

Research on the Path of Integrating New-Quality Productive Forces into the Whole Process of Talent Cultivation in Higher Vocational Colleges

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Abstract: As an advanced productive force featuring innovation-driven development, high technology, high efficiency and high quality, new-quality productive forces put forward brand-new and higher requirements for high-quality technical and skilled talents. As the main position for cultivating technical and skilled talents, higher vocational colleges integrating the concepts and requirements of new-quality productive forces into the whole process of talent cultivation is a core measure to adapt to industrial upgrading and boost the high-quality development of regional economy. Based on the core connotation and talent demand characteristics of new-quality productive forces, combined with the current reality of talent cultivation in higher vocational colleges, this paper systematically analyzes the practical dilemmas in the integration, defines the basic principles to be followed, and explores the specific paths from six core dimensions: training concept, curriculum system, teaching mode, teaching staff, industry-education integration and evaluation system, aiming to provide theoretical reference and practical guidance for higher vocational colleges to deepen the reform of talent cultivation and cultivate high-quality innovative technical and skilled talents adapted to the construction of new-quality productive forces.

1. Introduction

In January 2024, General Secretary Xi systematically expounded the connotation and development requirements of new-quality productive forces for the first time, clarifying that it is an advanced productive force driven by innovation, breaking away from traditional economic growth modes and development paths, and conforming to the new development philosophy. Its cultivation relies on technological revolutionary breakthroughs, innovative allocation of production factors and in-depth industrial transformation and upgrading, with the upgrading of the optimal combination of laborers, means of production and objects of labor as the basic connotation. The development of new-quality productive forces is in urgent need of high-quality technical and skilled talents who can master new-quality production means and transform scientific and technological achievements into practical productive forces, which points out the core direction for talent cultivation in higher vocational colleges.

As a key link connecting education and industry, higher vocational colleges are undertaking the important mission of talent support in the cultivation of new-quality productive forces. Taking Chongqing as an example, as an important strategic fulcrum for the western development in the new era and a national important advanced manufacturing base, it clearly proposes to "vigorously cultivate new-quality productive forces" in the government work report, putting forward an urgent reform requirement for the quality, structure and mode of talent cultivation in local higher vocational colleges. However, at present, some higher vocational colleges still adhere to the traditional "skill-oriented" training concept, with problems such as the disconnection between training objectives and the demand of new-quality productive forces, the lag of curriculum system update, the insufficient depth of industry-education integration and the weak cultivation of innovative ability. The concepts and requirements of new-quality productive forces have not been truly integrated into all links of talent cultivation. Therefore, exploring the path of integrating new-quality productive forces into the whole process of talent cultivation in higher vocational colleges has become an important practical subject.^[2]

2. Core Requirements of New-Quality Productive Forces Construction for Talent Cultivation in Higher Vocational Colleges

2.1 Talent Demand Characteristics

The construction of new-quality productive forces requires a team of technical and skilled talents with the core characteristics of accurate professional skills, core innovative ability, diversified comprehensive literacy and sustainable learning ability. Accurate professional skills mean mastering advanced and practical skills matching industrial technological upgrading and being able to operate intelligent and digital new-quality production means, core innovative ability requires talents to break away from the identity of simple "skill operators" and become "skill innovators" who can solve practical problems in production, diversified comprehensive literacy includes human-computer collaboration ability, interdisciplinary knowledge application ability, team communication and cooperation ability and professional literacy, sustainable learning ability is the basic requirement for talents to adapt to the rapid upgrading of industrial technology and the continuous change of post requirements.^[6]

2.2 Restructuring Requirements for Talent Cultivation System

In view of the above talent demand characteristics, higher vocational colleges must carry out an all-round restructuring of the talent cultivation system: transform the training concept from "skill-oriented" to "literacy-oriented and innovation-driven", and realize the three-dimensional training of "professional skills + innovative ability + comprehensive literacy", reform the curriculum system from "single major and static solidification" to "interdisciplinary integration and dynamic update", change the teaching mode from "classroom teaching + on-campus training" to "project-based, practical and school-enterprise collaborative", expand the training subject from "single school subject" to "multi-party collaboration of government, school, enterprise and industry", and reform the evaluation system from "emphasizing scores and certificates" to "emphasizing ability, practice and innovation".^[4]

3. Practical Dilemmas of Integrating New-Quality Productive Forces into the Whole Process of Talent Cultivation

3.1 Lagging Training Concept

Some higher vocational colleges have a superficial understanding of the connotation and talent demand of new-quality productive forces, and the training objectives are highly homogeneous. They ignore the cultivation of students' innovative ability and comprehensive literacy. Some teachers still adhere to the traditional teaching concept, focusing on knowledge indoctrination and skill training, resulting in the lack of ideological guidance for the integration of new-quality productive forces.

3.2 Solidified Curriculum System

The curriculum content is updated slowly, and the proportion of cutting-edge industrial technology content related to new-quality productive forces is low, the professional barriers are prominent, and the interdisciplinary integration is insufficient, the curriculum structure is unreasonable, with too high proportion of professional skill courses and too low proportion of literacy courses, there is no dynamic update mechanism, and it is difficult to keep up with the pace of industrial technological upgrading.

3.3 Traditional Teaching Mode

The single teaching method is dominated by teacher-centered classroom teaching, and the application effect of innovative teaching methods such as project-based teaching is not good, the teaching scene is closed, the on-campus training equipment is disconnected from the actual production of enterprises, and students lack real production practice experience, the application of modern educational technology is superficial, and the online and offline mixed teaching mode has not been effectively constructed, the innovative teaching link is missing, and there is a lack of systematic innovative practice activities.

3.4 Weak Teaching Staff

The proportion of "double-qualified" teachers is low, and many of them lack practical experience in enterprises, the professional ability of teachers is disconnected from industrial technology, and they are unable to master the operation skills of new-quality production means, the innovative teaching ability is insufficient, and the interdisciplinary teaching ability is lacking, the introduction of enterprise experts is insufficient, and there is no long-term mechanism for their participation in teaching.

3.5 Superficial Industry-Education Integration

Most school-enterprise cooperation stays in the primary stage of "providing internship positions and conveying interns", and the in-depth cooperation mode of jointly building majors and curriculum systems is not popular, the motivation of enterprises to participate in cooperation is insufficient due to the lack of policy support and clear benefits, the collaborative education mechanism is not perfect, and enterprises lack in-depth participation in the formulation of talent cultivation programs, the construction of integration carriers such as "factory in school" is insufficient, and the connection between teaching and production is not smooth.^[7]

3.6 Single Evaluation System

The evaluation subject is dominated by school teachers, and the participation of enterprises and industries is low, the evaluation content is one-sided, focusing only on professional knowledge scores and skill certificates, ignoring the evaluation of innovative ability and comprehensive literacy, the evaluation method is solidified, emphasizing summative evaluation and neglecting formative evaluation, the application of evaluation results is insufficient, which cannot effectively guide the reform of talent cultivation.

4. Basic Principles of Integration

4.1 Demand-Oriented and Accurate Adaptation

Colleges should target the key industries fostering regional new-quality productive forces, formulate personalized talent training objectives based on job competency requirements, and achieve precise alignment between talent training and industrial demand.

4.2 Innovation-Driven and All-Round Integration

Colleges should take innovation as their core driving force, integrate innovative concepts and requirements into all links of talent cultivation, and strengthen the development of students' innovative thinking and capabilities.

4.3 Industry-Education Integration and Collaborative Education

Colleges should adhere to industry-education integration and school-enterprise cooperation, break down barriers between schools and enterprises, integrate high-quality resources from governments, colleges, enterprises and industries, and establish a normalized and in-depth collaborative education mechanism.

4.4 Systematic Reform and Step-by-Step Implementation

Colleges should conduct systematic design and overall promotion of reforms in training concepts, curriculum systems and other aspects, and implement the reform step by step from pilot projects to full promotion in light of their actual development.

5. Specific Paths of Integrating New-Quality Productive Forces into the Whole Process of Talent Cultivation

5.1 Update Training Concept and Strengthen Top-Level Design

Colleges should thoroughly interpret the connotation and talent demand characteristics of new-quality productive forces, organize special seminars and training for administrators and teachers to clarify new requirements and challenges, establish the modern vocational education concept of innovation-driven, literacy-oriented, demand-oriented and lifelong learning, and run the three-dimensional training goal through the whole talent training process. They should also formulate personalized and differentiated objectives based on regional key industries and their own advantages, and set up a steering committee to integrate new-quality productive forces into training programs.^[4]

5.2 Restructure Curriculum System and Build Curriculum Carrier Oriented to New-Quality Productive Forces

Colleges should optimize the curriculum structure to form a four-dimensional system including professional core, interdisciplinary integration, literacy and innovative practice courses. They should establish a dynamic update mechanism to adjust contents with industrial technological upgrading in a timely manner, and promote project-based and practical teaching reform by integrating real enterprise production projects, so as to realize the seamless connection between curriculum and industrial practice.^{[6][8]}

5.3 Innovate Teaching Mode and Construct Teaching Implementation System

Colleges should adopt student-centered innovative teaching methods such as project-based and inquiry-based teaching to improve students' ability to solve practical problems. They should build a dual practical teaching scene of on-campus training and enterprise practice, apply modern educational technology to create mixed teaching modes, and carry out regular innovative practice activities to strengthen students' innovative thinking and practical ability.

5.4 Strengthen the Teaching Staff and Consolidate Talent Support

Colleges should improve the training mechanism for double-qualified teachers, implement the enterprise practice system and encourage teachers to obtain professional certificates. They should introduce enterprise experts to participate in core teaching links, enhance teachers' interdisciplinary and innovative teaching ability, and establish an incentive mechanism to stimulate teachers' enthusiasm in innovative teaching.

5.5 Deepen Industry-Education Integration and Construct Collaborative Education Mechanism

Colleges should deepen school-enterprise cooperation and promote the construction of carriers such as school factories. They should establish a long-term collaborative education mechanism with government and enterprise participation, improve social service capacity to achieve mutual benefit, and strengthen inter-school and school-community cooperation to realize the sharing of teaching resources.^{[3][5]}

5.6 Reform the Evaluation System and Establish Quality Evaluation Mechanism

Colleges should build a diversified evaluation system with multi-subjects, comprehensive contents and mixed methods combining formative and summative evaluation. They should strengthen the application of evaluation results to promote the optimization of talent training programs, curriculum system and teaching mode, and ensure the training quality meets the demand of new-quality productive forces.^[1]

6. Conclusions and Prospects

6.1 Research Conclusions

The construction of new-quality productive forces puts forward new requirements for talent cultivation in higher vocational colleges, and the core demand characteristics of talents are accurate professional skills, core innovative ability, diversified comprehensive literacy and sustainable

learning ability. At present, the integration of new-quality productive forces into the whole process of talent cultivation in higher vocational colleges is faced with many dilemmas such as lagging training concept, solidified curriculum system and superficial industry-education integration, which need systematic and all-round reform. The integration must follow the basic principles of demand orientation, innovation drive, industry-education integration and systematic reform, and carry out reform from six core dimensions: training concept, curriculum system, teaching mode, teaching staff, industry-education integration and evaluation system. The six dimensions are interrelated and mutually influential, and only by coordinated promotion can the in-depth integration of new-quality productive forces and the whole process of talent cultivation be realized.^[1]

6.2 Research Prospects

New-quality productive forces is a constantly developing concept, and its requirements for talent cultivation in higher vocational colleges will continue to change with the upgrading of industrial technology. In the future, it is necessary to further carry out research on the talent demand characteristics of different industries and majors under the background of new-quality productive forces, and build a professional and field-specific talent cultivation integration system, in-depth study the construction standards and operation mechanisms of new industry-education integration carriers such as "factory in school", construct an evaluation index system for the quality of talent cultivation in higher vocational colleges to test the effect of integration. In practice, higher vocational colleges should carry out pilot reforms combined with their own advantages, summarize replicable and promotable practical experience, and strengthen cooperation with the government and enterprises to ensure the steady progress of the reform.

Higher vocational colleges, as the main position for cultivating technical and skilled talents, must take the initiative to adapt to the development trend of the times, take innovation as the core driving force, deepen the reform of talent cultivation, integrate the concepts and requirements of new-quality productive forces into the whole process of talent cultivation in an all-round and in-depth way, and cultivate more high-quality innovative technical and skilled talents to provide solid talent support for the cultivation of new-quality productive forces and the high-quality economic development of China.

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