

DEVELOPING AN EVALUATION FRAMEWORK FOR INNOVATION AND ENTREPRENEURSHIP COURSES IN COLD-REGION CULTURAL TOURISM: THE CASE OF JILIN PROVINCE

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Abstract: This paper comes out of a curriculum reform project in Jilin Province. The project works with local cultural and tourism partners to make university training more useful for regional revitalization. While reviewing the existing evaluation system, we kept running into the same problem: students were graded on definitions and final reports, but not on whether they could carry out real project tasks—such as interviewing customers, costing a winter tourism route, or coordinating with a cross-border partner. We therefore redesigned the evaluation. We started by asking what success should mean in this course. That led us to decide which aspects to measure, how to build the indicators, and how the system would be used in teaching. The framework we propose is competency-based and process-oriented. It stays specific to the course and can be revised as the industry changes. The indicators are arranged in three tiers and ask about what students know, what they can do, what they produce, how well the project fits the industry, and what longer-term effects the course has. We also discuss how to assign weights and how to put the system into practice. The goal is to give instructors a workable basis for improving teaching and for judging whether the course actually prepares students for Jilin's cold-region cultural tourism sector.

Keywords: Cold-region cultural tourism in Jilin Province; Innovation and entrepreneurship education; Course evaluation; Indicator system; Industry-education integration

1 INTRODUCTION

As Jilin Province vigorously advances the high-quality development of its cultural and tourism industries, university innovation and entrepreneurship education has been given the critical mission of supporting the revitalization of local cultural and tourism sectors [1]. Restructuring the curriculum system forms the cornerstone of talent cultivation reform, while establishing a scientific curriculum evaluation framework is a key guarantee for measuring the effectiveness of such reforms and driving continuous curriculum improvement. Although abundant research has been carried out on innovation and entrepreneurship course evaluation in higher education institutions, there is still a lack of systematic exploration targeting curriculum evaluation for specific regional industries, particularly cold-region cultural tourism. Most current evaluation methods still follow traditional assessment approaches that focus only on knowledge delivery, which cannot fully reflect the real effect of innovation and entrepreneurship education in improving students' ability to solve complex problems, their interdisciplinary integration skills, and their competence to meet the needs of regional industries. Therefore, this paper focuses on constructing an evaluation indicator system for innovation and entrepreneurship courses targeting cold-region cultural tourism in Jilin Province [2]. The system is meant to give instructors a practical tool for diagnosing the curriculum and adjusting it over time, so that what students learn matches what the regional industry actually needs.

2 PRACTICAL FOUNDATIONS AND LOGICAL STARTING POINTS FOR CONSTRUCTING THE EVALUATION INDICATOR SYSTEM

2.1 Characteristics Of The Curriculum System And Evaluation Requirements

Our curriculum is organized around the core sectors of cold-region cultural tourism in Jilin Province. Students take three required professional courses: *Design and Operation of Cold-Region Tourism Products*, *Development and Management of Cross-Border Cultural Tourism Projects*, and *Intangible Cultural Heritage IP Development and Commercial Practice*. In the practical module, they work on the Innovative Practical Project on Cultural-Tourism Integration, where they are expected to connect theory with application. Because the curriculum is regionally embedded and practice-oriented, it creates evaluation needs that traditional models do not address well. We cannot simply test whether students remember theoretical knowledge. We also need to see how they apply it in real industry settings. Can they solve complex problems creatively? Does their work have practical value for local industries? A typical task, for example, asks a student to design a winter tourism product for a local operator. A student might be able to explain what winter tourism is, yet still struggle to produce a workable plan. That is the kind of gap the new evaluation system should

capture [3–4].

2.2 Limitations and Reflections of Existing Evaluation Models

When we looked at how these courses were graded, one pattern stood out. The exams and final reports rarely matched the work students actually did in projects. Students could define concepts and recite theory, but the skills they built while working on real projects—coordinating with a partner, handling uncertainty, revising a plan—were not assessed. A student might explain “cultural tourism integration” perfectly in an exam, yet when asked to interview a local tourism operator for a project, they would not know what questions to ask. That gap between what we tested and what the course really required became the starting point for our redesign.

3 CONCEPTUAL DESIGN AND CONSTRUCTION OF THE EVALUATION INDICATOR SYSTEM

3.1 Clarification of Evaluation Principles

To address these limitations, we set four working principles for the evaluation design. The first is competency-based: the question shifts from what students know to what they can actually do. The second is process-oriented: evaluation should run through the whole teaching cycle so that changes in students’ innovative thinking and entrepreneurial capabilities can be observed over time [5]. The third is distinctiveness: the alignment between course objectives and the needs of Jilin Province’s cold-region cultural tourism industry becomes the central criterion. The fourth is diversified participation: the evaluation panel should include university faculty, industry experts, peers, and students themselves, so that the final judgment draws on more than one perspective.

3.2 Determination of Evaluation Dimensions

Based on these principles, we decided to evaluate the winter-region cultural tourism innovation and entrepreneurship courses in Jilin Province through five dimensions. We began with knowledge mastery: whether students understand fundamental theories of innovation and entrepreneurship and can apply them to winter-region cultural tourism. Next came competency development, which tracks growth in innovative thinking, opportunity identification, resource integration, teamwork, and project management. The third dimension, innovation outcome, looks at the quality and originality of what students produce in the practical components—design proposals, business plans, and entrepreneurial simulation reports [6]. Industry alignment, the fourth dimension, asks how well course content and practical projects match the development needs of the winter-region cultural tourism industry in Jilin Province. Finally, social impact considers the longer-term effects on students’ career development, teaching reform, and the growth of regional cultural tourism. These five dimensions move from micro to macro and from learning investment to developmental outcomes, and together they form a relatively comprehensive evaluation framework.

3.3 Construction of the Three-Level Indicator System

Using the five dimensions above, we then built a three-level indicator system for cold-region cultural tourism courses. The indicators were chosen so that they could be observed or measured during the course. In selecting them, we followed three practical rules: each indicator had to be specific, easy to apply, and supported by data we could actually collect. The goal was to make sure every indicator reflects how the program really runs, not just how it looks on paper. (see Table 1)

Table 1 Three-Level Indicator System for the Evaluation of Cold-Region Cultural Tourism Innovation and Entrepreneurship Courses in Jilin Province

Primary Indicators	Secondary indicators	Third-level indicator observation points	Evaluation Method
Mastery of Knowledge	Comprehension of theoretical foundations	Grasp of the core frameworks behind innovation and entrepreneurship, combined with command of the regulatory and policy systems governing the cultural and tourism sectors.	Examination and assessment
	Application of professional knowledge	Capacity to translate professional learning into practice across ice-and-snow tourism, cross-border cultural travel, and the industrial conversion of intangible cultural heritage.	Case Study: Solution design
Ability Development	Innovative thinking ability	Breadth and originality of creative output, plus the ability to spot issues and re-frame them from fresh angles.	Classroom observation learning log
	Entrepreneurial practical skills	Competence in sizing up venture prospects, pooling available resources, and steering project plans from formulation through to delivery.	Project roadshow and entrepreneurship simulation
	Team collaboration skills	Effective exchange, joint effort, and dispute handling among members coming from different disciplinary backgrounds.	Peer review and supervisor evaluation
Innovative	Level of innovation in	How novel, workable, and technically mature the project	Expert review, Peer

Product	achievements	deliverable produced through the course turns out to be.	review
	Potential for commercialization	Tangible signals such as granted patents, competition prizes, and outcomes actually adopted or incubated by enterprises.	Performance statistics & enterprise feedback
Industry Alignment	Content alignment	How well course content matches Jilin Province's "Ice & Snow+", "Border+" and "Culture+" development strategies.	Expert review
	Project authenticity	Share of practical projects derived from real enterprise demands or research tasks entrusted by local administrative authorities.	Project ledger verification
Social Influence	Impact on career development	Connections between students' course learning experience and their later entrepreneurial practices, employment performance, and long-term personal growth paths.	Graduate follow-up survey
	Regional service contribution	Tangible practical service results delivered by the course to local cultural and tourism businesses, communities and public administrative bodies.	Social service records

4 IMPLEMENTATION STRATEGIES FOR THE EVALUATION INDICATOR SYSTEM

4.1 Methods for Determining Indicator Weights

Given that different evaluation dimensions make varying contributions to course objectives, it is recommended that the Delphi method or the Analytic Hierarchy Process (AHP) be adopted to determine the weights of indicators at all levels. The Delphi method conducts multiple rounds of anonymous expert consultation, aggregating opinions from higher education innovation and entrepreneurship education scholars, cultural tourism industry managers and course instructors, to gradually converge on a consensus on indicator weights [7]. In contrast, the Analytic Hierarchy Process constructs a judgment matrix to quantitatively compare the relative importance of indicators, which improves the scientificity of weight assignment. It is preliminarily suggested that higher weights be given to the two dimensions of "capability development" and "industry alignment", so as to fully reflect the distinctive orientation and core value proposition of this curriculum system.

4.2 Comprehensive Application of Diversified Evaluation Methods

In the implementation of evaluation, it is essential to ensure the organic integration of multiple evaluation approaches. Formative evaluation can adopt tools such as learning portfolios, phased project presentations and mentor observation records to dynamically track students' engagement and growth throughout the entire learning cycle. In contrast, summative evaluation can be carried out through activities such as project roadshows, expert defense sessions and corporate reviews, with the core goal of assessing students' ability to comprehensively apply knowledge to solve real problems in the industry. At the same time, we should actively invite enterprises and industry experts to participate in the evaluation process. Their professional feedback, covering the industrial feasibility of the project proposal, market potential and other aspects, can greatly improve the reliability and validity of evaluation results [8]. For practical project modules, evaluation should pay special attention to the innovation, feasibility and alignment with local characteristics of the business plan.

4.3 Application of Evaluation Results and Continuous Course Improvement

The ultimate goal of this evaluation is to drive improvement. By using the aforementioned indicator system, accurate diagnostics can be performed on all key aspects of the course, including course objective setting, content organization, teaching methods and resource allocation. Regular course quality analysis reports can then be produced to provide data-driven support for course iteration. It is recommended that a comprehensive evaluation based on this indicator system be carried out once per semester, and the evaluation results should be used to guide course weight adjustment, teaching content update, and optimization of practical project resources. At the same time, a feedback channel should be established to communicate evaluation results to students, helping them accurately identify their strengths and areas for improvement, and thus clarify the direction for their future learning and professional development.

5 CONCLUSION

This paper has developed an evaluation indicator system for winter-themed cultural tourism innovation and entrepreneurship courses in Jilin Province. The five-dimension framework and three-level indicator system offer a practical way to diagnose and improve these courses. However, the system has not yet been fully validated. We still need to test it in real courses to see whether it is rigorous and workable. In the next stage, our project will use data from pilot courses to check and refine the indicators. Factor analysis and other statistical methods will help us screen weaker indicators and test the reliability and validity of the system.

COMPETING INTERESTS

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