

Research on the Design of Research Tourism Products under the Background of “Internet Plus”: Based on RMP Model Analysis

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Abstract: Taking The Tongli Ancient Town as an example, this paper analyzes the research tourism resources of Tongli Ancient Town by using the RMP analysis model, quantitatively analyzes the market demand of research tourism by using questionnaire surveys data, and on this basis, designs the research tourism products of ancient town by combining Internet technology and animation culture. Present a more attractive design scheme for "Animation IP+ Ancient Town" researches tourism products. The results demonstrate that: (1) The intelligent cloud platform is conducive to real-time access to research tourism information, and personalized customization of research tourism intelligent application scenarios are conducive to the immersion experience of research tourists. (2) Integration of animation culture makes the research tourism products more attractive. In the "teaching in fun", students' learning is turned from passive input to active exploration for phased self incubation.


1 INTRODUCTION

As a new tourism product form and consumption hotspot, study to tour has become the rigid demand of parents' consumption view and education view after the 1970s and 1980s and the "standard" of teenagers' growth and development, which has attracted more and more attention on domestic and foreign scholars (Wang, 2019). "Several Opinions of the State Council on the Reform and Development of Tourism" issued on August 9th, 2014 pointed out the significance of actively carrying out research tourism. On December 19th, 2016, 11 departments, including the Ministry of Education, issued Opinions on Promoting Study Travel for Primary and Secondary School Students, requiring all localities to put study travel in a more important position. Therefore, how to better and more effectively conduct research tourism will become a hot topic in the future development of tourism.

Research on research tourism at home and abroad mainly focuses on research tourism product development research (Wang, 2019, Sun, 2020, Li, 2019, Shen, 2020, Cao, 2019, Gao et al, 2020), animation research industry integration research

(Zhang et al, 2019, Ding, 2015, Yao, 2020), research tourism concept research (Zou, 2019, Wang, 2015, Zhao, et al, 2015, Fang, 2019), research tourism market research (Yang, 2019, Chen, 2020), research tourism characteristics research (Ren, Ma, 2018, Xie, 2019, Wang, 2015), research tourists' psychology and behaviour research (Chen, Xie, 2020, Zhou, Yu, 2020), etc. Animation industry and tourism belong to the sunrise industry in the modern service industry, the integration of the two can improve the competitive advantage of the modern service industry (Wang, 2019). Time development, technological change, intelligent popularization and the big data era are the general trend and the inevitable choice of life convenience. The "Opinions on Deepening internet plus Tourism and Promoting the High-quality Development of Tourism" jointly issued by the Ministry of Culture and Tourism, National Development and Reform Commission and other ten departments emphasize that Adhere to technology empowerment, and further promote the digital, networked and intelligent transformation and upgrading of tourism. This paper takes Tongli Ancient Town in Suzhou as a case, makes full use of the convenience of the big data era, combines digital

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means and introduces animation culture, to design and put forward innovative and feasible product schemes of research tourism under the background of "internet plus".

2 RESEARCH DESIGN

2.1 Case Introduction

The research and design case is Tongli Ancient Town, Suzhou. Tongli Ancient Town, located in the northeast of Wujiang District, Suzhou, Jiangsu Province, is just an ancient town with a long history and typical water town style. In 1980, it was listed as one of the national scenic spots of Taihu Lake. In 1982, it was listed as a parochial cultural relics protection unit, and in 1992, it was listed as a provincial cultural relics protection town. In 2010, it was rated as a domestic 5A-level scenic spot by the National Tourism Administration. He has earned the United Nations Habitat Environment Model Award, 2018 China Travel Word of Mouth List-Best Destination Scenic Spot, China's Top Ten Attractive Towns and other titles. On September 19th, 2020, at the inaugural meeting of the Jiangsu Tourism Association Research Branch held in Nanjing Leichuang National Defense Education Base, scenic spots such as Tongli Ancient Town are identified as "Jiangsu Research Travel Base" (Wang, 2020).

2.2 Introduction of RMP Analysis Model

In 1999, Mr Wu Bihu put forward the theory of RMP analysis to solve the problems related to insufficient effective demand and escape sequence of tourism products, that is, taking tourism products as the centre, making R analysis and M analysis, and based on this, making P analysis as the product planning model. The model is as follows (Wu, 2001). Using RMP models to develop research tourism products, based on the analysis of resources and market environment, is conducive to shaping the product image that meets the market demand, fully perfecting the product concept system and enhancing the popularity and influence of the product.

2.3 Questionnaire Survey and Analysis

To understand the market demand for research in tourism, the author investigated the market demand for research in tourism through online questionnaires from April 12th, 2021 to April 16th, 2021. The sample capacity of this questionnaire is 300, and 300 are recovered, with a recovery rate of 100%. After data screening, the number of questionnaires available for analysis is 286, and the effective rate is 95.3%. The questionnaire survey includes three parts: basic information about researchers, research tourism demand for researchers and research tourism demand of "Ancient Town+Animation" of researchers.

3 RESOURCE AND MARKET ANALYSIS

3.1 Analysis of Research Tourism Resources in Tongli Town

Tongli Ancient Town is rich in research and tourism resources. It is mainly divided into celebrity memorial site resources (Wang Shaosong Memorial Hall, Chen Qubing's former residence), museum resources (Lize Girls' School, Tianyuan Cultural Garden), theme exhibition hall resources (Gengle Hall, Jiangnan Wedding Customs Exhibition, Songs Wuyuan, Taihu Water Conservancy Exhibition Hall, Historical Relics Exhibition Hall), cultural resources (Wenxiang Reading Building, Family Style Family Training Hall, Furutang) and humanities and art resources (Gufeng Garden). Film production base). The resources cover a wide range, fully reflect the educational and ornamental value, and have profound cultural heritage. For example, Lize Women's School, known as "the first exhibition of 5,000 years", Furutang, as a clean and honest cultural viewing point of "Perch Breeze", and Songs Wu Garden, which was built for the permanent preservation of natural and cultural heritage, all has research significance.



Figure 1: Distribution of research tourism resources in Tongli Ancient Town.

3.2 Research Tourism Market Demand Analysis under the Background of Big Data

3.2.1 Analysis of Demand Characteristics of Research Tourism Market

The results of the questionnaire show (Table I) that 100% of tourists have a positive attitude to research tourism and are willing to travel through a team. Tourists consider the attractiveness, degree of innovation (29.72%), price (23.08%) and effective

(21.33%) of research products more. Tourists choose amusement parks (77.62%), botanical gardens (54.55%) and wetland parks (53.85%) to carry out research tours, with 32.87% of tourists choosing to conduct research tours in ancient towns. The main way for researchers to obtain research information is new media (34.62%), followed by traditional media (30.77%), and the publicity of schools and educational institutions can not be ignored (19.23%). Short video APP, travel website and WeChat official account are the main ways for tourists to obtain information, accounting for 68.09%, 72.85% and 67.55% respectively.

Table 1: Statistics of research tourism market demand.

| Sample attribute | characteristic | frequency | percentage |
|----------------------|--------------------------------------|-----------|------------|
| Consideration factor | price | 66 | 23.08% |
| | Time | 20 | 6.99% |
| | Space | 33 | 11.54% |
| | Innovation of products | 85 | 29.72% |
| | Professional degree | 15 | 5.24% |
| | Health issues | 6 | 2.10% |
| | Effect | 61 | 21.33% |
| Carry out site | garden | 70 | 24.48% |
| | old/ancient town | 94 | 32.87% |
| | Amusement park | 222 | 77.62% |
| | Celebrity memorial hall | 68 | 23.78% |
| | museum | 59 | 20.63% |
| | Revolutionary former site | 26 | 9.09% |
| | revolutionary martyrs cemetery | 15 | 5.24% |
| | Equal mountain landform area | 13 | 4.55% |
| | botanical garden | 156 | 54.55% |
| | wetland park | 154 | 53.85% |
| Access | Ordinary park | 17 | 5.94% |
| | traditional media | 88 | 30.77% |
| | new media | 99 | 34.62% |
| | Schools and educational institutions | 55 | 19.23% |
| | Recommended by friends and relatives | 21 | 7.34% |
| new media | Travel agency publicity | 23 | 8.04% |
| | Short video APP | 128 | 68.09% |
| | Hot news | 54 | 28.72% |
| | Tourism website | 137 | 72.87% |
| | Shopping website | 49 | 26.06% |
| | WeChat Subscription Accounts | 127 | 67.55% |
| | Friends circle /QQ space | 12 | 6.38% |

3.2.2 "Ancient Town+Animation" Research Tourism Demand Analysis

The results of the questionnaire show (Table II) that 100% of researchers like watching animation, and hope to interact with classmates and teachers on the theme of animation culture during the study tour. Combination methods of research tourism and animation culture preferred by researchers are the

adventure, role-playing and film and television watching, accounting for 80.07%, 75.15% and 85.31% respectively. The animation theme preferred by researchers is fantasy (74.13%), reasoning (81.12%), comedy (67.83%), science fiction (62.24%) and blood (58.74%) rank in the top five.

Table 2: "Ancient Town+Animation" Tourism Demand Statistics Table.

| Willingness project | Classification subitem | frequency | percentage |
|---------------------------------------|----------------------------------|-----------|------------|
| Watch animation | like | 286 | 100% |
| | dislike | 0 | 0% |
| Animation theme interaction | hope | 286 | 100% |
| | do not hope | 0 | 0% |
| Combination of animation and research | Cosplay | 215 | 75.17% |
| | Watch film and television | 244 | 85.31% |
| | Scene interaction | 85 | 29.72% |
| | Guan Adventure | 229 | 80.07% |
| | Atmosphere decoration | 44 | 15.38% |
| Animation theme preference | fantastic | 212 | 74.13% |
| | reason | 232 | 81.12% |
| | tap one's intellectual resources | 75 | 26.22% |
| | action | 63 | 22.03% |
| | comedy | 194 | 67.83% |
| | take a risk | 28 | 9.79% |
| | science fiction | 178 | 62.24% |
| | warmblood | 168 | 58.74% |
| | the plot of a play | 18 | 6.29% |
| | cure | 13 | 4.55% |
| | fight | 12 | 4.20% |
| | inspire | 21 | 7.34% |
| | Comic works | 17 | 5.94% |

4 PRODUCT DESIGN

4.1 Thoughts on the Development of Research Tourism Products in Tongli Ancient Town, Suzhou

This study takes contemporary middle school students as the research object, selects Tongli Ancient Town as the case, and uses animation culture that contemporary middle school students tourists have an interest in design. By using high-tech means, students can learn from passive input to active exploration and absorption through animation scene interaction, team game, script killing and other forms. Students hatch themselves in stages in the process of walking across the border, improve their abilities, mobilize their enthusiasm and flexibility, and enhance their sense of experience.

4.2 Study the Design Principles of Tourism Products

4.2.1 Epochal Principle

Highlight the characteristics of intelligence in the era of massive data and use high-tech mean to enhance tourists' perception and experience. Keep pace with the times, make full use of the advantages of the

network era, effectively manage and mobilize the research tourism resources, realize the ecological closed-loop business resource service platform of the whole industry chain of research tourism, realize the digital transformation and generate the digital economy.

4.2.2 Thematic Principle

Study tourism should draw up a definite theme, otherwise, it will be disorganized. The choice of theme can also better promote the study tour. The selection of study tourism theme should be based on the study object, which has individual differences and needs targeted design to obtain effectiveness.

4.2.3 Open Principle

Nowadays, with the dynamic development of society, the design of research tourism products should consider openness and dynamics to improve the flexibility of researchers' thinking. Study tourism is not just a form of educational tourism but also a simple "trip" and "tour". To show the most effective results of studying tourism, it can be incorporated into other industries to enrich its connotation and enhance its influence.

4.3 Design Scheme of "Anime Script Killing" Plot Unlocking Research Course

4.3.1 Research Courses to Design Scheme (General Situation)

The course is arranged for two days and is launched in the form of "research course+game interaction". The specific arrangement is as follows (Table 3):

Table 3: Schedule of research courses.

| | Course category | Course time | course content |
|--------------|-----------------|-------------|---|
| first day | | | |
| morning | Research course | 8:30 | Gather at Tianyuan Cultural Garden. |
| | | 8:30-9:00 | Exploring the Research Resources of Museum (Tianyuan Cultural Garden). |
| | | 9:30-11:30 | Exploring the Resources of Celebrities Memorial Site (Chen Qubing's Former residence → Wang Shaoao Memorial Hall). |
| afternoon | Research course | 13:30-15:00 | Explore cultural resources (Wen Xiang Reading Building → Jiafeng Family Training Hall). |
| | | 15:30-17:00 | Explore the resources of humanities and arts (Tongli Movie and Television Production Base → Gu Feng Garden). |
| the next day | | | |
| morning | Research course | 9:00 | Meet at Songshi Wu Garden. |
| | | 9:00-11:30 | Explore the theme exhibition hall resources (Songs Wu Garden → Taihu Water Conservancy Exhibition Hall → Historical Relics Exhibition Hall). |
| afternoon | Research games. | 13:30-17:30 | Researching and learning games (use the knowledge of researching and learning scenic spots learned in two days to obtain game clues and customs clearance games). |

4.3.2 Research Course Design Scheme (Case)

- The studies tour is divided into two days. On the first day of study and the next morning, students, under the guidance of the study tutor, will study the study course according to the schedule and content of the study schedule (Table III) and make notes to prepare for interactive answers to the game.

- The Commissioner will introduce the unlocked research game course of "Script Kill" story to all students. Explain the rules and regulations and ensure that students know the requirements.

- Grouping. According to the total number of researchers, each group is divided into groups, with one leader and one safety officer (check the number

of teams at any time to prevent separation). The number of each group should not be too much, and it is advisable to have about 6-8 people.

- Getting the background introduction to the plot. After completing the study task of the research course, I got the background introduction to the initial pilot, which was presented in the form of VR glasses simulation scene. The case is as follows: One night, Xiaohong returned to the classroom after training in the dance room (at 18:15, when the school was over), and saw classmates Xiaoming and Xiaofang coming out of the classroom at the corner. After the two sides said goodbye in surprise, Xiaohong returned to the classroom. After entering the door, I found that a certificate of honour on the wall of the blackboard was damaged. This certificate belonged to Xiao

Wang, and at this time, Xiao Wang had come home to school. There was a pen on the ground in front of this certificate, which Xiaohong picked up. At the end of the simulation scene, the question arises: Who is the one that damaged the award certificate? In this process, researchers can mark and record events as important nodes on blank paper, confirm the task contents, clarify problems and then enter the starting point of scenic spots.

- Researchers enter scenic spots, arrive at designated scenic spots, select questions to answer or complete special tasks in the scenic spots, and only after the answers are correct or tasks are passed can they obtain clues. Clue cases obtained are shown in Table 4.

Table 4: Regional Attractions-Clues Cross Reference Table.

| scenic site/spot | Clue type | Clue content |
|---|-------------------|---|
| Tianyuan Culture Garden | Naked eye 3D text | "The pen belongs to Xiao Li, Xiao Hong's deskmate." |
| Chen Qubing's Former residence | Vr glasses | After watching the film and television. |
| Wang Shaoao Memorial Hall | picture | Screenshot of relevant monitoring records. |
| Wen Xiang Reading Building | Vr glasses | After watching the film and television. |
| Jiafeng Family Training Hall | record | After listening to the recording, I learned that |
| Tongli Movie and Television Production Base | Naked eye 3D text | "Xiaohong went back to the classroom because of falling things before entering the dance room, and there was no one in the classroom at this time." |
| Gu Feng garden | Naked eye 3D text | When Xiaohong picked up the pen, Xiao Li entered through the back door. |
| Songshi Wu Garden | Holographic image | Fingerprint comparison on pen. |
| Taihu Water Conservancy Exhibition Hall | picture | Chat screenshot. |
| Historical Relics Exhibition Hall | multi-media | After watching the film and television. |

- Determine the answer. Who is the damaged person? [Suspect options: A. Xiaohong B. Xiaoming C. Xiaofang D. Xiaoli E. Xiaowang] After analyzing all the clues, the team determines a target answer, which cannot be changed after confirmation.

- Ending. After all the groups are operated, the correct answers will be announced, and a winning group will be decided, which can be used as small actors to rehearse and record the background plot in the next script.

4.3.3 Intelligent Application of Study Tourism Schemes

- Naked-eye 3D: Achieve stereoscopic vision effect without external tools. The parallax barrier device is used to display three-dimensional cartoon characters or cartoon scene images, which are put into Tongli Ancient Town with decoration to create an atmosphere full of a sense of science and technology.

- Multi-media: the integration of multiple media, and the man-machine interactive information exchange with the storage and management of various information by computer. You can place pictures, words, data or play audio and video for researchers to click and watch by themselves.

- Artificial Intelligence (AI): Including robot, language image recognition, natural language processing, etc. Give the robot animation image, place it in a venue for a task point, and organize the implementation of the research course of researchers.

- Virtual reality (VR): The computer simulates the virtual environment, giving people a sense of environmental immersion. Play an important role in the plot unlocking research curriculum designs. VR glasses show the theme plot and trigger the progress of each link.

- Holographic image: The technology of recording and reproducing the real three-dimensional image of an object by using interference and diffraction principles. Fully display the next task points information or animation image scene layout in the interactive game, which is vivid and realistic.

4.3.4 Animation Scene Layout of Research Course Scheme

Select representative animation to invest in the scene layout of the research and tourism development site. Animation integrated into this study tour takes the following five animations as examples:

- Big Fish Begonia: it belongs to the fantasy adventure. The girl "Chun", who is in charge of the law of all things in the world, was killed in the 16-year-old world tour. The human boy fell into the deep

sea and lost his life to save her. To repay the debt, "Toon" helps the boy to be reborn as the soul of a small fish, which violates the law and causes various disasters. The difficulties are finally overcome, and the boy is finally reborn.

- Detective Conan: the category is reasoning. Kudou Shinichi, the hero, became Conan because he was drugged by the black hand organization. He stayed with his childhood friends and used his superb reasoning ability to solve an unsolved case. Become a detective.

- Doraemon: It belongs to science fiction. Doraemon, a cat robot from the 22nd century, was entrusted to return to the 20th century and used the thought pocket props to help the great grandfather of Shixiu (elementary school student Nobi Daxiong) solve various difficulties.

- Bear haunts: the genre is comedy. Tell the story of the forest keeper Xiong Brothers fighting bravely with the lumberjack Logger Vick to protect the forest.

- "Naruto": The type is blood. The story of Naruto Uzumaki, the hero, is growing up in the struggle with conspiracy to become Huo Ying.

5 CONCLUSIONS

Research tourism is an instructive form of tourism, and research tourism resources are the support of research tourism products. At present, with the rapid development of research tourism, there are many problems, such as single product form and lack of attraction, insufficient utilization of resources and lack of education, improper rendering of atmosphere and lack of experience, unclear positioning of audience groups and lack of pertinence, etc. It hinders the vigorous and sustainable development of research tourism.

Taking Tongli Ancient Town as an example, this paper analyzes the research tourism resources of Tongli Ancient Town by using the RMP analysis model, quantitatively analyzes the market demand of research tourism by using questionnaire surveys data, and on this basis, designs the research tourism products of ancient town by combining Internet technology and animation culture. Present a more attractive design scheme for "Animation IP+ Ancient Town" researches tourism products. Under the general background of "internet plus", using VR, AI, multimedia and other technical means, we can personalize the application scenarios of research and tourism wisdom, build a cloud service platform for research and tourism, and update the research and

tourism information on real-time by using the technology of the times. It is more attractive to integrate animation culture in ancient town studies of tourism for product development and design, which meets the tourism needs of study objects and promotes the comprehensive and harmonious development of students' bodies and minds in the process of "entertaining". In addition, this research is reproducible, and a diversified selection of animation themes has a positive effect on guiding the popularization of research in tourism.

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