

# REGIONAL ADAPTATION AND CAPABILITY ADVANCEMENT: APPLICATION RESEARCH OF "THREE-DIMENSIONAL INTEGRATION AND TEN-WHEEL DRIVE" IN LOCAL CULTURAL TOURISM TALENT TRAINING OF "FUNDAMENTALS OF TOURISM GUIDING"

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**Abstract:** Aiming at the urgent demand for locally adaptable talents in the upgrading of Northern Shaanxi's cultural tourism industry, this study takes the curriculum reform of "Fundamentals of Tourism Guiding" as the carrier to explore the application path of the "Ten-Wheel Drive" mode in local cultural tourism talent training. By integrating local elements such as Northern Shaanxi's red culture, frontier fortress culture, and ecological resources, a full-chain curriculum system of "basic layer + characteristic layer + dynamic layer" is constructed. Relying on the trinity practice platform of "campus-enterprise-scenic spot", the capability advancement of students from "theoretical mastery" to "local practical operation" and then to "industrial empowerment" is realized. A 5-year empirical study shows that this mode has effectively improved students' local cultural identity and full-chain operation capability, It provides a practical paradigm for cultural tourism professional talent training in regional colleges and universities with similar resource endowments.

**Keywords:** Ten-wheel drive; Local cultural tourism talents; Fundamentals of tourism guiding; Regional adaptation; Capability advancement

## 1 INTRODUCTION

### 1.1 Background and Significance of Local Talent Training

Local cultural tourism talents, with their unique advantages of "understanding local resources, being familiar with regional culture, and adapting to post needs", are the core driving force for promoting the high-quality development of regional cultural tourism industries. Northern Shaanxi, as a concentrated area of cultural tourism resources in Northwest China, has 73 A-level scenic spots, covering rich and diverse resources such as red culture (Yangjiagou Revolutionary Site), Great Wall frontier fortress culture (Zhenbeitai, Tongwancheng), loess folk culture (Suide clay sculpture, Jiaxian Millennium Jujube Garden), and ecological resources (Hongjiannao Wetland). In recent years, with the implementation of the regional development strategy of "prospering Northern Shaanxi through culture and tourism", the local demand for compound talents who can deeply excavate local resources, design personalized products, and carry out targeted operations has become increasingly urgent [1].

However, the traditional training mode of "Fundamentals of Tourism Guiding" has obvious shortcomings in cultivating local cultural tourism talents: the curriculum focuses on general national knowledge while neglecting the excavation and application of local resources, students' regional cultural identity and practical operation ability are weak, and the connection between talent output and local industrial needs is not close. Therefore, exploring the application of the "Ten-Wheel Drive" mode in local cultural tourism talent training is of great practical significance for solving the structural contradiction of talent supply and demand in Northern Shaanxi's cultural tourism industry, enhancing the competitiveness of regional talents, and promoting the integrated development of culture and tourism.

### 1.2 Existing Dilemmas and Research Gaps in Local Talent Training

Current local cultural tourism talent training faces three prominent dilemmas: first, the disconnection between curriculum content and local resources. Traditional textbooks are dominated by general knowledge such as national historical culture and tourism geography, and the content related to local resource evaluation, product design, and marketing operation accounts for less than 15%, resulting in students' insufficient understanding of Northern Shaanxi's unique cultural connotations and resource characteristics [2]; second, the lack of regional adaptability training. The practice teaching is mostly carried out in simulated campus environments, and students have few opportunities to participate in real local industrial scenarios, leading to weak ability in applying theoretical knowledge to solve local practical problems; third, the deviation of students' professional cognition. 80% of students hold the prejudice that "cultural tourism practitioners = tour guides = commentators", and lack awareness of full-chain posts such as local resource development and project planning, resulting in insufficient motivation for professional development.

Existing studies have explored the integration of local resources into tourism teaching and the application of project-driven teaching modes [3-6], but there are still deficiencies: first, the integration of local resources is superficial, lacking systematic design of full-chain capability training; second, the practice system is not closely combined with local industrial scenarios, and the cultivation of regional adaptability is insufficient; third, there is a lack of hierarchical design for the differentiated needs of students in different stages of local talent growth. This study fills the research gap by constructing a "Ten-Wheel Drive" application framework oriented to local cultural tourism talent training.

### **1.3 Research Design**

#### **1.3.1 Research objects**

100 students from 4 classes of tourism management majors (Grade 2021-2025) in a local university in Northern Shaanxi, and 10 local cultural tourism enterprises (including Yulin International Travel Service, and scenic area management committees).

#### **1.3.2 Research methods**

Questionnaire survey (distributing 100 student questionnaires and 10 enterprise questionnaires to collect data on students' local cultural cognition, practical ability, and enterprise satisfaction), semi-structured interviews (conducting in-depth interviews with 10 key informants including enterprise managers, local cultural experts, professional teachers, and student representatives), case analysis (tracking and analyzing 10 typical local project cases such as "Great Wall Cultural Theme Homestay Planning" and "Red Study Tour Route Design"), and comparative experiment (selecting 2 classes as the experimental group adopting the "Ten-Wheel Drive" mode and the control group adopting the traditional mode for a 2-year comparative study).

#### **1.3.3 Research objectives**

Construct an application framework of the "Ten-Wheel Drive" mode adapting to the training of local cultural tourism talents in Northern Shaanxi.

Verify the effectiveness of the mode in improving students' local cultural identity, regional adaptability, and full-chain operation ability.

Form replicable experience for local cultural tourism talent training in regional colleges and universities.

## **2 PRACTICAL DILEMMAS IN TRADITIONAL LOCAL CULTURAL TOURISM TALENT TRAINING**

### **2.1 Disconnection Between Local Resources and Curriculum Content**

Traditional curriculum content of "Fundamentals of Tourism Guiding" focuses on general knowledge such as national tourism development history, architectural art, and dietary culture, while the excavation and integration of local characteristic resources in Northern Shaanxi are insufficient. For example, the content related to red culture, Great Wall culture, and loess culture only accounts for a small proportion in the curriculum, and there is a lack of systematic interpretation of local resource characteristics, cultural connotations, and development paths. Textbooks lack typical cases of local resource development and operation, resulting in students' insufficient understanding of local cultural tourism resources and inability to effectively connect theoretical knowledge with local practical applications.

### **2.2 Lack of Regional Adaptability Capability Training**

The practice teaching of traditional curriculum is mostly carried out in the form of on-campus simulated explanation, lacking real local industrial scenario support. Students rarely participate in core links such as local scenic spot resource investigation, product design, and marketing promotion, and their ability to solve practical problems in local cultural tourism development is weak. For example, 90% of students have not participated in local cultural tourism project planning, and more than 80% of students said they "do not know how to design local characteristic tour routes" or "cannot evaluate the tourism value of local resources", resulting in poor adaptability to local posts after graduation [7-8].

### **2.3 Professional Cognition Bias and Insufficient Development Motivation**

Most students have a one-sided understanding of local cultural tourism occupations, equating "cultural tourism practitioners" with "tour guides" or "commentators", and lack awareness of full-chain posts such as local resource development, project planning, and scenic area operation. 80% of students hold the prejudice that "tour guide is a youth-oriented job", and their professional identity and sense of belonging are not strong. At the same time, due to the lack of connection between curriculum content and local industrial development, students cannot see the broad development prospects of local cultural tourism occupations, resulting in insufficient learning motivation and vague career planning.

## **3 CONSTRUCTION OF THE "TEN-WHEEL DRIVE" APPLICATION FRAMEWORK FOR LOCAL TALENT TRAINING**

### **3.1 Concept Orientation: Anchoring the Value of Local Talent Training**

Centering on the core demand of "cultivating locally adaptable and full-chain cultural tourism talents" in Northern Shaanxi, the concept of "rooting in local, serving local, and empowering local" is established. Through policy interpretation, local cultural lectures, and sharing of outstanding alumni cases, students are guided to recognize the unique value of local cultural tourism talents, reverse the prejudice against local occupations, and enhance their sense of cultural identity and professional pride. A "local talent growth case library" is constructed, showing the growth paths of outstanding alumni from local scenic spot commentators to resource development specialists and project managers, and clarifying the development direction of local cultural tourism talents.

### **3.2 Content Reconstruction: Building a Localized Full-Chain Curriculum System**

Based on the characteristics of Northern Shaanxi's cultural tourism resources and the needs of local industrial posts, the curriculum content is reconstructed to form a "1+3+X" full-chain system with local characteristics:

"1 basic layer": Retain the core content of national tour guide basic knowledge to meet the requirements of national tour guide qualification examinations, laying a solid theoretical foundation for students.

"3 characteristic layers": Set up three local thematic modules—Northern Shaanxi red culture (interpretation of revolutionary sites such as Yangjiagou and Shenquanbao, red resource development), frontier fortress and ecological culture (resource evaluation of Tongwancheng and Hongjiannao, ecotourism product design), and loess folk culture (inheritance of intangible cultural heritage such as Suide clay sculpture and Northern Shaanxi folk songs, cultural tourism integration development). Each module integrates local resource characteristics, industrial operation logic, and post ability requirements.

"X dynamic layer": Follow up the real-time projects of local cultural tourism enterprises, such as "rural cultural tourism development in Northern Shaanxi", "health tourism combined with agriculture and culture", and "emotional value tour with companionship", to ensure that the curriculum content is synchronized with local industrial development.

### **3.3 Method Innovation: Implementing the "Ten-Wheel Drive" Practice Teaching with Local Characteristics**

Focusing on the training of local cultural tourism talents, the "Ten-Wheel Drive" practice teaching method is optimized to form a closed-loop mechanism of "local knowledge input → local skill training → local ability application → local service feedback":

Pre-class flipped learning: Students learn localized digital resources such as local resource introduction videos and typical project cases through online platforms, and complete preliminary tasks such as local resource investigation and simple route design.

In-class case analysis: Take local typical projects such as "Hongjiannao Ecotourism Development" and "Jiaxian Millennium Jujube Garden Cultural Protection" as cases, organize students to discuss local resource development paths, product design schemes, and marketing strategies.

Cooperative teaching: Invite local cultural experts, scenic spot managers, and senior tour guides to participate in in-class teaching, share local cultural connotations and practical experience, and comment on students' local project schemes.

Outcome-oriented tasks: Assign group tasks such as "design of Northern Shaanxi Great Wall cultural theme tour routes" and "marketing plan of local folk culture festivals", requiring students to integrate local resource characteristics and complete practical works.

On-the-job internship: Arrange students to practice in local scenic spot teaching sites and cultural tourism enterprise training bases, participate in core work such as local resource investigation, tour reception, and project planning, and accumulate local work experience.

Certificate-guided learning: Integrate the content of national tour guide certificate and local cultural tourism industry certificates, and encourage students to obtain professional qualifications to enhance their competitiveness in local employment.

Public welfare services: Organize students to participate in local cultural tourism events such as Northern Shaanxi Tourism Development Conference and Great Wall Cultural Festival, carry out public welfare cultural promotion and volunteer services, and enhance their sense of social responsibility.

Competition-promoted learning: Guide students to participate in professional competitions with local characteristics such as national red tourism planning competition and Shaanxi cultural tourism innovation and entrepreneurship competition, and optimize their local project schemes through competition.

Bilingual expansion: Set up bilingual tour guide courses for local scenic spots, cultivate students' ability to interpret local culture in foreign languages, and meet the internationalization demand of local cultural tourism.

Scientific research projects: Organize students to participate in local cultural tourism research projects such as "survey and evaluation of Northern Shaanxi's intangible cultural heritage tourism resources", and improve their ability to solve local practical problems.

### **3.4 System Guarantee: Establishing a Localized Evaluation and Incentive Mechanism**

A tripartite evaluation system of "teachers + local enterprise mentors + local service objects" is established, focusing on evaluating students' local cultural interpretation ability, regional resource development ability, and post adaptation ability:

Local enterprise mentors account for 40% of the weight, focusing on evaluating the accuracy of students' local resource evaluation, the feasibility of project schemes, and the effect of local market operation.

Local service objects (tourists, study tour groups, local residents) account for 30% of the weight, evaluating students' service satisfaction and local cultural communication effect.

Teachers account for 30% of the weight, evaluating students' mastery of basic knowledge and local thematic knowledge.

The evaluation content is optimized to incorporate local practice tasks, local project results, and local service performance into the process evaluation, accounting for 70% of the total score, replacing the traditional single theoretical evaluation mode. At the same time, an incentive mechanism is established: students whose local project schemes are adopted by enterprises are awarded, and outstanding students are recommended to local cultural tourism enterprises for employment, forming a positive incentive for local talent training.

### **3.5 Support Empowerment: Building a Local Collaborative Resource Support System**

Local mentor team: Recruit 3 local industry experts, including scenic spot managers, marketing directors, and red culture research specialists, to form a "local industry mentor group" to participate in curriculum design, teaching guidance, and project research.

Policy and resource support: Cooperate with local cultural tourism bureaus to obtain support for local cultural research projects, special training funds, and talent recommendation channels, and build a good development environment for local talent training.

## **4 PRACTICAL EFFECTS**

### **4.1 Significant Improvement of Students' Local Adaptability and Professional Ability**

The questionnaire survey shows that 92% of students in the experimental group have a deep understanding of Northern Shaanxi's cultural tourism resources, which is 65 percentage points higher than that of the control group (27%); 88% of students can independently design local characteristic tour routes, which is 60 percentage points higher than that of the control group (28%); 85% of students have a clear understanding of local cultural tourism post requirements, which is 58 percentage points higher than that of the control group (27%). The pass rate of the national tour guide certificate for students in the experimental group reaches 78%, and 32% of students have obtained local industry certificates such as study tour instructor certificates. In terms of employment quality, with the satisfaction rate of local resource application ability and post adaptation ability reaching 93%, an increase of 28 percentage points compared with before the reform (65%).

### **4.2 Formation of a Replicable Local Talent Training Model**

The reform experience of the "Three-Dimensional Integration and Ten-Wheel Drive" mode in local cultural tourism talent training has been promoted and applied in 8 colleges and universities including Yan'an University and Yulin Vocational and Technical College. The co-compiled localized textbook and online training platform have been approved as provincial-level teaching resource libraries, serving 5 colleges and universities in Northern Shaanxi and surrounding areas. The mode has been recognized by the local cultural tourism bureau and industry associations, and has become a replicable and promotable "Northern Shaanxi model" for local cultural tourism talent training.

## **5 CONCLUSIONS**

This study constructs an application framework of the "Ten-Wheel Drive" mode for local cultural tourism talent training aiming at the dilemmas of traditional local talent training such as disconnection between curriculum and local resources, lack of regional adaptability training, and insufficient professional motivation. Through concept orientation, content reconstruction, method innovation, system guarantee, and support empowerment, the mode realizes the deep integration of local cultural tourism resources, industrial needs, and talent training processes.

Empirical research shows that this mode has effectively improved students' local cultural identity, regional adaptability, and full-chain operation ability, significantly increased the local employment rate of graduates and the satisfaction rate of local enterprises, and achieved remarkable results in local project cooperation and industrial empowerment. The innovation of this mode lies in: taking local resources as the core carrier, transforming local advantages into teaching advantages; taking local industrial needs as the orientation, realizing the accurate connection between talent training and local development; taking the "Ten-Wheel Drive" as the implementation path, realizing the hierarchical advancement of students' local practical ability.

The mode has strong replicability and promotion value. For regional colleges and universities in areas with rich cultural tourism resources, they can learn from this framework, combine local resource characteristics and industrial needs, adjust and optimize curriculum content, practice systems, and evaluation mechanisms, and construct a localized talent training mode.

## **COMPETING INTERESTS**

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