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Empowering Tourism Management Undergraduate Students Through City-Level Industry-Education Consortiums A Pathway Study on Cultivating Practical Innovation Capabilities

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Abstract

As the tourism industry undergoes transformation and upgrading, the application of new technologies and shifts in market environments demand higher standards from tourism professionals. Multidisciplinary talents equipped with practical skills and innovative spirit have become urgently needed in the sector. The "Municipal Industry-Education Consortium," a collaborative education platform led by the government and involving multiple stakeholders such as enterprises and educational institutions, plays a crucial role in cultivating the practical innovation capabilities of vocational undergraduate students in tourism management. This paper explores the essence of practical innovation-oriented tourism talent, proposing that current cultivation should shift from skill transmission to knowledge ecosystem construction, from scenario simulation to practice-community participation, and from single-dimensional evaluation to competency-oriented multi-stakeholder assessment mechanisms. Consequently, it constructs a mechanism and pathway for cultivating practical innovation capabilities in tourism management through city-level industry-education consortiums. This includes establishing a "module-project-progression" curriculum system, a four-tier progressive practice teaching system "foundation-specialization-application-innovation/entrepreneurship", and a "multi-stakeholder, full-process assessment" evaluation and feedback mechanism.

Keywords

City-level industry-education consortium; practical innovation capability; tourism management program.

1. Introduction

Tourism is a comprehensive industry. Currently, the tourism sector has entered a new development phase, continuously driving industrial upgrading through cross-boundary and integrated innovation. As tourism job roles become increasingly diversified, comprehensive, and innovative, traditional single-skill tourism professionals can no longer meet the demands of industrial advancement. Comprehensive and innovative tourism talent has emerged as a new demand hotspot, particularly requiring technically skilled professionals equipped with practical abilities and innovative spirit. Municipal industry-education consortiums possess comprehensive functions in talent cultivation, promoting innovation and entrepreneurship, and driving high-quality industrial economic development[1]. They play a crucial role in advancing the cultivation of tourism practice innovation talent.

1.1. The Essence of Tourism Practice-Innovation Talents

As tourism evolves from single-service provision toward digitalization, experientialization, and integration, the talent profile has shifted from traditional service specialists and single-skill

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professionals to practice-innovation-oriented professionals. Such professionals should primarily embody the following characteristics:

1.1.1. Cross-disciplinary Knowledge System

A cross-disciplinary knowledge system forms the foundation for tourism professionals to achieve innovation[2]. This system must encompass core expertise in tourism studies, hotel management, and travel agency operations, while also extending to digital technologies like big data, artificial intelligence, and metaverse applications in cultural tourism scenarios; cultural creativity knowledge such as intangible cultural heritage revitalization and IP development; marketing skills including new media operations and content-driven e-commerce; and cross-domain knowledge spanning project management and ecology. Mastering diverse knowledge helps identify new growth opportunities and integration possibilities within the industry, thereby driving innovation.

1.1.2. Integrated Practical Skills

Single, fragmented operational skills no longer meet the development needs of innovative tourism practitioners. Instead, the ability to integrate skills to solve complex real-world problems is key to enhancing practical capabilities. This includes utilizing digital tools to optimize visitor experience flows and execute precision marketing, or leading a complete project from concept generation and market research through product design to operational implementation. The focus lies on demonstrating multiple integrated skills such as "online + offline," "technology + service," and "design + execution."

1.1.3. Cultivating Market-Oriented Innovative Thinking

Market-driven innovation thinking is pivotal to achieving innovation[3]. This entails sharp market insight to accurately identify emerging consumption trends like the national trend craze, camping boom, and demand for immersive experiences. It also requires productization capabilities to transform cultural resources, creative concepts, or new technologies into market-attractive tourism products or service models aligned with current consumer demands. Finally, it requires an iterative optimization mindset, continuously cultivating a closed-loop approach of "design-test-feedback-optimization" to enhance products and services based on data and user feedback.

2. Cultivation Requirements for Tourism Practice Innovation Talent

As the concept of tourism talent continues to evolve, its cultivation philosophy and methods must also be updated and refined. Cultivating innovative tourism practitioners involves the following new requirements:

2.1. Shifting from Skill Transmission to Knowledge Ecosystem Construction

Innovative tourism practitioners no longer focus solely on isolated, fragmented skills. Instead, they emphasize building integrated, innovative, and sustainable knowledge systems and capabilities, forming multidisciplinary knowledge frameworks and skill structures[4]. In terms of educational philosophy, the focus must shift from "teaching students what to do" to "cultivating students' capacity to create," prioritizing value formation, capability enhancement, knowledge exploration, and character development. Regarding knowledge structure, beyond fixed disciplinary knowledge and course modules, emphasis should be placed on "tourism+" interdisciplinary integration[5], constructing a "foundation + core + extension" curriculum system. Regarding competency development, students should identify and resolve real-world industry challenges by accessing authentic tourism industry data and participating in actual tourism enterprise operations. This approach continuously enhances their capabilities in data analysis, digital marketing, creative planning, and industry integration. It also cultivates their

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awareness and ability to proactively design and construct their own knowledge frameworks, thereby developing adaptive skills for future roles and industries.

2.2. Transitioning from Scenario Simulation to Community of Practice Engagement

Breaking down the walls between schools and industries, shifting the primary arena of talent cultivation from campuses to the complex, real-world industrial ecosystem. First, we must design curricula and teaching systems that prioritize practical skills development, restructuring traditional knowledge-based courses into project-based learning modules centered around authentic industry projects, driving the transformation from coursework to project-based learning. Second, deepen industry-education integration by advancing from cooperation to symbiosis between schools and industries. Form and rely on a community of shared destiny based on co-creation of value and shared benefits to genuinely overcome the current dilemma of shallow integration and lukewarm industry engagement. Third, facilitate a shift from "teaching and learning" to "collaboration and co-creation." Teachers and students should jointly enter a practice community, leveraging consortium resources to conduct joint research projects or applied scientific studies.

2.3. Transitioning from Single-Dimensional Evaluation to Competency-Oriented, Multi-Stakeholder Assessment Mechanisms

On one hand, evaluation content must shift from knowledge-based to competency-based assessment. This requires aligning with the core competencies required for tourism practice innovation talent and fully connecting with regional industry needs, ensuring evaluation methods mirror real-world work scenarios and developing corresponding assessment tasks. Simultaneously, evaluation should transition from outcome-oriented to process-oriented approaches, systematically guiding the enhancement of students' practical innovation capabilities. On the other hand, evaluation stakeholders must be diversified by incorporating market and societal perspectives. A multi-stakeholder evaluation system—including faculty, industry mentors, peers, clients/users, and students themselves—should be established to provide more comprehensive and objective assessments.

3. Cultivation Mechanism and Pathway Construction

Based on the above analysis, this paper constructs a practical innovation capability cultivation mechanism for tourism management programs empowered by city-level industry-education consortiums. Specific pathways are designed across four dimensions: cultivation objectives, practical curriculum systems, collaborative operations, and evaluation feedback. The core lies in leveraging the platform advantages of city-level consortiums to establish a "four-party synergy" among government, industry, schools, and enterprises[6], jointly building a collaborative education system spanning the entire cultivation process.

3.1. Objective Positioning

Serve industrial development by cultivating practice-oriented[7], innovative talent. Leveraging regional characteristics, advantageous tourism resources, industrial foundations, and development trajectories through the city-level industry-education consortium, the program establishes practical talent cultivation objectives closely aligned with the high-quality development needs of the regional cultural and tourism industry. The fundamental objective of the city-wide industry-education consortium in empowering tourism talent development is to synchronize talent supply planning with industry demand implementation through consortium collaboration. By integrating industry and education[8], it facilitates supply-demand alignment to cultivate practical innovators who can deeply serve and propel the high-quality development

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of the cultural tourism industry, ensuring seamless integration between talent output and industrial needs. Its core mission is to shape practical innovators who possess industry insight and innovative thinking, can grasp emerging tourism market trends and integrate new technologies, while remaining grounded in tourism industry realities and equipped to solve practical development challenges. This manifests as mastery of solid tourism management theory, digital and intelligent technology application skills, cultural creativity conversion capabilities, and hands-on project operation expertise. The ultimate goal is to transform students from "job seekers" into "value creators" recognized by multiple stakeholders—government, industry, enterprises, and academia—embodying the "practical innovation talent" positioning of the vocational undergraduate level.

3.2. Curriculum System

To address the disconnect between course content and industry needs, a "module-project-progression" curriculum system is established. First, a modular curriculum system is constructed that integrates diverse elements and bridges academic learning with practical job roles. Specifically: professional courses are divided into three modules—Foundational, Specialization, and Expansion. The Foundational module emphasizes mastering universal knowledge and skills, covering core tourism theories and technical competencies such as Management, Economics, Introduction to Tourism Studies, Tourism Laws and Regulations, Tourism Market Research and Analysis, Fundamentals of Tourism Big Data, and Analysis of Cultural Heritage and Tourism Resources to solidify the foundation for practice and innovation. Specialization Modules are designed based on regional dominant industries and job requirements. Examples include: - Smart Tourism and Culture: Smart Scenic Area Management and Practice, Practical Tourism Digital Marketing, Tourism Big Data Analysis and Decision-Making; - Tourism and Culture Planning & Business Innovation: Tourism and Culture Product Innovation Design, Cultural and Creative Product Development and Operations, Project Planning and Copywriting; - Destination Operations and Management Innovation: Tourism Destination Brand Management, Tourism and Culture Project Investment and Operations, Sustainable Tourism Development. The Expansion Module serves as the pivotal stage for students' transition from "specialized experts" to "industry innovators." Leveraging the industrial resources of the city-wide industry-education consortium, it employs open-ended, project-based, and incubation-style teaching through courses and projects such as job internships, graduation projects, and innovation workshops. This supports students in transforming innovative ideas into entrepreneurial practices.

Projects serve as vehicles for tangible implementation[9], transforming real-world challenges, data, and needs from the consortium into progressively structured tasks. These tasks are integrated throughout the curriculum, with consortium resources ensuring project execution and evaluation. For instance, the foundational module leverages real data, case studies, and field sites provided by consortium members—including cultural tourism bureaus, industry associations, and enterprises—to support course delivery. In the direction module, real pain points and needs from consortium enterprises serve as project sources, establishing a project repository[10]. Enterprises regularly publish requirements with authentic conditions like technical parameters, cost constraints, and market preferences. Under dual-mentor guidance, schools and students "take up the challenge," with outcomes directly tested by the market. In the expansion module, the consortium establishes innovation funds and organizes project roadshows to facilitate simulated entrepreneurship or internal corporate innovation. This supports students in integrating resources to transform ideas into tangible outcomes, serving as an incubation mechanism. Through modular and project-based approaches, the program advances students from cognitive imitation to applied integration and ultimately to creative leadership, achieving progressive cultivation of tourism practice innovation talent.

ISSN: 2688-8653

3.3. Practical Teaching System

The four-tier progressive, jointly-built base model is a key initiative for establishing the consortium's operational framework for talent cultivation[11]. Leveraging the municipal industry-education consortium platform, it uses real projects and jointly-built bases as carriers.[12] Combined with the "module-project-progressive" curriculum system, it creates a four-tier progressive practical teaching system: "foundation-specialization-application-innovation and entrepreneurship."

During the "Foundational Awareness" stage, targeting lower-year students, we establish recognition internship bases or virtual simulation training labs (on or off campus) within consortium member units (e.g., schools, local 4A-rated or higher scenic areas, museums, cultural tourism enterprises). Short-term practices, industry lectures, or business process simulations are conducted, culminating in validation projects such as municipal cultural tourism resource research reports or visitor satisfaction data analysis. This enables students to deeply understand the current state and future direction of regional cultural tourism development, laying a solid foundation for practical innovation.

During the "Professional Simulation" phase, students pursuing specialized tracks engage in design projects or skill competitions—such as guided tour simulations, crisis management drills, or digital marketing strategies for tourism products—within specialized training labs (e.g., smart scenic area management simulations, tourism big data labs) and practice bases co-developed with industry partners using real operational systems. Dual mentors (industry experts and academic instructors) provide process guidance to ensure mastery of core professional skills aligned with current industry demands.

During the "Comprehensive Application" phase, targeting senior students, the focus shifts to honing interdisciplinary knowledge integration and real-world practical abilities. Students enter production-oriented industry-education integration bases co-built with leading enterprises within the consortium or actual corporate positions. Operating as "pre-employees," they undertake job responsibilities and deeply engage in authentic tourism enterprise tasks and projects—such as tourism planning, large-scale event execution, and integrated destination marketing—to develop operational management, planning design, and communication/collaboration competencies.

During the "Innovation and Entrepreneurship" phase, the consortium fully leverages its incubation capabilities through jointly established innovation and entrepreneurship platforms integrating government, industry, academic, and corporate resources. Activities such as project roadshows and multi-expert evaluations—conducted through graduation projects or entrepreneurial initiatives—enhance students' innovation and entrepreneurship capabilities while providing incubation support for outstanding projects. Ultimately, through the consortium's jointly established practice bases, real-world projects, diverse industry mentor pool, and innovation-entrepreneurship incentive mechanisms, the program cultivates practical, innovative talents capable of genuinely serving the high-quality development of local cultural and tourism industries.

3.4. Collaborative Operation Mechanism

Joint construction and management by government, industry, academia, and enterprises. The key to empowering talent cultivation through municipal industry-education consortiums lies in establishing a long-term mechanism for multi-stakeholder collaborative education. First is organizational governance coordination. Led by local governments, the consortium establishes a council or board of directors where representatives from education bureaus, cultural tourism bureaus, universities, and leading enterprises jointly participate in decision-making. The council holds regular joint meetings to coordinate major matters such as talent development plan formulation, project approval, and resource allocation, ensuring information sharing and

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shared responsibility among all entities. Second is interest-driven coordination, forming a community of shared interests and consensus by exploring a "project-based" cooperation model[13]. The consortium integrates talent development into specific collaborative projects—such as horizontal research topics, technical services, and employee training—transforming corporate talent needs into jointly implemented project tasks. Schools, enterprises, and faculty/students share project revenues or recognition based on contributions, achieving "shared benefits and shared responsibilities." Concurrently, systematic policy design is strengthened[14], with government support measures—such as dedicated fiscal funds, tax incentives, and rewards for research commercialization—to motivate deeper collaboration between enterprises and institutions. Third is open resource collaboration. Leveraging the consortium, establish a digital industry-education integration resource platform that aggregates regional educational and industrial data resources[15], enabling information sharing on talent, curricula, equipment, and internship positions. For example: enterprises post practical training project needs, and institutions claim them based on teaching schedules; institutions open training labs and library resources to provide social training for enterprise employees; governments establish online talent supply-demand matching platforms to dynamically match student internships and job positions. Finally, establish a joint faculty development mechanism. Enterprises and institutions will jointly cultivate "dual-qualified" faculty members, implementing a two-way mobility system for corporate practice and campus teaching[16]. Within the consortium, establish a system for faculty industry practice, encouraging university teachers to regularly undertake assignments at cultural and tourism enterprises to refresh practical skills. Simultaneously, hire industry experts and high-skilled professionals as adjunct instructors or practice mentors to participate in course teaching and project guidance. Through these collaborative mechanisms, we can truly achieve a close integration of government leadership, industry guidance, and dual-track education by schools and enterprises, forming a cohesive force for talent cultivation.

4. Summary

To ensure the effective operation of the training mechanism, a scientific evaluation and feedback system must be established to enable continuous improvement. The evaluation system empowered by the consortium highlights two key features: multi-stakeholder participation and holistic process evaluation. First, the scope of evaluators expands from solely the university to include multiple stakeholders both within and outside the institution. Specifically, this includes: Industry/Enterprise Evaluation: Conducted by corporate mentors or employers within the consortium to assess student performance in practical settings and project outcomes, with corporate evaluation weighting incorporated into the graduation comprehensive practice phase. Government & Industry Organization Evaluation: Conducted by cultural and tourism authorities, tourism industry associations, etc., to evaluate the effectiveness of the school's talent cultivation based on the degree of alignment with regional industrial needs, such as employment rates and contributions to local service. School Self-Evaluation: Includes teacher evaluations and student peer evaluations, focusing on student performance in both classroom and on-campus practical settings. Student evaluations: Collecting feedback on course and practical component satisfaction to identify program shortcomings. Second, emphasize holistic assessment of students' practical innovation capabilities throughout their development. Under the consortium evaluation mechanism, assessment spans all talent cultivation stages: During course modules, incorporate phased project deliverable evaluations (e.g., project proposals, training reports), monitoring student performance in cognitive internships and virtual simulation experiments, and verifying data analysis skills through research reports. During the professional phase, emphasize both process and outcomes, evaluating students' division of labor and contributions within projects, as well

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as the innovation and standardization of their design proposals. During job internships, corporate mentors regularly assess students' task completion and professional conduct, sharing feedback with the university. In innovation and entrepreneurship practice phases, recognize and reward students based on their achievements in competitions and innovation projects, incorporating these into their comprehensive graduation evaluation. Additionally, establish a closed-loop feedback-improvement system: The consortium council convenes annual thematic meetings based on evaluation outcomes to analyze talent development weaknesses and formulate corrective measures—such as adjusting course content or strengthening specific practical training—which are incorporated into subsequent revisions of talent development plans. Continuous feedback-driven refinement ensures ongoing optimization of the training mechanism. Ultimately, comprehensive process evaluation and incentive-driven approaches guarantee the effective realization of practical innovation capability development objectives.

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