A study on International Specialty Standards and Curriculum System Paths of Creating “Luban Workshop”

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Abstract. “Luban Workshop” is a Chinese vocational education that actively responds to the national “Belt and Road” strategy and the “going out” initiative of Chinese-funded enterprises, serves international capacity cooperation, cultivates high-quality localized technical and technical personnel, and shares vocational education achievements with the cooperative countries. The international innovation and innovation of vocational education with Chinese characteristics; it takes the engineering practice innovation project as the core concept and main line, integrates the advanced teaching management concepts of the cooperative colleges into the joint education, makes full use of the platform for close communication, and greatly enhances the personnel training and soft power and hardware environment. Based on the review of the development background, development model, opportunities and challenges faced by “Luban Workshop”, this paper puts forward the international professional standard of service “Luban Workshop” based on the internationalization trend of vocational education in the new era and the country's actual situation. And the curriculum system paths, and then laid a certain foundation for improving the level of vocational education and enhancing students' international competitiveness.

1. Introduction

“Luban Workshop” is based on the construction results of national modern vocational education reform and innovation demonstration zone. It is based on the principle of equal cooperation, high quality priority, strong energy and heavy technology, integration of production and education, and adapting to local conditions. The project is a teaching mode which is based on the international professional teaching standards developed by the Ministry of Education. The national vocational college skills competition is the main carrier, and the “teacher training first” and teaching materials are the necessary guarantees. Establish cooperative institutions for implementing academic education and technical training abroad. Its core goal is to cultivate high-quality technical and technical personnel that are urgently needed to meet the economic and social development of the cooperative countries; and it is a materialized bridge that shares the teaching model, specialty standards, technical equipment, and teaching programs of China's vocational education with the world [1].

“Belt and Road” strategy has brought important opportunities for China's vocational education to build a large open pattern of regional education and achieve great integration, but it must also be clearly recognized that there are still many shortcomings in the development of vocational education in China. Limited influence, insufficient radiation capacity of vocational education, insufficient ability of vocational colleges to accept international students, insufficient close connection between vocational education and industry, large regional differences in vocational education, inadequate self-development, and specialty vocational education With all kinds of predicaments, vocational education must adhere to the development strategy of combining the development and the combination of government and the people, education and industry in the “Belt and Road” [2].

Based on a review of the development background, development model, opportunities and challenges faced by “Luban Workshop”, this paper combines the internationalization trend of vocational education and the national reality in the new era, and proposes the international specialty standard of service “Luban Workshop”. And the curriculum system paths, and then laid a certain
foundation for improving the level of vocational education and enhancing students' international competitiveness.

2. International Specialty Standards Serving for “Luban Workshop”

The internationalization requirements of vocational education are the inevitable result of economic globalization. In the era of economic globalization, the rules of enterprises and the certification of products must be handled in accordance with international rules. This requires vocational education to cultivate corresponding talents according to this requirement. The main content of the internationalization of vocational education should be the internationalization of talent training standards, and the internationalization of product certification. The formation of “Luban Workshop” is shown in Figure 1. Seeking open development is not only the practical need of vocational education to adapt to the construction of the “Belt and Road”, but also the key paths for the development of vocational colleges from scale to connotation. To explore the open development of vocational education, we must clarify the open development of vocational education.

![Diagram](image)

**Figure 1** Formation of “Luban Workshop” based on the international specialty standards and curriculum system paths

A high level of industrial development requires a high level of vocational education support. China's modern vocational education going to the world will inevitably require the matching of specialty education standards with international standards and Chinese characteristics. Specialty teaching standards are an objective measure for measuring the quality of teaching within the scope of specialty teaching and specialty construction. Therefore, it is based on the comprehensive results of science, technology and teaching practice, and a normative document issued by the relevant parties of the relevant society and approved by the competent authority to be issued in a specific form [3].

The development of international specialty teaching standards involves hierarchical issues within the modern vocational education system. At the macro system level, there is a need for “top-level strategic considerations”. This is because the formulation of international specialty teaching
standards is closely related to the orientation of talent training. It must be conducive to the construction of a modern vocational education system with world standards and Chinese characteristics. The difference between the level of vocational and higher vocational education, that is, the development of its specialty teaching standards, is closely related to the specifications of skilled personnel training, and is required for industrial development. It is necessary to give scientific research from sociology, economics, and education, to investigate the specifications of skill talents at different levels. At the micro level of specialty setting, only those specialty positions with obvious talent level requirements in the industrial structure have the specialty education majors and the relatively clear skill level.

The internationalization of vocational education is the general trend. The development process framework of international specialty standards is shown in Figure 2. In view of the current small scale of international cooperation in vocational education and the fragmentation of cooperation, the competent departments or institutions of vocational education should set up a platform for the participation of multinational enterprises and the provision of information on consultation, and provide human, material and financial resources for the international cooperation of vocational colleges. At the same time, systematic planning is carried out in the cooperation the international training of students and the formulation of teaching standards at the national level to enhance the level and level of cooperation. The ultimate goal of cooperation is to promote the adaptability of talent development and the world of work. Starting from the actual results, an effective international cooperation evaluation mechanism and system will be set up to open up and enhance the vitality of vocational education development and open up the road of innovation from cooperation to development [4].

![Figure 2 Development process frameworks of international specialty standards (IPSs)](image)

Based on the extensiveness of the international standard of service “Luban Workshop” and the diversity of evaluation projects, a specialty talent training system that highlights cooperative innovation should be constructed. First of all, companies with larger brands should be selected to establish long-term cooperative relationships. Because such enterprises have the ability to purchase and introduce advanced equipment and technology, the employees of the company are highly technical, and the technical operation has standardized indicators to ensure. Cooperation with such companies can be supported by equipment resources, technical resources, and part-time resources of technicians. Secondly, combined with specialty characteristics and job requirements, the core curriculum and multi-structure and multi-form educational resources are set up, and multiple forms of teaching organization are adopted. In addition, employing enterprise technicians as evaluation teachers, participating in the design evaluation indicators and evaluation work, can quickly meet the
international technical level, and achieve the purpose of accelerating the cultivation of international technical talents [5].

The change of organizational management mode is an important guarantee for promoting the internationalization of vocational education. At the same time of the internationalization of the development path of vocational education, the organization and management of vocational education will naturally change. The internationalization of vocational education teacher construction refers to the appointment of foreign experts, the appointment of returned overseas students, and the exchange of teachers abroad. In the process of internationalization of vocational education, teachers as the core elements of the development of vocational education are also the top priority of their international development [6].

3. Curriculum System Paths Serving for “Luban Workshop”

Standards are “rules” and are a normative document that, within a certain range, is used in order to obtain the best order, is developed by consensus, and approved by recognized institutions. As a kind of education, modern vocational education needs to establish a standard system with vocational education characteristics to promote its healthy development and promote its standardized management. Regardless of the choice of partner countries, colleges, majors, and even training models, the “Luban Workshop” is set up overseas in strict accordance with all practical conditions, based on the purpose of the pioneering strategy and fully considering the political, economic and social aspects of the partner countries, culture, technical skills and the interests of both parties. Curriculum system development and path design is shown in Figure 3.

![Figure 3 Curriculum system development and path design](image)

The construction of vocational education specialty teaching standards involves multiple stakeholders. Standard construction requires multi-party coordination, including education administration departments, teaching and research institutions, vocational colleges, and industrial enterprises. Therefore, it is necessary to establish a political and research school for the construction of specialty teaching standards. In the standard development, it is necessary to jointly carry out research in the same specialty vocational colleges in the region to ensure the extensiveness and
representativeness of the sample, the typicality of case analysis, the authority of participating experts, etc., in order to conform to the principle of consistency of standard construction. Requirements, standards are universal; industry enterprises are indispensable subjects of standard construction.

The essential nature of the curriculum of vocational education is activity, and the activity refers to the completion of a series of work tasks, which have inherent logical connections. Students have the characteristics of logic, order and level in the process of mastering middle-level work tasks to higher-level work tasks. Therefore, the design of secondary vocational and higher vocational courses should be intrinsically linked, and should also follow the characteristics of logic, order, and hierarchy. Course management is a systematic process involving curriculum policy, course operation, and course evaluation. The connection of the curriculum system of the middle and higher vocational education requires the macro-level vocational education curriculum policy, the implementation of the curriculum and the organization, and the effective integration of the implementation of the curriculum on the micro level [7].

Although the construction of specialty standards for higher vocational education has been explored and researched for many years, this exploration and research is different from the previous construction of specialty teaching standards. It is the first time that the construction of specialty teaching standards is carried out with the vision of “internationalization”. The new plan will help to enhance the level of higher vocational education in our country, so that the students we cultivate will be in a favorable position in the future high-level international competition. As a high-level teaching evaluation quality and specialty construction level evaluation system, it not only affects the value of the public to higher vocational education, but also affects the future trend of higher vocational education; in an international society under the background of multiple cultures and intertwined, it will also become the concrete highlight of the quality assurance of higher vocational education and the “soft power” of vocational education culture, and become the brand effect of the comprehensive strength of modern vocational education in China [8].

4. Conclusions

Under the background of the new era, the development of vocational education has entered a high-quality stage. While absorbing and learning from the development model of advanced vocational education, vocational education has continuously explored and formed a mode of running vocational education with Chinese characteristics. “Luban Workshop” is a new mode of internationalization development of vocational education that was first explored and constructed by Tianjin. It is a new window to further explore the creation of international cooperation and exchange of vocational education in response to the national “Belt and Road” initiative and “going out” of Chinese enterprises. The development of international specialty teaching standards involves hierarchical issues within the modern vocational education system. In view of the current small scale of international cooperation in vocational education and the fragmentation of cooperation, the competent departments or institutions of vocational education should set up a platform for the participation of multinational enterprises and the provision of information on consultation, and provide human, material and financial resources for the international cooperation of vocational colleges. Support from all sides. The change of organizational management mode is an important guarantee for promoting the internationalization of vocational education. At the same time of the internationalization of the development path of vocational education, the organization and management of vocational education will naturally change.

References


