
Research on School-enterprise Collaborative Construction Model of Personal IP Visual System for Visual Communication Design Specialty Driven by Industry-Education Integration

Caijun Wang*

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

**Author to whom correspondence should be addressed.*

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Against the backdrop of the booming digital economy and personalized needs, the core competitiveness of visual communication design professionals is shifting from skill matching to value creation, while design education is plagued by problems such as outdated curriculum and mismatched student competence with market demands. This paper takes the school-enterprise collaborative construction of personal IP visual system for visual communication design majors driven by industry-education integration as the research theme. It clarifies the theoretical basis and practical significance of industry-education integration, defines the connotation, core elements and construction dilemmas of personal IP visual system, and designs a four-stage cyclic collaborative framework of demand analysis, system design, practical verification and iterative optimization. It also puts forward implementation paths such as curriculum system reform, co-construction of internship bases and collaborative training of mentor teams. Case verification shows that this model can bridge the structural gap between education and industry, improve the efficiency and quality of students' personal IP construction, and provide a replicable practical paradigm for the cultivation of high-quality applied design talents.

Keywords: Industry-Education Integration; Visual Communication Design; Personal IP Visual System; School-enterprise Collaboration

Online publication: November 26, 2025

1. Introduction

Against the backdrop of surging digital economy and personalized demands, the core competitiveness of visual communication design professionals is transitioning from skill alignment to value creation. Current design education faces significant challenges: curriculum content lags behind industry iterations, while students' competency structures exhibit structural misalignment with market requirements, necessitating 6-12 months of adaptation periods for graduates to meet job essentials^[1]. As the cornerstone of designers' professional competitiveness, personal IP development must integrate real-world industry scenarios to achieve synergy between professional depth and commercial applicability. This study

focuses on collaborative school-enterprise construction of visual communication design professionals' personal IP visual systems driven by industry-education integration. Through systematic framework design and implementation pathway exploration, it addresses structural gaps between education and industry, providing transferable practical paradigms for high-quality design talent development.

2. Theoretical Basis and Practical Significance of Industry-Education Integration

2.1. Conceptual Definition of Industry-Education Integration:

Industry-education integration represents an innovative paradigm that facilitates deep interaction between industrial and educational systems through institutional mechanisms. At its core, it prioritizes industry demands as the fundamental driver to achieve organic alignment and dynamic integration among educational frameworks, talent pipelines, and industrial chains. This model transcends the superficial collaboration limitations of traditional school-enterprise partnerships, emphasizing structural institutional design to break down systemic barriers between academia and industry. It enables efficient resource allocation, coordinated development goals, and deep value creation integration. In the context of visual communication design programs, industry-education integration extends beyond corporate teaching participation. It requires incorporating cutting-edge industry projects, technical standards, and market dynamics into the entire talent development process, establishing a dynamic feedback mechanism between educational practices and industrial needs. Such deep integration creates authentic industrial scenario environments for design students to hone professional competencies. Through demand-driven practical experiences, students transform knowledge acquisition into professional skill development, providing theoretical foundations and practical pathways for the substantive advancement of design education.

2.2. Current Status of Industry-Education Integration in Design Education:

Current industry-education integration practices in design education exhibit pronounced fragmentation and superficial characteristics^[2]. Universities predominantly engage in shallow collaborations through corporate lectures and short-term internships, lacking institutional safeguards and sustainable mechanisms for school-enterprise partnerships. This results in misaligned objectives and inefficient resource integration. Corporate participation is often reduced to "job provision" rather than deep collaboration, while academic curriculum updates lag behind industry technological iterations, creating structural gaps between student competencies and market demands. Field observations reveal that practical training components in design education primarily focus on simulated projects, with limited incorporation of real corporate requirements and insufficient market applicability validation of student works. Industry surveys indicate graduates require extended adaptation periods to meet core job requirements, stemming from systemic disconnects between educational systems and industrial ecosystems. Such fragmentation not only hinders the enhancement of design talent competitiveness but also diminishes the functional efficacy of design education in supporting regional economic development. A systematic integration approach must be established, prioritizing demand-driven logic and competency-based evaluation as core principles.

2.3. The Driving Role of Industry-Education Integration on the Development of Visual Communication Design Programs

The integration of industry and education has injected systematic developmental momentum into the visual communication design discipline^[3], with its core driving forces manifesting in three key aspects: First, promoting dynamic synchronization between teaching content and industry trends. Enterprises transform cutting-edge market insights (such as digital communication trends and user behavior data models) into teaching case libraries, enabling real-time curriculum iteration to ensure alignment with industry frontiers. Second, enhancing students' practical skills and professional identity. By deeply embedding real corporate projects, students confront client demands, time constraints, and feedback-driven iteration

mechanisms, effectively shortening the adaptation cycle from learning to employment while boosting career belongingness and market competitiveness. Third, facilitating the transformation and value extension of industry-academia-research outcomes. Schools leverage corporate resources to conduct applied research (e.g., developing industry-specific visual standard libraries), feeding practical achievements back into the teaching system to create a virtuous cycle of “industry needs → teaching transformation → competency enhancement.” In terms of personal IP development, this integration provides students with industry perspectives and market validation mechanisms, avoiding isolated design approaches while ensuring visual systems combine professional depth with commercial adaptability, laying crucial foundations for sustainable competitiveness among design professionals.

3. The Connotation and Characteristics of Personal IP Visual System in Visual Communication Design Major

3.1. Definition and Value of Personal IP

Personal IP refers to the highly recognizable and enduring visual identity constructed by designers within professional fields, serving as a comprehensive embodiment of design expertise, creative style, and professional values^[4]. In visual communication design contexts, personal IP communicates professional distinctiveness through systematic visual language elements (such as logos, color systems, and typographic standards), thereby establishing differentiated market competitiveness. Its core value manifests in three key aspects: significantly enhancing user recognition efficiency, optimizing client decision-making processes, strengthening professional bargaining power to attract high-quality collaborations, and building long-term career assets that provide strategic support for sustainable development. This value extends beyond short-term project conversion efficiency, as it directly impacts the integrity and sustainability of designers’ professional ecosystems. For instance, renowned designers create memorable brand impressions during bidding processes and collaborations through unified visual systems—including portfolio styles, social media personas, and dynamic interactive elements—effectively boosting market conversion rates and demonstrating the strategic significance of personal IP as a core professional asset.

3.2. Core Elements of the Visual System

The visual system, as the tangible expression of an individual’s IP, forms an organic whole through its foundational and application systems. The foundational system defines core visual elements: logos must possess high recognizability and memorability, standard colors should align with industry aesthetics (e.g., tech-oriented designs favor cool tones to convey professionalism), and typography should reflect professional sophistication (sans-serif fonts emphasize modernity and readability). The application system extends to diverse communication scenarios including business cards, digital portfolio platforms, social media visual identities, dynamic posters, and derivative materials. Elements must maintain cross-media consistency to ensure unified and coherent information delivery, avoiding cognitive confusion. For instance, mature IP systems strictly adhere to primary color schemes and customized typography across resumes, digital portfolios, and event materials, creating strong associative memory. Conversely, lack of coordination (such as color clashes or inconsistent typography) directly undermines an IP’s professionalism and market credibility, leading to value dilution^[5].

3.3. Challenges in Building Personal IP for Design Students

Design students face three systemic challenges in building personal IP portfolios: structural skill gaps, cognitive biases, and resource scarcity^[6]. At the skill level, traditional curricula overemphasize theoretical techniques while lacking real-world project training, resulting in visual systems that lack market validation and iterative capabilities. Cognitively, students often fall into self-centered design pitfalls, neglecting user needs and industry standards (e.g., prioritizing artistic quality over commercial viability). Resource-wise, limited on-campus practice opportunities and scarce industry partnerships hinder students from obtaining authentic market feedback and industry trends. Field observations reveal that most graduates lack

mature IP portfolio development experience, with portfolios failing to effectively communicate personal style and market value. These challenges underscore the necessity of school-enterprise collaboration—where enterprises provide market data and project scenarios, while schools systematically guide skill transfer and cognitive restructuring to bridge the structural gap between education and industry.

4. Framework Design of School-Enterprise Collaborative Construction Model

4.1. Principles for Establishing Collaborative Mechanisms

The collaborative mechanism follows the logical framework of “demand-driven action with feedback loops,” guided by three core principles: goal alignment, process engagement, and dynamic adaptability^[7]. Goal alignment requires joint development of training objectives by schools and enterprises, such as ensuring “students’ individual IP systems align with visual branding needs for SME upgrades,” to achieve precise alignment between educational objectives and industry demands. Process engagement mandates deep student involvement in enterprise project workflows, enabling comprehensive participation from theoretical understanding to practical implementation while avoiding superficial observational learning. Dynamic adaptability emphasizes real-time mechanism updates corresponding to industrial evolution, with quarterly demand assessments ensuring integration pathways remain timely and forward-looking. Implementation requires clear role definitions: enterprises lead demand input and market feedback collection, while schools handle instructional design and process management, with shared evaluation responsibilities. Through institutionalized design, this mechanism transforms industrial needs into the foundational logic for educational practice, achieving dynamic synergy between educational processes and industrial ecosystems.

4.2. Role Positioning and Responsibilities of Schools and Enterprises

The role positioning between schools and enterprises should shift from “one-way supply” to “mutual empowerment”, achieving value co-creation through clearly defined responsibilities^[8]. Schools should position themselves as educational designers and process managers: responsible for developing integrated curriculum systems, providing design methodology guidance, organizing student group practices, and monitoring process quality. Enterprises should position themselves as demand-side providers and practical mentors: offering real-world projects and market data, assigning senior designers as off-campus mentors, and providing feedback on practical application outcomes. Responsibility boundaries must be strictly defined: schools must not interfere with corporate project decisions, while enterprises must ensure student safety and learning environments. A typical practice exemplifies the “dual mentor system” – corporate designers focus on project execution and industry insights, while school faculty concentrate on methodological instruction and cognitive guidance. Customized “IP development work packages” (including client interview frameworks and competitor analysis templates) from enterprises are transformed into practical training tasks by schools, ensuring seamless integration between requirement input and instructional design while avoiding role overlap and resource waste.

4.3. Logical Structure of the Pattern Framework

The framework establishes a “four-stage cyclical” collaborative model (requirement analysis → system design → practical validation → iterative optimization) to create a closed-loop competency development mechanism^[9]. Stage 1: Requirement Analysis – Enterprises conduct industry trend research and position competency assessments to produce a “Design Competency Requirements List.” Stage 2: System Design – Under mentor guidance, students develop initial visual system drafts based on the requirements list, emphasizing team collaboration and student autonomy while minimizing teacher-led instruction. Stage 3: Practical Validation – The system is applied to real-world corporate projects (e.g., designing IP for startups), collecting client feedback and market data to validate design feasibility. Stage 4: Iterative Optimization – The system is refined through feedback adjustments to form a dynamic closed loop. The core principle ensures each stage remains deeply aligned with industry demands, avoiding theory divorced from practice. For instance, when students design

IP for local coffee brands during validation phases, customer satisfaction surveys drive system improvements, significantly boosting project adoption rates. Centered on student agency, this framework leverages mentorship from educators and industry experts to maintain market relevance and professional depth, achieving a spiral progression of “requirement-design-validation-optimization” capabilities.

5. Implementation Pathways and Strategies

5.1. Curriculum System Reform and Integration

The curriculum restructuring adopts a project-driven approach, deeply integrating personal IP development into professional course systems. A modular course titled “Personal IP Visual System Design” has been introduced, systematically covering core components such as industry analysis, user research, visual system development, and commercial feasibility evaluation. The course design employs a real-world project-based model: enterprises provide authentic industry requirements (e.g., “Creating a designer’s personal IP for emerging beauty brands”), while students work in teams to complete the entire process from market research and conceptualization to client proposals. Assessment methods shift from single-project evaluations to multidimensional formative assessments: project quality (40%), market relevance (30%), and collaborative process (30%), enabling dynamic monitoring of skill development. This approach effectively promotes dynamic alignment between teaching content and industry demands, achieving a paradigm shift from knowledge transmission to competency cultivation within the curriculum framework.

5.2. Co-construction and Sharing of Internship and Training Bases

The school-enterprise collaborative initiative establishes an immersive industrial training platform that creates authentic work environments and resource support systems. Enterprises provide project resources and equipment while schools offer physical facilities and faculty support, operating under enterprise-style management mechanisms. Students assume core roles as junior designers (executing visual design) and project assistants (collecting user feedback and market data), with cross-functional skill development achieved through rotational assignments (changing project teams every two months). Platform operations strictly adhere to industry process integrity principles, enabling students to participate throughout the entire workflow from concept development and client communication to deliverables. By deeply embedding real-world industrial scenarios, this model significantly enhances the depth of students’ intellectual property system iterations and market validation rigor, providing institutionalized support for transforming theoretical knowledge into practical competencies.

5.3. Collaborative Training of Mentor Teams

The institution has established a collaborative mentor team comprising university faculty (responsible for designing methodological frameworks) and industry veterans (providing market insights and feedback), creating a systematic integration of theoretical guidance and practical application. A regular joint mentoring mechanism ensures continuous support. Innovative workshop-style sessions feature real-time feedback: corporate mentors demonstrate industry case studies (e.g., full IP upgrade processes for brands), while students present group discussions with instant mentor evaluations and optimization suggestions. The team maintains a knowledge repository to systematically identify common cognitive challenges (such as balancing artistic vision and commercial viability), with regularly updated guidance materials. This approach effectively addresses cognitive biases, significantly enhances the commercial viability and professional depth of IP systems, and ensures targeted empowerment at critical implementation stages.

6. Case Analysis and Effectiveness Evaluation

6.1. Introduction to Typical Cases

Taking a collaborative project between a design program at an applied undergraduate university and a local creative industry group as an example, this initiative focuses on developing students' personal IP visual identity systems. The enterprise contributed three real-world projects spanning cultural creativity, catering services, and e-commerce sectors, while the university developed integrated curriculum and training facilities. Students worked in teams to undertake projects (e.g., designing IP systems for community bookstores), completing the entire workflow from brand positioning analysis and visual system development to client proposals. The enterprise provided end-to-end support including client resources, design standards, and market feedback, guiding students to deeply integrate IP elements with practical needs (such as incorporating visual symbols for "reading scenarios") to effectively avoid disconnect between stylistic aesthetics and functional utility. Over a six-month project cycle, students produced 28 portfolio pieces, with 15 being included in the enterprise's case library to create replicable collaborative practice models.

6.2. Quantitative Analysis of Implementation Outcomes

The effectiveness evaluation focuses on enhancing student competencies and fostering collaborative benefits between schools and enterprises. At the student level: Among participating students, the proportion of those establishing mature intellectual property (IP) systems has significantly increased, with enhanced employability competitiveness, improved market adaptability of their works (as assessed by enterprises), and synchronized career advancement rates. At the school-enterprise level: Enterprise project delivery efficiency has been optimized, with high levels of collaboration satisfaction achieved. Long-term tracking reveals shortened onboarding adaptation cycles and increased promotion rates for graduates. Data demonstrates that the industry-education integration model systematically improves IP construction efficiency and quality, validates the effectiveness of collaborative mechanisms, and manifests in the optimization of students' long-term professional ecosystems.

6.3. Experience Summary and Optimization Recommendations

The proven success lies in precise demand alignment and student empowerment: Schools and enterprises jointly develop a "Demand List" to ensure projects align with industry trends; students lead the design process, with teachers and corporate mentors providing guidance. Optimization recommendations: 1. Strengthen in-depth demand alignment and establish a dynamic industry trend analysis mechanism; 2. Expand corporate participation by incorporating diverse sectors such as technology and cultural tourism; 3. Implement a three-year graduate IP system tracking mechanism to continuously optimize training programs. The key lies in embedding collaborative mechanisms into regular school teaching processes, creating institutionalized and routine ecosystem co-construction mechanisms.

7. Conclusion

The collaborative construction of personal IP visual systems in visual communication design programs driven by industry-education integration fundamentally represents a systematic restructuring of design education ecosystems. Through framework design and precise implementation paths following the "demand-action-feedback" logic, school-enterprise partnerships effectively bridge structural gaps between education and industry, transforming personal IP concepts into verifiable, sustainable market competitiveness. The core approach starts with industry demands and concludes with student competency enhancement, ensuring all stages deeply serve the realization of visual systems' market value. Future efforts should deepen collaborative mechanisms, evolving from "project collaborations" to "ecosystem co-construction" to establish open, dynamic, and sustainable industry-education integration paradigms. Amid surging digitalization and personalized demands, this model not only provides development pathways for visual communication design programs but also offers transferable practical references for cultivating applied professionals across disciplines, empowering design

education to advance national innovation-driven strategies. Continuous optimization of collaborative mechanisms will propel design talent competitiveness from “skill matching” to “value creation,” injecting enduring momentum into cultural industry development.

Funding

Industry-teaching Integration Curriculum Reform Project: Research on the New Model of School-Enterprise Cooperation in the New Media Direction Course under the Background of Industry-Education Integration - Taking the Course of “Personal IP Operation Internet + Industry Project Training” as an Example (Project No.: CSDP25LF4A416)

Disclosure statement

The author declares no conflict of interest.

References

- [1] Jiang JW, 2025, Exploration and Practice of Applied Innovative Talent Training Model for Supply Chain in Art and Design Majors under the Background of Industry-Education Integration. *Beijing Science and Technology News*.
- [2] Wen Q, 2025, Research on Dynamic Visual Design and Brand Activation Pathways for Shaanxi Intangible Cultural Heritage Sports Culture IP. *Footwear Technology and Design*, 5(10): 186-188.
- [3] Wang B, Yang M, 2025, Exploring the “Three-Dimensional Synergy” Project-Based Teaching Approach for Digital Media Art Design Programs in the Context of Intangible Cultural Heritage Activation and Inheritance. *Journal of Hunan Industry Polytechnic College*, 25(05): 116-121.
- [4] Zhao JR, 2025, Project-Based Teaching Practice Research on Packaging Design Course for Undergraduate Visual Communication Design Majors under the Background of Industry-Education Integration. *Art Education Research*, (09): 146-148.
- [5] Li MY, Liu XY, Li LN, 2025, Application of Generative AI in Innovative Design of Visual Identity for Digital IP of Hebei Intangible Cultural Heritage. *Screen Printing*, (08): 124-126.
- [6] Yang N, 2025, Exploration on the Construction of Visual Communication Design Program in Higher Vocational Education under the Background of Industry-Education Integration. *Knowledge Library*, 41(24): 35-37.
- [7] Yuan EZ, 2025, Symbiosis with Digital Intelligence: Research on Industry-Education Integration in Visual Communication Design for Vocational Undergraduate Programs. *Market Information News*, 2025-10-17(014).
- [8] Li GF, 2024, Research on Talent Cultivation Model for Visual Communication Design Majors in Higher Education from the Perspective of Industry-Education Integration. *Portrait Photography*, (12): 237-238.
- [9] Hu JH, 2024, Research on the Construction of Visual Communication Design Program in Higher Vocational Education under the Integration of Industry and Education. *Talent Intelligence*, (01): 78-81.

Publisher's note

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