

Research on the Construction of High-level Productive Training Base for Art and Design Majors in Higher Vocational Colleges Under the Perspective of Shared Development

Yingyan Guo¹ Lingyun Yang²

¹ Polus International College, Chengdu, China

² Urban Vocational College of Sichuan, Chengdu, China

¹Corresponding author. Email: yingyan.guo@polus.edu.cn

ABSTRACT

The development of high-level productive training bases for art and design majors in higher vocational education serves as a crucial initiative to adapt to industrial upgrading and enhance the quality of applied talent cultivation. Grounded in the collaborative logic of shared development and industry-education integration, this paper constructs a theoretical model for building high-level productive training bases by focusing on four key elements: goal orientation, interest balance, resource integration, and sustainable development. Building upon this framework, it innovatively proposes strategies for developing high-quality, sustainably growing productive training bases tailored to the operational characteristics of art and design majors in vocational colleges, while analyzing current practices in practical training base construction.

Keywords: Shared development, Higher vocational education, Art and design major, Productive training base, Construction strategy.

1. INTRODUCTION

To thoroughly implement the guiding principles of the 20th CPC National Congress and the strategic plans for vocational education set by the CPC Central Committee and the State Council, while aligning with the requirements of the "New Double High" initiative, it has become imperative for higher vocational colleges to comprehensively enhance their social service capabilities. This effort will support enterprises in achieving transformation and rapid development through establishing high-level, specialized, and innovative production-oriented training bases that serve as radiating and leading models.

As a crucial platform for cultivating applied art and design professionals, vocational art and design programs place significant emphasis on practical training components that shape students' career competencies. High-quality industry-aligned training bases have become pivotal in enhancing talent development quality within these programs.

However, current challenges persist in base construction, including inadequate resource sharing, limited coverage, insufficient foresight, shallow industry collaboration, and unsustainable school-enterprise partnerships [1]. The resource-sharing philosophy emphasizes rational allocation and efficient utilization of resources. Applying this principle to develop advanced training bases enables comprehensive resource integration, creating a win-win scenario for educational institutions, enterprises, and students. This approach lays a solid foundation for nurturing innovative and application-oriented art and design talents.

2. THE CONNECTION BETWEEN THE CONCEPT OF SHARED DEVELOPMENT AND THE CONCEPT OF INDUSTRY-EDUCATION INTEGRATION

Shared development is the essential requirement of socialism with Chinese characteristics, emphasizing balanced resource allocation, collaborative participation of multiple stakeholders, and the construction of a community of shared interests. Its core lies in achieving "co-construction, co-governance, and shared benefits" through institutional design. As a deep integration mechanism between educational systems and industrial systems, industry-education integration equally emphasizes collaborative cooperation among diverse entities and resource consolidation. The theory of shared development calls for breaking down barriers of traditional education or industries by integrating educational, industrial, and innovation chains through policy guidance and platform development. Shared development stresses fairness in benefit distribution, while industry-education integration fosters enterprise involvement in talent cultivation and technological innovation through mechanisms like school-enterprise collaborative education and commercialization of research achievements, thereby forming a shared-interest framework. The internal logic of both concepts is highly compatible. The philosophy of shared development provides broader perspectives and approaches for industry-education integration, facilitating optimized allocation and utilization of educational resources; conversely, industry-education integration offers concrete practical pathways and platforms for implementing this philosophy in the education sector.

3. ANALYSIS OF ELEMENTS OF HIGH-LEVEL PRODUCTIVE TRAINING BASE CONSTRUCTION UNDER THE PERSPECTIVE OF SHARED DEVELOPMENT

3.1 The Concept of High-level Productive Training Base

Guided by the principles of shared development and industry-education integration, high-level productive training bases in vocational colleges are comprehensive practical education platforms established through deep collaboration between

schools and enterprises. These bases aim to serve regional industrial upgrading and technological innovation, featuring industry-leading equipment and integrating teaching, production, R&D, and service functions to achieve seamless alignment between talent cultivation and industrial demands while supporting regional economic growth. Oriented towards cultivating students' professional skills and meeting industrial development needs, these bases incorporate advanced industrial technologies, processes, and workflows into practical training, creating a platform where learning closely connects with real-world production practices.

3.2 Analysis of the Core Elements of High-level Productive Training Base Construction

Under the guidance of the concept of shared development and the theory of industry-education integration, the core of the construction of high-level productive training base is to build a community with a shared future between schools and enterprises and create a platform for deep integration of industry and education. The core construction elements can be summarized as the following aspects.

First and foremost, goal orientation forms the cornerstone of development. High-level productive training bases should aim to integrate three interconnected chains: talent cultivation, technological innovation, and social services. The talent cultivation chain requires both schools and enterprises to adopt an employment-oriented approach, achieving close alignment between educational content and corporate needs through curriculum co-construction and real-world project training, thereby enhancing students' employability. Technological innovation encourages collaboration between industry experts and academic faculty to develop and implement practical solutions through production training, driving technological advancement and application. Social services necessitate school-enterprise partnerships to transform teaching achievements into community-oriented skill development programs and public welfare initiatives. Through student participation, these efforts not only elevate regional skill proficiency but also feed back into education systems, ultimately improving the quality of talent cultivation.

Secondly, balancing interests is crucial for maintaining stability in school-enterprise

collaborations. A reasonable profit-sharing mechanism with risk-sharing arrangements, along with long-term strategic agreements and trust-building processes, serve as fundamental safeguards for stable partnerships. Furthermore, effective communication channels and conflict resolution mechanisms form essential components that ensure smooth implementation of collaborative initiatives.

Thirdly, resource integration constitutes a vital component in establishing university-enterprise collaborative bases. This encompasses the joint development and sharing of hardware resources, as well as human resource exchanges and cooperation. It also involves building information platforms to ensure data interoperability and creating project incubation platforms. Furthermore, resource integration should focus on aligning teaching cycles with production cycles, while leveraging complementary strengths between educational institutions and enterprises.

Ultimately, sustainable development serves as the long-term objective for training base construction. This concept requires innovation in operational models, policy support, dynamic evaluation and iterative optimization, as well as integration of school-enterprise cultures. With government incentives in place, institutions should proactively explore innovative collaboration models like industry-academia-research-application integration and industrial colleges. They should actively seek various special funds, conduct real-time assessments and iterative optimizations of cooperation outcomes, and promote sustainable development through cultural integration initiatives such as joint brand building.

4. CURRENT SITUATION AND STRATEGIES OF HIGH-LEVEL PRODUCTIVE TRAINING BASE CONSTRUCTION FOR ART AND DESIGN MAJORS IN HIGHER VOCATIONAL COLLEGES

4.1 The Construction Status of Production Training Bases for Art and Design Majors in Higher Vocational Colleges

In recent years, vocational colleges have prioritized developing practical training bases for art and design disciplines. They've increased funding, purchased cutting-edge equipment, and established both on-campus workshops and off-

campus internship sites. While these facilities have been upgraded, they still can't keep pace with the rapidly evolving demands of modern art design industries. For instance, many institutions struggle to update their training equipment and software to match AI advancements, leaving students struggling to master emerging technologies. Additionally, some programs lack deep industry partnerships and real-world project development. Practical teaching remains confined to lab experiments, virtual project designs, and graduation projects – a situation plagued by "market-disconnected creativity, fragmented resources, and short-term collaborations." The absence of scientific management systems and robust support mechanisms further undermines the efficiency and effectiveness of these training bases.

4.2 Construction Strategies of Productive Training Bases for Art and Design Majors in Higher Vocational Colleges

To overcome the challenges in traditional practical teaching of art and design majors at vocational colleges, these programs should adopt shared development as their guiding principle. Focusing on four core elements—goal-oriented approaches, interest balance, resource integration, and sustainable growth—they must also highlight the creative, socially relevant, and technology-evolving nature of artistic and design practices. This approach will facilitate the establishment of high-level production-oriented training bases. Specific strategies include:

4.2.1 Clarifying the Goal Orientation, Adhering to the Industrial Demand and Talent Training as the Core

In response to the distinctive characteristics of art and design disciplines, the development of practical training bases should prioritize cultivating innovative and practice-oriented professionals. Through close collaboration with enterprises, we jointly develop curriculum systems, teaching content, and evaluation standards to ensure educational content closely aligns with industry demands. By establishing a dynamic "professional cluster-industrial chain" matching mechanism, we create a practical teaching model integrating "project studios + corporate mentors + collaborative learning between teachers and students", achieving seamless integration between education and production.

To address the need for "cultivating personalized creative abilities" among art and design students, the training base should establish a three-tier progressive system: "basic skills training-comprehensive project practice-innovation and entrepreneurship incubation". For junior students, the focus shifts to software operation and foundational craft training. Senior students primarily engage in real-world enterprise project development at the base, while during graduation, they achieve practical outcomes through campus-based entrepreneurial incubation platforms. This tiered practical teaching system trains professional skills, fosters innovative thinking, and enhances students' employability and entrepreneurial capabilities.

4.2.2 Balance of Interests, Building a Multi-dimensional Collaborative Governance Mechanism with Reasonable Profit Distribution and Risk Sharing

To avoid the conflict between "profit-seeking" and "public welfare of education", the construction of high-level productive training base first needs to establish a reasonable benefit distribution and risk sharing mechanism [2-3], so as to ensure that both schools and enterprises can achieve win-win results in the process of cooperation.

Schools and enterprises can establish long-term strategic cooperation agreements through contractual partnerships, clearly defining mutual rights and obligations while specifying profit-sharing mechanisms and intellectual property rights to ensure balanced interests. By establishing trust-building practices such as regular communication and transparent management, both parties can strengthen their confidence in collaboration and maintain stable cooperative expectations.

To ensure the stability and longevity of school-enterprise partnerships, both parties may jointly establish a risk fund to address potential risks such as market fluctuations and technological updates. For instance, implementing a "corporate reinvestment + market-oriented operation" funding model could be adopted. This approach would involve retaining a percentage of profits from commercial design projects at the training base for equipment upgrades, ensuring that technical infrastructure stays aligned with industry advancements.

4.2.3 Resource Integration and Optimization to Build a Shared Ecological Network

In the development of high-level productive training bases for art and design majors in vocational colleges, resource integration stands as a pivotal strategy. By implementing three-dimensional resource coordination encompassing "campus-based, regional, and industry-education" approaches, we achieve resource sharing, collaborative platform development, and coordinated optimization. This creates an industry-education shared ecosystem that fosters mutually beneficial growth through synergistic efforts.

Resource sharing covers two core parts: hardware resources and human resources. For the resource integration of high-level productive training bases, it is necessary to promote it from three key dimensions: school coordination, regional coordination and industry-education coordination.

In terms of internal collaboration, universities should closely align with industry demands to dynamically form specialized clusters. By breaking down barriers between departments and disciplines, institutions need to comprehensively assess and deeply integrate existing resources such as faculty teams, practical training facilities, and campus spaces. Building on this foundation, schools should strategically plan practical teaching for art and design programs, fully leverage collaborative advantages, and achieve efficient sharing of faculty expertise and equipment resources. This approach establishes a solid foundation for enhancing the quality of hands-on education.

From a regional collaboration perspective, vocational colleges within the same area can strengthen cooperation and exchanges to establish an art and design vocational education alliance. This alliance will facilitate interconnected access and shared utilization of practical training resources among institutions, enabling broader and higher-level resource sharing with complementary advantages. Furthermore, the alliance can pool high-quality teaching faculty from multiple schools to form innovative teaching teams such as "virtual teaching research rooms". Through cloud-based platforms, these teams can collaboratively develop modular courses and conduct project rotation training programs. This approach promotes flexible mobility and staggered deployment of top-tier educators, thereby enriching teaching resources and enhancing the quality of practical education.

In the dimension of industry-education collaboration, schools should establish close and in-depth cooperative relationships with governments, enterprises, industry associations, and other stakeholders. By jointly building productive training bases and sharing faculty resources, they can achieve resource sharing in equipment, technology, and teaching staff [5]. Regarding hardware resources, the co-construction and sharing model not only effectively reduces construction costs and maintenance expenses but also significantly improves resource utilization efficiency, enabling optimal allocation of resources. For human resources, schools can collaborate with enterprises to establish dynamic faculty databases and partner with industry associations to create "project-based faculty deployment centers". By leveraging the rich technical resources of design industry associations' member organizations and aligning with specific technical requirements of training projects, schools can precisely match designer resources. This establishes a three-tier faculty support system encompassing "basic instruction-project guidance-technical breakthroughs", providing comprehensive and multi-level guidance and support for cultivating students' practical skills.

Furthermore, establishing information and project platforms serves as a pivotal strategy for resource integration. By creating shared data hubs, universities and enterprises can efficiently exchange industry trends, market intelligence, and technological advancements, providing robust informational support for educational initiatives and practical training. The project platform facilitates data interoperability and incubation of innovative projects, driving deep integration and collaborative development across industry, academia, research, and application sectors. This ecosystem ultimately creates optimal conditions for cultivating high-caliber art and design professionals who meet market demands.

4.2.4 Endogenous Drivers, External Safeguards and Social Empowerment to Ensure Sustainable Development

4.2.4.1 Strengthening Endogenous Impetus

To address challenges in school-enterprise collaboration such as "hot schools but cold enterprises" and short-term partnerships, both parties must focus on stimulating intrinsic motivation through a "value co-creation and benefit

sharing" model to achieve deep integration. Vocational colleges transform real production lines into teaching scenarios via "workshop-based practical instruction + embedded enterprise training," ensuring talent development precisely aligns with job requirements while demonstrating educational value through enhanced graduate employability. Enterprises gain tangible benefits like customized talent cultivation and technical support through "customized industry colleges + R&D consortiums," while also securing industry influence by participating in curriculum standard-setting, thus forming sustainable innovation momentum. This value-exchange-based cooperative ecosystem continuously optimizes resource allocation through a two-way feedback system integrating teaching quality assessment and corporate performance evaluation. Dynamic assessments and iterative optimizations ensure the sustainable operation of high-level productive training bases.

4.2.4.2 Strengthen External Safeguards

Policy support serves as the crucial institutional guarantee for the sustainable development of high-level productive training bases. Both schools and enterprises should focus on establishing a "government-led, school-enterprise collaboration" policy response mechanism. They should actively seek policy benefits such as land supply, tax reductions, and special subsidies, leveraging these policy levers to encourage enterprises to increase infrastructure investment, equipment upgrades, and R&D resource allocation. Particular emphasis should be placed on effectively utilizing specialized policy tools like industry-education integration enterprise certification and education surcharge credits to precisely address the pain points of insufficient corporate participation motivation. Through a tripartite collaborative policy transmission system involving government, schools, and enterprises, the momentum of policies can be transformed into driving forces for base construction, thereby promoting the sustainable development of these training bases.

4.2.4.3 Expanding the Social Impact of Training Bases

The sustainable development of high-level productive training bases requires establishing a virtuous cycle system of "social influence and resource aggregation". We should actively expand their ecological service functions, extending the

base's role across the entire chain of "teaching-production-service". Leveraging the strengths of art and design disciplines, we can collaborate with small and medium-sized enterprises to establish joint laboratories for co-developing new materials and innovative processes, such as applying eco-friendly materials in cultural and creative products. Simultaneously, organizing public welfare activities like intangible cultural heritage skill training and cultural creativity markets for communities will enhance the training base's social influence, thereby attracting more resources.

5. CONCLUSION

High-level productive training bases play a vital role in enhancing talent cultivation quality and driving industrial transformation. Under the vision of shared development, the construction of such bases should center on building a community with a shared future between schools and enterprises, focusing on four core elements: goal orientation, interest balance, resource integration, and sustainable development. By clarifying talent cultivation and technological innovation objectives, establishing reasonable benefit distribution and risk-sharing mechanisms, achieving resource sharing, platform co-construction, collaborative optimization, as well as strengthening internal motivation and external safeguards, we can effectively promote the high-quality development of training bases. Addressing the characteristics of vocational art design programs, this paper proposes specific strategies including: establishing a dynamic "professional cluster-industrial chain" matching mechanism, constructing a three-tier progressive practical teaching system, setting up risk funds to ensure stable cooperation, building a shared ecosystem network through multi-dimensional resource integration, and realizing sustainable development of high-level productive training bases via a "triple helix" growth framework. The implementation of these strategies will help overcome challenges in traditional practical teaching, enhance students' employability and entrepreneurial capabilities, and cultivate more innovative and practice-oriented art design talents for the industry.

Guided by the principles of shared development and industry-education integration, the construction of high-level productive training bases for art and design majors in vocational colleges should prioritize responding to technological iterations, deepening school-enterprise collaboration models,

building digital platforms, expanding social service functions, and refining evaluation systems. Moving forward, these advanced training bases should evolve into comprehensive platforms that integrate educational empowerment, industrial services, and innovation-driven development.

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