university and the heads of departments such as the department of student affairs.

4.2.3 Strengthening the Coordination with Psychological Education

Mental health knowledge is transmitted through special lectures and help is provided to students through psychological guidance or counseling, to so that they can maintain a healthy state of mind and solve the psychological problems.

4.3 Paying Attention to the Coordination Between University, Society and Family

It is necessary to actively construct the moral education system of university, society and family to ensure students' physical and mental health and all-round development. The coordination between university and society contributes to a full use of various social resources and the integration of school education and social education, which promotes students' all-around development. The Wang Weimin Memorial Hall in Linyi County and Himin Solar and other moral education practice bases have been established; moral model college tour activities are organized to, give play to the role of moral model; enterprises where students have their internship and training are required to strengthen moral education and issue ideological and moral performance certificates; provincial and municipal customs working committee social celebrities, judges and police are to participate in the school's moral education teaching activities. Strengthening coordination between school and family It is necessary to establish and implement a system of home visits in winter and summer vacations and a system of grants and loans, give play to the role of family members in educating and influencing college students, and actively explore an education mechanism that organically combines universities, students and students' families to promote the healthy growth of college students.

5. FORMING NEW MODELS FOR TRAINING APPLIED TALENTS AND ESTABLISHING A DEEPLY INTEGRATED PERSONNEL TRAINING SYSTEM

Based on the development of the university, it is important to actively seek the support of government departments, the guidance and evaluation of industry organizations, so as to open up the channels for the joint participation of multiple subjects, accelerate the exploration of new forms of school-enterprise cooperation in different majors, and build a collaborative education mechanism based on the participation of colleges and universities, supported by the government and guided by industries and enterprises. Through industry-university-research cooperation and other forms, the specialty construction steering committee should be set up jointly by the secondary schools, colleges and local industrial enterprises to be deeply involved in the professional construction, the determination of training objectives, the formulation of training programs, the construction of practice bases, the formation of practical training programs and other aspects of the guidance work. The talent training model of undergraduate degree + vocational skills can be implemented as a pilot model, in order to strengthen the scientific applicability of practical teaching links, practical teaching methods and effectiveness of research, strengthen the practical skills assessment, so as to effectively achieve the training objectives of applied talents

Social demand should be taken as an orientation to establish a normalized professional analysis and research system, make in-depth analysis of the knowledge, ability and quality requirements of enterprises in the industry, jointly develop talent training programs with them, and match their professional standards. Pilot zones can be established for the reform of schools' specialties, and active support can be provided to qualified specialties in initiating programs for the integration of industry and education. According to the work requirements of launching pilot zones first for demonstration and carrying forward reforms in a classified way in other areas to promote collaborative development", the forms of industry-education integration of different majors can be determined, and the implementation plan for the classification of industry-education integration of secondary colleges can be formulated, so as to make innovations on the talent training model.

According to the needs of the industry, the teaching content of the major should be optimized, the teaching methods and means should be reformed, and the course linkage system integrating production, education and research should be built. Aiming at professional ability cultivation and based on industrial needs, the university should introduce industrial standards, studies and develops curriculum standards that meet occupational requirements, adjust and optimize the curriculum system, and further promote the connection between secondary colleges and industrial enterprises in curriculum design, curriculum resources, and curriculum content. In this way, a closely cohesive and distinctive curriculum system that integrates industry and education and open to dynamic adjustment can be formed. Actively promoting the modularization of curriculum offerings On the basis of full market research, the curriculum system can be integrated and optimized, and the module of major direction can be constituted through modular setting, which is consistent with regional industrial development and social demand, so as to provide the possibility for students to choose major direction and employment direction in the future.

6. ESTABLISHING A SCIENTIFIC AND COMPLETE QUALITY ASSURANCE SYSTEM

6.1 Improving Cooperation Institutions and Strengthening Organizational Leadership

It is necessary to establish a project implementation leading group led by the Party and government leaders of the secondary college and under the charge of the specific responsibilities of the major leaders, so as to strengthen the organization and leadership of the integration of industry and education and collaborative education. At the same time, a leading and coordinating group composed of enterprises, public institutions and related departments of the university is set up to jointly promote the project construction of industry-education integration and collaborative education.

6.2 Increasing Funding Support for the Development of Projects for the Integration of Industry and Education in Educating People

Efforts should be made to establish a fund guarantee system corresponding to the needs of project construction, optimize and adjust the structure

of fund expenditure, and give policy and fund support to the pilot majors that have yielded results in the implementation of curriculum teaching reform, the construction of experimental training and practice base, and the structural adjustment of teachers with double qualifications and abilities.

6.3 Improving the School Evaluation System and Introducing the Industry Enterprise Supervision and Evaluation Mechanism

In teaching activities carried out in enterprises, evaluation standards shall be established with enterprises as the main task and schools as the auxiliary. It is necessary to actively carry out industry and enterprise evaluation, strengthen investigation on degree of conformity between the level of experiment and practice and professional education, the proportion of the team of teachers with double qualifications and abilities, and the breadth and depth of quality of production and education integration. It is important to formulate the quality evaluation index system for the integration of industry and education to cultivate talents, regularly carry out internal and external quality assessment of the integration of industry and education, and implement the annual report system on the integration of industry and education in the college.

7. CONCLUSION

In a word, with the rapid development of enterprises in the industry, colleges and universities are required to continuously deepen the exploration, practice and reform of the application-oriented talent training mode that integrates industry and education, so as to cultivate more senior application-oriented talents suitable for enterprises in the industry. This is also a development path that application-oriented local universities should actively explore.

AUTHORS' CONTRIBUTIONS

Guohua Wang is responsible for experimental design, Fujun Wang analysed data, Xingwei Sun and Yu Zou wrote the manuscript, Mupeng Diao contributed to revising and editing

REFERENCES

- [1] Chen Lan. Discussion on the Mechanism of Cooperative Education in the Innovation and Entrepreneurship Education of Applied Undergraduate Colleges [J]. The Guide of Science & Education, 2017, (12). (in Chinese)

- [2] Wu Zhangrong. Transformation Ways from Local University to Application-oriented University [J]. *Journal of Nanchang Institute of Technology*, 2015, (02). (in Chinese)
- [3] Chen Qingwen. How Newly-established Local Universities Break Away from the Dilemma of Dependent Development [J]. *Modern Education Science*, 2011(07). (in Chinese)
- [4] Li Tianyun, Li Weijia, Zhu Xiang. A Practical Research on the Construction of Provincial Practice and Training Bases by Research Universities [J]. *University Education*, 2019(10). (in Chinese)
- [5] Long Qian. Reflections on the Admission of International Students in the New Century [J]. *Theory Horizon*, 2015, (28). (in Chinese)