Research on the Path to Enhance the Efficiency of Teaching Supervision in Private Colleges under the Dual Drive of Industry-Education Integration and Smart Education

Pei Wang *

Liaoning Communication University, Shenyang, Liaoning, 110136, China

* Corresponding author: Pei Wang

Abstract

Under the background of the connotative development of higher education, the deep integration of industry and education, and the comprehensive promotion of smart education, the content of teaching supervision in colleges and universities urgently needs to adapt to the times. Private colleges and universities take the cultivation of applied talents as their core task, and teaching supervision is a key link to ensure teaching quality, promote teaching reform, and implement the integration of industry and education. In the current new context of higher education development, teaching supervision in private colleges and universities faces problems such as insufficient adaptability of evaluation indicators, incomplete industry-education collaborative supervision mechanisms, insufficient empowerment by smart education, and the absence of a feedback and rectification closed loop. Based on the norms of teaching supervision work in private colleges and universities and considering the teaching characteristics of art and media-related majors, this paper constructs a practical, executable, and closed-loop path for improving the efficiency of teaching supervision from the two dimensions of deep integration of industry and education and smart education, providing practical references for similar institutions to optimize their teaching supervision systems and enhance their quality assurance capabilities.

Keywords

Private Colleges and Universities; Supervisory Efficiency; Integration of Industry and Education; Smart Education.

1. Introduction

1.1. Research Background and Significance

China's higher education has entered a stage of connotative development centered on quality improvement. As an important component of higher education, private universities undertake the mission of facing industries, serving local areas, and cultivating high-quality applied talents. Art and media majors are characterized by prominent practicality, strong industry relevance, high digitalization, and rapid iteration and updating, which places higher demands on teaching content, practical links, teaching modes, and quality monitoring.

Industry-education integration serves as a bridge connecting education and industry, breaking down barriers between them and facilitating the cultivation of high-quality talents that meet the actual needs of the industry. [1] Smart education is a crucial pillar of teaching reform, achieving dynamic and scientific teaching evaluation through data-driven approaches, thereby comprehensively enhancing students' higher-order thinking skills and practical innovation capabilities. [2] Together, these two factors drive the transformation of talent cultivation models from traditional classrooms to industry-oriented and digitally empowered

ones. As the core force of internal quality assurance in schools, the work philosophy, operational mode, evaluation methods, and management mechanisms of school-level teaching supervision directly affect the quality of practical teaching, the effectiveness of industry-education integration implementation, and the progress of digital teaching reform. The core architecture of modern vocational education development relies on the integration of four chains: "education chain, talent chain, industry chain, and innovation chain." In the context of digitalization, the synergy among these chains has been enhanced. [3]

Based on the practical needs of teaching supervision work, this paper focuses on the dual background of industry-education integration and smart education, systematically sorts out the operational difficulties of teaching supervision in private universities, and proposes feasible paths to enhance efficiency. At the theoretical level, it enriches the research results of the collaborative development of teaching supervision, industry-education integration, and smart education in application-oriented universities. At the practical level, it provides directly applicable operational solutions for the standardization, precision, and efficiency of school-level supervision work, helping to continuously improve teaching quality.

1.2. Research Status at Home and Abroad

Research on teaching supervision in foreign universities started earlier, forming a supervision system characterized by professionalization, development, and personalization. It focuses on promoting teacher development and teaching quality improvement through supervision. However, most of its research is based on comprehensive universities and academic talent training models, which are significantly different from the educational system, application-oriented orientation, and artistic and media professional characteristics of private universities in China, making it difficult to directly apply.

Domestic scholars have conducted extensive research on the teaching supervision system, existing issues, and optimization strategies in private universities. They generally believe that supervision work should emphasize application-oriented guidance, strengthen practical teaching, and align with industry needs. However, existing research still exhibits notable deficiencies: Firstly, research on supervision mechanisms from the perspective of industry-education integration tends to be theoretical, lacking operational implementation processes. Secondly, the integration of smart education and supervision work is not deep, and supervision standards for online teaching, blended teaching, virtual simulation teaching, etc., are not comprehensive. Thirdly, the closed-loop system for supervision feedback and rectification is imperfect, with an emphasis on inspection, neglect of guidance, and weak tracking, making it difficult to fully unleash its effectiveness.

Based on the standards for school-level teaching supervision work and oriented towards practical implementation, this article focuses on two dimensions: industry-education integration and smart education. It constructs a systematic and executable path for efficiency improvement to address the shortcomings in existing research.

2. The Current Situation and Practical Dilemmas of Teaching Supervision at The School Level in Private Universities

2.1. School-Running Orientation of Private Universities and Core Connotation of Art and Media Teaching

Private universities, distinct from public comprehensive universities, are positioned to "base on local conditions, serve industries, and cultivate applied talents." Their core objective is to foster high-quality applied talents who possess solid professional skills, adapt to industry development needs, and can quickly integrate into their roles. For art and media majors, the core essence of their teaching is embodied in "practice orientation, industry alignment, and

innovation empowerment." It emphasizes not only the impartation of professional theoretical knowledge but also the reinforcement of practical teaching links, highlighting the cultivation of students' professional skills, innovation ability, and industry adaptability. The teaching core of art and media majors has distinct characteristics: Firstly, it is highly practical, covering multiple directions such as film and television production, advertising design, new media operation, broadcasting and hosting, all requiring students to possess strong practical operation abilities, with a high proportion of practical teaching links; secondly, it is strongly industry-related, with teaching content closely aligned with the development trends of the media industry, incorporating new technologies, methods, and norms in a timely manner, such as short video production, virtual anchoring, digital cultural and creative industries, and other related content; thirdly, it is highly innovative, with art and media majors focusing on cultivating students' creative expression and innovative thinking. The teaching mode needs to be flexible and diverse to accommodate students' personalized development; fourthly, it is distinctly integrated, with the development of smart education, digital teaching and traditional teaching are deeply integrated, and new modes such as virtual simulation practice and online and offline blended teaching are widely applied, becoming an important part of the teaching core.

2.2. The Core Dilemma of Insufficient Effectiveness of School-level Supervision

The supervision and evaluation system lacks adaptability to industry-education integration and smart education. The existing supervision and evaluation indicators are centered around traditional offline classrooms, lacking specific evaluation criteria for school-enterprise cooperation courses, project-based teaching, enterprise internships, virtual simulation experiments, blended teaching, etc. The indicators are general and lack specificity, making it difficult to reflect the true quality of teaching in art and media majors.

The supervision coverage of the entire industry-education integration chain is insufficient. The scope of supervision is concentrated on classroom teaching within the school, and there is insufficient participation in the supervision of key links such as lectures given by enterprise mentors, off-campus internships and practical training, and teaching in industrial projects. A stable collaborative supervision mechanism between schools and enterprises has not been established, industry experts have low participation, and the supervision conclusions are not closely aligned with job requirements. The evolution of industry-education integration reflects the trajectory from initial contact between schools and enterprises to systematic and in-depth integration. In the initial stage, school-enterprise cooperation was mostly limited to superficial forms such as order-based training and internship training, and the content of cooperation activities was single, lacking stable and long-term mechanism support. With the continuous optimization of the industrial structure, school-enterprise cooperation has deepened to the medium integration level of joint major construction, joint curriculum research, and teacher resource sharing. The coverage of cooperation has been continuously expanded, and the degree of integration has been significantly improved. [4]

The integration of smart education and supervision is relatively low. Supervision still primarily relies on offline classroom observation and evaluation, paper records, and manual summaries. Tools such as online teaching inspections, digital classroom observation, data-based analysis, and intelligent feedback are underutilized, making it impossible to effectively monitor online teaching quality, learning process data, and resource construction effectiveness.

The closed-loop mechanism for supervision feedback and rectification is not sound. Most supervision feedback consists mainly of conclusive opinions, lacking a list of problems, rectification measures, completion deadlines, and review standards. The tracking of rectification is not in place, with no review, no evaluation, and no accountability. Similar

problems occur repeatedly, and the phenomenon of supervision focusing more on supervision and inspection than on guidance and rectification is prominent

3. The Implementation Path of Enhancing the Efficiency of School-level Teaching Supervision from a Dual-dimensional Perspective

Considering the current situation and existing difficulties of supervision in private universities, based on the core of art and media teaching, and combining the development needs of smart education, digital teaching, and industry-education integration, this paper proposes a feasible and executable path for enhancing the effectiveness of university-level supervision from five aspects: supervision team, supervision indicators, supervision mode, coordination mechanism, and guarantee system. It aims to promote the deep integration of supervision work with art and media teaching, industry-education integration, and smart education.

3.1. Establish a Collaborative Supervision Mechanism for The Entire Industry-Education Integration Chain Between Schools and Enterprises

Establish a joint supervision team between schools and enterprises. Recruit technical backbones from cooperative enterprises and industry experts as part-time supervisors to participate in the supervision and evaluation of practical teaching, project teaching, internship training, graduation design, and other aspects. Conduct joint classroom observations and on-site inspections every semester.

Achieve comprehensive supervision across all aspects of industry-education integration. At the curriculum level: supervise the joint development of courses, textbook construction, and content updates by schools and enterprises; at the practical level: supervise practical training teaching, project-based teaching, studio teaching, and the organization of skill competitions; at the internship level: supervise internship arrangements, process management, enterprise guidance, safety standards, and assessment and evaluation; at the teacher level: supervise teachers' enterprise practice, dual-teacher capability improvement, and teaching standards of enterprise mentors.

Establish a mechanism for the exchange of supervision information and joint problem rectification. Establish a supervision problem ledger, where schools and enterprises jointly confirm problems, develop rectification plans, and track implementation effects. Formulate a teaching quality supervision report on industry-education integration every semester to provide a basis for professional construction and cooperation optimization.

3.2. Establish a Collaborative Supervision Mechanism for Industry-education Integration

Based on the effective development needs of industry-education integration, we should establish a supervision mechanism that facilitates collaboration between schools and enterprises, as well as between schools and local governments. This mechanism will promote the deep integration of supervision work with industry-education integration, addressing the collaborative challenges from the perspective of industry-education integration.

Firstly, establish a collaborative supervision mechanism between schools and enterprises. Strengthen communication and collaboration with cooperative media enterprises, build a collaborative supervision platform between schools and enterprises, and clarify the supervision responsibilities of both parties. Firstly, invite industry experts from enterprises to join the school-level supervision team, participate in the supervision of practical teaching, internship training, project-based teaching, and other links, provide supervision opinions from an industry perspective, and ensure that teaching content aligns with job requirements.

Secondly, establish a joint supervision group between schools and enterprises, composed of school supervisors and enterprise experts, to regularly conduct special supervision of school-enterprise cooperation teaching links, focusing on supervising the teaching quality of part-time teachers from enterprises, the guidance effect of internship training, and the implementation of school-enterprise cooperation projects. Thirdly, establish a mechanism for sharing supervision information between schools and enterprises, promptly feedback issues found during the supervision process, jointly develop rectification plans, and promote the improvement of school-enterprise cooperation teaching quality.

Secondly, expand the supervision content to cover the entire process of industry-education integration. Extend the supervision content to all key links of industry-education integration to achieve full coverage of supervision work. Firstly, strengthen the supervision of enterprise internships, arranging supervisors to regularly visit partner enterprises, conduct on-site inspections of student internships, communicate with enterprise instructors and intern students, understand the problems encountered during the internship process, and propose improvement suggestions. Secondly, strengthen the supervision of project-based teaching in school-enterprise cooperation, conducting full supervision of project design, implementation process, and outcome evaluation to ensure that project-based teaching aligns with industry needs and enhances students' practical and innovative abilities. Thirdly, incorporate industry skill competitions, innovation and entrepreneurship projects, etc. into the scope of supervision, supervising the organization and implementation of related competitions and projects, promoting the improvement of students' professional skills and innovation abilities, and facilitating the implementation and effectiveness of industry-education integration.

3.3. Specific Measures to Enhance the Effectiveness of School-level Supervision

Focusing on the professional development of the supervision team, innovation in supervision models, and improvement of the feedback and rectification loop, we aim to strengthen the effectiveness of school-level supervision and address the current issue of insufficient supervision efficiency.

Firstly, we should strengthen the professionalization of the supervision team. Firstly, we should optimize the structure of the supervision team, increase the proportion of external experts in the art and media industry in the supervision team, invite technical backbones and industry experts from media enterprises to join the supervision team, and compensate for the shortage of professional experience in the full-time supervision industry. At the same time, we should select young and middle-aged backbone teachers from art and media majors within the school to join the full-time supervision team, enhancing the youthfulness and professionalism of the supervision team. Secondly, we should establish a normalized training mechanism, regularly organize supervision personnel to participate in training, covering content such as the development trend of the art and media industry, digital teaching technology, industry-education integration policies, supervision methods and techniques, etc. We should invite industry experts and outstanding supervision personnel to conduct special lectures, enhancing the professional quality and supervision ability of supervision personnel. Thirdly, we should improve the assessment and incentive mechanism for supervision personnel, clarify their job responsibilities and assessment standards, incorporate the quality of supervision work, the pertinence of feedback opinions, and the effectiveness of rectification tracking into the assessment, and reward outstanding supervision personnel to motivate their work enthusiasm. We should also provide reasonable labor compensation to external supervisors to ensure their time and energy invested in supervision work.

Secondly, innovate the supervision model and integrate elements of smart education. To adapt to the development needs of digital teaching and smart education, innovate the school-level supervision model and promote the digital transformation of supervision work. Firstly,

build a digital supervision platform, integrate data resources from online teaching platforms and virtual simulation practice platforms, achieve full monitoring and data analysis of online and offline blended teaching and virtual simulation practice courses, promptly identify problems in the teaching process, and improve supervision efficiency. Secondly, adopt a "online + offline" integrated supervision model, view teaching videos, student learning data, homework completion status, etc. online through digital platforms, and conduct on-site classroom observation and evaluation, practical teaching inspection offline, to achieve full coverage and precision in supervision work. Thirdly, introduce technologies such as big data and artificial intelligence to analyze supervision data, identify common issues in teaching quality, and provide data support for teaching reform and optimization of supervision work.

Finally, improve the supervision feedback and rectification closed loop. Establish a complete closed-loop mechanism of "feedback - rectification - tracking - assessment" to ensure the implementation and effectiveness of supervision work. Firstly, standardize the supervision feedback process. After the completion of classroom observation and evaluation and special inspections, supervisors need to submit detailed supervision feedback reports within 3 working days, specifying existing problems, rectification suggestions, and rectification deadlines. Provide targeted rectification guidance plans for specific issues in practical teaching of art and media. Secondly, strengthen the tracking and supervision of rectification. The supervision office arranges for dedicated personnel to be responsible for the tracking of rectification work, regularly supervising the rectification progress of each secondary college and teacher. Adopt a "look back" approach to inspect the effectiveness of rectification. For those who fail to rectify or refuse to rectify, issue a notice of criticism. Thirdly, incorporate the effectiveness of rectification into the assessment of secondary colleges and teachers, linking it to professional title evaluation, excellence evaluation, and other aspects. This will increase the attention of secondary colleges and teachers to supervision feedback issues, ensure the implementation of rectification work, and achieve continuous improvement in teaching quality.

3.4. Constructing a Digital Supervision Model Empowered by Smart Education

Implement an integrated online and offline supervision mechanism to fully adapt to the smart education teaching scenario. Education and teaching have undergone a fundamental shift from the traditional "knowledge impartation" paradigm to the "problem-solving" paradigm - students are no longer merely passive recipients of knowledge, but are now key participants who can flexibly apply multidisciplinary knowledge for collaborative innovation and innovative practice in real-life situations. [5] Promote the in-depth application of smart supervision tools to enhance supervision efficiency and standardization. Digital tools such as teaching data monitoring, classroom interaction analysis, online review of practical works, and off-campus internship process management are utilized to achieve real-time recording of supervision information, immediate feedback on issues, and instant tracking of rectifications. This significantly reduces labor costs and enhances the timeliness, objectivity, and professionalism of supervision work, providing technical support for the continuous assurance of teaching quality in the context of smart education.

3.5. Improve the Quality Closed-loop of Supervision Work

To effectively address the prominent issues of "emphasizing inspection, neglecting implementation, and weakening the closed loop" in teaching supervision, it is necessary to establish a full-process, traceable, and accountable closed-loop system for supervision work quality, transforming supervision effectiveness into tangible improvements in teaching quality. We should fully implement a standardized feedback model that integrates written feedback, problem lists, rectification suggestions, and completion deadlines. For specific issues such as inadequate implementation of industry-education integration, practical

teaching becoming a mere formality, insufficient application of intelligent teaching, and unreasonable blended teaching design, we should clarify the problem manifestations, core causes, and feasible improvement directions one by one. This ensures that problems are precise, suggestions are specific, and requirements are clear, allowing secondary colleges and instructors to identify the rectification path, grasp improvement methods, and avoid aimless rectification efforts.

Standardize the supervision and feedback process. Fully implement a standardized feedback model that integrates written feedback, problem lists, rectification suggestions, and completion deadlines. For specific issues such as inadequate implementation of industry-education integration, practical teaching becoming a mere formality, insufficient application of intelligent teaching, and unreasonable design of blended teaching, clearly identify the problem manifestations, core causes, and feasible improvement directions one by one. Ensure that the problems are precise, suggestions are specific, and requirements are clear, so that secondary colleges and instructors can understand the rectification path, grasp the improvement methods, and avoid aimless rectification efforts.

Strengthen rectification tracking and review. Establish a deadline rectification and tracking supervision mechanism, clarify the rectification time limit and responsible parties for each link, and require secondary colleges to complete rectification and submit rectification materials within the specified period. The university-level supervisors shall conduct on-site reviews, material verification, and teaching follow-ups on schedule, and initiate secondary rectification and key supervision for units that have not rectified in place or achieved unsatisfactory results. At the same time, directly link the supervision of rectification completion, rectification quality, and teacher teaching assessment, performance evaluation, and appraisal to strengthen institutional rigid constraints and promote the implementation of rectification responsibilities at all levels.

3.6. Strengthen the Professional Development of the Supervision Team

Optimize the structure of the supervision team and build a composite supervision team that meets the requirements of industry-education integration and smart education. Break away from the single model of internal supervision, select and recruit teaching management backbones, senior dual-teacher professionals, and front-line experts from the media industry to join the school-level supervision team. Form a personnel structure where internal supervision and industry supervision complement each other, and teaching experience and industry experience are integrated, significantly enhancing the industry perspective, practical judgment, and digital teaching supervision ability of the supervision team.

Unify supervision work standards and behavioral norms to ensure fair and efficient supervision. Systematically develop standardized documents such as supervision workflows, lesson observation and evaluation norms, evaluation index scales, and problem feedback requirements, clarify work boundaries and quality requirements, and ensure that all supervision personnel implement unified standards and follow unified processes, achieving standardized, institutionalized, and precise implementation of supervision work.

4. Conclusion

Against the backdrop of deep industry-education integration and the widespread adoption of smart education, the school-level teaching supervision in private universities needs to transition from a traditional inspection-oriented approach to one that emphasizes quality assurance, industry alignment, and digital empowerment. Based on the norms and practical needs of teaching supervision work, this article proposes paths such as evaluation system optimization, school-enterprise collaborative supervision, digital supervision, closed-loop

management, and team building, all of which are operable and implementable. These paths can effectively address the practical issues currently existing in school-level supervision in private universities. They are not only applicable to art and media majors but also provide a reference for other applied majors, and have practical significance for promoting the modernization of the teaching quality assurance system in private universities.

Based on the norms and practical needs of teaching supervision work, this article proposes paths such as evaluation system optimization, school-enterprise collaborative supervision, digital supervision, closed-loop management, and team building, all of which are operable and feasible. These paths can effectively address the practical issues existing in the current school-level supervision of private universities. They are not only applicable to art and media majors but also provide a reference for other applied majors, and have practical significance in promoting the modernization of the teaching quality assurance system in private universities.

References

[1] Liu, M. Y., & Su, Y. G. (2026). Industry-education integration empowers talent cultivation in the new era. *Journal of Jilin Provincial Institute of Education*, *42*(4), 66–70. https://doi. org/ 10. 16083/ j. cnki.1671-1580.2026.04.010.

[2] Zhang, Y. H., & Gao, H. X. (2025). The coupling relationship between generative artificial intelligence and the construction of new liberal arts: Current controversies and future visions. *Modern Educational Management*, (2), 54–65.

[3] Yang, M. (2026). Research on the school-enterprise collaboration model of vocational education driven by digital transformation and industry-education integration. *Journal of Heilongjiang Teachers Development University*, *45*(5), 90–94.

[4] Zhang, Q. (2025). The internal logic, practical dilemmas, and practical paths of industry-education integration in vocational education empowering the modern industrial system. *Fujian Textile and Apparel Journal*, (10), 58–61.

[5] Yang, Y. (2024). Exploring talent cultivation models based on the OBE-CDIO concept in the context of new business disciplines: Taking the major of big data management and application as an example. *Jiangsu Science and Technology Information*, *41*(14), 13–16.