

# Research on the construction of practical training facilities for tourism-related majors in the context of digital transformation

Zhenghua LIU

Shandong College of Tourism and Hospitality, Jinan 250200, China

---

**Abstract:** In the context of rapid change, the tourism industry, as a diversified and innovative field, faces significant challenges and opportunities. With the continuous pursuit of travel experiences and ongoing innovation in travel services, the tourism sector needs to embrace digital technology to enhance service quality and meet the diverse needs of travelers. Tourism-related majors, as vital channels for training professionals in the tourism industry, need to keep pace with industry developments to provide students with up-to-date training. In order to cultivate tourism professionals who can adapt to digital transformation, educational institutions need to deeply consider how to improve the practical training conditions for tourism-related majors, enabling students to master the latest digital technologies in practice and contribute effectively to the development of the tourism industry.

**Key words:** digital transformation; tourism-related majors; practical training facilities construction; practical skills

---

## 1 Introduction

With the rapid development of information technology and the widespread use of the internet, digital transformation has become a trend in various industries. The tourism industry, as an information-intensive sector, is inevitably influenced by digital transformation. Digital transformation has brought many opportunities to the tourism industry, but it has also brought new challenges. In this context, nurturing tourism professionals who can adapt to digital transformation has become an urgent issue. Tourism-related majors, as crucial channels for training professionals in the tourism industry, play a vital role in enhancing students' practical skills and competitiveness through the construction of practical training facilities.

## 2 Current situation of practical training room construction in vocational colleges' tourism programs

### 2.1 Equipment and functionality of training rooms

Advanced multimedia equipment, such as interactive projection systems and electronic whiteboards, not only support teachers in knowledge dissemination during classes but also encourage active student participation in interactive learning. The use of these devices extends beyond the classroom, facilitating student group discussions and presentations. Furthermore, the training rooms provide simulated environments for tourism business operations, such as ticket reservation systems and hotel management software. Students can engage in practical operations and exercise within these

environments, enhancing their grasp of business processes and operational skills. This practical training enables students to quickly adapt to real-world business operations after graduation, providing strong support for the needs of the tourism industry [1].

## 2.2 Design and development of training projects

The design and development of training projects closely align with the actual work in the tourism industry, aiming to cultivate students' comprehensive qualities and practical skills. Simulated tourism route planning projects require students to consider multiple dimensions, such as site selection, transportation arrangements, and time allocation. This type of exercise enhances students' overall planning abilities and resource allocation skills, enabling them to better meet customer demands. On the other hand, simulated tourism product development projects require students to conceptualize and design theme-based tourism products based on market demand. This innovative training equips students with market sensitivity and innovative thinking, enabling them to offer more diversified products and services to the tourism industry [2].

## 2.3 Development of training instructor teams

Instructors not only need to master advanced training equipment operation skills but also must flexibly utilize these tools for teaching. Therefore, schools have intensified training for instructors in tourism programs to ensure that they fully understand the characteristics and usage of training equipment. Additionally, instructor teams need to continually improve their teaching methods and practical business experience [3]. They can stay updated on industry trends and changing market demands by maintaining close connections with industry professionals, allowing them to better guide students in their training projects. To increase the practicality of training, instructor teams often invite industry experts to participate in training. These professionals can not only share their practical experiences but also provide real-case analyses for students to better understand industry operations and problem-solving methods [4].

## 2.4 Assessment system for training outcomes

The establishment of an assessment system for training outcomes is essential for understanding students' performance during training and providing effective support for their future development. In addition to traditional exam scores, comprehensive training assessments play a crucial role. Assessments cover various aspects, including project reports, simulated exercises, and teamwork, offering a more comprehensive reflection of students' abilities and potential. Through this assessment system, schools can gain a better understanding of students' performance in practical operations, identifying their strengths and weaknesses. This not only helps schools adjust teaching content but also offers students more targeted training and guidance, better preparing them for their future careers [5].

# **3 Talent requirements in the tourism industry undergoing digital transformation**

## 3.1 Data analysis and mining skills

In the era of digital transformation, the tourism industry experiences explosive growth in data. Professionals need in-depth data analysis and mining skills to extract valuable information from vast datasets, providing support for business decisions. This requires proficiency in data analysis tools and technologies like Python, R language, as well as a command of statistical methods and data visualization skills for a better understanding and interpretation of data. During data analysis and mining skills, professionals need keen insights and innovative thinking to discover potential business opportunities and market trends. Through data analysis and mining, professionals can offer customized solutions to enhance business efficiency and competitiveness [6].

### 3.2 Technology application and innovation abilities

Digital transformation relies on various technology applications such as artificial intelligence, virtual reality, and blockchain. Professionals must master these technologies and apply them to business innovation to improve efficiency and user experiences. In the tourism industry, professionals need innovative thinking and practical skills to develop digital products and services that offer a competitive edge. Examples include online reservations, mobile payments, and AR tour guides, which represent new business models in the tourism industry. Professionals must possess the ability for technological innovation to drive industry development and transformation.

### 3.3 Cross-disciplinary integration thinking

Digital transformation encourages the convergence and integration of tourism with other fields like technology, culture, and art. Professionals need cross-disciplinary thinking to blend concepts and resources from different domains into tourism businesses, creating unique experiences and value. For example, integrating tourism with culture and art can provide tourists with richer and more diverse travel experiences. Combining tourism with technology can offer tourists more intelligent and personalized services. Professionals need collaboration and innovation skills across disciplines to drive the development and transformation of the tourism industry.

### 3.4 Global perspective and cultural understanding

Digital transformation promotes global cooperation and market expansion in the tourism industry. Professionals require a global perspective and cross-cultural communication skills to understand the cultures, regulations, and market characteristics of different countries and regions. This enables them to adapt flexibly in cross-border business operations. Professionals need cross-cultural communication skills to understand and address consumer demands and behaviors in diverse cultural backgrounds. Through a global perspective and cultural understanding, professionals can provide higher-quality services and products, enhancing business satisfaction and competitiveness.

### 3.5 Communication and collaboration skills

Professionals need strong communication and collaboration skills to efficiently work with technical teams, marketing teams, and other stakeholders to drive project progress. In the tourism industry, professionals need excellent communication and collaboration skills to interact effectively with individuals from different backgrounds, including clients, suppliers, and partners. Furthermore, they need teamwork and leadership skills to coordinate the work of team members and achieve common goals. Through effective communication and collaboration skills, professionals can enhance work efficiency and the quality of teamwork, facilitating the smooth realization of business objectives.

## **4 Functions and content of tourism major practical training rooms in the context of digital transformation**

### 4.1 Application of digital technologies

Digital technologies have become an integral part of the tourism industry's development. For example, VR/AR technology can provide tourists with more immersive experiences, intelligent navigation systems offer convenient tour guidance, and digital marketing platforms provide precise marketing strategies for tourism businesses. Therefore, the application of digital technologies is essential in the construction of practical training rooms for tourism programs. These training rooms need to be equipped with the latest digital technology devices and software to enable students to gain hands-on experience with digital technology applications and enhance their skill levels.

#### 4.2 Simulated training environments

The tourism industry places a strong emphasis on practical experience, so the construction of practical training rooms for tourism programs should provide simulated training environments. These environments can simulate tourism attractions, mock offices for tourism enterprises, and more. Through the design and construction of these simulated environments, students can engage in practical operations in real-life settings, enhancing their practical skills and experience. For example, students can conduct guided tours in simulated tourist attractions or engage in marketing planning and product development within simulated tourism enterprises.

#### 4.3 Practical course design

The construction of practical training rooms for tourism programs should involve the design of practical courses such as tourism product development and tourism marketing planning. Through the design and implementation of these practical courses, students can gain practical skills and knowledge through hands-on experience, improving their overall qualifications. For instance, students can learn the process of tourism product development and methods and techniques for tourism marketing planning through practical courses. These practical courses provide students with practical operational experience and skills, enhancing their competitiveness in their careers.

#### 4.4 Project-based practicum

The construction of practical training rooms for tourism programs should also offer project-based practicum opportunities, such as tourism project planning and tourism industry data analysis. Through these project-based practicums, students can acquire project management skills and the ability to address real-world issues through practical experience, enhancing their practical operational capabilities. For example, students can learn the basics of project management and principles and methods of tourism industry data analysis through project-based practicums. These project-based practicums provide students with practical operational experience and skills, enhancing their competitiveness in their careers.

#### 4.5 Showcasing training outcomes

The construction of practical training rooms for tourism programs should establish a mechanism for showcasing training outcomes, including student practical reports and presentations of practical products. Through these showcases, students can demonstrate their practical achievements, improving their self-marketing abilities and competitiveness. For instance, students can use practical reports and presentations of practical products to showcase their achievements and experiences gained through practical training. Additionally, by comparing and exchanging experiences with other students, they can identify areas for improvement, further enhancing their practical capabilities and overall qualifications.

### **5 Forms of tourism major practical training rooms in the context of digital transformation**

#### 5.1 Virtual reality simulation experience training rooms

The construction of virtual reality simulation experience training rooms aims to provide students with immersive tourism experiences through virtual reality technology. These training rooms are equipped with advanced virtual reality equipment and software, allowing students to feel as if they are in real tourism scenarios. Students can participate in simulated tourism activities and scenes using wearable devices and interactive controllers. This type of hands-on practice cultivates students' practical skills and tourism service capabilities, boosting their confidence and professionalism in real work environments.

#### 5.2 Data analysis and prediction training rooms

Data analysis and prediction training rooms focus on developing students' data processing and analysis skills. These rooms are equipped with specialized data analysis tools and real market data, enabling students to learn and apply data analysis techniques. They extract valuable information about tourism market trends, consumer behavior, and more from big

data, providing reliable data support for business decision-making. In addition, students can use data models and algorithms to predict future market changes and adjust business strategies accordingly.

### 5.3 Innovative product design and marketing training rooms

Innovative product design and marketing training rooms are crucial areas in the context of digital transformation and are integral to the tourism industry's digital transformation. These training rooms include innovative product design workshops and digital marketing platforms. Students can engage in creative design within teams, incorporating digital technology into tourism products to enhance their innovative thinking. The digital marketing platforms enable students to write compelling content, manage social media accounts, and implement digital marketing strategies. The construction of innovative product design and marketing training rooms should consider students' practical needs and industry realities, enabling them to fully utilize their abilities in practice and contribute to digital transformation.

### 5.4 Cross-cultural communication and language development training rooms

Students can simulate interactions with tourists from different countries and regions through cross-cultural communication and language development training rooms, honing their cross-cultural communication skills. Additionally, these training rooms provide resources for learning multiple languages, laying the foundation for international exchanges in the future. Through simulated cross-cultural communication scenarios, students gain insights into the differences and commonalities among different cultures, improving their communication efficiency and quality. These training rooms should consider students' practical needs and industry realities, allowing them to fully utilize their abilities in practice and contribute to digital transformation.

### 5.5 Blockchain technology application and digital security training rooms

In the era of digital transformation, digital security is of increasing importance. These training rooms focus on showcasing the application of blockchain technology in the tourism sector, such as secure payments and identity authentication. Students can learn how digital technology enhances and protects tourism business operations while understanding the importance of digital security in safeguarding customer privacy and business operations. The training cultivates students' ability to mitigate digital risks, making them more security-conscious in the digital age.

## **6 Strategies for integrating practical training rooms with curriculum teaching in the context of digital transformation in tourism programs**

### 6.1 Integration of practical content with curriculum teaching

Practical education holds a significant position in tourism education; therefore, the design of practical training rooms should align with the curriculum content to ensure that students can apply the theoretical knowledge learned in the classroom to practical operations. During the design of practical training rooms, consideration should be given to how to closely link curriculum teaching with practical projects to better cultivate students' practical abilities. Furthermore, teachers should focus on designing courses that emphasize practical tourism operations to help students develop practical skills. In teaching, practical education should be integrated with theoretical instruction, and teachers should guide students in applying theoretical knowledge to practical situations to reinforce and apply what they have learned.

### 6.2 Emphasis on practical teaching and hands-on experience

The construction of training rooms should emphasize the practical teaching and hands-on experience components to ensure that students can consolidate and apply the theoretical knowledge learned in the classroom through practical operations. Teachers should prioritize practical operations and guide students in conducting hands-on activities in the training rooms, fostering their practical skills and problem-solving abilities. In practical education, teachers should focus on nurturing students' practical capabilities, enabling them to reinforce and apply their knowledge through practical

operations, while also emphasizing the development of their problem-solving abilities, encouraging independent thinking and problem-solving. For example, integrating the knowledge learned in the classroom with practical operations, guiding students in hands-on activities, enabling them to better understand and apply their acquired knowledge.

### 6.3 Emphasis on team collaboration and collaborative projects

The construction of training rooms should emphasize teamwork and collaborative projects to enhance students' teamwork and communication skills. And students are encouraged to engage in collaborative practices within the training rooms by offering collaborative projects and inviting industry experts for guidance. In team collaboration, students can better understand and apply the theoretical knowledge learned in the classroom, and broaden their perspectives and ideas through interactions with fellow students. For example, teachers can guide students in collaborative practices, enabling them to better understand and apply their acquired knowledge, while also facilitating interaction with other students to expand their horizons. Additionally, collaborative projects and guidance from industry experts help students stay updated on industry trends and requirements, preparing them for their future careers.

### 6.4 Introduction of industry partnerships and real-world cases

Collaboration with the tourism industry and the introduction of real-world industry cases and projects allow students to engage with and solve real tourism-related issues. Through industry partnerships, students gain deeper practical experience, interact with industry experts, and stay updated on the latest industry trends, thereby enhancing their practical capabilities and ability to address real-world challenges. Moreover, the incorporation of real-world cases and projects provides students with a better understanding of the tourism industry's development trends and requirements, helping them adapt to their future careers, for example, collaborating with the tourism industry and inviting industry experts to deliver lectures and guide practical operations. Additionally, the introduction of real-world cases and projects allows students to tackle and solve genuine tourism challenges, enhancing their understanding of industry trends and demands for better career preparation.

### 6.5 Utilization of digital technology for teaching enhancement

Digital technology can be used for simulating tourism environments, data analysis, simulated marketing, and more. By combining hands-on experience with digital technology, students' practical skills and innovative thinking can be promoted. The application of digital technology can help students better understand and apply their knowledge while also enabling them to master digital skills, enhancing their innovation and practical capabilities. To better utilize digital technology for teaching enhancement, teachers can take various measures, such as introducing digital simulation software, data analysis tools, simulated marketing software, etc., to help students better understand and apply their knowledge. Moreover, teachers can use digital technology to promote students' innovative thinking and practical abilities during hands-on activities, equipping them with stronger competitiveness in the digital era.

## **7 Conclusion**

Digital transformation is a significant trend in the tourism industry and tourism education. The construction of training facilities for tourism programs must keep pace with the digital transformation. Through the application of digital technology, practical teaching and hands-on experience, the promotion of teamwork and collaborative projects, and the field of tourism education will encounter both opportunities and challenges. It is hoped that this article will provide valuable insights and inspiration for the research and practice in the development of training facilities in tourism programmes.

## **Acknowledgments**

Fund Project: Research and Scheme Design of Tourism Specialty under the Background of Digital Transformation, Project No.: 2022XYJG13, Project Source: Shandong Vocational College of Tourism in 2022 Cultural and Tourism Data Research and Application Special and Digital Transformation Teaching and Research Project.

## **Conflicts of interest**

The author declares no conflicts of interest regarding the publication of this paper.

## **References**

- [1] Yu L. 2022. Research on the construction and management of vocational college tourism major training rooms. *Life and Partners*, 27:59-61.
- [2] Zhang C, Qin Q. 2021. Evaluation of the application of 3D tour guide simulation training room in practical teaching of tourism management majors. *Journal of Hebei Tourism Vocational College*, 26(03):71-75.
- [3] Shan J, Chu H. 2020. Analysis of the construction and practice research of school-based training bases for tourism service majors under the "dual-system" mode. *Modern Vocational Education*, 38:14-15.
- [4] Lu J, Ma L. 2020. Reform of training rooms for tourism and hotel management majors in colleges and universities. *Journal of Jiangxi Electric Power Vocational and Technical College*, 33(06):54-55+58.
- [5] Shan J. 2017. Construction of training rooms and training bases for tourism management majors in secondary vocational schools. *Tourism Review (Bi-monthly)*, 22:161-162.
- [6] Shen Y. 2017. Research on the construction and management practices of training rooms for tourism majors in higher vocational colleges. *Farmhouse Counselor*, 15: 69+83.