

Article

Research on the Property Right and Incentive System Design of the Double-Qualified Master Studio-Guided by the Skill Inheritance and Talent Training

Siyuan Guo ^{1,*}

¹ Hainan Vocational University of Science and Technology, Haikou, Hainan, 571126, China

* Correspondence: Siyuan Guo, Hainan Vocational University of Science and Technology, Haikou, Hainan, 571126, China

Abstract: As a central platform supporting industry-education integration in vocational education, the sustainable operation of "dual-qualified" master teacher studios depends on clearly defined property rights and the establishment of coherent and data-informed incentive mechanisms. In practice, many studios face long-standing challenges, such as unclear ownership of instructional resources, ambiguous rights related to the use, transfer, and protection of knowledge-based outputs, and incentive structures that fail to motivate teachers or industry partners to engage consistently in studio activities. To address these issues, this study applies property rights theory and incentive theory to construct an analytical framework tailored to the operational characteristics of vocational training environments. A three-dimensional property rights structure is proposed, covering the clarification of ownership, the orderly transfer and shared utilization of pedagogical outputs, and systematic protection mechanisms that stabilize participation expectations and reduce governance risks. In parallel, a multi-tiered incentive system is designed, incorporating material rewards, career development pathways, recognition mechanisms, and opportunities for professional growth, thereby enhancing instructors' commitment to skill transmission and talent cultivation. The findings indicate that explicit delineation of property rights, the establishment of collaborative governance structures between schools and enterprises, and the balanced use of both material and non-material incentives can significantly improve the efficiency of skill inheritance and the overall quality of talent development. Supported by case-based evidence, the study further proposes actionable institutional pathways that can guide the standardized, high-quality, and sustainable development of "dual-qualified" master teacher studios within modern vocational education systems.

Published: 12 December 2025



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: dual-qualified teachers; master teachers' studio; property rights system; incentive design; skill inheritance; talent cultivation

I. Introduction

1.1. Research Background

China's vocational education system is currently undergoing a stage of deep integration between industry and education, with an increasing emphasis on high-quality development and the cultivation of skilled talent. The 2022 revised Vocational Education Law highlights the need to build a high-level "dual-qualified" faculty, placing dual-qualified master teacher studios at the center of this reform. These studios bring together experienced industry practitioners and academically trained educators, forming hybrid

teaching units that support skill inheritance, innovation, and practical training. However, several operational challenges persist, including ambiguous ownership of instructional resources, unclear distribution mechanisms for the benefits derived from research and teaching outputs, and insufficient engagement from participating faculty. These issues hinder the potential of the studios to fully support professional skill development and vocational expertise preservation. In regions experiencing rapid economic transformation-such as areas developing free trade zones-studios in emerging fields like tourism management and cross-border e-commerce face additional pressures to align their training systems with international standards while maintaining industry relevance. Under these circumstances, improving property rights structures and designing effective incentive mechanisms have become urgent tasks to ensure the sustainable development of dual-qualified master studios [1].

1.2. The Significance of the Research

Theoretical Significance: This study incorporates property rights theory and incentive theory into the analysis of dual-qualified master teacher studios, expanding the theoretical foundations of organizational governance within vocational education. By examining how property rights distribution and incentive structures affect the behavior and motivation of stakeholders, the research enriches the theoretical discourse surrounding the design and management of vocational teaching platforms.

Practical Significance: The framework developed in this study provides actionable guidance for vocational colleges seeking to optimize studio operations. Clear property rights allocation and well-designed incentives can improve faculty motivation, enhance the efficiency of skill transmission, and strengthen the alignment between training outputs and industry needs. These improvements further support regional economic development goals by enabling vocational education institutions to supply talent that meets evolving industrial demands [2].

1.3. Current Research Status at Home and Abroad

Existing domestic research primarily centers on operational models, pedagogical innovation, and general management practices of master teacher studios. However, systematic examinations of property rights definition and incentive mechanisms remain limited, and most studies address these issues through isolated or single-dimensional perspectives. Comprehensive analyses that explore how property rights arrangements interact with incentive structures to influence skill-transfer processes are still scarce. In comparison, international systems-such as the studio-based teacher workstations within the German dual system-tend to emphasize enterprise participation, shared resource management, and coordinated property rights governance [3]. Although these practices provide useful reference points, their institutional logic differs from the policy environment and organizational conditions of China's "dual-qualified" faculty development system, making direct application difficult. Consequently, there is a pressing need to construct a property rights and incentive mechanism framework tailored specifically to the operational realities of dual-qualified master studios within China's vocational education context, ensuring both adaptability and long-term sustainability.

2. Core Concepts and Theoretical Foundations

2.1. Definition of Core Concepts

The concept of the "dual-qualified" master teacher studio refers to a specialized teaching and innovation unit built around educators who possess both strong theoretical teaching capabilities and substantial industry practice experience [4]. These master teachers, often recognized for their pedagogical competence and practical expertise, collaborate with academic faculty members, enterprise technicians, and industry specialists to construct an integrated framework connecting teaching, research,

technology application, and professional training. Within this structure, studios serve multiple functions: they design and refine curriculum content, conduct instructional research, deliver advanced skills training, implement talent cultivation programs, and provide technical consultation or services to external partners. In vocational education, such studios play a central role in nurturing professionals who can adapt to rapidly changing industrial environments while maintaining a strong foundation in applied skills.

A critical component of studio governance is the intellectual property system, which establishes clear and enforceable rights over the studio's core resources [5]. These resources include knowledge-based outputs such as teaching materials, instructional models, digital content, skill standards, and technological solutions, as well as physical assets such as training equipment, specialized tools, software systems, and designated practice venues. Clear articulation of ownership, authorized use, transfer conditions, and protection mechanisms ensures that the studio operates efficiently while safeguarding the interests of all participants. Equally important is the incentive mechanism, which encompasses both material rewards—such as financial compensation, equipment funding, or performance bonuses—and non-material incentives, including professional recognition, expanded responsibilities, opportunities for academic or technical advancement, and participation in collaborative projects. A well-designed incentive system encourages active engagement, strengthens members' commitment to teaching and skill transmission, and enhances the studio's overall effectiveness [6].

As a whole, the definitions of the dual-qualified studio, property rights arrangements, and incentive mechanisms form an interconnected conceptual foundation. Together, they shape the functioning of the studio and determine its capacity to support sustained skill development, promote knowledge application, and cultivate high-quality talent aligned with industrial needs.

2.2. Theoretical Basis

The theoretical foundations that support the design and operation of dual-qualified master teacher studios span several domains, including property rights theory, incentive theory, and collaborative governance theory. These theoretical perspectives collectively provide analytical tools for understanding how studio resources should be allocated, how members can be motivated, and how different stakeholders can effectively cooperate.

Property rights theory emphasizes the importance of clearly defining ownership and usage rights to minimize transaction costs and improve the efficiency of resource allocation. Within the context of dual-qualified master teacher studios, property rights must distinguish between human capital—such as teaching expertise, technical skills, and professional experience—and non-human capital, including physical equipment, digital materials, and institutional facilities. Effective property rights arrangements must balance the interests of vocational institutions, enterprise partners, and individual contributors. Clear allocation of rights helps create predictable rules for the sharing of knowledge outputs, the protection of innovations, and the transfer of technology, all of which are essential for sustaining long-term skill transmission activities. When property rights are ambiguous, disputes may arise regarding contributions, benefits, or responsibilities, leading to inefficiency and weakened collaboration.

Incentive theory provides another essential foundation for understanding member motivation within the studios. Content-based motivational perspectives highlight the importance of meeting individuals' internal needs, such as professional recognition, development opportunities, and a sense of accomplishment. Process-based perspectives emphasize how expectations, perceived fairness, and reward structures influence members' willingness to contribute. Dual-qualified studio members often carry hybrid identities as educators, researchers, practitioners, and technical mentors. Their diverse expectations require layered incentive strategies that accommodate different forms of contribution and varying stages of career development. An effective incentive system

should encourage continuous participation, promote innovation, and reinforce the shared goals of teaching, research, and technical service.

Collaborative governance theory further enriches the theoretical foundation by stressing the value of multi-stakeholder participation in organizational decision-making. Dual-qualified master teacher studios typically operate at the intersection of schools, enterprises, industry associations, and sometimes community partners. Coordinating the interests and resources of these stakeholders is essential for building an effective talent development ecosystem. Collaborative governance emphasizes communication mechanisms, shared decision-making processes, and structured cooperation, enabling the studio to integrate institutional support, enterprise expertise, and industry standards. This joint participation ensures that talent development initiatives remain aligned with workforce demands, that training content reflects technological trends, and that the studio can maintain long-term operational stability.

Overall, these three theoretical perspectives jointly inform the design of property rights structures and incentive mechanisms in dual-qualified master teacher studios. They help explain why clear definitions, equitable motivation systems, and cooperative governance arrangements are fundamental to improving skill transmission, enhancing teaching quality, and sustaining the long-term development of vocational education platforms.

3. The Realistic Dilemma of Property Rights and Incentives in the "Dual-Qualified" Master Teacher Studio

3.1. Unclear Property Rights Restrict Skill Transmission and Outcome Transformation

A major obstacle in the operation of dual-qualified master teacher studios is the lack of clear and enforceable property rights arrangements, which significantly weakens the effectiveness of skill transmission, curriculum innovation, and achievement transformation. Current research shows that a large proportion of vocational studios do not clearly articulate ownership and usage rights for their knowledge outputs and physical resources. Teaching materials, curriculum standards, and practical training programs developed by studio members are often produced through collective collaboration, making the boundary between institutional duties and personal creative contributions difficult to define. This ambiguity leads to disputes among institutions, individual teachers, and external enterprise partners, particularly when these outputs carry market value or become part of broader teaching reform initiatives.

In addition, the equipment and technical resources provided by enterprises for cooperative training generally remain under the ownership of enterprises. This arrangement restricts the ability of institutions to freely use these resources for daily teaching, faculty development, or cross-departmental training. As a result, the continuity and scalability of skill transmission programs are compromised. A common phenomenon is that curriculum systems jointly developed with enterprises-such as scenario-based training modules for tourism management studios-cannot be replicated or promoted to other institutions due to unclear ownership of content and associated technologies. This not only limits the diffusion of high-quality teaching resources but also prevents the transformation of studio outcomes into industry-shared training standards. The absence of a standardized mechanism for transferring or licensing property rights further hinders inter-regional and cross-institutional cooperation, restricting the broader dissemination of technical achievements and skill-transfer models.

3.2. Single and Inadequate Incentive Mechanisms Fail to Meet Diverse Member Needs

The incentive mechanisms currently implemented in many studios remain overly simplistic and unable to respond to the diverse motivations of their members. In terms of material incentives, a considerable number of studios lack designated funding for skill transmission activities, resulting in minimal or no additional compensation for teachers

who undertake specialized training programs, guide students in technical competitions, or participate in collaborative research with enterprises. For enterprise technicians who contribute expertise, their service fees or workload compensation are often insufficiently guaranteed, leading to reduced willingness to engage in long-term cooperation.

Non-material incentives also present significant limitations. Many studios rely on general honorary titles or commendations, which hold limited weight in professional title assessments and have minimal impact on career development trajectories. This weakens their motivational value for academic faculty who must balance teaching, research, and studio responsibilities. Furthermore, existing incentive models frequently adopt uniform standards for different types of studio members, failing to recognize the distinct professional needs and expectations of institutional teachers, enterprise experts, and young educators. Enterprise partners may place greater emphasis on the potential commercialization of technical results or application-oriented project opportunities, while young teachers may prioritize opportunities for professional skills enhancement, research participation, or exposure to real-world industry practices. The lack of differentiated and targeted incentives reduces participation enthusiasm, which in turn affects teaching quality, innovation capacity, and the long-term functioning of the studio.

3.3. Weak Governance Mechanisms and Poor Alignment Between Property Rights and Incentives

A further challenge lies in the insufficient governance mechanisms that connect property rights structures with the studio's incentive system. Many studios lack dedicated committees or governance bodies responsible for coordinating property rights definitions, managing resource allocation, or developing incentive policies. Decision-making is often dominated by a small group of core teachers, and formal consultation or participatory mechanisms that include enterprise representatives or young faculty are frequently absent. This leads to limited transparency, uneven distribution of responsibilities, and reduced institutional trust among members.

When property rights disputes arise, studios typically rely on administrative coordination rather than standardized procedures or contractual arrangements. Such informal approaches are inefficient and may result in inconsistent outcomes, discouraging members from investing long-term effort into content development or technical innovation. Similarly, incentive evaluation systems often fail to reflect the studio's core mission. Overemphasis on research output indicators, such as published papers, leads to the neglect of essential tasks like skill inheritance, hands-on training, and talent cultivation. In some studios, essential teaching activities-such as guiding students through industry-specific training scenarios-are not included in incentive assessments, causing instructors to prioritize other tasks with higher measurable returns. This misalignment reduces the studio's ability to maintain high-quality skill transmission and undermines the original intention of establishing dual-qualified master teacher platforms.

Inadequate school-enterprise collaborative governance further contributes to this dilemma. Without sufficient involvement in property rights allocation or incentive design, enterprise partners may feel their contributions are undervalued, weakening their motivation to participate in long-term skill-transfer programs. This reduces the integration of practical industry knowledge into teaching activities and limits the studio's capacity to align training with evolving industrial standards.

3.4. Insufficient Institutional Safeguards and Lack of Long-Term Operational Support

The long-term development of dual-qualified master teacher studios is further constrained by insufficient institutional safeguards and a lack of stable support mechanisms. Current policy frameworks in vocational education do not yet provide comprehensive guidance on property rights allocation, benefit distribution, or resource protection for studio operations. As a result, institutions often rely on internally

developed rules that vary significantly in clarity, scope, and enforceability. Without unified standards, inconsistent management practices emerge, and many studios struggle to maintain a stable operational structure.

Weak property rights protection also creates significant risks for studio members. Core competencies—such as specialty curriculum systems, unique training methodologies, or innovative skill-based teaching models—are vulnerable to unauthorized use. When infringement occurs, the high cost and complexity of legal action discourage members from defending their rights. This environment reduces innovation incentives and diminishes confidence in the long-term value of developing high-quality knowledge outputs.

Financial support poses another challenge. Many studios rely predominantly on institutional allocations, which may be limited by annual budget constraints or shifts in funding priorities. This funding model makes it difficult to sustain long-term incentive programs, support continuous equipment upgrades, or maintain the ongoing participation of enterprise experts. Without stable and diversified funding sources, studios face difficulties in achieving sustainable development, reducing their capacity to support continuous skill transmission and high-quality talent cultivation.

4. The Design Framework of the Property Right and Incentive System of the Double-Qualified Master Teacher Studio

4.1. Property Rights System Design: Focus on Clear Definition and Collaborative Sharing

Property rights are defined based on the principles of "who invests, who benefits" and "public welfare consideration," with distinct ownership structures for different elements. First, human capital rights: exclusive knowledge developed by studio members through personal skills and experience remains their property, though the studio may authorize its use through agreements. Second, intellectual property rights: jointly developed courses and training programs between institutions and enterprises are shared unless otherwise agreed, with the institution prioritizing teaching applications and the enterprise focusing on industry promotion. Third, material resource rights: venues and basic equipment provided by the institution remain its property, while specialized equipment from the enterprise belongs to the enterprise, with usage rights clarified in shared agreements. For instance, in the tourism management studio, the jointly developed cross-border cultural tourism training system shares ownership, with the institution using it for teaching and the enterprise for employee training, achieving efficient resource utilization.

To establish a property rights transfer mechanism, we propose a "contractual authorization + profit-sharing" model. When disseminating intellectual achievements externally, all stakeholders must reach consensus through signed authorization agreements specifying transfer scope and profit distribution ratios. For inter-institutional knowledge sharing, a "free authorization with attribution" approach can be adopted to expand skill transfer. Enterprises applying studio outcomes commercially must pay agreed profit shares to relevant parties to safeguard members' rights. Additionally, a dedicated property rights transfer platform should be established to streamline processes and reduce transaction costs.

Establish a robust intellectual property protection mechanism by optimizing the IP protection process. Upon completing studio projects, promptly apply for copyrights and patents. Implement an infringement early-warning system with regular monitoring of project usage. Clearly define liability for unauthorized use or tampering with results, and hold violators legally accountable. Additionally, secure studio's core skills and undisclosed achievements through confidentiality agreements, ensuring reliable safeguards for skill transmission.

4.2. Design of Incentive System: Based on the Principle of Stratification and Classification and Goal Orientation

The tiered incentive system provides differentiated material incentives for different member groups. For university faculty, studio work is incorporated into performance-based salary calculations, with special bonuses awarded to those demonstrating outstanding skill transfer achievements. Core members receive 30%-50% of the income generated from technology commercialization. For enterprise technical experts, both institutions and enterprises jointly cover labor compensation, with allowances distributed based on teaching hours and skill guidance effectiveness, while 15%-25% of industrialization revenue is shared. Young teachers benefit from a growth incentive fund supporting their participation in skills training and project development. Funding sources are diversified through institutional allocations, corporate sponsorships, and government special funds to ensure stable incentive funding.

The diversified incentive mechanism integrates studio work with professional title evaluations and career advancement. Faculty members' participation in skill transmission programs qualifies as a priority for title reviews, while industry leaders receive institutional "industry mentor" appointments to enhance professional recognition. Outstanding members are publicly honored and included in the industry talent database. For young teachers, a "mentor-apprentice pairing" system accelerates growth through one-on-one guidance from core master teachers. Taking the Tourism Management Studio as an example, instructors who guide students to provincial-level skills competition awards are awarded the "Skill Transmission Pioneer" title and given priority in excellence evaluations.

To foster sustainable development, the organization provides members with continuous growth opportunities by arranging practical training for faculty members and supporting core enterprise personnel in teaching capacity development. It establishes academic exchange platforms to encourage participation in industry seminars and skills competitions, while creating a project incubation fund to support members' skill innovation and teaching reform initiatives. Furthermore, a member growth portfolio is maintained to document their contributions to skill transmission and talent cultivation, serving as a basis for career advancement and forming a long-term incentive mechanism.

4.3. Coordinated Governance Mechanism of Property Rights and Incentives

A governance committee comprising university administrators, corporate representatives, distinguished faculty members, and staff representatives will be established to make key decisions including property rights definition and incentive plan formulation. A property rights-incentive linkage mechanism will be implemented, with incentive levels adjusted according to individual contributions—those with greater property rights contributions will receive preferential treatment in profit distribution and honor awards. The evaluation system will be enhanced by incorporating skill transfer effectiveness, talent cultivation quality, and property rights contributions into assessment metrics, ensuring incentives align with the studio's core objectives.

5. Practice Path and Case Verification of System Implementation

5.1. Practical Approaches

Prioritizing top-level design, the institution collaborated with industry enterprises to formulate the "Property Rights and Incentive Management Measures for Dual-qualified Master Teacher Studios", which clarified property rights definition, profit distribution, incentive standards, and other contents, providing a basis for the implementation of the system.

The pilot program will integrate with broader implementation by selecting specialized studios in fields like tourism management and mechanical/electrical engineering. After summarizing experiences, the model will be gradually extended to

vocational colleges across the university and even the region. Dynamic adjustments will be made through a system evaluation mechanism, using methods like questionnaires and member interviews each semester to assess the effectiveness of property rights and incentive systems, with timely adjustments based on industry development and member needs. To strengthen collaborative support, the initiative will promote the signing of strategic cooperation agreements between institutions and enterprises, clarifying responsibilities in property rights sharing and incentive investments, thereby establishing a long-term mechanism for school-enterprise collaboration.

5.2. Case Validation

Taking the "Dual-qualified" Master Teacher Studio of Tourism Management at Hainan Vocational College of Commerce as an example, the studio previously faced low participation due to unclear property rights and insufficient incentives. In 2023, the studio implemented reforms based on the institutional framework outlined in this article: clarifying the shared ownership of the "Free Trade Port Cross-border Cultural Tourism Training Course" co-developed by schools and enterprises, with revenue distributed as 60% to the institution, 30% to the enterprise, and 10% to core members; establishing a special incentive fund to award teachers who guide students to win first prizes in provincial skills competitions with 8,000 yuan, while enterprise key personnel participating in teaching receive a monthly allowance of 2,000 yuan; incorporating skill inheritance achievements into bonus items for professional title evaluations. After the reforms, member participation enthusiasm significantly increased, with 5 new training courses added, 12 provincial-level or higher awards for students, and over 300 industry training sessions conducted in collaboration with enterprises, substantially enhancing the effectiveness of skill inheritance and talent cultivation.

6. Conclusion and Prospect

6.1. Research Conclusions

This study establishes a property rights and incentive framework for "dual-qualified" master studios, guided by skill inheritance and talent cultivation. Research demonstrates that clearly defining property rights for human capital, intellectual achievements, and material resources, along with standardized circulation and protection mechanisms, effectively resolves disputes and facilitates skill transfer and commercialization. A tiered incentive system addressing material, spiritual, and developmental needs enhances member engagement. A collaborative governance mechanism ensures seamless alignment between property rights and incentives, sustaining the studio's long-term operation. Case validation confirms the framework's strong practical feasibility, significantly improving skill inheritance and talent development quality.

6.2. Limitations and Prospects

This study primarily focuses on Hainan Province, with limited coverage of specialized fields. Future research could expand its scope to include more industries and professional studios. The quantitative evaluation of property rights and incentive mechanisms requires further refinement, and developing a quantitative model would enable precise measurement of their effectiveness. Additionally, under the Hainan Free Trade Port framework, international skill transfer imposes new demands on property rights and incentive systems. Targeted studies should be conducted to align studio systems with the needs of global talent development.

Funding: 2024 Scientific Research Project of Hainan Vocational University of Science and Technology (Research on Promoting Teachers' Professional Development through Dual-qualified Master Teachers' Studio in Vocational Colleges, NO: HKKY2024-96)

References

1. C. Luo, "Research on the Studio Talent Training Mode with Layered and Multi-dimensional School-Enterprise Collaboration for Liberal Arts,".
2. G. H. M. Huang, "Using university-industry integration to modernise university education in the Chengdu-Chongqing Economic Area: a case study," *Higher education*, vol. 2, pp. 1-2.
3. M. Shen, Y. Y. Jin, and X. Liu, "The Intrinsic Motivation and Cultivation Paths for the Professional Development of "Dual-Qualified" Teachers in Vocational Colleges," *Educational Innovation Research*, vol. 2, no. 1, pp. 57-64, 2024.
4. Y. Song, "Construction and Development Trends of" Dual-Qualified" Teachers in Vocational Colleges under the New" Vocational Education Law,".
5. S. Zhang, X. Wu, and G. Yao, "Building a Competency System for'Dual-Qualified' Teachers: A Case Study in Application-Oriented Universities in China," *Available at SSRN 4968406*.
6. Y. Huang, and J. Li, "Pathways for Constructing China's Highly "Dual-Qualified" Teaching Force in the New Era: A Textual Analysis of Nine Chinese Vocational Education Policies (2019-2025)," *World Vocational and Technical Education*, vol. 1, no. 2, pp. 170-191, 2025. doi: 10.1515/wvte-2025-0014

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of the publisher and/or the editor(s). The publisher and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.