

# Three-dimensional Theory of Tourism Experience Design for Aging Tourism

Chuanlong Wang

Langfang Normal University, Langfang, Hebei, 065000, China

## Abstract

With the deepening of aging in China, the elderly have constituted a large-scale group in the tourism team, but due to the inertia of traditional tourism scenes and modes, the tourism industry from the perspective of aging is facing the dilemma of simplification and coarseness. Through the research on the theory of the construction of tourism projects for the aged. This paper attempts to introduce the experience design thinking in the field of design into the construction of tourism experience for the elderly, and creatively puts forward the three-dimensional theory of experience, namely, the basic level, the relationship level and the achievement level, combined with the travel motivation, product selection and interactive experience in the stage of tourism activities, and analyzes the elements in each level. In order to guide developers to use experience design thinking to reconstruct the experience scene based on the current situation of tourism, tourism resources and the needs of the elderly, and promote its evolution to diversification and refinement.

## Keywords

**Aging Tourism; Experience Design; Three-dimensional Theory.**

## 1. INTRODUCTION

Different from the international method of defining the elderly population, China defines the population aged 60 and over as the elderly. According to the data of the 7th National Census, by the end of 2020, the population aged 60 and over in China has reached 260 million, up to 18.7% of the total population [1]. At present, the number of elderly tourists in China has accounted for more than 20% of the total number of tourists in China every year. With the change of consumption concept, the travel demand of the elderly is strong. And the travel rate is increasing year by year [2]. It can be seen that in this society which tends to be deeply aging, the elderly increasingly constitute a large-scale group. In recent years, with the improvement of the life, health and consumption level of the elderly, the aging tourism market has also shown a growing trend of prosperity. Although there are abundant natural and cultural tourism resources in China, due to the inertia of traditional tourism scenes and modes, the tourism industry from the perspective of aging is facing the dilemma of simplification and coarseness. How to reconstruct the experience scene based on the current situation of tourism, tourism resources and the needs of the elderly, and promote its evolution to diversification and refinement? The introduction of experience design thinking has stimulated new thinking on aging tourism.

## 2. RELATED RESEARCH ON THE CONSTRUCTION OF AGING TOURISM

### 2.1. Behavioral Motivation

The factors that determine the travel of the elderly are often multifaceted, including physiological and physical conditions, emotional and psychological, economic conditions and external environmental effects. For example, through the analysis of physical function and psychological impact, Chao Dinny pointed out that the elderly group tends to moderate and weak intensity of activities [3]. When discussing the development of China's elderly tourism market, Zhou Li made an empirical study on the decision-making behavior of the target group, and proposed that relevant enterprises must develop appropriate projects according to the psychology of the elderly [4]. On the basis of summarizing Grisman's theory, Tanaka Kiichi subdivided the four factors of psychology, economy, spirit and body. A more systematic theory of tourism development motivation is put forward. Because of the complexity of motivation factors and the difference of research perspectives, there are some differences in the conclusions. For example, there are some groups of elderly people who want to participate in outdoor projects with large amount of activities psychologically, but these projects have some potential safety hazards to their health.

### 2.2. Industrial Market

There are many domestic researches on the elderly tourism projects from the perspective of industry and market, which are closely related to the vigorous development of the elderly economy by the state and government in recent years and the emphasis on caring for the elderly market. For example, Wei Lihua and Cong Yanguo discussed the impact of the aging population on the contribution rate of tourism economic benefits, and pointed out how enterprises can adapt to the pace of aging. In order to change the way of thinking to adjust the tourism industry strategy to improve the benefits of enterprises [5]. Under the background of actively adapting to aging, Liu Jia and Han Huanle systematically analyzed the current situation, characteristics and consumption trends of China's elderly tourism market, and put forward countermeasures and paths to optimize the industry from the aspects of market structure, product structure, spatial structure and elderly consumer groups [6]. This kind of research mostly starts from the top level, from the perspective of economic and social benefits and complementary advantages of government and enterprises, to analyze the strategy of cultivating and fostering aging tourism projects, but does not sink into the more specific field of tourism scenario construction for elderly consumers.

### 2.3. Product Planning

The planning research on tourism products for the elderly is mostly based on the analysis of the physiological and behavioral characteristics of the elderly, using more classical product development theoretical models and strategies, such as TPC theory of marketing, DLC life cycle theory of tourism geography, regional advantage strategy, sustainable strategy and so on. Based on the questionnaire and empirical analysis of the tourism decision-making of the elderly in Sanming City, Fujian Province, Chen yuan analyzed the impact of the relevant elements in the strategy on the preferences of the elderly, and put forward suggestions for the development of tourism bases and suburban tourism for the elderly [7]. Based on the theory of consumption behavior, Hu Juan investigated and analyzed the characteristics of tourism consumption behavior of the elderly through questionnaires and interviews. The existing problems in product development and innovation strategy are put forward [8]. Product planning research focuses on the integration of tourism services and resources, and its essence is to gain greater market share and similar competitive advantages from the perspective of enterprises.

To sum up, on the one hand, the current research focuses on the explicit needs of the elderly, but does not deeply explore the hidden demand factors hidden on the surface, and makes a comprehensive analysis from a more systematic perspective of "Human (User)". On the other hand, it focuses on policy, economy and resources. The limitation is that the traditional service-oriented and integrated development can not better adapt to the current situation of experience-oriented and consumer-oriented.

### **3. EXPERIENCE DESIGN THEORY**

#### **3.1. Research Objects of Experience Design**

Experience design is different from policy-oriented, economy-oriented and resource-oriented research, which is the evolution of design concept under the background of experience economy, and integrates the participation of specific people (users or consumers) into the scene design, emphasizing that "people" feel friendly experience in the whole business activities. The non-materialized services, materialized products and environment received in the whole process of activities are the objects that need to be included in the study, such as the interaction with service personnel, the sounds heard and the smells, which are non-materialized; the facilities, landscapes, food and products that the elderly come into contact with are materialized objects. Starting from the specific situation in the user's journey, it shapes the multi-dimensional sensory experience and thinking identity of users or consumers, thus bringing them the blending of emotions and scenes, and triggering a sustainable and friendly experience.

The whole process of elderly tourism, that is, the user's journey, does not only start from the moment when the elderly step into the tourist attractions, but also from the stage when they decide whether to travel or not, or even before that. For example, some people will grasp the relevant information of tourism projects in the mouth of their relatives and friends or through other media, which is a very important factor affecting travel motivation. In this study, the travel journey of the elderly is divided into three stages: travel motivation, product selection and interactive experience. Combined with the characteristics of the elderly and existing resources, how to create emotional experience for the materialized and non-materialized elements in the three stages is discussed.

#### **3.2. Three Levels of Emotion in Experience Design**

Emotional design is the basis of experience design. Donald Norman proposed that product design should solve three different levels of cognitive and emotional processing, namely, instinct level, behavior level and reflection level [9].

##### **3.2.1 Instinctive Level**

In the instinctive level, consumers do not need to think deeply when they form a perceptual response. It mainly emphasizes that the five senses of human beings, namely, vision, perception, taste, smell and touch, are the process of direct experience and feeling, which is a process of sensory experience design. Through the design of sensory experience, the elderly tourists can feel beautiful, comfortable or pleasant mood, avoid the discomfort caused by the physiological degeneration and psychological state of the elderly, and the harm caused by physical factors to them. Because instinct precedes thought and consciousness, the first impression formed in experience is very important.

##### **3.2.2 Behavioral Level**

When users experience a product or service, they pay attention to the sense of utility it brings, that is, the product should not only be easy to use, friendly, but also have a certain degree of fluency, which can bring satisfaction to the experiencer at the behavioral level. For example, the elderly will feel at a loss when using some electronic devices, so the design of the device should

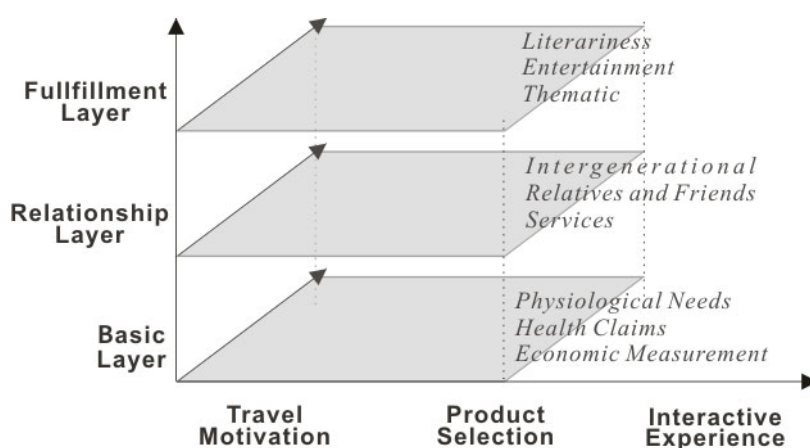
take full account of whether it is easy to use when interacting. Classify and integrate the complex information output reasonably to avoid the confusion caused by the use. In the whole process of contact and execution, it is not disturbed by redundant factors and conforms to the inertia of thinking and behavior habits.

### 3.2.3 Reflective Level

When consumers use or experience, they will establish an emotional link to products and services, such as security psychology, satisfaction, brand memory and so on. Through the interaction of the first two levels, the experienter's heart often produces mixed emotions that integrate culture, art, experience background and so on. The result of this level of emotional activity is to enable the experienter to form a certain perception and understanding, to generate emotional temperature for the service or to achieve a sense of self-recognition. Just like being in a service with a nostalgic theme, it often causes the elderly to recall their youth, and some scenes or details will trigger their emotional touch, and even reflect on certain actions and decisions in the past.

## 4. THREE DIMENSIONS OF TOURISM EXPERIENCE FOR THE AGED

In order to emphasize the concept of "taking the elderly as the center" and cope with the increasingly changeable aging market environment and personalized needs, this study introduces the experience design thinking in design into the reconstruction of aging tourism scenes. People-oriented, comprehensive consideration of the explicit and implicit needs of the elderly, and the participation of tourists throughout the whole process of service experience research. Realize the redesign and re-optimization of existing services. According to the user research method of experience design, combined with Motivation, Selection and Interaction in the stage of tourism activities, the experience of aging tourism is creatively divided into three impact dimensions (Figure 1, the three-dimensional theory of aging tourism experience). Basic, Relationship, and Fullfillment. Each stage will be affected and restricted by the three, and determine the quality of tourists'sense of experience.



**Figure 1.** Three-dimensional Theory of Tourism Experience for the Aged

### 4.1. Basic Layer

The basic level is the lowest level of needs, including the physiological needs, health demands and economic measures of the elderly. It is mainly related to material needs and is often the most fundamental factor determining travel motivation, but it also affects tourists'choice of tourism products and interactive projects. When the base layer is satisfied, Experience will continue to be conditioned by relationships.

#### 4.1.1 Physiological Needs

Physiological needs belong to the most basic and minimum survival needs of human beings, including food, drinking water, shelter, sleep, oxygen and sex, which can also be understood as the so-called "food, clothing, shelter and transportation" [10]. For the elderly, the physiological functions of the body have different degrees of degradation and aging, such as physiological functions, body structure and morphology. The main manifestation is that the organs are more fragile due to the aging of the heart, blood vessels and bones, and are vulnerable to damage from their own activities and the external environment. The sensory perception ability of nerve senses such as touch, vision and hearing also decreased significantly, and the ability of thinking, emotion and memory decreased, resulting in slow response sensitivity and prolonged reaction time. Their learning and imitation abilities are not as good as those of young people. Therefore, the elderly are more inclined to choose less stimulating tourism projects, such as leisure and sightseeing, humanities and history, natural scenery and so on.

#### 4.1.2 Health Claims

Due to physiological degeneration and years of hard work, the elderly will have more or less basic diseases, so the importance of physical health in the process of travel and the potential threat of the surrounding environment to health are also one of the basic factors. Generally speaking, the better the health condition, the more helpful it is for the elderly to travel, and vice versa. In recent years, with the elderly's attention to their own health and the improvement of medical level, although it can better make the body resist the invasion of viruses and bacteria, and enhance their immunity and resistance, these can not fully meet the current demands. The journey involves complex social relations and social problems, such as food safety, hidden accidents, unexpected accidents and other health concerns. It should also be included in higher security considerations. In the experience design, we should strengthen the scientific guidance of health as far as possible and reduce the physical and mental health concerns of the elderly within a limited range.

#### 4.1.3 Economic Measurement

The main sources of economic income of the elderly in China are savings, retirement income, family supply and so on, and the level of the three is often positively correlated with tourism consumption. With the increase of economic income, the elderly are more strongly motivated to travel, the more times they travel, and the more money they are willing to invest in consumption, otherwise it will decrease. At present, the situation of "high income, more travel, far travel" and "low income, less travel, near travel" is also consistent with it [11]. Of course, some elderly people pay more attention to the pleasure brought by tourism than consumption expenditure, but economic measurement is still an important factor affecting travel. Although China's old-age security system and medical security system have been relatively perfect, many elderly people are still relatively conservative in terms of expenditure, which are affected by the awareness of old-age care and prevention. Therefore, in the process of constructing the elderly tourism experience project, we should also take full account of the elderly's tourism willingness cost, willingness mode and consumption concept.

## 4.2. Relationship Layer

The relationship layer is the influence layer of individuals, circles and organizations on the elderly individuals, which mainly refers to the relationship and interaction between people, including intergenerational factors, relatives and friends factors and service factors. These factors affect the process of tourism experience activities through the language, contact and communication between the elderly and other people. When the various requirements of the base layer are satisfied, that is to say, it rises to the satisfaction of the relationship level. If the basic level is the role of internal factors, the relationship level is the role of external factors.

#### 4.2.1 Intergenerational

The most important family model in China is the three-generation family, namely grandparents, children and grandchildren, which is the key component of intergenerational relations. Better family intergenerational relationship is a promoting factor for the elderly to participate in tourism, and the elderly in harmonious family conditions also show a higher willingness to go out. The influence of intergenerational relations is mostly reflected in the support of children and grandchildren for the elderly to travel. Research shows that children and grandchildren with higher education or better economic conditions are more likely to provide conditions for the elderly to go out, which is also closely related to the traditional Chinese concept of respecting and loving the elderly. In addition to its impact on motivation, for example, parent-child travel and family travel enable the elderly and their children and grandchildren to participate in the travel experience together, which achieves a new mode of breaking the intergenerational gap and regulating the intergenerational relationship, and also shapes a good family emotional experience in the activities.

#### 4.2.2 Relatives and Friends

The elderly, especially the young elderly, often show a certain lack of social identity, loneliness and emptiness after they suddenly leave their jobs. The lack of emotional satisfaction shows their strong social willingness, such as tending to visit relatives and friends, community activities, group play, etc., in order to obtain more information and emotional support. The influence level of this factor can sometimes even go beyond intergenerational factors. For example, in the survey, it was found that old classmates, old friends and old colleagues played a decisive role in travel decision-making. Respondents expressed that they were more willing to participate in tourism activities with high reputation and attention of "acquaintances", and were more willing to travel with relatives and friends. This requires that when designing tourism experience scenes, we should fully consider the choice of themes and interactions of the elderly groups, such as common nostalgic theme tours, cultural and entertainment theme tours, rehabilitation and old-age theme tours and so on.

#### 4.2.3 Services

Services in tourism are mainly composed of catering, accommodation, travel, sightseeing, shopping, entertainment and other service elements provided by travel agencies in the process. They bring more immaterial experience, but this experience also takes materialized goods as the carrier. For example, in the process of catering, the elderly should not only accept the service of service personnel, but also accept the service of service personnel. They should also be exposed to the food provided. The service should not only meet the needs of the elderly, but also the food should meet the physical and preference characteristics of the elderly. Therefore, service is not only an intangible experience but also a tangible experience, which runs through the whole process of tourism activities, and its harmony is bound to affect the feelings of the elderly in the process. Around the cognition, physiology and emotion of the elderly, when designing service experience, we need to distinguish the primary and secondary requirements and quantify the degree, such as which are necessary requirements, which are expected requirements, and which are reverse requirements.

### 4.3. Achievement Layer

Achievement level is the highest level of needs in tourism experience, which can be understood as the satisfaction of the individual needs of the elderly, the sense of respect and self-realization. This demand level is based on the satisfaction of the basic level and the relationship level, and is realized by a friendly and harmonious comprehensive experience scene of literature, art, entertainment and theme. Whether the achievement layer is realized or not will in turn affect the experience of the first two levels.

#### 4.3.1 Literariness

Culture and artistry, as the main elements of tourism activities for the aged, can not only be used as a means of creating an atmosphere and propaganda and education in the experience, but also as the cornerstone and motive force to promote the experience of various projects. Due to social isolation and marginalization, most of the elderly have a sense of emptiness and loneliness. They hope to get new things to make up for in the spiritual and emotional level, and the catharsis function, educational function, aesthetic function and cognitive function of culture and art can enrich the psychological world of the elderly on the basis of multi-dimensional senses. On the basis of fully considering the diversified characteristics of the elderly and the specific demands of the elderly groups, and in accordance with the cultural and artistic characteristics of regionalization. Shaping experience projects with rich cultural characteristics and artistic connotations can make them resonate harmoniously with the emotions of the elderly.

#### 4.3.2 Entertainment

The entertainment in the tourism link can bring happiness and self-satisfaction to the elderly, and it can also play the role of "teaching and enjoying" in the spiritual level. The achievement of entertainment emphasizes more interaction and participation, where culture and art can appear as content. Let the elderly fully participate in the project process. Experience the characteristics and charm conveyed by various activities, and a good entertainment atmosphere can promote the shaping of friendly experiences. As small as the setting of various game details, as large as various thematic activities, the interaction of the elderly can be fully mobilized to create a good experience atmosphere. It makes the culture and art be strongly demonstrated and perceived under the entertainment. Let the elderly tourists transform the external things, situations and interactions they feel into the inner feelings of "I", fully reflecting the self-actualization of personal value.

#### 4.3.3 Thematic

Tourism activities are a link experience process, in which every contact point should be effectively linked up, and thematic design is like directing a stage play, carefully setting up every story plot, costume, makeup and props on the premise of grasping the direction and plot of the story. In the experience design, we should create some "conflicts" appropriately. In order to achieve the purpose of influencing and controlling tourists' emotions and emotions, a stable emotional link between the elderly and the destination can be achieved [12]. In addition, the theme helps tourists to form cultural and artistic aesthetic experience and entertainment experience, create different script scenes for them, and leave a deep emotional impression in the infected details. For example, integrating advanced social topics such as patriotism and sustainability into the design thinking and practice of tourism projects, and guiding the elderly to give full play to their afterglow and afterheat, can enable them to gain a deeper experience of achievement.

## 5. CONCLUSION

The relevant elements in the three dimensions of aging tourism experience are not separated from each other, they can influence each other and achieve each other in each dimension. Reasonable grasp of the three levels in the design of the scene can shape the perfect experience of the whole journey and the whole contact point. However, this paper mainly discusses the impact framework from a theoretical point of view. However, it is not described from the micro and specific design implementation level, such as how to use regional ecological resources and research the experience needs of the elderly to create the visual, path and node in the space, so as to guide the emotional and emotional routes of the elderly tourists. However, in the design of experience for the elderly, it is necessary to ensure the friendliness and inclusiveness of the

project. To enhance the fluency and participation of experience, we should also have the development consciousness of modularization and branding.

About the Author: Wang Chuanlong (1988.05-), male, university lecturer, research direction: product& service system design.

## ACKNOWLEDGMENTS

Foundation Project: Culture and Art Science Planning and Tourism Research Project of Hebei Province (HB21-QN040).

## REFERENCES

- [1] Zhai Zhenwu. Population Opportunities and Challenges for High-quality Development in the New Era — — Interpretation of the Seventh National Population Census Bulletin [N]. Economic Daily, 2021-5-12.
- [2] Zhiyan Consulting. Analysis Report on the Development Status of China's Elderly Tourism Industry from 2019 to 2025 [R]. Zhiyan Consulting, 2018.
- [3] Chao D, Foy C G, Farmer D. Exercise Adherence among Older Adults: Challenges and Strategies[J].2000,21.
- [4] Zhou Li. On the Development of Tourism Market for the Elderly in China [D]. Southeast University, 2006.
- [5] Wei Lihua, Cong Yanguo. Characteristics of tourism spatial behavior of aging population and its implications for tourism development [J]. Human Geography, 2001 (01): 20-23.
- [6] Liu Jia, Han Huanle. Tourism development for the elderly and the path of industrial structure adjustment in China [J]. Journal of Guangxi University (Philosophy and Social Sciences Edition), 2015, 37 (02): 45-50 + 56.
- [7] Chen yuan. The Development Strategy of Tourism Products for the Elderly from the Perspective of Tourism Decision-making — — Taking Sanming City as an Example [J]. Journal of Changsha University, 2018, 32 (01): 39-41.
- [8] Hu Juan. Research on the Development of Tourism Products for the Aged Based on the Characteristics of Consumption Behavior [D]. Xiangtan University, 2017.
- [9] Don Norman. Emotional Design: Why We Love (or Hate) Everyday Things[M].New York: Basic Books, 2005.
- [10] Zhang Jing. An Analysis of the Needs of the Elderly in China — — Based on Maslow's Hierarchy of Needs Theory [J]. Journal of Simao Teachers College, 2010, 26 (04): 27-30.
- [11] Liu Donghua. Analysis on the Travel Intention and Behavior of the Urban Elderly and Its Influencing Factors [D]. Hunan Normal University, 2010.
- [12] Li Yu. Research on Tourism Experience Design Theory [J]. Yunnan Social Sciences, 2010 (03): 124-126.