

Analysis of the Predicaments and Implementation Paths Faced by Higher Vocational Education from the Perspective of Industry-Education Integration

Meiheayi•tuerxun

XinJiang Science & Information Vocational Technical College, Urumqi 830000, Xinjiang, China

Copyright: © 2025 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: Industry-education integration is key to promoting the reform and development of higher vocational education. At present, higher vocational education is facing some difficulties in implementing industry-education integration. To address these issues, efforts should be made to promote the deep integration of education and industry, optimize the professional Settings, promote the sustainable development of higher vocational education, and cultivate high-quality technical and skilled talents[1] for social and economic development by focusing on cognitive value ideals, enhancing practicality, improving the funding mechanism, and building industry-education integration alliances.

Keywords: Industry-education integration; Higher vocational education; Dilemma; Implementation path

Online publication: July 26, 2025

1. Introduction

At a time of rapid economic and social development in our country, the optimization of industrial structure has become the core driving force. Currently, the vocational education model has obvious shortcomings in cultivating highly skilled professionals and fails to meet the continuously rising demand for high-quality technical and skilled talents in society. The integration of industry and education is the core approach for the development of higher vocational education and the cultivation of practical talents in China. China's implementation of the industry-education integration strategy has injected new impetus into the reform process. During the implementation and operation stage, challenges have emerged in the field of higher vocational education. Therefore, a systematic exploration and in-depth analysis of the perspective of the integration of industry and education, as well as an exploration of effective approaches and implementation mechanisms for the development of higher vocational education, have become the core research focus^[2-3] in the field of education reform at present.

2. The predicament of higher vocational education development from the perspective of industry-education integration

During the stage of innovation in industry-education integration models, Xinjiang Kexin Vocational and Technical

College has been constantly constrained by traditional educational concepts, and its educational models and teaching methods have failed to keep pace with The Times. Even though such higher vocational colleges have shown enthusiasm for active participation in the implementation of industry-education integration, due to the lack of profound insight and comprehensive understanding of the intrinsic nature and overall characteristics of industry-education integration, they often remain at the level of superficial attempts and preliminary explorations. Xinjiang Kexin Vocational and Technical College still adheres to the existing teaching resources and teaching framework, and the substantive advancement of industry-education integration has not achieved the expected results^[4]. In the implementation of industry-education integration, there are dual challenges of poor implementation results and insufficient depth of integration. Despite being at this stage, the overall financial burden is still relatively heavy due to the implementation of the policy of expanding the enrollment scale of higher vocational education. Facing the continuous increase in the total number of students, our school has to invest huge amounts of money in infrastructure construction, faculty team building and educational resource development, which has led to a relatively scarce capital allocation in the field of industry-university-research integration, and the key conditions and resources required for the implementation stage have not been fully guaranteed. Especially in many regions with a relatively weak economic foundation, this phenomenon makes it increasingly difficult for the relevant regions to get rid of the problem of integrating industry and education^[5].

3. The development path of Higher Vocational Education from the perspective of industry-education integration

3.1. Unify the understanding of value ideals and enhance the practicality of higher vocational education

In the process of promoting the high-quality development of vocational education at Xinjiang Kexin Vocational and Technical College, ensuring the unity of values is of decisive significance to the high-quality development of the college. The purpose of higher vocational education is far more than just imparting knowledge; it also needs to answer the question “Who are the trainees?” “In what way?” And what kind of talent should be cultivated? And other key issues to build a consensus among all teachers on nurturing. Our higher vocational education urgently needs to strengthen and firmly implement the core value concept of “student-centeredness”, which requires the school to continue to be committed to cultivating professional and technical talents with all-round development capabilities, ensuring the balanced development of their moral character, cognitive ability, physical fitness, aesthetic taste and labor skills. Xinjiang Kexin Vocational and Technical College should place the cultivation of professional skills at the core of its educational work, and also attach importance to moral education to ensure that students become qualified members of society who uphold the core socialist values. Our higher vocational education should be committed to guiding students to establish correct values, worldviews and outlooks on life. To shape students into successors and builders^[6] of the socialist cause with all-round development in morality, intelligence, physical fitness, aesthetics and labor. Secondly, the cultivation of technical skills should not be overlooked. Our school should ensure that students are taught a solid disciplinary foundation and emphasize the significance of practical teaching to ensure that students have a solid knowledge base in theoretical disciplines and can fully demonstrate their superb skills in practical operations. We should strengthen the cultivation of students’ practical skills, vocational position technical operation ability and problem-solving ability, and actively encourage students to participate in actual projects and internships to enrich practical experience and cultivate their ability to independently analyze and handle practical problems. The cultivation of such comprehensive abilities is in line with the purpose of higher vocational education, helps students achieve their goals in their future careers, and significantly enhances the practical ability of higher vocational education, achieving a deep fit^[7] between the educational process and social demands.

3.2. Improve the mechanism of educational funding and establish industry-education integration alliances

With the aim of promoting the comprehensive deepening of industry-education integration, the mechanism of financial

input for higher vocational education urgently needs to be further improved. First, a sustainable funding mechanism should be established. Schools should set up dedicated funding channels to ensure that educational funds are in line with industrial demands and that they are used reasonably and efficiently. This will undoubtedly ensure the smooth progress of the integration of industry and education and provide sufficient financial support in areas such as teaching content, practical links and facility construction. To align with the growth pace of emerging industries, especially in strategic fields such as new energy, new materials, and cultural creativity, higher vocational colleges need to enhance financial support for strategic emerging fields such as new energy, new materials, and cultural creativity. This will help higher vocational colleges closely follow industry development trends. Promote the deep integration of educational content with industrial demands, cultivate more market-competitive skills for students, and drive higher vocational education towards a new stage of high-quality development. Secondly, it is crucial^[8] to build a diversified cooperation system with the government at its core. The government should take the initiative to promote the diversification of educational models and encourage higher vocational colleges to engage in in-depth collaboration with various entities such as enterprises and institutions, industry organizations, and research institutions. With government leadership and policy support, it helps to promote the exchange of resources and mutual promotion of advantages among various entities, and further expand the integration of industry and education. At this stage, Xinjiang Vocational College of Science and Information Technology must continue to improve the quality of education and teaching and the management level of the school, and enhance its internal appeal and market competitiveness. In addition, the school should fully explore and utilize its educational characteristics and advantages, integrate local industrial characteristics, build a professional and curriculum system that meets market demands, continuously improve the structure of the teaching system, and continuously optimize the quality of talent cultivation and the level of educational quality and effectiveness. Through the implementation of these measures, it can also ensure the rational allocation and continuous investment of educational funds, and through the government-led cooperation mechanism, deepen the process of industry-education integration, promote the alignment of higher vocational education with the economic demands of the new era, and cultivate more high-quality technical and skilled talents^[9-10] for society.

3.3. Promote the deep integration of industry and education and optimize the professional Settings

To promote the deep integration of industry and education, the professional system of Xinjiang Vocational College of Science and Information Technology needs to be structurally optimized and upgraded. The primary task is to establish a comprehensive and multi-level support policy system. It is necessary for the government to formulate a series of detailed and effective policy measures to promote the deep integration and close connection of the four chains of education, talent, industry and innovation. This includes increasing pre-tax deductions for enterprises' investment in vocational education, implementing fiscal support policies for enterprises participating in industry-education integration, and setting up special reward funds to recognize enterprises that have performed well and made significant contributions in industry-education integration practices. By relying on the policy guidance path, it can stimulate enterprises to increase their enthusiasm for investment in vocational education funds, encourage enterprises to participate more actively in the talent cultivation process, and at the same time the government should implement incentive measures to encourage enterprises to provide students with more abundant internship positions, job demands and skills training to ensure that the technical talents cultivated are more in line with the actual market demands^[11]. Secondly, higher vocational colleges need to take the initiative to build a close connection mechanism with enterprises to promote the development of school-enterprise cooperation to a deeper stage. They urgently need to build closer partnerships with enterprises and hold regular seminars and exchange meetings on industry trends, technological innovations and the evolution of talent demands. Through interaction with enterprises, schools can gain more precise insights into industry development trends and specific demands of enterprises, adjust and improve their professional Settings in a timely manner, and ensure that education and training programs are highly matched with industry demands. This partnership model helps schools modernize educational content and teaching methods, and is more conducive to ensuring that graduates demonstrate higher job adaptability and practical

skills when employed. In addition, the close collaboration between schools and enterprises is of great significance for promoting curriculum reform and innovation, and schools can adjust curriculum content in a timely manner based on enterprise feedback. And add new courses that are in line with industry trends. Through this industry-education integration model, this model effectively cultivates skilled talents that meet market demands, and also helps to make China's higher vocational education more in line with actual needs, providing continuous technical support and talent guarantee ^[12] for economic and social development.

3.4. Mutual employment of teachers and sharing of talent resources

Promoting the two-way flow of university teachers and enterprise experts and achieving mutual employment and utilization of teaching staff is an important way to deepen the integration of industry and education, share high-quality educational resources and improve the quality of vocational education at present. Vocational colleges can hire enterprise experts and technicians with rich practical experience, invite them to serve as visiting professors or training mentors, bring valuable practical experience and the latest technological frontier knowledge into the classroom, and provide students with teaching guidance that is more in line with the development needs of the industry.

At the same time, teachers are encouraged to actively participate in the actual work of enterprises, gain a deeper understanding of the operation processes and technical demands of enterprises through job rotation and other means, and enhance their practical abilities and teaching levels. By establishing a two-way flow model of mutual employment of teachers, we will further promote the effective connection between the education chain, the talent chain and the industrial chain, the innovation chain, and provide a strong guarantee ^[13] for the cultivation of high-quality technical and skilled talents.

3.5. Joint technology research and development to facilitate the transformation of achievements

Relying on the research strengths of universities and the market strengths of enterprises, working together on technology research and development and technology transfer is an important measure to promote industrial upgrading and innovative development.

In terms of specific cooperation methods, both sides can adopt a variety of flexible models. On the one hand, resources can be jointly invested, and joint research and development centers can be set up to focus on solving technical problems and promoting technological innovation. On the other hand, technology transfer centers can be established to assess, protect, manage and promote scientific and technological achievements, accelerating the transformation of scientific and technological achievements to the market. At the same time, the two sides can jointly apply for research projects, seek government funds and policy support, and promote the cooperation between industry, academia and research to a deeper level. Through close cooperation, it will not only help accelerate the transformation process of scientific and technological achievements, but also cultivate more high-quality talents with practical ability and innovative spirit, and inject new vitality ^[14] into industrial upgrading and economic and social development. For example, the higher vocational colleges shown in the figure below, by conducting comprehensive evaluations of graduates, current students, teachers and employers, and based on feedback and suggestions regarding industry-education integration in aspects such as curriculum construction, internships and practices, and the teaching staff, targeted measures are precisely implemented to achieve continuous improvement ^[15].

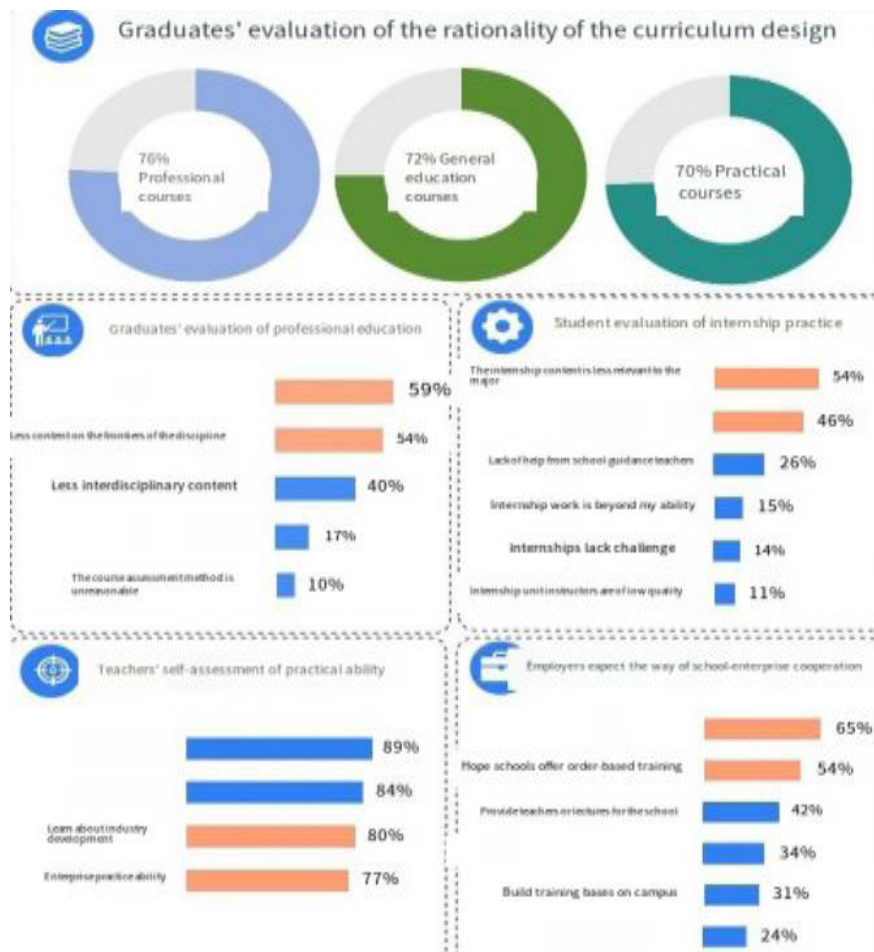


Figure 1. Five categories of survey results

The chart presents five categories of survey results:

1. Over 70% of graduates recognize the rationality of curriculum design.
2. More than half of graduates consider professional courses poorly aligned with industry needs and lacking cutting-edge content; a small number also mention insufficient interdisciplinary integration, etc.
3. Half of current students feel internship content has low relevance to their majors; some note limited hands-on practice opportunities and a lack of guidance from school instructors.
4. Most teachers self-assess as familiar with vocational standards and competent in professional training.
5. Over half of employers hope to provide internships for students and carry out order-based training with schools.

4. Conclusion

To sum up, the integration of industry and education constitutes the core approach for the development of higher vocational education, an important way to improve the quality of education, and an important catalyst for promoting social and economic development. Although China's higher vocational education has encountered many difficulties in promoting industry-education integration at present, these challenges can be gradually resolved through measures such as strengthening the unity of values, improving the financial input system and deepening school-enterprise cooperation, and achieving a deep integration of education and industry. Therefore, only by continuously deepening the integration of industry and education can higher vocational education achieve the transformation from "teaching" to "nurturing people" and inject new impetus into social and economic development.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Zhang Y, 2024, Development and Promotion Path of Industry-Education Integration Community in Higher Vocational Education. *Journal of Shijiazhuang Polytechnic College*, 36(03):15-19.
- [2] Liu Y, 2024, Analysis of Industry-Education Integration Development and Implementation Strategies in Higher Vocational Education. *Science Consultation (Educational Research)*, 2024(03):191-194.
- [3] Wang H, 2023, Research and Practice on Promoting High-Quality Development of Higher Vocational Education through Industry-Education Integration. *Vitality*, 2023(14):82-84.
- [4] Wang A, 2023, The current situation and Optimization Approaches of Industry-Education Integration in Vocational Education. *Sichuan Labor Security*, 2023(12):42-43.
- [5] Wang Q, 2023, Reform and Exploration of Innovation and Entrepreneurship Education Leading Talent Development in Higher Vocational Colleges from the Perspective of Industry-Education Integration. *Shanxi Youth*, 2023(24):145-147.
- [6] Zhang H, Xiao L, Deng Y, Yin J, 2023, Research on the Path of Higher Vocational Education Promoting Rural Talent Revitalization in the Context of Industry-Education Integration, 2023.
- [7] Zeng L, 2019, Current Situation and Countermeasures of Vocational Education Development from the Perspective of Industry-Education Integration. In *teaching*, 2019(2): 3. DOI: CNKI: SUN: LQXJ. 0.2019-02-016.
- [8] Luo R, 2017, Value Judgments, Practical Dilemmas and Path choices of Industry-Education Integration in Vocational education. *Vocational and technical education*, 2017(25): 5. DOI: 10.3969 / j.i SSN. 1008-3219.2017.25.011.
- [9] Yang J, 2021, The Value, Dilemma and Path Selection of Project-based Curriculum Implementation [J]. *Jiangsu Education*, 2021(21):5.
- [10] Liang P, 2024, Digital transformation horizon, vocational Education reform of “three religions” realistic predicament and path analysis. *Advances in Education*. DOI: 10.12677 / ae. 2024.1481570.
- [11] Li X, Li Y, 2023, Innovative Development of Industry-Education Integration in Higher Vocational Colleges from the Perspective of the “Double High Plan”: Current situation, Dilemma and Path. *South of agricultural machinery*, 54 (22): 169-172. The DOI: 10.3969 / j.i SSN. 1672-3872.2023.22.048.
- [12] Li P, 2022, Problems and Optimization Paths of Industry-Education Integration in Vocational Education. *Mei Mei (Teaching Research and Aesthetic Education)*, 2022(7):0112-0114.
- [13] Li M, 2020, The Dilemma and Path Selection of Cultivating “Craftsman” teachers in Higher vocational colleges from the Perspective of Industry-Education integration. *Journal of Fujian Institute of Education*, 21(10):3.
- [14] Imamu A, 2022, Research on Promoting High-Quality Employment of College Graduates from the Perspective of Industry-Education Integration in the New Era// *Proceedings of the Webinar on Educational Theory Research and Practice (Higher Education)*.2022.
- [15] Yao Y, 2019, Higher vocational education teaching fusion production problems and path analysis. *Journal of fujian tea*, 41 (7): 1. The DOI: CNKI: SUN: FJCA. 0.2019-07-047.

Publisher's note

Whioce Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.