

# Exploring the Collaborative Education Model of the School-Enterprise Dual-Mentor System—Mechanism Construction and Practice under the Integration of Industry and Education in Secondary Vocational Schools

**Baolin Li**

Xianyang Qindu District Vocational Education Center, Xianyang 712000, Shaanxi, China

**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:** Secondary vocational education serves as a core base for cultivating skilled talents, and its quality directly impacts the talent supply for industrial transformation and upgrading. The school-enterprise dual-mentor system, functioning as a key carrier for deepening the integration of industry and education, achieves the deep integration of theoretical teaching and practical training through dual guidance from both “on-campus mentors” and “enterprise mentors”. Based on the orientation of secondary vocational education as “skill-oriented and employment-directed”, and considering the current implementation status of the dual-mentor system, this paper analyzes prominent issues in aspects such as the collaborative mechanism, mentor team development, support systems, and evaluation systems. From the three dimensions of collaborative mechanism construction, implementation path optimization, and support system improvement, it proposes a dual-mentor system education plan tailored for secondary vocational education, providing practical references for enhancing talent cultivation quality and promoting the deep integration of industry and education.

**Keywords:** Secondary vocational schools; School-enterprise dual-mentor system; Collaborative education; Mechanism construction; Integration of industry and education

**Online publication:** Apr 7, 2026

## 1. Introduction

Guided by policies such as the National Implementation Plan for Vocational Education Reform and the 14th Five-Year Plan for the Construction of a Modern Vocational Education System, the integration of industry and education, along with school-enterprise cooperation, has become the core direction of vocational education reform <sup>[1]</sup>. As the foundational level of vocational education, secondary vocational education undertakes the mission of cultivating technical and skilled talents with proficient operational skills and good professional qualities for the production front line. However, traditional talent cultivation models in secondary vocational

education suffer from issues such as “emphasizing theory over practice” and “disconnection between schools and enterprises”, leading to a gap between students’ skill levels and enterprise job requirements, making it difficult for them to adapt quickly to the workplace environment.

The school-enterprise dual-mentor system, through the collaborative efforts of school and enterprise mentors, extends the classroom to the production front line, integrates job standards into the teaching process, and builds a seamless bridge from “campus to post”. However, in practice, the dual-mentor system faces problems such as an unsound collaborative mechanism, ambiguous mentor responsibilities, and inadequate support measures, preventing the full realization of its educational effectiveness. Therefore, focusing on the characteristics of secondary vocational education, constructing a collaborative mechanism for the dual-mentor system and optimizing its implementation paths hold significant practical importance for solving the dilemma in talent cultivation and improving the quality of skilled talents.

## **2. Core connotation and theoretical basis of the school-enterprise dual-mentor collaborative education in secondary vocational schools**

### **2.1. Core connotation**

The collaborative education model of the school-enterprise dual-mentor system in secondary vocational schools takes “skill development and school-enterprise co-education” as its core concept <sup>[2]</sup>. Its core connotation is reflected in three aspects: First, dual-subject collaboration, where the school and enterprise act as an educational community, jointly participating in the formulation of talent cultivation schemes, curriculum development, teaching implementation, and evaluation assessment, achieving precise alignment between the education chain and the industry chain. Second, dual-mentor collaboration, where on-campus mentors focus on professional theory, professional ethics, and career planning guidance, while enterprise mentors concentrate on imparting job skills, production processes, and operational specifications, complementing each other’s advantages. Third, dual-scenario integration, using the school’s training base and the enterprise’s production workshop as teaching scenarios, allowing students to hone their skills and accumulate experience in real environments through the “on-campus training + enterprise internship” model.

### **2.2. Theoretical basis**

#### (1) Collaborative governance theory

Provides a theoretical framework for schools and enterprises to break down barriers, forming an educational pattern of “shared responsibility, shared resources, and mutual benefit” through the establishment of collaborative mechanisms and resource integration.

#### (2) Situated learning theory

Aligns with the cognitive characteristics of secondary vocational students. The on-site guidance and job experience provided by enterprise mentors offer students an immersive learning environment, promoting the rapid internalization of skills.

#### (3) Competency-based education theory

Guided by job requirements, the dual-mentor system achieves precise matching between talent cultivation and job demands through dual cultivation of “theory + practice”<sup>[3]</sup>.

### **3. Implementation status and prominent issues of the school-enterprise dual-mentor collaborative education in secondary vocational schools**

#### **3.1. Implementation status**

In recent years, secondary vocational schools have widely implemented the dual-mentor system through forms such as “order-based classes”, “modern apprenticeship systems”, and “on-campus factories”. Regarding mentor allocation, on-campus mentors are primarily professional teachers, some with enterprise practical experience; enterprise mentors are mostly technical backbones or team leaders with rich frontline experience. The cultivation model often adopts a “2 + 1” or “1.5 + 1.5” model, where students learn theory and basic skills at school in the early stage and enter the enterprise for internship in the later stage<sup>[4]</sup>.

In terms of effectiveness, the dual-mentor system has shown initial results: the average pass rate for student skill level certificates has increased by over 18%, the initial employment rate for graduates remains above 90%, and enterprise satisfaction with skills has improved by 12%. However, overall, it is still in the preliminary exploration stage and has not yet formed a mature and stable collaborative mechanism.

#### **3.2. Prominent issues**

(1) Unsound collaborative mechanism

Schools and enterprises lack regular communication, have different understandings of talent training objectives and teaching plans, and a phenomenon of “schools being enthusiastic, enterprises being cold” exists, with vague division of rights and responsibilities.

(2) Lagging mentor team construction

The proportion of “dual-qualified” teachers within schools is low, and some teachers lack enterprise practical experience; enterprise mentors “can do but cannot teach”, lacking knowledge of teaching methods and student cognitive characteristics.

(3) Weak support system

Schools face shortages of special funds, making it difficult to cover expenses such as enterprise mentor remuneration and training base construction; enterprise mentors lack incentives, limiting their investment of time and energy.

(4) Inflexible evaluation system

Student evaluation focuses on theoretical grades and on-campus performance, neglecting job skills and professional; the mentor evaluation mechanism is imperfect, lacking a guiding incentive role.

### **4. Construction of the collaborative mechanism for the school-enterprise dual-mentor system in secondary vocational schools**

#### **4.1. Organizational collaboration mechanism**

(1) Establish a collaborative education leadership group

Led by the school vice principal in charge of teaching and the enterprise human resources responsible person, to overall plan the implementation of the dual-mentor system and coordinate major issues.

(2) Set up a dual-mentor management office

Responsible for daily tasks such as mentor selection, training, and assessment, establishing an information database, and dynamically tracking work progress.

(3) Form professional teaching teams

Composed of school backbone teachers, enterprise technical experts, and industry specialists by major, to jointly carry out curriculum development and practical training teaching.

#### **4.2. Rights and responsibilities collaboration mechanism**

(1) On-campus mentor responsibilities

Responsible for theoretical teaching, ideological and political education, and academic management, assisting in formulating practical training plans, and participating in curriculum and teaching material development.

(2) Enterprise mentor responsibilities

Responsible for skill training, specification impartation, and professional cultivation, formulating personalized practical training plans, and integrating new technologies into teaching.

(3) Collaborative education responsibilities

Jointly participate in the formulation of talent cultivation schemes and teaching evaluation, regularly communicate about student situations, and jointly conduct teaching research.

#### **4.3. Resource collaboration mechanism**

(1) Sharing of teaching resources

Jointly develop curriculum resources, transforming job standards and production cases into teaching content, achieving complementary school-enterprise resources.

(2) Co-construction of training bases

Co-build “on-campus factories” and “in-plant schools”, where enterprises open production workshops and schools provide sites and equipment, ensuring practical training quality.

(3) Exchange of Talent Resources: Schools send teachers to enterprises for practical training, enterprises send technical experts to teach at schools, realizing two-way exchange of faculty.

### **5. Optimization of the implementation path for the school-enterprise dual-mentor system in secondary vocational schools**

#### **5.1. Preliminary preparation stage**

(1) Precise selection of dual mentors

Formulate management measures requiring on-campus mentors to have over 3 years of teaching experience and professional qualification certificates, prioritizing “dual-qualified” teachers; enterprise mentors need over 5 years of frontline experience and proficiency in core skills.

(2) Systematic mentor training

Establish a “two-way training” mechanism, where schools train enterprise mentors in teaching methods, and enterprises train on-campus mentors in production technology, organizing joint teaching research and teaching observations <sup>[5]</sup>.

(3) Formulate collaborative education plan

Schools and enterprises jointly clarify training objectives, curriculum systems, practical training arrangements, and evaluation standards, ensuring alignment with job requirements.

#### **5.2. Mid-term implementation stage**

(1) Phased cultivation

Adopt a “basic learning + skill enhancement + internship” model <sup>[6]</sup>. The basic stage is mainly led by on-campus mentors, the skill stage involves dual-mentor collaboration, and the internship stage is mainly led by enterprise mentors.

(2) Regular communication

Establish “online + offline” channels. On-campus mentors should visit the enterprise at least twice a month; enterprise mentors should participate in school teaching at least four times per semester.

(3) Dynamic monitoring

Establish student growth files, regularly collect feedback, adjust guidance plans, and routinely inspect mentor work.

### **5.3. Later evaluation stage**

(1) Diversified student evaluation

Construct an evaluation system of “theoretical results (30%) + skill level (50%) + professionalism (20%)”, incorporating skill certificates and internship appraisal results.

(2) Multi-dimensional mentor evaluation

Adopt “school-enterprise mutual evaluation + student evaluation + third-party evaluation”, using the results as a basis for awards and recognition.

(3) Closed-loop feedback optimization

Regularly summarize experiences, adjust mechanisms and paths, hold work summary meetings, and continuously improve quality.

## **6. Improving the support system for the implementation of the school-enterprise dual-mentor system in secondary vocational schools**

### **6.1. Financial support**

(1) School special funds

Incorporate dual-mentor system funds into the annual budget to cover expenses such as mentor remuneration and base construction.

(2) Government policy support

Strive for special funds for vocational education and industry-education integration, and provide tax reduction benefits for enterprises.

(3) School-enterprise co-construction and sharing

Share costs such as training consumables and equipment maintenance, forming a financial synergy.

### **6.2. Institutional support**

(1) Improve management systems

Formulate measures for selection, responsibilities, assessment, and incentives to ensure educational work follows rules and regulations.

(2) Establish constraint mechanisms

Sign cooperation agreements clarifying rights, obligations, and educational responsibilities to ensure continuous cooperation progress.

(3) Improve feedback mechanisms

Establish feedback channels for students, mentors, and enterprises to dynamically adjust and improve systems.

### 6.3. Incentive support

(1) On-campus mentor incentives

Incorporate guidance work into performance assessment and professional title promotion, and provide commendations and training opportunities for outstanding mentors.

(2) Enterprise mentor incentives

Implement a model of “salary subsidy + honor recognition + career development” to enhance the sense of gain from participation.

(3) Enterprise incentives

Grant the title of “School-Enterprise Cooperation Demonstration Unit” to enterprises with significant educational achievements, prioritizing project recommendations and talent referrals.

## 7. Conclusion and outlook

The core of the school-enterprise dual-mentor collaborative education in secondary vocational schools lies in constructing a long-term mechanism for “organization, rights-responsibilities, and resource” collaboration. By optimizing paths and improving support, deep integration between schools and enterprises can be achieved. Currently, it is necessary to solve problems such as the unsound collaborative mechanism and weak support. In the future, the connotation of school-enterprise cooperation should be further deepened, educational models innovated, and the core role of the dual-mentor system fully utilized. Enterprises need to actively assume educational responsibilities, forming a pattern of “school-enterprise collaboration, co-educating skilled talents”, promoting the upgrading of skilled talent cultivation from “adapting to posts” to “leading the industry”, and supplying more high-quality technical and skilled talents for the transformation and upgrading of manufacturing and the high-quality development of the real economy.

## Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Ministry of Education, National Development and Reform Commission, Ministry of Finance, 2023, Vocational Education Industry-Education Integration Empowerment Enhancement Action Implementation Plan (2023–2035).
- [2] Luo Y, 2024, Strategies for School-Enterprise Collaborative Education under the Background of Industry-Education Integration: Taking the Secondary Vocational Accounting Affairs Major as an Example. *Knowledge Economy*, 2024(7): 231–233.
- [3] Li G, 2021, Practical Exploration of School-Enterprise Cooperation in Secondary Vocational Schools under Industry-Education Integration. *Occupation*, 2021(4): 75–76.
- [4] Zhang Y, 2023, School-Enterprise Collaborative Education Strategies for Secondary Vocational Accounting Majors

under the Background of Industry-Education Integration. *Time-Honored Brand Marketing*, 2023(7): 169–172.

- [5] Ouyang H, Dai C, 2019, The Connotation, Motivation and Promotion Strategies of Industry-Education Integration. *Education and Vocation*, 2019(7): 51–56.
- [6] Zeng Y, 2018, Thoughts on Deepening School-Enterprise Cooperation to Promote Industry-Education Integration. *Journal of Huzhou Vocational and Technological College*, 16(4): 6–9.

**Publisher's note**

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