A Research on Application Technology Collaborative Innovation Center of XinJiang Vocational Colleges under the New Situation

Yuxin Zheng and Chunyan Li

ABSTRACT

The definition of application technology collaborative innovation in higher vocational colleges is defined and its characteristics and main contents are expounded. Create open application technology collaborative innovation platform, with the help of education, the cooperation model of collaborative innovation center of Xinjiang University and the research and development institutions, to form a kind of Xinjiang management system innovation. This paper explores the new mode of the construction of practical and scientific research talents in higher vocational colleges.1

KEYWORDS

New Circumstances; Innovation; Collaborative; Application Technology.

INTRODUCTION

The definition of technology in “Cihai” generally refers to various process methods and skills developed in accordance with the practical experience of production and the principles of natural science, such as electrical technology, woodworking technology, laser technology, crop cultivation technology, breeding

1 Yuxin Zheng, Xinjiang Vocational and Technical College of Communications, Xinjiang Urumqi 831402. Chunyan Li, Xinjiang Industry Technical College, Xinjiang Urumqi 830021.
Broadly speaking, in addition to the operation technology, it also includes the corresponding production tools and other material equipment, as well as the production process or operation procedures and methods. Technology can be divided into empirical technology and scientific technology. The main performance of empirical technology is skills, which can be grasped through repeated practice and training by teachers. Scientific technology refers to the application of scientific principles in technological design and technological process.

14 schools were selected for the Ministry of Education’s "2011 Plan" - Collaborative Innovation in 2013. The Ministry of Transport has launched a collaborative innovation center based on colleges and a collaborative innovation center based on enterprises. Collaboration refers to the process or ability to coordinate two or more than two different resources or individuals to achieve a certain goal in a coordinated way. In 2016, the National Transportation Vocational Education Teaching Steering Committee formulated the implementation of the Action Plan to build 15 collaborative innovation centers. Each school may declare by the following ways: First, the declaration can be made through all the education departments; second, it can be made by the National Transportation Vocational Education Teaching Steering Committee.

THE DEFINITION OF "NEW SITUATION"

In November 2015, in order to carry out the "Decision of the State Council on Accelerating the Development of Modern Vocational Education" and the relevant requirements of the law enforcement inspection of the Vocational Education Law of the NPC Standing Committee and to promote the innovation and development of higher vocational education, the Ministry of Education issued the Action Plan for the Innovation and Development of Higher Vocational Education. In the document, it is clearly pointed out that by the end of 2018, 500 cooperative innovation centers of applied technology will be built in the whole country based on the market orientation. In the context of the transformation of national industrial upgrading, higher vocational colleges should actively promote collaborative innovation between schools and enterprises, promote the integration of production and education, the cooperation between schools and enterprises, and enhance the service of vocational education to build the cooperative innovation center of applied technology.

In October 18, 2017, the General Secretary Xi Jinping made a report to the General Assembly on behalf of the Eighteen CPC Central Committee. In the report, he pointed out that we must unsparingly implement the development concept of innovation, coordination, green, openness and sharing to seek open, innovative, inclusive and mutually beneficial development prospects. Moreover, we should deepen the reform of the scientific and technological system and establish a technological innovation system that takes the enterprise as the main body and the
market as the guidance with deep integration of production, teaching and research, as well as school enterprise cooperation.

During the two sessions of the whole country, General Secretary Xi Jinping participated in the discussions and emphasized "innovation", "Innovation is the first driving force, and innovation does not wait for anyone…. Only by truly realizing the historic transformation of the driving force of the new and the old can China be truly strong". Obviously, he has placed technological innovation in the important position of driving economic and social development.

In March 2018, the kick-off meeting of the Counterpart Assistance Action Plan for Xinjiang Vocational & Technical College of Communications made by the National Transportation Vocational Education Teaching Steering Committee was held in Urumqi, Xinjiang. In the meeting, the Counterpart Assistance Action Plan for Xinjiang Vocational & Technical College of Communications (2018 - 2020) (hereinafter referred to as the action plan) was released. It is pointed out that the National Transportation Vocational Education Teaching Steering Committee (hereinafter referred to as the Committee) will serve as a platform for assistance and coordination, give full play to the demonstration radiation of the national transportation and transportation colleges, and help the Xinjiang Vocational and Technical College of Communications to improve the level of school running and the quality of talent training.

To sum up, the "new situation" refers to the adaptation of the innovative cooperation model for the construction of the "Silk Road Economic Belt", the response to the innovation, coordination and open development concept proposed by the reports of 19th CPC National Congress and the aid of the Xinjiang action plan to support the vocational education.

PRESENT SITUATION OF SIMILAR RESEARCH WORK AT HOME AND ABROAD

According to literature review and information search, although China has set up collaborative innovation centers in all aspects of the transportation industry, most of them focus on undergraduate universities, scientific research institutions and large enterprise groups. For higher vocational colleges, collaborative innovation centers are quite new. How to establish collaborative innovation in vocational colleges, how to cooperate, how to innovate and how to manage are all problems that need to be solved. Even though there are sporadic studies in the literature, they are not thorough enough. Therefore, the author mainly reviews the domestic research status of the collaborative innovation center in the transportation industry of vocational schools.

Research on the Construction of Collaborative Innovation Platform

Through the research on the training mode of innovative talents in colleges in China based on collaborative innovation platform, Ye Dongqing (2016) believed
that the establishment of collaborative innovation platform has made great contributions to the training of talents and integration of resources. From the perspective of collaboration, Kong Xiangnian et al (2016) analyzed the influencing factors and the output of innovative achievements in the construction of collaborative innovation system in colleges, and put forward the countermeasures for the construction of collaborative innovation platform from the aspects of perfecting the diversified platform structure, constructing the market-oriented operation mode, strengthening the diversification function orientation, and establishing a sound system. The information service platform in Europe and America pays more attention to the knowledge sharing based on innovation experts, so the development of the platform shows the development trend from the integration of information resources based on information resources to knowledge collaboration.

Research on The Cooperative Innovation of Vocational Education And Production And Education

The combination of vocational education and industrial development is mainly reflected in the cooperation between school and enterprise and the combination of engineering and engineering, as well as the research on the cooperative innovation and development of the industrial structure based on the professional setting of the vocational school and the industrial structure of the enterprise. Tang Zhibin et al (2015) pointed out that the cultivation of skilled innovative talents and the transformation mode of technological innovation require higher vocational education and collaborative innovation and parallel development of production, learning and research. Therefore, it is necessary to build a long-effect mechanism based on the common desire, common interest and collaborative innovation framework of multiple subjects to build a multi-innovation subject and include value, benefit, resource integration and collaborative implementation.

Collaborative Innovation Construction and Related Research in Xinjiang Higher Vocational Colleges

In 2012, Xinjiang established 4 autonomous regional "2011 plan" collaborative innovation centers by taking the regional undergraduate colleges as the leading units. The construction of these collaborative innovation centers plays a good role in promoting the development of science and technology in the autonomous region. However, compared with the collaborative innovation construction of other universities, the construction of collaborative innovation in Xinjiang vocational colleges is still blank.
MAIN CONTENTS OF CONSTRUCTION APPLIED TECHNOLOGY COLLABORATIVE INNOVATION CENTER IN HIGHER VOCATIONAL COLLEGES

(1) We need to clarify the research background, clarify the research objectives and research significance, compare the collaborative innovation of colleges and the collaborative innovation of applied technology in higher vocational colleges, define the definition of applied technology collaborative innovation in higher vocational colleges, and explain its characteristics and main contents.

(2) We should create an open applied technology collaborative innovation platform and develop higher vocational education with the help of universities, governments, research institutes and enterprises, explore the applied technology collaborative innovation platform to expand to the countries along the line by taking advantage of enterprises engaged in infrastructure construction along the "Silk Road Economic Belt" for exchanges with the countries along the line.

(3) In order to establish the system and mechanism of collaborative innovation, the construction of applied technology collaborative innovation in higher vocational colleges needs supporting policies and measures that are closely related to it as a guarantee. Meanwhile, we should study the action plan for vocational education to support Xinjiang and the cooperation mode and assistance mechanism for collaborative innovation centers in colleges to support Xinjiang. This is a new mode of cooperation, so it is necessary to have new systems and mechanisms to aggregate evacuated organizations and resources so as to form an innovation of the management system. In this regard, it is of great significance to the accelerated development and efficiency improvement of applied technology collaborative innovation.

(4) The innovation of the construction of cooperative talent team in higher vocational colleges. In view of the general shortage of teachers' practical and scientific research ability in higher vocational colleges at present, it is necessary to make full use of the advantages of the applied technology cooperative innovation platform and combine the construction of special geotechnical scientific research and innovation team established by the college to explore a new model for the construction of practical and scientific talent team in higher vocational colleges.

(5) Research on the way of collaborative innovation. We should focus on innovation in research, innovation and social service.

CONCLUSIONS

Through the construction of the applied technology cooperative innovation center in higher vocational colleges, we will vigorously improve the innovation and technical service ability of the cooperative innovation center, and realize the following goals: First, we should build a high level and high-quality scientific research and teacher team through internal training and external introduction, and
provide talent support for the development of the collaborative innovation center. Second, we need to increase investment in infrastructure and hardware, build innovative studios at a high level, and create a good working environment for talents. Third, we should form a batch of practical technologies, and solve the practical problems in transportation development through product industrialization, and promote the development of Xinjiang's transportation industry. Fourth, we need to train a group of high-quality technical talents with the latest technological achievements in transportation to participate in the construction and operation of Xinjiang's transportation.

REFERENCES

4. Fund Program: National Transportation Professional Education Teaching Steering Committee the First batch of Transportation Professional Education Scientific Research Project (Special Aid to Xinjiang) (Item Number: 2018YJ102).