

Research on the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration

Huigang Chen*

Harbin Northern Vocational Institute of Aviation, Harbin 150030, Heilongjiang, China

*Author to whom correspondence should be addressed.

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: As the core path for the high-quality development of vocational education, the in-depth advancement of industry-education integration has put forward systematic reform requirements for the traditional educational management models of higher vocational colleges. It is evident that, against the background of industry-education integration, the current educational management models of higher vocational colleges still face numerous problems, which affect the talent cultivation quality of industry-education integration. Based on this, this paper analyzes the current problems of the educational management model of higher vocational colleges from the perspective of industry-education integration and explores effective innovative paths, aiming to provide a reference for relevant personnel and jointly contribute to the modernization reform and development of vocational education.

Keywords: Higher vocational colleges; Industry-education integration; Educational management model; Innovative path

Online publication: March 13, 2026

1. Introduction

With the accelerated transformation and upgrading of China's industrial structure, the social demand for high-quality and skilled talents is constantly rising. As an important base for talent cultivation in China, the reform and development of higher vocational colleges have attracted widespread attention from all sectors of society. The National Vocational Education Reform Implementation Plan clearly puts forward the strategic deployment of "deepening industry-education integration and school-enterprise cooperation", taking industry-education integration as a key driver to promote the high-quality development of vocational education. However, it can be seen that higher vocational colleges have exposed certain educational management problems in the process of promoting industry-education integration, such as poor coordination mechanisms and rigid management models, which directly hinder the in-depth advancement of industry-education integration and the improvement

of talent cultivation quality^[1]. In this regard, universities and teachers should base themselves on practical problems, actively explore effective reform countermeasures, continuously innovate educational management models, promote the in-depth integration of vocational education and industrial development, realize the positive interaction among talent cultivation, industrial development, and regional economic improvement, and deliver more high-quality and skilled talents to society.

2. Current problems of the educational management model of higher vocational colleges from the perspective of industry-education integration

2.1. Imperfect collaborative governance mechanism and insufficient depth of school-enterprise cooperation

For industry-education integration, the key lies in the collaborative talent cultivation between industry and education. Therefore, a sound collaborative governance mechanism is a necessary condition for its high-quality advancement. However, in reality, the coordination and governance mechanisms for industry-education integration in some higher vocational colleges are not perfect, leading to insufficient cooperation depth between schools and enterprises, education and industry, and affecting the actual talent cultivation quality^[2]. Specifically, on the one hand, the management of industry-education integration in some colleges and universities is mostly carried out around individual teachers or managers, without establishing a regular collaborative management organization. At the same time, the responsibilities and obligations of both parties are not clearly defined in the cooperation agreement, resulting in the formalization of collaborative talent cultivation between the two parties; on the other hand, the interest demands between schools and enterprises are inconsistent, leading to insufficient participation motivation. For example, the essence of higher vocational colleges participating in industry-education integration is to cultivate talents and serve society, while the goal of enterprises is to expand economic benefits. There are often obvious differences in demands during cooperation—for instance, schools overly rely on enterprises' facilities, venues, and teachers, but fail to provide effective support such as technical R&D and employee training for enterprises, resulting in low enthusiasm of enterprises to participate in industry-education integration^[3]. In addition, the lack of a sound communication mechanism between the two parties makes the advancement of industry-education integration unreasonable, and the actual talent cultivation quality is unsatisfactory.

2.2. Disconnection between major settings and industrial needs, lack of a dynamic adjustment mechanism

The major setting is the core carrier for higher vocational colleges to connect with industrial needs, and its rationality directly affects the talent cultivation quality of industry-education integration. Currently, the major settings of higher vocational colleges are generally disconnected from the industry, and there is a lack of a flexible, dynamic adjustment mechanism. Specifically, first of all, some higher vocational colleges lack research on the actual industrial situation in major settings and do not carry out major settings based on changes in social demand for vocational talents, leading to a mismatch between the professional layout and current industrial development status and direction, which further affects the subsequent employment and development of students^[4]. Secondly, the professional adjustment^[4] mechanism is not perfect. The professional adjustment process of some higher vocational colleges is relatively complex and time-consuming, making it impossible to quickly match the talent needs of the industry. At the same time, there is no scientific evaluation mechanism

in the major setting process, resulting in the failure of real-time and effective matching between professional teaching, talent cultivation, and industrial post work and talent demand, affecting the talent cultivation effect. Furthermore, professional construction is disconnected from industrial post-work—for example, some majors emphasize knowledge over practice and literacy, which also affects the effectiveness and matching of talent cultivation.

2.3. Rigid teacher management model and lagging construction of “dual-qualified” teacher teams

Under industry-education integration, the construction of “dual-qualified” teachers (with both theoretical teaching ability and practical professional skills) is a top priority, directly affecting the educational teaching and talent cultivation quality of higher vocational colleges. However, some higher vocational colleges have unscientific teacher management models in promoting industry-education integration, leading to inadequate construction of “dual-qualified” teachers and low overall teacher quality. On the one hand, there are unreasonable and imperfect issues in teacher recruitment and training. For example, in the process of teacher recruitment, some higher vocational colleges pay too much attention to teachers’ academic qualifications or scientific research capabilities, while neglecting their practical experience, making it difficult for teachers to complete professional practical teaching tasks well; some higher vocational colleges do not attach enough importance to teacher training and fail to provide a professional training and improvement path for teachers, which also affects the overall teacher level; on the other hand, the teacher assessment and evaluation mechanism is not perfect, which dampens teachers’ enthusiasm for independent learning, scientific research innovation and talent cultivation, and further leads to poor educational teaching and talent cultivation quality under industry-education integration.

2.4. Imperfect teaching evaluation system, difficult to adapt to the talent cultivation requirements of industry-education integration

Evaluation is an important link in vocational education and a key support for the continuous optimization of the industry-education integration model. Against the background of industry-education integration, the problem of imperfect teaching evaluation systems in higher vocational education is relatively prominent. First of all, the evaluation subject is relatively single, and the participation of enterprises and industries in professional education evaluation is insufficient, resulting in evaluation results that cannot objectively and comprehensively reflect students’ learning effects and ability growth, affecting talent cultivation quality ^[5]. Secondly, the evaluation content is not comprehensive enough—for example, under industry-education integration, excessive attention is paid to evaluating students’ mastery of theoretical knowledge, while there is no evaluation and guidance on students’ practical ability, innovation ability, and professional literacy based on market talent demand under the current industrial transformation background, which also affects the actual talent cultivation quality. Furthermore, the evaluation method is relatively single; many teachers mainly adopt summative evaluation, lacking evaluation and guidance on students’ knowledge mastery, ability development, and literacy improvement throughout the learning process. This also hinders the development of vocational education under industry-education integration and the improvement of talent cultivation quality, resulting in graduates who are difficult to meet enterprises’ demand for high-quality technical and skilled talents.

3. Innovative paths of the educational management model of higher vocational colleges from the perspective of industry-education integration

3.1. Construct a school-enterprise collaborative governance mechanism to deepen in-depth cooperation

Faced with the current problem of insufficient depth of industry-education integration in higher vocational colleges, it is necessary to accelerate the construction of a regular coordination mechanism and continuously deepen school-enterprise cooperation, so as to promote resource sharing and responsibility sharing between the two parties and ultimately achieve a win-win goal^[6]. Specifically, first of all, establish a school-enterprise collaborative management organization to promote in-depth cooperation. Higher vocational colleges should actively connect with social enterprises, industry associations, and other entities to jointly establish a collaborative management committee based on industry-education integration. On this basis, clarify the talent cultivation goals, responsibilities, and other aspects of both schools and enterprises—such as defining the responsibilities and powers of both parties in curriculum and teacher team construction—to promote in-depth participation and cooperation^[7]. At the same time, the management committee should hold regular meetings to continuously optimize the content of industry-education integration cooperation based on the social demand for vocational talents, so as to ensure the high-quality advancement of the industry-education integration model. Secondly, improve the benefit-sharing mechanism, explore diversified cooperation paths, safeguard the interests of both parties, and promote their in-depth participation. In this regard, higher vocational colleges should give full play to their main role in talent cultivation, on the one hand, orderly promote adaptive talent cultivation based on enterprise talent demand, and on the other hand, actively provide enterprises with services such as employee training, technical R&D, and product upgrading^[8]. Meanwhile, enterprises should leverage their advantages in funds, venues and other aspects to provide high-quality practical venues, equipment support and talent support for vocational education—for example, selecting outstanding technical personnel to serve as part-time teachers in vocational colleges, so as to provide students with more professional educational guidance and promote the cultivation of their comprehensive professional abilities, employment competitiveness and professional literacy.

3.2. Optimize the dynamic professional adjustment system to achieve a precise connection between majors and industries

Faced with the current background of industrial transformation, higher vocational colleges should base themselves on the industry-education integration talent cultivation model, continuously optimize the professional construction path, focus on the current social industrial transformation background, and actively communicate with enterprises. For example, both parties should jointly clarify professional talent cultivation goals, curriculum systems, and educational content based on new industrial and industry development trends and new talent demands, so as to ensure the in-depth matching between the talent “supply chain” and “demand chain”^[9]. On this basis, accelerate the improvement of professional database construction, rely on enterprise production practice, conduct in-depth research on post-work processes, changes in talent demand, professional employment rates, student work quality, etc., to better grasp the current social demand standards for vocational talents, further optimize professional settings, and promote the cultivation of high-quality talents. Secondly, establish a dynamic industry-education integration adjustment mechanism—on the one hand, optimize the professional approval process, clarify a flexible adjustment mechanism, so as to better promote the adjustment of professional talent cultivation paths and effectively connect the curriculum system and teaching content with

post-work practice and vocational talent demand. At the same time, focus on emerging development fields such as the digital economy and intelligent manufacturing, actively deploy new professional construction, continuously improve the forward-looking and rationality of professional construction, and further give play to the effectiveness of vocational education in serving social development ^[10]. Furthermore, improve the connotation of professional construction, focus on optimizing the professional curriculum system around enterprise talent demand and post-work content, and introduce vocational talent standards into teaching, so that students can understand more industry norms and professional standards while learning professionally, thereby promoting the cultivation of their professional literacy. In addition, actively promote the construction of school-enterprise practice bases, leverage the resource advantages of both parties in funds, talents and other aspects, and jointly build “factories in schools” and “schools in factories” to provide students with diversified, modern and professional practice platforms, comprehensively improve the adaptability of professional education under industry-education integration, and push the quality of talent cultivation to a new level.

3.3. Innovate the “dual-qualified” teacher management model and strengthen the construction of teacher teams

Teachers are the foundation of education. The construction of “dual-qualified” teachers is an important foundation for the high-quality advancement of industry-education integration. Faced with the current problems in the construction of “dual-qualified” teachers, higher vocational colleges should continuously improve the teacher recruitment and training mechanism—on the one hand, pay attention to both teachers’ professional abilities and practical skills when introducing teachers; on the other hand, actively create diversified training paths for teachers, such as cooperating with enterprises to build professional practice platforms for teachers, enabling them to take temporary positions in enterprises, change their educational concepts, and strengthen their practical teaching abilities ^[11]. Secondly, optimize the assessment and incentive mechanism for “dual-qualified” teachers to further stimulate their awareness of learning and self-improvement. For example, optimize the teacher evaluation mechanism, focus on their performance in practical teaching and industry-education integration, incorporate students’ vocational ability cultivation and employment status into the assessment, provide performance rewards for outstanding teachers, and offer convenience in professional title evaluation and selection of excellent teachers, so as to further stimulate teachers’ enthusiasm for self-improvement and participation in industry-education integration ^[12]. Furthermore, build a sound teacher mutual recruitment mechanism—on the one hand, guide teachers to participate in enterprise scientific research and product R&D to promote enterprise transformation and development; on the other hand, actively introduce enterprise talents to serve as part-time teachers, enabling them to form a complementary relationship with full-time teachers in schools and jointly promote the high-quality development of vocational education under industry-education integration ^[13].

3.4. Improve the diversified and three-dimensional teaching evaluation system to adapt to the talent cultivation requirements of industry-education integration

In terms of teaching evaluation management, higher vocational colleges should actively promote the construction of a diversified evaluation model, focus on introducing multiple subjects such as enterprises, industries, and vocational skill level certificate institutions on the basis of traditional teacher evaluation, and then innovate the evaluation model. For example, in the process of industry-education integration, cooperate with enterprises to comment on and guide students’ professional learning and practical training, so as to provide

students with professional educational services and promote the development of their professional literacy and comprehensive quality; in addition, cooperate with enterprises and vocational skill level certificate institutions to hold skill competitions, and guide students to continuously learn and improve through competition-driven teaching and evaluation^[14]. Secondly, improve the evaluation content—while focusing on the evaluation of students’ professional theoretical knowledge and skills, conduct comprehensive evaluation and guidance on students’ practical ability, problem-solving ability, sense of cooperation, innovation ability, and professional literacy based on the talent cultivation goals under industry-education integration, so as to help them grow and develop in an all-round way. Furthermore, attach importance to the combination of summative and process evaluation—for example, use digital technology to track students’ professional learning and practical training, grasp their specific growth situation, timely discover educational problems under industry-education integration, and then conduct comprehensive evaluation guidance and educational counseling to escort their better learning and growth^[15].

In conclusion, under the background of industry-education integration, the educational management of higher vocational colleges has ushered in new reform opportunities. In this regard, universities and teachers should deeply grasp the current problems, and on this basis, optimize the educational management model by constructing a school-enterprise collaborative governance mechanism, optimizing the dynamic professional adjustment system, innovating the “dual-qualified” teacher management model, and improving the diversified and three-dimensional teaching evaluation system, so as to promote the effective development of the industry-education integration model and deliver more high-quality talents to enterprises, industries and society.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Han N, 2024, Exploration of the Educational Management Model of Higher Vocational Colleges Under Industry-Education Integration. *Technology Wind*, 2024(26): 163–165.
- [2] Wang J, 2024, Implementation of the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Journal of Liaoning Higher Vocational*, 26(5): 30–33 + 104.
- [3] Zhu ML, Zhao LF, 2024, Discussion on the Construction of the Educational Quality Evaluation System of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Modern Vocational Education*, 2024(10): 81–84.
- [4] Huang HN, Chen L, 2024, Dilemmas and Solutions of Higher Vocational Students’ Educational Management Under Industry-Education Integration. *Life Partner*, 2024(3): 19–21.
- [5] Yu T, 2023, Research on the Innovation and Practice of Higher Vocational Educational Management Models Based on School-Enterprise Cooperation and Industry-Education Integration. Shanxi Zhongda Education Research Institute. *Proceedings of the 7th Innovative Education Academic Conference*. Jiangsu Vocational Institute of Architectural Technology, 148–149.
- [6] Xie WN, Li F, 2023, Analysis of the Characteristics and Strategies of Higher Vocational Students’ Educational Management Under Industry-Education Integration. *China Journal of Multimedia & Network Teaching*, 2023(4): 160–164.

- [7] Fan WB, 2022, Characteristics, Dilemmas and Solutions of Higher Vocational Students' Educational Management Under the Background of Industry-Education Integration. *Journal of Harbin Vocational & Technical College*, 2022(6): 17–19.
- [8] Meng FJ, 2022, Research on the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Journal of Liaoning Teachers College (Social Sciences Edition)*, 2022(4): 129–130 + 140.
- [9] Lin YN, Huang XZ, Zhang JQ, 2021, Characteristics, Dilemmas and Solutions of Higher Vocational Students' Educational Management Under the Background of Industry-Education Integration. *Education and Vocation*, 2021(20): 62–65.
- [10] Lin XX, 2021, Analysis of the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Neijiang Science & Technology*, 42(7): 6–7.
- [11] Chen HY, 2021, Exploration of the Educational Management Model of Vocational Colleges Under the Background of Industry-Education Integration. *Journal of Innovation and Entrepreneurship Theory and Practice*, 4(7): 98–100.
- [12] Sun XW, 2021, Exploration of a New Educational Management Model for Higher Vocational Colleges Under the Background of Industry-Education Integration. *University Education*, 2021(6): 53–54.
- [13] Qian LY, 2021, Research on the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Modern Vocational Education*, 2021(7): 200–201.
- [14] Zheng FJ, 2020, Research on the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *International Public Relations*, 2020(10): 217–218.
- [15] Feng WW, 2020, Analysis of the Educational Management Model of Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Journal of Jiamusi Vocational Institute*, 36(5): 210–211.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.