

Construction of Vocational and Technical Personnel Training Mode Based on Work-Based Learning

Liu Long¹

¹ School of Health Care, Chongqing Preschool Education College, China

Correspondence: Liu Long, School of Health care, Chongqing Preschool Education College, Chongqing 404047, China.

Received: August 22, 2025; Accepted: August 31, 2025; Published: September 1, 2025

Fund project: 2023 Chongqing Vocational Education Teaching Reform Research Project "Research on the Work-Based Learning Model in Vocational Colleges" (Z233269).

Abstract

Chinas vocational education reform has introduced diverse talent development models, many of which remain unimplemented. This study investigates work-based vocational training for skilled professionals, exploring pathways to cultivate high-level technical talents in modern vocational education and supporting talent development initiatives. Using the Smart Elderly Care Services and Management program at a preschool teacher training college as a case study, we conducted longitudinal research and proposed concrete measures for school-enterprise collaboration. The findings demonstrate that work-based models significantly enhance vocational students professional competencies and employability, providing actionable references for optimizing talent development programs in vocational institutions. Future recommendations include strengthening institutional safeguards for school-enterprise partnerships, improving teachers practical teaching skills, expanding work-based models across more disciplines, and exploring integration with digital education technologies.

Keywords: vocational colleges, job-based, talent training model, school-enterprise cooperation, practical teaching, vocational ability

1. Research Background

With the development of technology and society, industrial changes are accelerating, new business forms, new technologies and new economy are emerging,

Meanwhile, intelligent technologies are subtly deepening the intrinsic connection between vocational educations talent development process and human comprehensive growth. The high-quality advancement of vocational education in this context signifies increasingly close integration with industries, enterprises, and society. Firstly, vocational education must achieve higher resonance with industrial development. High-quality vocational education requires that rapid industrial progress be promptly reflected in educational reforms. To this end, talent cultivation in vocational education must closely align with industrial trends, stay ahead of technological advancements, and form deep integration with industries. Secondly, vocational education maintains closer ties with various sectors of society. Unlike general education, vocational education emphasizes diversified educational models and talent cultivation approaches. The 2022 revised "Vocational Education Law of the Peoples Republic of China" stipulates: "Promote diversified educational models and support broad, equal participation of social forces in vocational education."

In 2019, Chinas State Council issued the "National Vocational Education Reform Implementation Plan," which explicitly states that vocational education should aim to cultivate high-quality skilled talents who integrate knowledge with practice. This sets clear standards for developing students professional skills and vocational competencies. While Chinas vocational education is currently in a phase of rapid development, several challenges persist: imbalanced investment between vocational education and social resource allocation, difficulties in student employment with low job placement rates, lack of sustainable school-enterprise collaboration mechanisms, insufficient social impact with no comprehensive student welfare system in vocational institutions, and absence of national-level quality certification standards. These issues ultimately reflect the transformation challenges in talent cultivation. How can vocational education demonstrate greater value in socioeconomic development and nurture

more talents meeting contemporary demands? Starting from the "job-based" perspective, this study explores the challenges of applying the "job-based" teaching model in modern vocational education. By addressing these fundamental questions, it aims to validate China's current emphasis on vocational education development and resolve existing systemic issues.

2. Overview of Application and Research of Job-Based Approach

When examining the theoretical development and application trends of Work-Based Learning (WBL) in vocational education, key perspectives from both domestic and international academia highlight its growing global recognition. As an educational model emphasizing practical skill development within authentic workplace environments, WBL has gained significant traction worldwide. Its core philosophy lies in integrating learning processes with real-world job scenarios, enabling students to deepen theoretical understanding through hands-on practice, enhance professional competencies, and cultivate problem-solving capabilities in real-world contexts.

From a theoretical development perspective, job-based learning originated from reflections on and innovations within traditional vocational education models. Conventional vocational education often prioritized theoretical knowledge transmission while neglecting the cultivation of students' practical operational skills and professional competencies. This educational approach has to some extent caused a disconnect between students and real-world work environments, making it difficult for them to adapt and integrate smoothly into the workplace. Job-based learning seeks to break this limitation by emphasizing task-centered learning. It enables students to acquire knowledge and skills through completing actual work tasks, thereby achieving seamless integration between academic learning and professional practice.

In European and American countries, work-based learning has become a crucial direction in vocational education talent development. Numerous scholars and practitioners have conducted in-depth research on the philosophy, implementation strategies, and effectiveness of work-based learning. For instance, studies indicate that this approach significantly enhances students' professional skills and employability while fostering innovation and teamwork capabilities. Additionally, research highlights its positive impact on cultivating students' career identity and career planning development.

In China, although the concept of work-based learning was introduced relatively late, it has received increasing attention and emphasis in recent years. Many vocational colleges have begun to integrate the concept of work-based learning into their talent development systems, providing students with more practical learning opportunities through school-enterprise cooperation and work-study integration. Meanwhile, an increasing number of scholars have started localized research on work-based learning, exploring its applicability and implementation pathways within the context of China's vocational education.

While work-based learning demonstrates significant advantages and potential in vocational education, its implementation faces multiple challenges. How can we ensure the effectiveness and safety of practical learning components? How to balance theoretical knowledge with hands-on practice? What constitutes a scientific evaluation system that comprehensively assesses student outcomes? These critical questions require systematic exploration through in-depth research and practical application.

3. Core Elements of Job-Oriented Talent Training Mode

3.1 Training Objective Design

The work-based talent development model in vocational colleges centers on designing training objectives that closely align with industry competency standards, ensuring precise and effective professional development. First and foremost, vocational education should not only impart theoretical knowledge but also cultivate students' practical operational skills, professional ethics, and comprehensive qualities essential for specific occupations.

In the design process of educational objectives, aligning with occupational competency standards is crucial. Occupational competency standards provide concrete and standardized descriptions of the skills required in a profession, covering various aspects such as professional knowledge, practical skills, and work attitudes that practitioners should possess. When formulating talent development goals for specific majors, vocational colleges must conduct thorough research and analysis of competency standards for relevant industry positions. This serves as the foundation for constructing curriculum systems, determining teaching content, selecting instructional methods, and conducting teaching evaluations.

The design of training objectives guided by vocational competency standards embodies the educational philosophy that equally emphasizes knowledge transmission and skill development. Educational research demonstrates that effective education should not only focus on knowledge acquisition but also prioritize its application and transformation—specifically, whether students can apply acquired knowledge to practical work scenarios and

solve real-world problems. Therefore, when setting training objectives, vocational colleges should prioritize strategies to help students convert theoretical knowledge into practical skills, thereby enhancing their professional adaptability and growth potential.

Furthermore, the design of educational objectives must fully consider students individual needs. Each learner possesses unique learning styles, interests, and career orientations. Vocational institutions should respect and leverage these differences to provide diverse learning pathways and development opportunities. Through personalized education, we can not only ignite students academic enthusiasm and motivation but also help them better identify and cultivate their strengths and potential, ultimately achieving higher-quality career development.

3.2 Build the Match Between Curriculum and Job Requirements

When exploring work-based vocational education models for talent development, a core element lies in crafting well-designed educational objectives. The key to this objective design is ensuring tight alignment between curriculum and job requirements. This involves developing course content that directly relates to actual workplace needs while emphasizing skill-oriented instruction. Such alignment isn't about simple duplication but requires deep analysis of job-specific skill demands. By analyzing these requirements, educators can create curricula that effectively enhance skill development through targeted content design.

As a specialized discipline studying educational processes, theories, learning psychology, and policy frameworks, pedagogy provides substantial theoretical support and practical guidance. Particularly in curriculum design and evaluation, its theoretical and practical achievements help us better understand and grasp the relationship between curricula and workplace demands. By applying professional knowledge from educational psychology, educational management, and related fields, we can more accurately analyze learners individual needs, thereby designing course content that better aligns with actual job requirements.

In aligning curriculum with workplace demands, the first step involves conducting thorough research and analysis of target positions to identify essential skills and core competencies required. This critical phase directly shapes the design direction and focus of course content. For instance, technical roles should emphasize hands-on practice and skill development, while managerial positions may require greater emphasis on theoretical learning and case-based analysis.

The second step involves designing course content based on job analysis results. In this process, we must fully apply educational curriculum design theories to ensure systematic, coherent, and hierarchical content. Simultaneously, continuous updates and optimizations of course materials are essential to adapt to evolving industry trends and job requirements. Furthermore, instructional methods and approaches during implementation are equally crucial. By adopting diverse teaching methods such as project-based learning and situational teaching, we can better stimulate students learning interest and enhance teaching effectiveness.

Finally, the evaluation and feedback mechanism plays a vital role in aligning curriculum with workplace demands. Through regular assessments and feedback, we can promptly identify the effectiveness and challenges of course implementation, enabling targeted adjustments and improvements. This dynamic optimization process helps ensure the curriculum's continuous relevance and adaptability.

3.3 Establish an Effective Mechanism for School-Enterprise Cooperation

When examining the core elements of job-based talent development models, instructional implementation methods prove particularly crucial. The establishment of school-enterprise collaborative training mechanisms, which drive corporate engagement throughout the educational process, serves as a pivotal mechanism. This framework aims to foster close cooperation between academic institutions and enterprises, enabling joint participation in the entire talent cultivation cycle. Such collaboration ultimately achieves seamless integration between education and professional development.

Establishing a school-enterprise cooperation mechanism first requires clarifying shared objectives and respective responsibilities. As educational institutions, schools primarily focus on delivering systematic theoretical education to cultivate students foundational knowledge and comprehensive skills. Enterprises, conversely, emphasize practical skill development and professional competency building. Through such collaboration, schools gain access to more practical teaching resources and insights into industry trends, enabling them to adjust curricula and methodologies to better meet real-world demands. Meanwhile, businesses can leverage academic research capabilities and talent resources to drive technological innovation and industrial upgrading.

In implementing school-enterprise cooperation, multiple approaches can be adopted. For instance, establishing joint training bases allows students to gain authentic professional environments and hands-on experience. Schools should genuinely involve industry experts in curriculum design and teaching evaluations to ensure content aligns

with occupational standards. Furthermore, collaborative projects can be launched to co-develop new products or tackle industry challenges, thereby deepening the integration of industry, academia, research, and application.

The development of school-enterprise cooperation mechanisms should emphasize long-term sustainability. Both parties need to establish regular communication channels to promptly address challenges and issues arising during collaboration. Simultaneously, continuous refinement of partnership agreements and institutional safeguards is crucial to ensure comprehensive protection of mutual interests. Furthermore, expanding cooperation dimensions and elevating collaboration tiers can be achieved through initiatives like forming industry-academia alliances or establishing education-industry integration groups.

The establishment of school-enterprise collaboration mechanisms plays a vital role in enhancing the quality of talent cultivation in vocational colleges. By deeply integrating academic education with corporate practices, institutions can develop high-caliber professionals who combine solid theoretical knowledge with exceptional practical skills, thereby better meeting the demands of socioeconomic development. Furthermore, this cooperative model drives educational reform and innovation within vocational education, elevating the sectors overall standards and social recognition.

Our research reveals that current school-enterprise collaborations and industry-academy partnerships remain superficial. Driven by profit motives, companies often neglect social responsibility and talent development. A genuine school-enterprise partnership transcends mere collaboration—it represents a comprehensive innovation in educational models. This approach requires deep integration and collaborative innovation between institutions and businesses across educational philosophies, training objectives, curricula, and teaching methodologies. By breaking down barriers between traditional education and career development, such partnerships enable optimized allocation and shared utilization of educational resources, ultimately enhancing societal education standards and human resource development efficiency.

3.4 Combine Practice with Internship

In the work-based talent development model, the integration of practical training and on-the-job internships forms one of its core teaching approaches. This organic combination of hands-on practice and corporate internships not only demonstrates vocational colleges strong emphasis on enhancing students practical skills, but also highlights the deep integration and application of educational theories in vocational education.

As a vital component of vocational education, practical training simulates real-world work scenarios to enable students to practice professional skills under instructors guidance. This approach emphasizes the seamless integration of theory and practice, allowing students to engage with future career-related operations during their studies. By doing so, it deepens their understanding of specialized knowledge and enhances technical proficiency. The training program typically comprises three progressive stages: foundational skill development, comprehensive skill application, and innovative practice, systematically guiding learners from novice practitioners to skilled operators.

However, relying solely on campus training programs is insufficient for students to fully prepare for future workplace challenges. This makes on-the-job internships – an extension and supplement to practical training – particularly crucial. On-the-job internships involve students entering real-world workplaces like companies after completing their academic studies, where they engage in full-time professional work under expert guidance. Through these internships, students gain firsthand exposure to workplace environments, stay updated with industry trends, and develop both technical expertise and comprehensive professional competencies through hands-on experience.

The integration of practical training and on-the-job internships represents an educational model that combines classroom instruction with real-world practice. This approach embodies the pedagogical principle of "unity of knowledge and action" in education, where theoretical learning and hands-on activities should reinforce each other. Through this framework, students not only acquire solid theoretical foundations but also test and consolidate their knowledge through practical application, achieving both knowledge internalization and skill enhancement.

Furthermore, the integration of practical training with on-the-job internships helps cultivate students professional competence and teamwork spirit. During hands-on training, students must strictly adhere to operational protocols and safety standards, developing meticulous work attitudes and a strong sense of responsibility. In their on-the-job internships, they learn to collaborate effectively with colleagues and complete tasks collectively, thereby enhancing both team coordination skills and interpersonal communication abilities.

It is widely recognized that integrating practical training with on-the-job internships places higher demands on vocational college instructors. Educators must not only possess solid professional knowledge and technical skills,

but also demonstrate rich practical experience and keen industry insight. Only through such comprehensive preparation can teachers effectively guide students in hands-on training and workplace immersion, ensuring they achieve genuine growth and progress during their practical engagements.

4. Conclusions

This study explores work-based vocational education models to provide practical references for optimizing talent development programs in vocational institutions. The research addresses enduring debates regarding effective knowledge delivery, skill cultivation, and fostering learners cognitive and social development. Grounded in these discussions, it emphasizes the importance of refining teaching methodologies, addressing individualized learning needs, and enhancing curriculum design with assessment mechanisms.

First, the work-based education model emphasizes the close integration of theory and practice. This approach enables students to apply their knowledge in real-world work environments, thereby enhancing their professional skills and comprehensive competencies. Through this model, vocational colleges can better meet society's demand for high-quality technical and skilled professionals, driving deeper integration between education and industry.

Secondly, this study adopts an educational psychology perspective to address students' individualized needs and learning motivations. Within the work-based education model, learners can discover their interests and strengths through practical engagement, develop self-awareness, establish clear career orientations, and build a solid foundation for their future professional development.

Third, curriculum design constitutes the cornerstone of talent development programs. This study emphasizes fully implementing the work-based approach in course design, integrating real-world industry demands into curricula to ensure seamless alignment between education and career advancement. By keeping pace with the latest industry trends and technological innovations, the program maintains its forward-looking vision and adaptability in talent cultivation.

Fourth, a diversified evaluation system should be established. This includes comprehensive assessments of students' knowledge, skills, and attitudes, as well as external indicators such as corporate satisfaction and graduate employment quality. Through scientific and thorough evaluations, we can promptly identify issues and shortcomings in talent development processes, providing solid evidence for subsequent improvements.

References

- [1] Wang, M., Jia, J., & Fu, H. (2025). Research on talent cultivation in E-commerce programs at vocational colleges based on industry-education integration community. *Quality and Market*, (5), 192-194.
- [2] Zhang, J., Xu, L., & Chen, H. (2025). Analysis on the matching between talent demand in biotechnology industry and professional program settings in vocational colleges. *China Vocational Education*, (11), 14-24.
- [3] Wang, Y., & Xian, Q. (2025). Spatial challenges and practical approaches for enhancing digital literacy of vocational college teachers in the context of building a strong education nation. *Education and Vocational*, (13), 105-112.
- [4] Huang, F. (2025). Multi-dimensional embedding mechanism and evolution path of industry-education integration in state-owned enterprises vocational colleges. *China Vocational Education*, (11), 73-83.
- [5] Liu, B. (2025). Problem diagnosis and improvement strategies for professional course teaching in vocational colleges from the perspective of classroom elements—Based on observations and analysis of 86 professional classes. *Vocational and Technical Education*, 46(17), 52-57.
- [6] Deng, X., & Zhao, Z. (2025). Current status and improvement pathways of digital literacy among vocational college teachers in the context of digital transformation. *Vocational Education*, 46(17), 64-70.
- [7] Binyenlin, & Liu, Z. (2025). The role positioning and functional realization of vocational colleges in municipal industry-education consortiums—From the perspective of integrated development of educational and technological talents. *Education and Vocational*, (11), 57-64.
- [8] Shan, Y., Gao, S., & Liu, Y. (2025). A quantitative study on the policy content of provincial vocational college evaluation—Analysis based on the PMC index model. *China Vocational Education*, (14), 90-101.
- [9] Mei, H., & Wang, J. (2025). Characteristics, challenges, and advancement strategies of vocational college teachers' development from the perspective of field theory. *Educational Theory and Practice*, 45(18), 28-32.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).