INTERACTIVE APPROACH TO TEA CULTURE INTRA-GENERATIONAL COMMUNICATION IN CHINESE GENERATION Z

By

Miss Lei QIAO

A Thesis Submitted in Partial Fulfillment of the Requirements

for Doctor of Philosophy Design Arts (International Program)

Silpakorn University

Academic Year 2024

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โดย
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Miss Lei QIAO : Interactive Approach to Tea Culture Intra-Generational Communication in Chinese Generation Z Thesis advisor : Assistant Professor Jirawat Vongphantuset, Ph.D.

With the advancement of technology and changing times, the methods and media for cultural transmission have evolved. As a carrier of traditional Chinese culture, tea culture lacks effective intra-generational forms of transmission within Generation Z.

This study explores the role of interactive methods in fostering intra-generational communication of tea culture among China's Generation Z and proposes a model to support this cultural transmission.

Through a literature review and in-depth interviews, this study analyzes Generation Z's perceptions and interests in tea culture, establishing a model for intra-generational cultural transmission based on communication theory. An interactive approach, focused on engaging with both external environments and personal reflections, was developed to promote the transmission of tea culture within Generation Z.

Four design-practice studies were conducted, demonstrating that interactions between virtual and Reality positively enhance Generation Z's interest in and understanding of tea culture. These multi-dimensional interactions led to more active engagement in tea culture transmission, fostering self-identity and the communication of core values.

This study not only theoretically explores and extends methods of cultural transmission by developing an interactive model for the intra-generational transmission of tea culture but also provides extraction Design Elements methods. It offers a fresh perspective on advancing the heritage and development of tea culture.

ACKNOWLEDGEMENTS

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CHAPTER 01 INTRODUCTION

1.1 Background of the Study

Tea culture is an important part of traditional Chinese culture, with a profound history and centuries of cultural heritage (Yu, 2005). It is not only about tea drinking, but also a lifestyle and a spiritual symbol, with various rituals, philosophical beliefs, and artistic expressions that have evolved (Zhou, Xue, & Ruan, 2021). Tea culture encompasses the cultivation, harvesting, preparation, tasting, and related etiquette, as well as philosophical thoughts on tea, reflecting the Chinese people's pursuit of natural, healthy and harmonious life concepts (Liu & Du, 2023). Tea is not only widely used in China but has also spread to all parts of the world through channels such as the Silk Road and has become an important link between Chinese and foreign cultural exchanges (X. Y. Zhang, 2020).

Tea culture, as an ancient cultural heritage, with its profound connotation and unique charm, should ideally transcend eras and continuously attract worldwide attention. However, today, especially when facing the specific demographic of China, the spread of tea culture faces unprecedented challenges, especially regarding the Chinese Generation Z (born after 1995), the propagation of tea culture encounters unprecedented challenges. The rapid development of modernization and the resulting changes in lifestyle changes have led to shifts a shift in cultural preferences and interests (Holt, 1997). Young people are often attracted to more modern forms of entertainment and employment (Dunne, Lawlor, & Rowley, 2010). This shift in preferences has led to a decline in interest in traditional cultural practices, including tea culture, and thus poses a threat to its continuity and vitality (Makgabo, 2021).

Given these challenges, this thesis explores innovative communication strategies and methods that can effectively capture the attention of Generation Z.Communication theories emphasize the critical influence of media and audience characteristics on communication impact and underscore the need for innovative

communication strategies to effectively reach and appeal to Generation Z. Through visual communication design, the use of media platforms and the application of interactive methods that suit their digital habits and preferences, the appeal of tea culture to this demographic can be enhanced.

1.2 Statement of Problem

Traditional tea culture, a cultural treasure of the Chinese nation, has long relied on external forces for its transmission, including curricula, media advertising and intergenerational inheritance. However, for Generation Z (people born after 1995), this type of transmission has had little effect. The core problem is that there are no mechanisms in place to promote self-sustaining inheritance. Generation Z's fast-paced lifestyle, information consumption habits and attitudes towards traditional culture make it difficult to naturally integrate traditional tea culture into their daily lives (T. M. Song, 2017), which hinders the formation of a positive cycle of intra-generational communication in this population.

This dilemma becomes particularly clear in the field of tea culture education. Let us take China's online MOOC (Massive Open Online Course) platforms as an example: During the COVID-19 pandemic (e.g. in the first semester of 2020), online tea culture courses like "Chinese Tea Ceremony", "Chinese Tea Culture" and "Chinese Tea Culture and Tea Health" experienced a temporary surge in enrollment as students studied from home. However, this did not lead to sustained interest and motivation for the heritage.

On the contrary, as the effects of the pandemic subsided and online teaching gradually returned to normal, the number of students enrolling in tea culture courses began to decline (Figure 1).
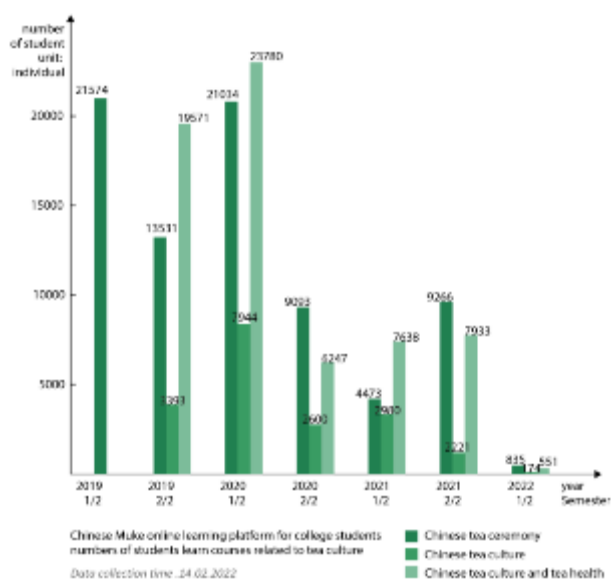
Figure 1. Number of college students choosing courses related to Chinese tea cultureData source: icourse163. Source: Made by Lei Qiao, 2022

However, the number of college students enrolling in the same period is increasing year by year. The author can see the data from (Figure 2).
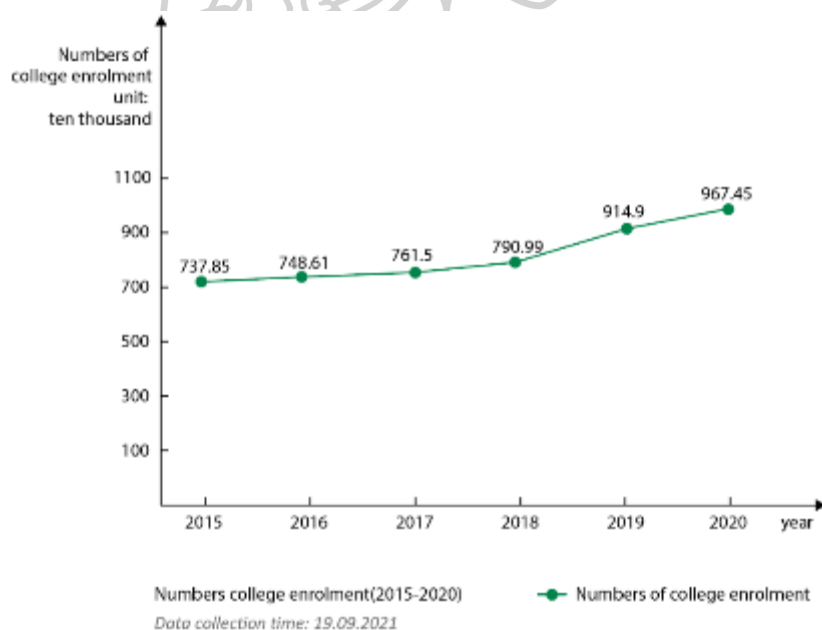
Figure 2. Number of college students enrolling Data source: Sohu

Source: Made by Lei Qiao, 2022

According to the above two sets of data, according to the number of students enrolled in 2015-2020, the number of tea culture elective courses in one semester

each year (starting from the second semester of 2019 to the first semester of 2022) is shown in Figure 3 below.

Figure 3. Student course selection

Source: Made by Lei Qiao, 2022

Only a small portion of students study Chinese tea culture, highlighting its declining attention among young people. Generation Z struggles to engage with tea culture through traditional means, revealing both its marginalization in education and its limited appeal within the generation. The key challenge is to revitalize tea culture through visual design that respects its essence while aligning with Gen Z's lifestyle and interests, thereby fostering their autonomous engagement. This requires exploring Generation Z's cultural psychology, digital habits, and learning preferences to create a more flexible, interactive tea culture communication system.

1.3 Significance

Through the design and exploration of tea products, Generation Z will pay more attention to tea culture to realize the promotion of tea culture. Take it as an example to promote a new way for the heritage of traditional Chinese culture.

1.4 Hypothesis

This study hypothesizes that innovative interactive methods such as gamification and immersive experiences will enhance Generation Z's engagement with tea culture. The study also suggests that visually engaging content and storytelling will promote subtle learning and deepen their understanding. In addition, it is expected that designs that encourage self-exploration and interactive

experiences will strengthen intra-generational tea culture communication and inspire sharing and promotion.

1.5 Scope of the Study

The focus of this study is on the interactive way of intra-generational communication of tea culture among Generation Z in China. Therefore, it mainly includes three parts, including the intra-generational communication of Chinese tea culture among Generation Z, the interactive method of tea product design, and Generation Z in China as the research background. As shown in Figure 4, each part includes various elements related to the promotion of tea culture among Generation Z through innovative visual communication strategies:
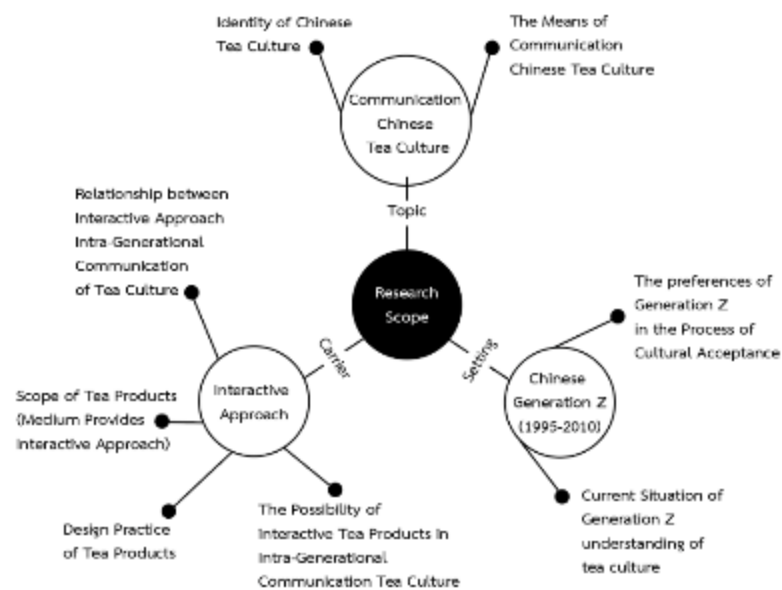
Figure 4. Scope of the Study

Source: Made by Lei Qiao, 2023

1.5.1. Target Demographic and Cultural Context

Generation Z: The study focuses on people born after 1995 who are known for their digital nativeness and their distinct cultural and technological preferences.

The aim is to understand their cultural psychology and how this influences their commitment to traditional practices.

Tea Culture: The focus is on the richness and depth of traditional Chinese tea culture, including its history, practices, health benefits, aspects of sustainability and cultural significance. The study aims to make tea culture appealing and relevant to the values and lifestyle of Generation Z.

1.5.2. Content Development and Innovative Interaction Methods

Visual Communication Design: This entails an in-dept exploration of diverse visual design elements, including graphics, animations, infographics and interactive media that resonate with Generation Z. This research aim to develop visual content that aligns with the esthetic preferences and technological proficiency characteristic of this demographic.

Innovative Interaction Methods: Examination of interactive methods including gamification, augmented reality (AR), virtual reality (VR) and social media engagement to create immersive experiences. The study focuses on how these methods can capture the richness of tea culture and appeal to a younger audience.

1.5.3. Communication Strategies, Evaluation, and Practical Applications

Digital Platforms and Content Orientation: Use of digital platforms popular with Generation Z, such as social media, mobile apps and online communities, to distribute content. The study aims to align tea culture communication with Generation Z's lifestyle, hobbies and intra-generational communication needs.

Evaluation and Feedback: Measuring the effectiveness of visual communication strategies using user engagement metrics like likes, shares, comments and time spent on content. Gathering feedback from Generation Z to continuously refine and improve strategies.

Practical Applications: Implementing and analyzing case studies of successful visual communication campaigns and interactive methods to promote tea culture.

Identifying and documenting best practices for effectively communicating traditional heritage to Generation Z.

1.6 Objectives of the Study

To address the key challenges and answer the research questions, three main objectives were defined in this study, each corresponding to the scope of the study:

Objective 1: To investigate the problems of communicating on traditional Chinese tea culture among Chinese Generation Z.

Analysis of tea culture: Systematic review of the historical context, customs, health values, environmental sustainability and profound cultural connotations of traditional Chinese tea culture to ensure that the essence of tea culture is accurately portrayed.

Cultural Bridge Construction: Based on the cultural psychology and preferences of Generation Z, explore how tea culture can bridge the gap of time, resonate with the younger generation and become part of their lifestyle and esthetic system.

Objective 2: Create an Interactive Approach for Chinese Generation Z on Intra-Generational

Visual Communication Design: The second objective is to design and create innovative visual communication elements such as graphics, animations, infographics and interactive media. These elements should resonate with Generation Z and express the richness of tea culture.

Innovative Interaction Methods: Develop and implement interactive methods including gamification, augmented reality (AR), virtual reality (VR) and social media engagement. These methods aim to create immersive experiences that encourage self-directed exploration and intra-generational communication of tea culture among Generation Z.

Content Development: Create visually appealing and interactive content that speaks to Generation Z's lifestyle, hobbies and communication needs. This includes

using digital platforms that are popular with younger audiences to effectively distribute content.

Objective 3: Evaluate the Effectiveness of Interactive Approach

User Behavior Analysis: Evaluate the real impact of interactive media in spreading tea culture by quantitatively analyzing user engagement indicators.

Establish a Feedback Loop: Build an effective feedback mechanism, collect and analyze the opinions and suggestions of Generation Z, and continuously optimize the dissemination strategy with users as the focus to ensure that the tea culture legacy meets the needs of the times and is close to the voice of young audiences.

Best Practice Extraction: Summarize the effective elements and strategies in successful cases, extract universal experiences that can be transferred to other traditional cultural areas, and provide strong support for the transmission of tea culture and an even broader cultural heritage in Generation Z.

1.7 Questions of the Study

To achieve the three objectives of the study, the following key questions are posed, each designed to address a specific aspect of promoting tea culture to Generation Z through innovative visual communication strategies:

Question 1: What are the problems with the dissemination of traditional Chinese tea culture among Generation Z in China?

(1) How advanced is the understanding of traditional Chinese tea culture among Generation Z in China?

(2) What are the main communication barriers and challenges in transmitting traditional Chinese tea culture to Generation Z?

Question 2: How can the internal communication of Chinese tea culture can be promoted to China's Generation Z?

(1) How can innovative visual communication elements (such as graphics, animations, infographics) be developed to attract the attention of Generation Z and accurately convey the richness of tea culture?

(2) Which interactive methods (such as gamification, AR, VR, and social media interaction) are best suited to the preferences of Generation Z, can create immersive tea culture experiences, and promote self-inheritance?

(3) How can you develop visually striking and interactive content that is tailored to the lifestyle, hobbies, and needs of Generation Z?

Question 3: What is the impact of intra-generational communication using interactive media as an inheritance method?

(1) What indicators of user engagement best reflect the effectiveness of interactive media in promoting intra-generational communication of Generation Z tea culture?

(2) How to effectively collect feedback from Generation Z to evaluate their participation, understanding, and appreciation of tea culture? How can this feedback guide the improvement of subsequent communication strategies?

(3) What case studies demonstrate successful experiences in effectively communicating traditional heritage to Generation Z? What elements of these successful practices can be distilled into replicable best practices to ensure the continued legacy and promotion of interest in tea culture?

1.8 Outcomes of the Study

This study aims to produce tangible outcomes that utilize interactive media and innovative visual communication strategies to promote intra-generational tea culture communication in Generation Z. The specific outcomes are as follows:

Outcome 1: Tea Merchant's Road Board Game

This board game decodes Chinese tea culture in an engaging and accessible way, aligning with the first objective. It uses gamification to teach tea types, origins, and practices, encouraging interactive learning and intra-generational communication. With traditional gameplay and digital enhancements like an app or AR, it effectively engages Generation Z.

Outcome 2: Humorous Tea Set (& AR Product Packaging)

The humorous tea set with AR packaging makes tea culture appealing to Generation Z through modern design and interactive features. The AR experience provides educational content, enhancing accessibility and promoting self-directed learning.

Outcome 3: Time Management (Tea Time) Application

The time management app integrates tea culture into Generation Z's daily communication, aligning with the third objective by evaluating the impact of interactive media. It includes features like tea break reminders, educational content, and virtual tea ceremonies, making tea culture accessible and engaging. User feedback and activity data are used to improve the app, with gamified tasks and social sharing enhancing user interaction and sustaining interest in tea culture.

1.9 Thesis Structure

This thesis is divided into five chapters, each focusing on different aspects of the study and building on the previous sections to provide a comprehensive analysis and understanding of the promotion of tea culture to Generation Z through innovative visual communication strategies.

Chapter 1: Introduction

This chapter lays the foundation for the study by addressing the following elements:

Background: Introduction to the core challenge of renewing the communication of tea culture while preserving its essence.

Problem Statement: Identifying the ineffectiveness of traditional methods to engage Generation Z in tea culture.

Significance: Importance of developing visual communication strategies that resonate with Generation Z.

Hypothesis: Proposing that innovative visual communication and interactive methods can enhance the intra-generational communication of tea culture in Generation Z.

Scope: Detailed overview of the study's focus areas, including target demographics, content development, cultural context, communication strategies, evaluation, and practical applications.

Research Questions: Key questions guiding the study, focusing on aspects of tea culture to be passed on, methods for intra-generational communication and the effectiveness of interactive media.

Objectives: The goals of the study include decoding tea culture, developing interactive media and evaluating their effectiveness.

Outcomes: Expected contributions of the study to the preservation and revitalization of tea culture.

Thesis Structure: Overview of the chapters and their contents

Chapter 2: Literature Review

This chapter reviews the existing literature on the study

Tea Culture: Analysis of the essential elements of Chinese tea culture.

Current Research Status: Examination of the current state of research on the heritage of tea culture in China.

Scope of Tea Products: Overview of the different tea products and their significance.

Generation Z: The importance of Generation Z in the process of cultural inheritance and its unique characteristics.

Gaps and Theoretical Frameworks: Identify research gaps and theoretical frameworks relevant to the study.

Chapter 3: Methodology

This chapter describes the research design and the methods used to achieve the objectives of the study:

Research Framework: Structured to align with the research objectives and questions.

Methodology: Application of a mixed methods approach combining quantitative and qualitative methods.

Research Process: Specific methods applied, including data analysis, case studies, theoretical deduction and historical comparative analysis.

Data Collection and Analysis: Techniques for gathering and analyzing data to support research findings.

Chapter 4: Results

This chapter presents the findings of the study based on the methods used: Detailed analysis of the data collected to answer the research questions. Evaluation of how the research objectives were achieved through the analysis.

Chapter 5: Conclusions

This chapter summarizes the key findings and their implications: Explanation and review of the results of the study. Clear statements on the key research questions. Recommendations for further research on this topic. And New Contributions: Highlighting the new information and insights that this study has added to the field of tea culture inheritance.
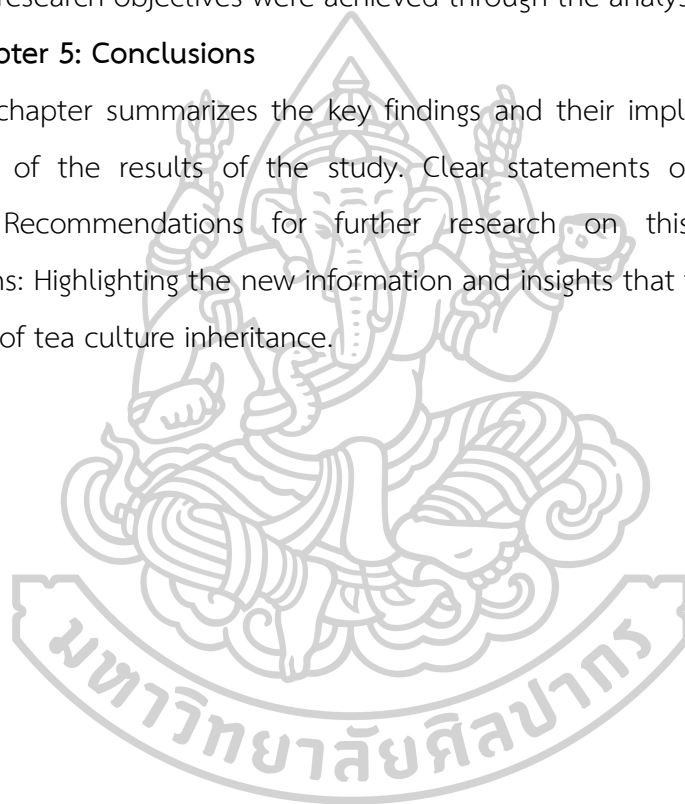
CHAPTER 02 LITERATURE REVIEW

2.1 The Concept of Cultural Inheritance

The concept of cultural inheritance: "Cultural inheritance refers to the storage and transmission of information through communication, imitation, teaching and learning" (Peedicayil, 2001).

2.1.1 Types of Cultural Communication in the Process of Cultural Inheritance

According to (Cavalli-Sforza & Feldman, 1981); (R. Boyd & Richerson, 1985) there are 3 types of cultural transmission, namely vertical transmission, horizontal transmission and oblique transmission. (Drew, 2023) has further explained these 3 types:

Vertical transmission occurs when culture is passed from parents, the older generation, to children. This is the most common form of cultural transmission as it is the easiest way to pass on culture.

Horizontal transmission occurs when the culture is passed on from the same generation, for example from friends or classmates.

Oblique transmission occurs when the culture is passed on from one person to someone who is not part of their immediate social group, such as a teacher or mentor.

2.1.2 The Importance of Intra-Generational Culture Communication

Conclusions from experiments on Cultural Transmission between and within Generations, (Acerbi & Parisi, 2006). In today's economically advanced societies, intra-

generational cultural transmission seems to be more importance for young people than inter-generational transmission.

2.1.3 The Perspective of the Communication Ritual

Carey (Carey, 1975) proposed the ritual view of communication in "Cultural Approaches to Communication". From the communication ritual perspective, the essence of communication is a ritual that brings people together into groups or people with a common identity. It emphasizes sharing and communication rather than control and power. In participating in rituals, people often go through the baptism of formalized or patterned rituals that can shape or reinforce certain underlying values and worldviews. Based on this point of view, the ritual view offers us a unique method of communication from the perspective of cultural transmission.

2.1.4 Theory of Game Dynamics in the Process of Cultural Communication and Inheritance

The theory of game dynamics in cultural communication and inheritance examines how individuals and groups interact and make strategic choices in the transmission and development of cultural practices, beliefs, and values (Bellotti, Berta, De Gloria, D'ursi, & Fiore, 2013). This theory applies principles from game theory to understand the complexity and dynamics associated with cultural exchange and preservation. Educational programs can incorporate the dynamics of games to effectively teach cultural values and practices (Mortara et al., 2014). Interactive and participatory approaches can engage learners and simulate cultural interactions in the real world (Anderson et al., 2010)

2.2 The Current Status of Inheritance and Communication of Tea Culture

To inherit and promote tea culture, cooperation and new ways and media are urgently needed.

2.2.1 The Current Status of Tea Culture Inheritance

As one of the components and core contents of traditional Chinese culture, Chinese tea culture has a broad and narrow meaning. In 1999, Chen Wenhua pointed out in his book "Basic Knowledge of Chinese Tea Culture" that tea culture in a broad sense refers to the sum of the material and spiritual sources in the whole development process of tea. In a narrower sense, tea culture refers to the "spiritual source" of tea culture (W. H. Chen, 1999). The "Chinese Tea Dictionary" edited by (Z. M. Chen, 2000) points out that tea culture in the broadest sense is the sum of the material and spiritual wealth of tea created by people in the process of social and historical development. In a narrower sense, tea culture refers to the culture of tea drinking: the appreciation of different kinds of tea, the skills of tea preparation, the spiritual feeling of tea drinking, and the literary and artistic works created through tea drinking. Although the authors have different views and ways of expressing tea culture, they all have one thing in common: they emphasize that tea culture is extremely rich in connotations and that tea culture in the broadest sense encompasses everything that has to do with tea on a material and spiritual level.

The authors also have different views on the structure of the tea culture that arises from the use of tea. As far as the structure of tea culture is concerned, there are three-stage and four-stage theories. (W. H. Chen, 2006) and (Ding, 2011) believe that tea culture in the broadest sense can be divided into four levels, namely the level of material culture, the level of institutional culture, the level of behavioral culture and the level of spiritual culture (mentality). In addition, Chen Wenhua has pointed out in his book "Chinese Tea Culture" that among these four levels, the level of behavioral culture and the level of mentality culture represent the structure

of tea culture in the narrow sense. (Cheng, 2008) and (J. f. Yang, 2008) advocated the three-level theory of tea culture structure, that is, tea culture in the broad sense can be divided into material culture, spiritual culture and institutional culture in the intermediate stage. They not only advocate the structure of different levels of tea culture, but also have different views on the representation of specific tea culture at their respective levels. For example, (Cheng, 2008) believes that tea books, tea paintings, tea songs and dances, tea drinking arts and tea art performances belong to the material culture category of tea culture. (J. f. Yang, 2008) believes that the art of tea drinking, literature and art, academic literature and the art of tea service are the spiritual and cultural manifestations of tea culture. (W. H. Chen, 2006), (Ding, 2011) and others believe that the tea ceremony, tea customs and tea art belong to the cultural layer of behavior, and the literary and artistic works of tea drinking belong to the layer of spiritual culture.

2.2.2 Characteristics of Chinese Tea Culture

Mainly divided into 5 aspects:

Historical Characteristics: The emergence and development of tea culture has an exceptionally long history. When King Wu conquered King Zhou, tea was used as tribute. In the later period of the early church, tea became a barter commodity. During the Warring States period, tea had a certain importance. There are records of tea in the "Book of Songs" from the time before the Quin. Tea culture in history pays attention to cultural ideology, especially elegance, and focuses on the expression of poetry, calligraphy, painting, tea, song and dance. The emergence and development of tea culture has integrated the philosophical thoughts of Confucianism, Taoism and Buddhism and evolved into the etiquette and customs of various ethnic groups, so that it has become an integral part of an outstanding traditional culture and a unique cultural model (H. B. Gu, 1994).

Regional Characteristics: Famous tea, famous mountains, famous water, famous people, picturesque places, and regional tea cultures with different characteristics. China has a vast area, a wide variety of tea varieties, and different tea

drinking habits. In addition to the differences in history, culture, life, and economy, different tea cultures with local characteristics have also emerged. In the big cities, the economic and cultural centers, a unique urban tea culture has also emerged with its unique advantages and rich connotations (K. Wang, 1997).

Ethnic Characteristics: All ethnic groups love tea drinking, and tea is combined with the cultural life of ethnic groups to form their ethnic characteristics of tea ceremony, tea art, tea drinking habits and festive design, which are based on the ethnic methods of tea drinking and formed by artistic processing and tempering. The tea art of different ethnic groups is more vivid and cultural, showing the diversity of tea drinking and the rich and colorful life (Fang, 1994).

International Characteristics: The ancient traditional Chinese tea culture is connected with the history, culture, economy and humanities of various countries. Chinese tea culture is the cradle of tea culture in various countries. It has developed into British tea culture, Japanese tea culture, Korean tea culture, Russian tea culture and Moroccan tea culture. Drinking tea in Britain has become a part of life. For the British, it is a kind of etiquette that shows the demeanor of a gentleman. It is also an essential process in the life of the Queen of England, as the author has a necessary etiquette in important social activities. The Japanese tea ceremony originated in China and had a strong and rich flavor. the Japanese national customs and formed a unique tea ceremony system, school and etiquette (Teng, 1992).

Times Characteristics: The development of material civilization and the construction of spiritual civilization have given new connotations and vitality to tea culture. The connotation and expression of tea culture are constantly expanding, extending, renewing and developing. In the new era, tea culture is integrated into the essence of modern science and technology, modern news media and market economy, which makes the value function of tea culture more significant and further expands its role in modern society (X. J. Gu, 2002).

2.2.3 The Inheritance of Chinese Tea Culture

Around 1990, the term tea culture was recognized by academic circles and became widely known. In October 1990, the International Tea Culture Symposium was held in Hangzhou, where research results on tea culture from various perspectives and fields were discussed and exchanged. (J. Y. Wang, 1991) In the new period, the heritage of tea culture has been modernized, socialized and internationalized on a large scale.

2.2.3.1 Ways to Inherit Chinese Tea Culture

Chinese tea culture has a long history, and its development process is closely linked to social and economic development. It sprouted in the Southern and Northern Dynasties of the Jin Dynasty and was formally established in the Tang Dynasty. However, the actual academic research of Chinese tea culture only began in the 1980s. In the course of the reforms and opening, the Chinese economy developed rapidly and a "cultural craze" arose in society. Research into Chinese tea culture has also developed rapidly in the wake of this enthusiasm. Over the past 40 years, research on Chinese tea culture has produced rich results. However, the systematic study of tea culture from the perspective of communication is still in its infancy. As for the communication of tea culture, current domestic research focuses on the historical and cultural perspective of tea, the perspective of communication and the study of teahouses.

As for the research of tea from a historical and cultural perspective, Professor Guan Jianping's work "Tea and Chinese Culture" (Guan, 2001) mainly described the origin of tea drinking customs, the research of the medical history of tea and the conditions of tea drinking in all social classes. The meaning and etiquette of tea culture. The essence is to explain the method of tea drinking, the cultural symbolism and the reason for the emergence of the custom of tea drinking in China, and to show people the formation process of Chinese tea culture. In addition, (Guan, 2009)

has studied in depth the vertical communication of tea in China and the horizontal communication of tea in the world. Against the historical background of the emergence and development of tea culture, he discusses the origin, emergence, spread, conflict and fusion of tea culture. The focus is on the significance of "tea culture" itself, especially the heritage of "tea culture".

The other type is the research of tea culture from the perspective of communication. This type of research has gradually become popular in recent years. It focuses on external communication and interpersonal communication and explores the communication channels and methods of tea culture. (Jing, 2012) believes that with the improvement of China's international status, the significance of Chinese culture has become more important, and tea culture, as an important representative of Chinese cultural symbols, plays an important role in cross-cultural communication. Therefore, it is necessary to analyze the meaning and characteristics of Chinese tea culture, explore the purpose, meaning, main content and communication methods of Chinese tea culture abroad, and put forward countermeasures and suggestions for the misunderstandings and shortcomings in the current communication of Chinese tea culture abroad. (C. Q. Fang, 2015) starts from the history and cultural significance of Chinese tea culture, takes the Belt and Road Initiative as the background, emphasizes the status of tea in the world, and explains how tea can be spread in the world culture. (Ouyang, 2013) takes the perspective of communication, takes tea culture as the medium, explores the interpersonal communication contained in tea culture, and shows the influence of tea culture on the effect of interpersonal communication, which is of practical significance. It includes an overview of the meaning and extension of tea culture, the basic functions of tea houses, etc., as well as a detailed overview of the theory of interpersonal communication of communicators and explains the influence of tea culture on the effect of interpersonal communication.

(Kong & Wei, 2011) discuss the dissemination methods and approaches of tea culture in the digital age. This article argues that the current dissemination of tea culture uses the network as a carrier and is spread through dissemination, technology, etc., and shows the practical significance of tea culture. (Y. Song, 2010)

analyzes the presentation of tea culture using television documentaries as a medium. She believes, "From the perspective of media people, I have elaborated the typical representative works of TV documentaries on tea culture and realized the dual value of communication. It not only discusses the value of the main body of tea culture, but also elaborates on the multiple values of TV documentaries."

The third category is mainly examined from the perspective of the place of communication, namely the teahouse. for example, (Xue, Chen, & Liang, 2011) took the media technology ideas of McLuhan and Mero as the starting point, and through a comparative analysis of teahouses and Weibo, compared the similarities and differences between interpersonal communication in the Internet era and the traditional era, and concluded that the Weibo communication model is a continuation of the teahouse communication model and also integrates the interpersonal communication model. Mass communication has expanded the scope of communication, broken down social identity and hierarchy, and is an unprecedented medium of instant communication. Lu (2003) believes that tea houses are a kind of public space, like coffee houses. Compared with other works dealing with the tea room, this paper mainly uses the concept of spatial anthropology and the religious perspective of religion in conjunction with Halbwachs' concept of "collective memory" and Habermas' theory of communicative behavior to analyze the tea houses.

On November 29, 2022, the "Traditional Tea Processing Techniques and associated social practices in China" was successfully inscribed on the World Heritage List. It plays a great role in promoting the heritage of traditional tea culture. The inscribed objects are listed in Table 1.

Table 1: List of Representative Projects of National Intangible Cultural Heritage related to Traditional Tea Processing Techniques and associated social practices in China

	Name	Categories
1	Green tea processing techniques (West Lake Longjing)	Traditional Techniques
2	Green tea processing techniques (Wuzhou Juyan)	Traditional Techniques
3	Green tea processing techniques (Huangshan Maofeng)	Traditional Techniques
4	Green tea processing techniques (Taiping Houkui)	Traditional Techniques

5	Green tea processing techniques (Lu'an Guapian)	Traditional Techniques
6	Green tea processing techniques (Biluochun)	Traditional Techniques
7	Green tea processing techniques (Purple Bamboo Shoots)	Traditional Techniques
8	Green tea processing techniques (Anji white tea)	Traditional Techniques
9	Green tea preparation techniques (Gannan Hakka Leicha)	Traditional Techniques
10	Green tea processing techniques (Wuyuan green tea)	Traditional Techniques
11	Green tea processing techniques (Xinyang Maojian tea)	Traditional Techniques
12	Green tea processing techniques (Enshi Yulu)	Traditional Techniques
13	Green tea processing techniques (Duyun Maojian tea)	Traditional Techniques
14	Green tea processing techniques (Yuhua tea)	Traditional Techniques
15	Green tea processing techniques (Mengshan tea)	Traditional Techniques
16	Black tea processing techniques (Qimen black tea)	Traditional Techniques
17	Black tea processing techniques (Dian black tea)	Traditional Techniques
18	Black tea processing techniques (Tanyang Gongfu)	Traditional Techniques
19	Black tea production techniques (Ning black)	Traditional Techniques
20	Oolong tea processing techniques (Tieguanyin)	Traditional Techniques
21	Oolong tea production techniques (Zhangping Narcissus tea-)	Traditional Techniques
22	Pu'er tea production techniques (tribute tea)	Traditional Techniques
23	Pu'er tea production techniques (Dayi tea)	Traditional Techniques
24	Dark tea production techniques (Qianliang tea)	Traditional Techniques
25	Dark tea processing techniques (Fu brick)	Traditional Techniques
26	Dark tea processing techniques (South Roadside)	Traditional Techniques
27	Dark tea processing techniques (Xiaguan Tuo)	Traditional Techniques
28	Dark tea processing techniques (Zhao Liqiao brick)	Traditional Techniques
29	Dark tea processing techniques (Liubao tea)	Traditional Techniques
30	Dark tea processing techniques (Chang Shengchuan green brick)	Traditional Techniques
31	Dark tea processing techniques (Xianyang Fu tea)	Traditional Techniques
32	White tea processing techniques (Fuding white)	Traditional Techniques
33	Yellow tea processing techniques (Junshan Silver Needle tea)	Traditional Techniques
34	Wuyi Rock Tea (Dahongpao) processing technology	Traditional Techniques
35	Scented tea processing techniques (Zhang Yi Yuan's jasmine)	Traditional Techniques
36	Scented tea processing techniques (Wu Yutai jasmine)	Traditional Techniques
37	Scented tea processing techniques (Fuzhou jasmine tea)	Traditional Techniques
38	De'ang sour tea processing techniques	Traditional Techniques
39	Tea cake-making techniques (Fuchun tea cake-making techniques)	Traditional Techniques
40	Temple fair (tea party)	Folk Custom
41	Tea Art (Chaozhou Kungfu Tea Preparation Art,)	Folk Custom
42	Tea customs (Bai three-course tea)	Folk Custom
43	Tea customs (Yao Camellia Customs)	Folk Custom
44	Jingshan Tea Banquet	Folk Custom

2.2.3.2 Research Gaps in the Intra-Generational Communication of

Chinese Tea Culture in Generation Z

Some schools offer courses on Chinese tea culture, but preliminary data research (Figure 1-3) has shown that the courses offered by the schools are not very good at attracting the interest of Generation Z. external teaching level. There are few studies on the inheritance of tea culture through the design of interactive media (tea products), and most of them are related to external communication and cultural inheritance. The modern expression of the content of traditional tea culture, the lack of design strategies for Generation Z, and the imperfect evaluation and feedback mechanism.

A. Modern expression of traditional tea culture content

Current tea culture communication relies on traditional text and static images, which fail to engage digital-native Generation Z. There is a lack of modern visual elements like graphics, animations, and infographics, which could better convey tea culture. Additionally, tea culture communication lacks interactivity; incorporating interactive media like AR and VR could enhance engagement and understanding.

B. Lack of design strategies for Generation Z

Current tea culture communication lacks into Generation Z's unique cultural, psychological, and behavioral traits. The design is often traditional and does not align with Generation Z's preference for simple, bright, and engaging styles. Additionally, communication mostly relies on traditional media, neglecting digital platforms like social media and mobile apps, where Generation Z is more active.

C. Lack of Evaluation and Feedback Mechanism

There is a lack of systematic evaluation in tea culture communication, especially regarding Generation Z's feedback and interaction data. Additionally, the current user feedback mechanism is insufficient, hindering design optimization. Tea culture visual communication has also not fully leveraged big data and user behavior analysis, resulting in designs that lack relevance and effectiveness for Generation Z.

2.2.4 Interactive Media with Tea Products as Carrier

2.2.4.1 Scope of Tea Products

In the revised edition of "Market Management, (Philip, 1997) expanded the connotation of the product concept to a five-level structure: Analysis, Planning, Execution, and Control" that includes the Core Benefit, the Generic Product, the Expected Product, the Augmented Product, and the Potential Product. A product is defined in modern terms, and a product is everything that is offered to the market for attention, acquisition, use, or consumption to satisfy a desire and need.

According to these 5 levels of classification of tea products (Figure 5):

Core Benefit: (identity of tea) 6 Types of Basic Tea, Green Tea, Black Tea, White Tea, Yellow Tea, Dark Tea, and Oolong Tea. Special Teas and Food, tea to be Reprocessed into Scented Tea, Fruit Tea, Pressed Tea, Extracted Tea, Tea Powder, medical and Health Tea, Tea Beverage, Food, etc.

Generic Product: Show the core products of tea packaging, tea trademark, tea brand, etc.

Expected Product: Quality improvement of tea core products and basic products, enrichment of tea gifts and categories.

Augmented Product: Tea set, tea service (tea house, tearoom), tea presentation, etc.

Potential Products: Tea museum, tea art, tea games, tea communication media, tea sales platform APP, official tea account, tea accessories, cosmetics, clothing, etc.
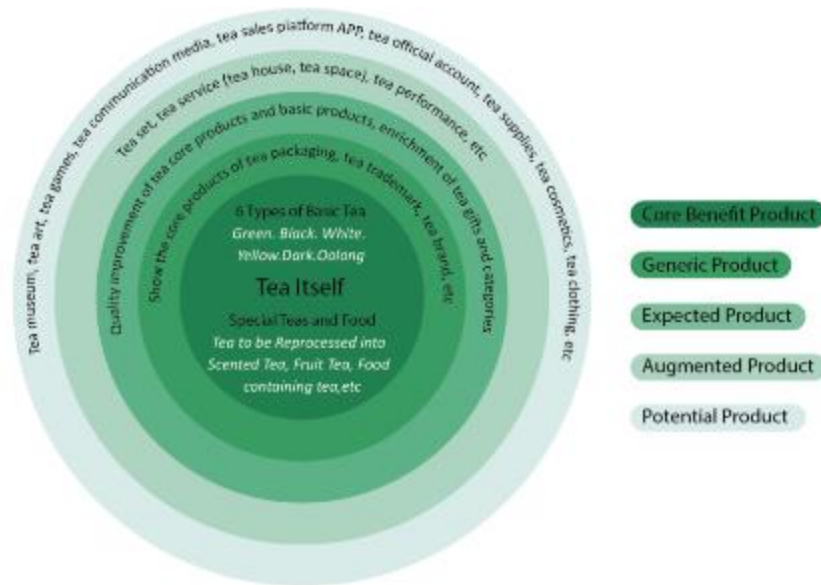
Figure 5. Scope of Tea Product

Source: Made by Lei Qiao, 2022

2.2.4.2 Relationship between Tea Products and Communication of Tea

Culture

In conclusion, tea products are essential for promoting tea culture, serving as both cultural symbols and communication tools through design, modern media, and interactive events.Tea products are central to tea culture, reflecting its diversity and regional traditions. Varieties like Longjing and Pu'er embody the culture of Hangzhou and Yunnan, respectively. Tea packaging, made from materials like bamboo or ceramic, enhances the cultural experience, while tea sets, like porcelain teapots, reflect cultural practices.

Modern communication methods, such as e-commerce and online platforms, spread tea culture globally through videos, images, and product descriptions. Tea exhibitions, performances, and lectures further promote tea culture through interactive experiences and deeper understanding. In conclusion, tea products are key to promoting tea culture, blending cultural symbolism with modern media and interactive events.

2.2.4.3 The Possibility of Using Tea Products as Interactive Media to

Communication Tea Culture

Tea culture, due to its traditional nature, faces limited design concepts and development channels for creative products. It remains a traditional, rather than mainstream, fashion culture, with current product designs lacking innovation (S. S. Liu, 2018). Integrating traditional cultural values into design principles can effectively convey the essence of tea culture.

The use of certain things to satisfy spiritual needs is the potential value of the product (S. F. Yang, 2023). The innovative "stove-top tea brewing" product, which applies traditional Chinese tea preparation techniques, has gained popularity in China since November 29, 2022. On Douyin, the topic garnered 5.05 billion views, and on Little Red Book, 84.275 million views. This trend shifts tea's symbolic meaning from a mere beverage to a social experience. It demonstrates that Generation Z, through interactive cultural and creative tea products, is actively engaging with and adopting traditional tea culture (S. Y. Zhang, 2023).

Creative practice uses innovative methods to express unique ideas and personal style, breaking traditional boundaries and capturing the audience's attention. It makes traditional culture more engaging and relatable, encouraging deeper reflection. By offering fresh perspectives, creative practice helps audiences understand cultural values in new ways. It also fosters participation and interaction, allowing audiences to share and express their experiences, thus promoting the dissemination and transmission of traditional cultural values (Lu, 2023).

2.3 The Chinese Generation Z

2.3.1 Introduction to Generation Z

The term "Generation Z" goes back to a short article - The Neauthorst Population - The Survival Status of "Generation Z, which was published in the 5th

edition of "China Youth Studies" in 1999. A group of young people born between 1980 and 1984 is referred to as "Generation Z" (the earliest group of youth after the 1980s) (Ao, 2021).

The new "Generation Z" refers to the generation born between 1995 and 2010. They have been seamlessly connected to the internet information age since birth and are heavily influenced by digital information technology, instant communication devices and smartphone products (Lin, 2009).

According to the National Bureau of Statistics of China (2018), about 260 million people were born in mainland China between 1995 and 2010, making up 19% of the population. This includes 99.45 million post-95s, 83.12 million post-00s, and 79.95 million post-05s. Generation Z is a large and diverse consumer group with unique consumption habits, choices, and characteristics, offering significant potential in the market (J. Chen, 2019).
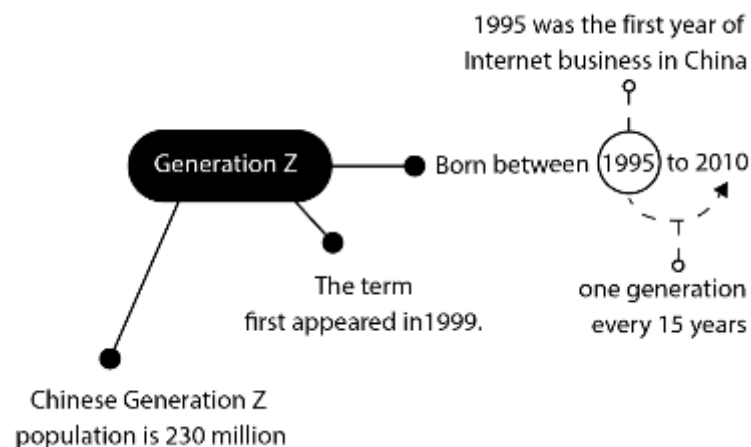
Figure 6. Scope of Generation Z

Source: Made by Lei Qiao, 2023

2.3.2 Importance of Generation Z in Promoting Tea Cultural

The promotion of culture requires young people to give it vitality, the promotion of culture by Generation Z has an important meaning. "The audience of traditional culture must be placed more in the group of young people. This is a natural law that must not be violated in cultural development. The development

and heritage of culture must be based on the younger generation. Only when traditional culture is rooted in the hearts of young people can the author truly form a positive development trend" (Hu, Xue, & Peng, 2021).

2.3.3 The Current Situation of Generation Z's Understanding and Communication of Tea Culture

Awareness of tea culture is low, with many viewing it as an art rather than a part of daily life, and feeling that its sophisticated tea art and ceremonies are beyond their reach (Gao, 2020). Today's youth lack an understanding of tea culture, and traditional communication methods fail to meet their needs for new knowledge, hindering the widespread recognition and development of traditional Chinese tea culture (Sheng & Li, 2020). A survey on teenagers' social life showed that young people enjoy products like cashmere, tea, and wolfberries. However, advertisements still feature outdated images of older generations, which is off-putting. To sustain tea culture, it must address the emotional needs of consumers and integrate traditional culture into modern life (Y. Li, Yi., 2018).

2.4 Communication Theory Communication Types

Communication theory encompasses many types. Depending on the field and classification, there are several types, including self-communication (D. Boyd, 2014), Interpersonal Communication (Berger & Calabrese, 1974), Intrapersonal Communication (Mead, 1934), Group Communication (Fisher, 1970), Organizational Communication (Weick, 1979), Mass Communication (Katz & Lazarsfeld, 1955), Network Communication (McLuhan, 1964).

Combined with the intragenerational intra-generational communication in cultural inheritance mentioned above, this study focuses on communication, interpersonal communication, intrapersonal communication, and self-communication modes.

2.4.1 Inter-personal Communication

Interpersonal communication is the direct exchange of information and interaction between two or more people, involving linguistic, non-linguistic, emotional, social, and psychological factors.

Developed by (Altman & Taylor, 1973), it explains how relationships develop through communication, from superficial to more intimate and personal. (Giles & Powesland, 1975) proposed this theory and explained how individuals can adjust their verbal and nonverbal behaviors to accommodate others to promote effective communication. (Giles, Coupland, & Coupland, 1991) The theory of communication accommodation was further developed in Contexts of Accommodation: Developments in Applied Sociolinguistics, which explores the phenomenon across various social and cultural contexts.

Main Features of Interpersonal Communication

High Interactivity: Interpersonal communication is a two-way process where participants exchange information and provide feedback, either verbally (through conversation) or non-verbally (through gestures and facial expressions). (Laswell, 1948) introduced the 5W model of communication, emphasizing the interactive process between the sender and receiver. Interaction theory (Watzlawick, Bavelas, Jackson, & Menninger, 1967) further examines patterns and processes in interpersonal communication.
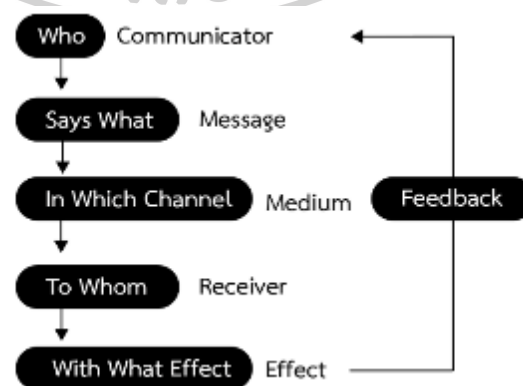
Figure 7. Harold Lasswell's 5W Model

Source: Update made by Lei Qiao, 2023

Immediate Feedback: Inter-personal communication allows for immediate feedback, enabling both parties to adjust their behavior and language based on real-time reactions.

Schramm's interactive communication model points out the importance of feedback in the communication process and emphasizes that communication is a two-way interactive process (Schram, 1954), (Figure 8).
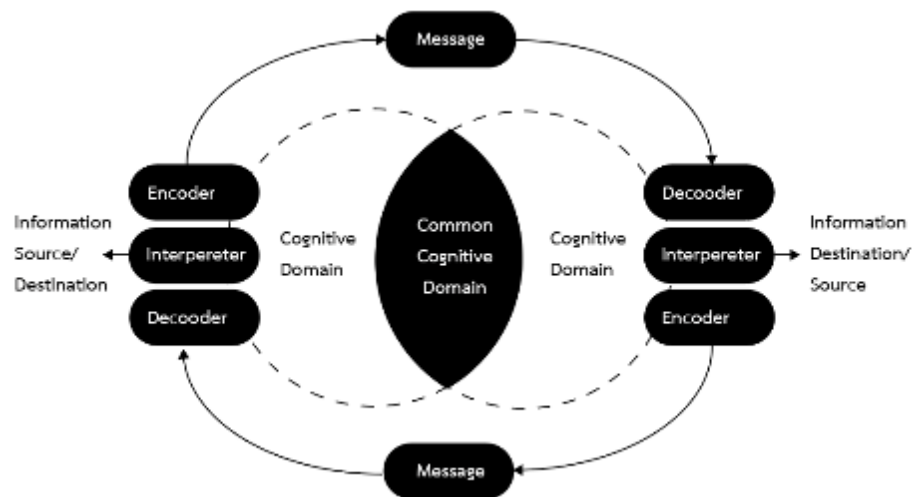
Figure 8. *Schramm's Interactive Model of Communication*

Source: Update made by Lei Qiao, 2023

Rich Emotional Expression: In interpersonal communication, not only information but also emotions are conveyed. Non-verbal elements such as tone of voice, facial expressions and posture play an important role in expressing and understanding emotions.

(Mehrabian, 1971) used the "7-38-55 rule" to find out that facial expressions, tone of voice and the content of words contribute 55%, 38% and 7% respectively to conveying emotional information. His study underlines the importance of non-verbal elements in emotional expression. (Birdwhistell, 1970) focused his research on kinesics, the study of body language. He suggested that people use body movements and postures during interactions to convey emotions and information.

2.4.2 Intra-personal Communication

Intra-communication refers to the process of internal dialog and self-exchange that takes place within a person. This internal communication helps with thinking, decision making, emotion regulation and self-identity. It plays a significant role in both psychology and communication studies.

Main Features of Intrapersonal Communication

Internal Dialogue: Self-communication manifests as an internal dialogue, where individuals reflect, plan, or analyze situations. Vygotsky & Cole's Inner Speech Theory (1978) explains how inner speech aids thinking and self-regulation.

Self-Regulation: Through self-communication, individuals regulate emotions and behavior. Self-affirmation boosts confidence, while self-criticism fosters improvement. Bandura's concept of self-efficacy (2001) highlights the role of self-belief in self-regulation.

Self-Identity: Self-communication helps construct and maintain self-identity through reflection and inner dialogue. Tajfel (1981) explores how individuals define themselves through group affiliation.

2.5 The Role of Visual Communication Design in Cultural Communication

Visual communication design plays a vital role in cultural communication because it can effectively convey information, emotions, and values through visual elements, thereby promoting cultural understanding and identification. (Heller & Vienne, 2003), in the book Citizen Designer: Perspectives on Design Responsibility, explored the role and responsibility of designers in social and cultural communication, emphasizing the importance of visual communication design in cultural communication.

Improve cultural awareness: Visual communication design uses forms such as images, videos, animations, etc. to make cultural content more vivid and

understandable and to help the audience better understand and grasp the culture (Frascara, 2004).

Improve cultural attractiveness: Through esthetic design and creative expression, visual communication design can make cultural content more appealing, attracting more attention and participation from audiences (Lupton & Phillips, 2015).

Promote cultural exchange: Visual communication design can overcome language and geographical barriers and make it easier for people from different cultural backgrounds to communicate with each other and understand each other's culture (Mu, Wang, & Wang, 2009).

Protecting and Inheriting Culture: By recording and representing traditional cultural elements, visual communication design can help to protect and pass on cultural heritage so that it can continue to exist and develop in modern society (Sun, 2022).

2.6 The Role of Brand Design in the Dissemination of Tea Culture

Tea culture is an important part of traditional Chinese culture, with a long history and rich connotations. With the development of modern society and the acceleration of globalization, the spread of tea culture is facing new opportunities and challenges. Brand design plays an important role in spreading tea culture. The combination of multiple sensory elements such as sight, hearing and touch can effectively increase the recognition value and influence of tea culture.

Improve brand recognition: Unique brand design can make tea brands stand out in the market and increase consumer recognition and recall (Zheng & Guo, 2024).

Deliver the value of tea culture: Brand design can convey the core value and connotation of tea culture through visual elements. With traditional patterns, colors and fonts, the historical origins and cultural heritage of tea culture are portrayed, so that consumers can visually feel the unique charm of tea culture (J. R. Li & Zhang, 2020). As shown in Figure 9-10.

Figure 9. Xishang Tea Beauty Brand Design

Source: https://zhuanlan.zhihu.com/p/661709905 (2024)

Figure 10. Xishang Tea Beauty Brand Design

Source: https://zhuanlan.zhihu.com/p/661709905 (2024)

Enhance brand reputation: High quality brand design can improve the overall image and reputation of tea brands and increase consumer trust and loyalty. High-quality and exquisite packaging design can increase the added value of the product, so that consumers can feel the elegance and quality of tea culture during purchase and use (W. Wang & Huo, 2020), (Figure 11).

Figure 11. Packaging Design of Longxutang Tea

Source: https://www.sohu.com/a/474871204_121119001 (2024)

Promote brand communication: By using consistent brand design elements, tea brands can maintain consistency across different communication channels and

touchpoints, increasing the effectiveness of brand communication. Use consistent visual brand elements across different touchpoints such as advertising, social media and store environments to form the overall brand image and enhance brand communication (Cai, 2021).

Figure 12. Packaging Design of UZERO Tea cosmetics

Source: Photo by Lei Qiao (2023)

Attract young consumers: Brand design can attract the attention of young consumers through modern and fashionable design elements. Through innovative packaging design and interactive, creative products such as the application of augmented reality (AR) technology, tea culture can be revitalized to attract the younger generation of consumers and make them interested in and identify with traditional tea culture (C. Yin & He, 2013).

2.7 The Intra-Generational Communication of Hanfu Culture in Chinese Generation Z

The concept of Hanfu emerged in 2001, coinciding with the rise of the internet and online forums in China. Discussions about traditional Chinese clothing led to the definition of Hanfu as the traditional attire of the Han ethnic group, distinct from the Han Dynasty. Hanfu, developed from the Yellow Emperor period to the late Ming and early Qing dynasties, features characteristics such as crossed-over garments, wide sleeves, and concealed fastenings. The "Hanfu Movement" began with enthusiasts

designing, making, and wearing Hanfu based on ancient texts, forming a community both online and offline (X. Yang, Zhang, & Hong, 2022).

The self-transmission of Hanfu among Chinese youth can be analyzed from perspectives such as cultural identity, the role of the Internet and social media, fashion trends, education, and social influence.

Cultural Identity and National Pride: Cultural identity is a crucial factor in the spread of Hanfu among young people (J. Wang, 2010). As China's economy grows and its international status rises, more young people are reflecting on and appreciating their cultural heritage. Hanfu, a symbol of Chinese culture, has become a way for them to express national pride and cultural identity (X. Zhang, 2009).

The Boost from the Internet and Social Media: The Internet and social media platforms support the spread of Hanfu culture. Young people share photos and videos on platforms like Weibo, WeChat, Douyin, and Bilibili, creating a large online community. This interaction increases awareness of Hanfu culture and promotes communication among youth, further fostering its self-propagation (Qiu, 2021).

Interactive Expression of Fashion and Personality: Fashion trends and the interactive expression of personality contribute to Hanfu's popularity among young people. Hanfu is seen as both a traditional garment and a fashionable personal statement, allowing youth to showcase cultural competence and individual style. Its diverse designs also appeal to their pursuit of fashion and beauty (J. Yin, 2021).

Education and Social Impact: The education system and social influence are key to the transmission of Hanfu culture. Schools and universities in China have increasingly focused on traditional culture education, incorporating Hanfu through courses and activities. Hanfu-related festivals, exhibitions, and events have also engaged many young people, boosting their interest and connection to Hanfu culture (H. M. Wu, Ying, & Huang, 2021).

Socio-economic Factors: Socio-economic factors, especially the improvement of young people's consumption behavior, form the material basis for the spread of Hanfu culture. As living standards rise, young people have more disposable income

to spend on Hanfu and related accessories, which to some extent promotes the development and expansion of the Hanfu market (M. L. Liu, 2022).

The Impact of Media and the Entertainment Industry: The media and entertainment industry play a significant role in promoting Hanfu culture. Movies, TV dramas, variety shows, and online novels featuring Hanfu elements raise awareness and spark young people's interest and identification with Hanfu. For instance, the popularity of historical dramas often boosts fascination with Hanfu culture (M. Zhu, Zhang, & Guan, 2020).

The Drive from Communities and Organizations: Hanfu clubs and organizations play a key role in promoting Hanfu culture. In universities and cities, these groups encourage young people to embrace the trend through meetings, events, and activities. This community interaction strengthens the influence of Hanfu culture and provides a platform for learning and communication (N. Yang, 2020).

2.8 Design Thinking Theory

Design thinking is a user-centered method for solving problems in five steps: empathy, definition, conception, prototype, and test (IxDF, 2016). In tea culture communication, it helps understand the needs of Generation Z, allowing the design of more engaging and interactive tools. Through empathy, the reasons behind their lack of interest in traditional culture can be identified. Definition clarifies the goals of tea culture communication. Conceptualization generates innovative methods, and prototype and test ensure the design's effectiveness and user experience.

2.9 Literature Review Summary

The author concludes that effective tea culture diffusion requires innovative visual communication, interactive methods, and the integration of communication theory, design thinking, and brand design theory. Future research should focus on enhancing tea culture's appeal to Generation Z through the comprehensive application of these theories.

CHAPTER 03 RESEARCH METHODOLOGY

This chapter combines qualitative and quantitative methods to promote intra-generational communication of Chinese tea culture among Generation Z through interactive tea products. The research design applies communication theory, design thinking, and brand design theory to address challenges in spreading tea culture, aiming to create visually engaging and interactive tools for effective cultural communication.

3.1 Research Framework

To achieve the research objectives, the research method of this study is divided into 4 steps, (Figure 13).

Step 1: Conduct content analysis to identify key aspects of Chinese tea culture to communicate. Through observation, questionnaires, literature review, and a case study, the author assesses Generation Z's cultural preferences, the status of tea culture inheritance, and existing challenges in China.

Step 2: Based on the literature review, the case study and the research result of step 1, the author concludes that the tea culture in Generation Z lacks an intra-generational model and derives a strategic model.

Step 3: Using design thinking models and brand touchpoints, combined with the conclusions of Generation Z's cultural acceptance preferences from the questionnaire and the Generation Z intra-generational model, develop products and an interactive approach that can support Generation Z's intra-generational tea culture.

Step 4: Through workshops, observations and interviews, the author tests the effect of the developed interactive approach to tea culture communication (product) on the intra-generation in Generation Z.
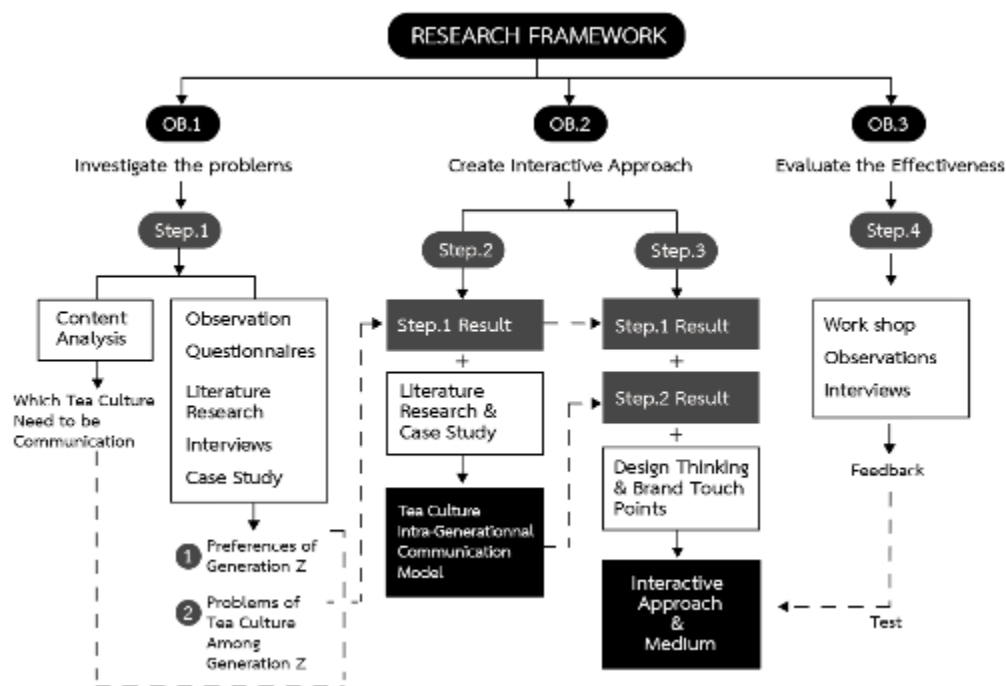
Figure 13. Research Framework

Source: Made by Lei Qiao, 2023

3.2 Method of Decoding Chinese Tea Culture

Before we examine what tea culture needs to be taught, we should first define what Chinese tea culture encompasses. This study uses content analysis to interpret Chinese tea culture from the perspective of ancient tea books, ancient tea paintings, and Tang poetry.

Ancient Tea Books: Ancient tea books record the origin, production, tea drinking methods and the relationship between tea and people. They help modern people to understand the background of tea culture and the essence of traditional tea ceremonies.

Ancient Tea Paintings: Depiction of the ceremony of tea drinking, the tea service and the popular styles of ancient tea culture.

In addition to tea gardens, tea culture scenes and other contents, these paintings can not only reflect the life interests and leisure experiences of the ancients, but also introduce the rich meaning of tea culture to modern people. They provide a life concept for the pursuit of tranquility and leisure for the fast-paced life

of modern society, guiding people to pay attention to inner peace and enjoy the inspiration of life.

Tang Poems: As key works of ancient Chinese literature, hold great significance in understanding traditional Chinese culture, values, and life philosophy. Tea poems, in particular, convey themes of tranquility, indifference, and nature through tea tasting, offering a cheerful outlook on life. They artistically describe the tea process, its characteristics, and related concepts, enhancing the aesthetic value of tea culture. Rich in cultural symbols, tea poems reflect ancient tea culture and help modern people appreciate and embrace traditional tea practices.

At the same time, the visual elements of tea design can be summarized from the above three parts, such as the colors, scenery and shapes of tea ware, which express an artistic concept.

3.2.1 Data Source

Ancient Tea Books

This study interprets Chinese tea culture with the help of content analysis. Based on the classification of Lu Yu's "The Classic of Tea" (J. N. Wu, 2005), content analysis is used to decipher Chinese tea culture. The selection criteria are "Complete Collection of Ancient Chinese Tea Books" (Z. Z. Zhu, Shen, & Zeng, 2010), (J. Fang, 2015) "The Complete Collection of Chinese Tea Books", and (Xu, 2016) "Collection of Chinese Tea Literature". These include tea books dealing with tea law, tea politics, tea production, tea horses and excerpts from previous generations, which are outside the scope of this study. In combination with the factors of the authors of the tea book collection and the recommended bibliography for tea culture-related writings, 10 old books were selected to decipher the content coding of Chinese tea culture.

Tea Ceremony Ancient Paintings

In the search for old paintings about tea at the official authorities of the National Palace Museum in Beijing and the Museum in Taipei, 29 paintings were found. Among them, there is a version of "Xiao Yizhuo Orchid Pavilion" kept in the Museum of Liaoning Province, which is about tea, making the total number 30

paintings. This study uses 30 paintings to analyze the significance of tea culture in people's daily life.

Tang Poems

"Complete Poems of the Tang Dynasty (Whole Eight Volumes)" Zhongzhou Ancient Books Publishing House, 2008, author Peng Dingqiu, is the largest poetry collection in China. It is a collection of Tang Dynasty poems compiled in the early Qing Dynasty, totaling 900 volumes. It was written in the 45th year of Emperor Kangxi's reign in the Qing Dynasty (1706). "Complete Poems of the Tang Dynasty" contains a total of 49,403 poems and 1,555 sentences by poets of the Tang Dynasty with a total of 2,873 authors.

3.2.2 Sample Population

Ancient Tea Books

This study combined the classification in Lu Yu's "The Book of Tea" as decoding indicators and used 7 content elements to select the sample group

(1) The origin of tea

(2) Tea production

(3) Type of tea: pure tea, processed and added tea

(4) The environment during the tea tasting, the utensils used, the choice of water, the tea sets and the method of tea preparation

(5) Effects of the tea: digestive, thirst-quenching

(6) Tea language: tea ceremony, tea etiquette, tea poetry

(7) The lifestyle

Tea Ceremony Ancient Paintings

In this study, it is concluded that there are 4 items were used to select the sample group through illustration analysis.

(1) Pictures of the tea sets used in the tea ceremony

(2) Architectural environment of the tea ceremony, including pictures of pavilions and gazebos

(3) Pictures of people drinking tea and the lifestyle of close friends

(4) Pictures of the natural environment, trees, mountains and clouds

Tea Tang Poems

In this study, it is concluded that there are 7 items used to select the sample group through illustration analysis.

(1) Contains the description of the tea sets

(2) Contains the selection of water for tea preparation

(3) Contains elements of the natural scenery

(4) Contains elements of the architectural environment for tea-tasting

(5) Expression of an artistic concept

(6) Folkloric tea ceremony

(7) Awareness of life, attitude, and lifestyle

3.2.3 Sample Size

Ancient Tea Books

To confirm the sample size, as shown in Table 2. This study followed the following three principles:

(1) Tea law, tea politics, tea production, and tea horses are not considered.

(2) Excerpts from tea books of previous generations are not included in this study.

(3) The authors of the tea book collection and the recommended bibliographical factors in the treatises on tea culture are combined.

Table 2. Tea Ancient Book Sample Size

Made by Lei Qiao

Tea ancient book sample size			
Tea Book Titles	Author	Dynasty	NO.
Tea classic	Lu Yu	Tang Dynasty	OB.1

Sencha Shuilu	Zhang Youxin	Tang Dynasty	OB.2
Tea picking notes	Wen Tingyun	Tang Dynasty	OB.3
Daguan tea theory	Zhao Ji	Song Dynasty	OB.4
Tea record	Tao Guo	Song Dynasty	OB.5
Tea record	Cai Xiang	Song Dynasty	OB.6
Tea roll	Yu Zheng	Ming Dynasty	OB.7
Tea talk	Huang Longde	Ming Dynasty	OB.8
History of tea	Liu Yuanchang	Qing Dynasty	OB.9
Continuation of the tea classic	Lu Tingcan	Qing Dynasty	OB.10

Tea ceremony ancient painting

To confirm the sample size, as shown in Appendix 1. This study follows a search for ancient paintings related to the tea ceremony at the official authorities of the National Palace Museum in Beijing, and the National Palace Museum in Taipei.

Tea Tang Poems

To determine the sample size, poems with the Chinese characters cha茶, tu荼, and ming茗 were selected from all Tang poems in this study to analyze the tea culture. According to the screening rules, the sample size was 594 poems, and after removing 12 couplets, the final sample size was determined to be 582.

3.2.4 Coding Analysis

To understand the specific classification of tea culture. Obtain the following data from ancient books, as shown in Table 3.

Table 3. Coding Analysis of Chinese Tea Books of Past Dynasties

Made by Lei Qiao

Coding Analysis of Chinese Tea Books of Past Dynasties												
		OB.1	OB.2	OB.3	OB.4	OB.5	OB.6	OB.7	OB.8	OB.9	OB.10	%
Origin		1								1	1	30%

Production	Planting	1								1	1	30%
	Picking	1				1		1	1	1	1	60%
	Processing	1				1		1	1	1	1	60%
Categories	Pure Tea	1		1	1	1	1	1	1	1	1	90%
	Processed Tea							1	1	1	1	40%
Drinking & Tasting	Choose Water	1	1	1	1	1	1	1	1	1	1	100%
	Making Tea	1	1	1	1	1	1	1	1	1	1	100%
	Tea Set	1			1	1	1	1	1	1	1	80%
	Tea Art	1			1	1	1	1	1	1	1	80%
	Tea Space	1		1	1		1	1	1	1	1	80%
Function	Quench Thirst	1		1					1	1	1	50%
	Promote Digestion	1						1	1	1	1	50%
	Delay Aging (Generation Z is Interested)											0%
	Calm Mind	1		1	1	1		1	1	1	1	80%
	Relax	1		1	1	1		1	1	1	1	30%
Tea Language	Tea Ceremony	1		1	1	1	1	1	1	1	1	90%
	Tea Etiquette	1			1	1	1	1	1	1	1	80%
	Tea Poems	1			1	1				1	1	50%
Lifestyle		1		1		1		1	1	1	1	70%

Tea Ceremony Ancient Paintings

From the visual perspective, we can use the ancient tea paintings to understand the lifestyle of the people in relation to tea and use these elements in the design of interactive media.

As shown in Table 4. The paintings containing elements of pavilions and pavilions account for 23.33% of the total, party scenes 83.33%, elements of natural landscape, and artistic conception of landscape 86.66%, and 100% of the paintings contain tea utensils. 23.33% of the paintings contain 2 elements, 60% contain 3 elements, and 16.67% contain all 4 elements. The ancient tea painting contains elements of the tea set, elements of the environment in which the tea is drunk.,

elements of being with close friends, elements of the lifestyle of drinking tea, and elements of the natural landscape.

Table 4. Ancient Tea Paintings Contain Elements of Tea Sets

Made by Lei Qiao

Contains tea set elements									
Contains elements of pavilions and pavilions									
A lifestyle of gathering and drinking tea with the elements of close friends									
Contains natural landscape elements									
Number of times									
No						%	50%	75%	100%
1	1		1		2	50%	1		
2	1		1		2	50%	1		
3	1		1	1	3	75%		1	
4	1		1	1	3	75%		1	
5	1		1	1	3	75%		1	
6	1		1	1	3	75%		1	
7	1		1	1	3	75%		1	
8	1		1	1	3	75%		1	
9	1		1	1	3	75%		1	
10	1		1	1	3	75%		1	
11	1		1	1	3	75%		1	
12	1		1	1	3	75%		1	
13	1		1	1	3	75%		1	
14	1			1	2	50%	1		
15	1			1	2	50%	1		
16	1	1		1	3	75%		1	
17	1	1		1	3	75%		1	
18	1	1	1	1	4	100%			1
19	1	1	1	1	4	100%			1
20	1	1	1	1	4	100%			1
21	1	1	1	1	4	100%			1
22	1		1		2	50%	1		
23	1		1	1	3	75%		1	
24	1		1	1	3	75%		1	
25	1		1	1	3	75%		1	
26	1		1	1	3	75%		1	
27	1	1	1	1	4	100%			1
28	1		1		2	50%	1		
29	1			1	2	50%	1		
30	1		1	1	3	75%		1	
N	30	7	25	26			7	18	5
%	100	23.33	83.33	86.66			23.33	60	16.67

Tang poems Containing Tea-related Content

By analyzing Tang poetry alongside ancient texts and paintings, key elements of tea culture, such as plants, colors, and tea ceremony practices, can be identified. For example, plant elements are mentioned 690 times in 594 poems, highlighting their significance in tea culture. Color elements appear 445 times, emphasizing their role in the tea experience. Tea ceremony elements (making, brewing, and drinking tea) are mentioned 421 times, underscoring the importance of tea etiquette. These elements will be used in design to help Generation Z better understand the cultural connotation, lifestyle, and life attitude of tea culture.

Table 5. Plant Elements in Tea Poems

Made by Lei Qiao

Plant	Number of Mentions	%
Lotus (莲,荷,菡,蕖)	47	8.08%
Bamboo (竹,筠,篁,筱)	149	25.60%
Chrysanthemum (菊,黄花)	19	3.26%
Plum	15	2.58%
Orchid	21	3.61%
Flower	204	35.05%
Grass	64	11.00%
loose	122	21.00%
Willow	32	5.50%
Peach	17	2.92%
Total Numbers	690	

Table 6. Tang Poems with Tea-related Content Mentioning colors

Made by Lei Qiao

Color	Number of Mentions	%
Green (绿,翠,青,碧)	156	26.80%
Red (红,朱,丹)	72	12.37%
pink	11	1.89%
White, Silver	92	15.81%
Purple	40	6.87%
Black	13	2.23%
Yellow, Gold	61	10.48%
Total Numbers	445	

Table 7. *Tea Ceremony-related Elements*

Made by Lei Qiao

Tea-related Elements	Number of Mentions	%
Stove (炉,红泥,灶)	40	6.87%
Tea sets (壶,鼎,杯,瓯,臼)	100	16.83%
Water source for tea preparation	68	11.68%
Grinding, pounding	27	4.64%
Cook, fry, and brew tea	114	19.59%
Fan	15	2.58%
Tea condition, tea taste, tea color, tea water condition	57	9.79%
Total Numbers	421	

3.2.5 Result Evaluation

According to the content analysis, the author believes that the content of tea culture includes the following six aspects as shown in Figure 14:

(1) The Origin and Historical Evolution of Tea

Tea originated in antiquity, with the legend of Shen Nong around 2737 BC marking its emergence as a medicinal drink. Over time, tea became integrated into religious rituals and folk life, serving as a bridge between the material and spiritual worlds. In the Tang Dynasty, advancements in tea cultivation and processing led to its popularity as a daily drink, fostering the prosperity of tea culture and laying the foundation for tea ceremonies. Through this process, tea evolved from a natural product to a cultural symbol.

(2) Tea Production Technology

Tea production is integral to tea culture, encompassing planting, harvesting, and processing. Skilled picking and unique production techniques shape the diverse flavors and quality of tea. Varieties of tea trees, harvest times, and processing methods define the final type and characteristics, such as the freshness of green tea, the smoothness of black tea, and the elegance of white tea. Each tea type reflects the artisans' dedication and nature's gift.

(3) Tea Classification System

Based on the production process and quality characteristics, Chinese tea is divided into six categories: green tea, black tea, white tea, yellow tea, oolong tea, and black tea. This classification system reflects not only the diversity of tea but also reflects the Chinese people's deep understanding of the beauty of tea and their pursuit of it. Each type of tea has its own charm and its own way of drinking tea, and is an indispensable part of tea culture.

(4) Tea Drinking and Tasting Art

Drinking and tasting tea are the most important part of tea culture. It is not only about the skills of brewing tea and the selection of the tea set but also about an attitude to life and esthetic experience. From selecting the water to brew the tea, to tasting the tea, each step contains a deep cultural heritage and artistic beauty. The development of art of tea has gradually produced a systematic system of tea ceremony that emphasizes the harmonious coexistence of man and the nature, and achievement of spiritual tranquility and sublimation through tea activities.

(5) Function and Spiritual Value of the Tea

Tea not only has physiological effects such as quenching thirst, digestion, and delaying the aging process but is also associated with many spiritual meanings. It can help people to relax, relieve stress, enjoy the gifts of nature, and achieve the highest state of "harmony between man and nature". The spiritual value of tea lies in its ability to lead people to inner peace and serenity, and to improve the quality of life and the spiritual realm.

(6) The Language and Cultural Inheritance of the Tea

Through tea ceremony, tea etiquette, and tea poetry the language of tea conveys people's perception of tea and their attitude to life. The tea ceremony is a way of expressing inner emotions and philosophical thinking through the art of tea, while tea etiquette emphasizes respect and etiquette when drinking tea. Tea poetry expresses people's love and praise for tea in literary forms. Through these forms, tea is not only a beverage but also an important carrier of cultural heritage, conveying rich cultural connotations and esthetic preferences.
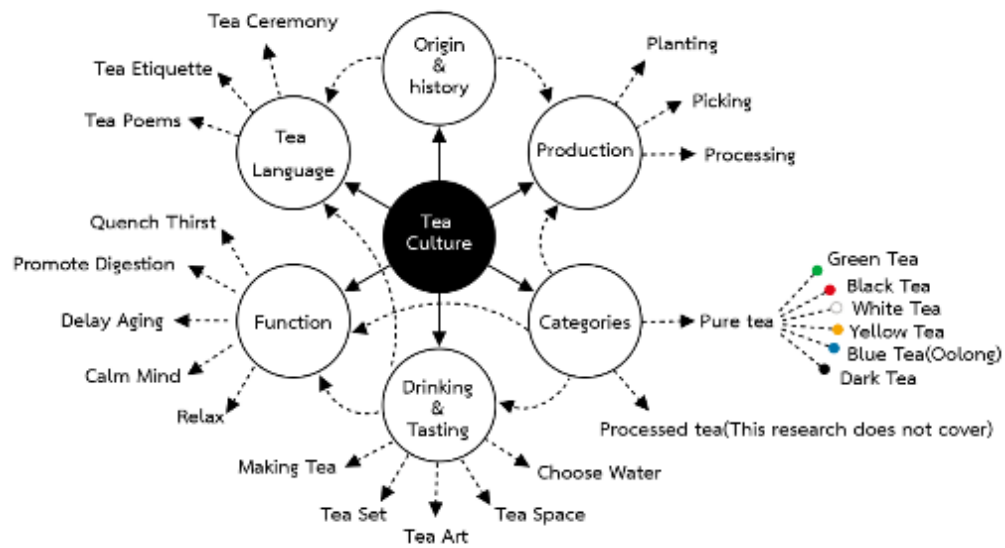
Figure 14. Content of Chinese Tea Culture

Source: Made by Lei Qiao, 2023

Tea culture, with its deep heritage, embodies the wisdom and emotions of countless ancestors throughout history. Due to its vastness, conveying its full essence to Generation Z is challenging. Therefore, the author categorizes the core aspects into two levels: material and spiritual, to systematically convey the appeal of tea culture (Figure 15).

The material level of tea culture forms its foundational charm, encompassing the origin and evolution of tea from a natural product to a cultural symbol, the meticulous tea-making processes showcasing artisan skill, the classification of tea varieties catering to diverse tastes, and the complete tea-tasting experience involving tea sets, water sources, and tearoom ambiance.

The spiritual level represents the essence of tea culture, transcending the material to nurture the soul. Beyond quenching thirst, tea calms the heart and fosters reflection, conveyed through tea ceremonies, etiquette, and poetry. The Gongfu tea ceremony epitomizes this spiritual core, blending tea preparation with self-cultivation and spiritual purity. This study highlights the Gongfu tea ceremony, the six traditional tea categories, and tea culture's impact on life, illustrating its role in promoting harmony, inspiring reflection on human-nature relationships, and fostering personal and societal growth.
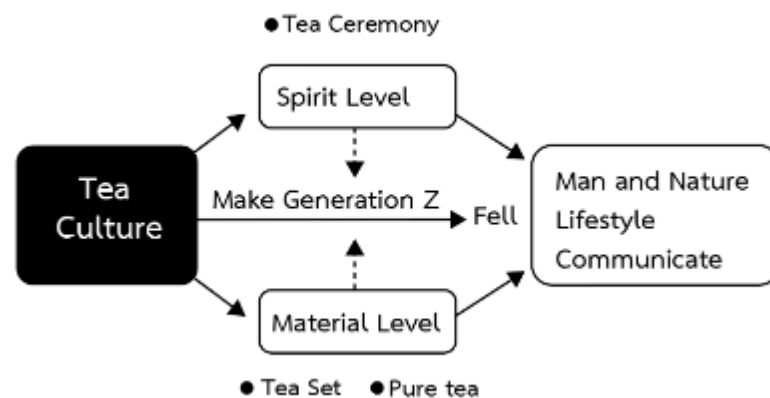
Figure 15. *Chinese Tea Culture Content Communication to Generation Z*

Source: Made by Lei Qiao, 2024

3.3 Research Methods on the Current Status of Generation Z Tea Culture Cognition and Daily Preferences

3.3.1 Interview

The content of the interview is tailored to the size of the research population to understand how Generation Z representatives interpret tea culture and how Generation Z's tea culture is passed on.

3.3.1.1 Current Status of Z-Generation Tea Culture Cognition and Daily Preferences Interview Outline

(1) Introduction and Basic Information

Welcome, and Introduction:

"Hello, thank you very much for taking the time for this interview. My name is Lei Qiao, and I am researching and daily preferences of Generation Z in relation to tea culture. With this interview, I want to find out how young people like your deal with this traditional aspect of our culture. It should not take more than 20 minutes, and everything you say will be kept confidential."

Basic Information Confirmation:

Age: "First, could you confirm that you belong to Generation Z, usually defined as those born between 1995 and 2010?"

Gender: "If you feel comfortable, could you tell me your gender?"

Educational Background & Profession: "What is your current educational background, and are you currently working or studying?"

(2) Perception and Interest in Tea Culture

Initial Perception:

"How did you first encounter tea culture? What was your first impression of it?"

Points of Interest:

"What aspects of tea culture appeal to you the most? Are you interested in tea varieties, tea wares, tea art, historical legends, health benefits, or something else?"

Information Sources:

"What channels do you usually use to get information about tea culture? For example, do you rely on social media, recommendations from friends, books, experiences in tea house, or other sources?"

(3) Tea Culture Experiences and Practices

Personal Experiences:

"Have you had any personal experiences of with making tea or participating in tea making activities? If so, what feelings or gains have these experiences brought you?"

Daily Consumption:

"Do you consume tea frequently in your daily life? In which situations or moments do you prefer to drink tea?"

Learning Approaches:

"What is your preferred method of learning and gaining a deeper understanding of tea culture? Do you find online courses helpful, or do you prefer face-to-face classes, social media interactions, direct experiences, or a combination of these?"

(4) Inheritance of Tea Culture and Challenges

Inheritance Awareness:

"In your opinion, what role does Generation Z plays in passing on tea culture? Have you ever thought about contributing to this aspect in any way, such as getting involved in relevant activities?"

Challenges Faced:

"What do you think are the biggest challenges for Generation Z in passing on tea culture? Are there any obstacles that prevent young people from engaging more deeply with this tradition?"

Innovative Fusion:

"How do you see the integration of tea culture with modern life, technology, and pop culture? Do you think this fusion is important for the survival and development of tea culture, or do you have concerns about it?"

"Can you give examples of how tea culture is being integrated into modern life, and what do you think are the advantages and disadvantages of such integrations?"

Closing

"Thank you for your insights and for sharing your experiences with me today. Your contributions are invaluable as they help us understand the Z-generation's perspective on tea culture. Do you have any final thoughts or suggestions to promote tea culture among your peers?"

3.3.1.2 Grouping of Interviewees

Grouping respondents according to their different life phases, i.e. before studying, during their studies and after entering working life, offers a variety of advantages (Figure 16).

| Interviewee 1 | Interviewee 2 | Interviewee 3 |

Interviewee 4	Interviewee 5	Interviewee 6
Interviewee 7	Interviewee 8	Interviewee 9

Figure 16. Interview Record Photos
Source: Photography by Lei Qiao, 2022-2023

(1) Enhanced Targeted Focus

Pre-University Group: At this stage, respondents encounter tea culture primarily through family, school, or community activities, and their understanding and interest are rudimentary and intuitive. Understanding the perspectives of this group sheds light on the penetration of tea culture into the early education of younger generations.

University Group: University students are at a crucial phase of knowledge accumulation and horizon-broadening, where they may delve deeper into tea culture through broader avenues such as club activities, academic research, and online resources. The feedback from this group demonstrates the prevalence and influence of tea culture in the higher education landscape.

Graduate Professionals Group: As this group enters the workforce and faces increasing pressures in life and work, their attitudes towards tea culture may become more pragmatic and focus on the health benefits, social functions, or stress-relieving properties. Understanding their viewpoints helps to understand the role of tea culture in the modern workplace and daily life.

(2) Reflecting Growth Trajectories

Through this grouping, we can observe the evolution of the respondents' perception and understanding of tea culture. From initial acquaintance to in-depth engagement with tea culture and its eventual integration into daily life, this change reflects personal growth while revealing the different manifestations and values of tea culture at different stages of life.

(3) Facilitating Comparative Analysis

Segmenting respondents by stage makes horizontal and vertical comparisons easier. Horizontal comparisons reveal the differences between different groups within the same time period, while vertical comparisons track the changes in attitudes towards tea culture across the different life stages of the same group, allowing for a holistic understanding of the transmission and evolution of tea culture in the younger generations.

(4) Guiding Strategy Formulation

Based on the feedback from the individual groups, we can develop more targeted strategies to promote and preserve the tea culture. For example, for pre-university age people, it is advisable to strengthen family and school educational guidance, for university students to organize more club activities and academic exchanges, and for college graduates to promote the health benefits and social functions of tea culture to facilitate their social integration.

(5) Enhancing Research Depth and Breadth

This classification promotes a more systematic and comprehensive research approach that includes individuals of different age groups and takes into account their unique life circumstances and psychological states. This design deepens the exploration of the nature and value of tea culture in younger generations and provides a solid foundation for its inheritance and development.

3.3.1.3 Interview Data

Pre-University Group

Interviewer 1, Jiangzihang: Male, born in Hangzhou, 2008. He drinks traditional tea with his elders and new and improved tea with his peers, such as Hey Tea, milk tea, tea style, Master Kong black tea, green tea, and jasmine tea. Lihua tea and other brands of tea drinks. He likes sweet drinks and also thinks tea is thirst-quenching and has a certain functionality. He has been to tea gardens and usually likes video games (but he are not allowed to bring electronic products to school). He usually plays card games. The school provides a room for board games. I am

interested in blind box stationery and dolls, and I often buy them. I know most about traditional Chinese culture from the traditional festivals, and I do not know much about tea culture. The main ways to get into traditional culture are applications like Douyin and Xiaohongshu.

Interviewer 2, Zhou Xiaoying: Female, living in Zhanjiang, born in 2009. Her family rarely drinks tea, and the probability of her buying tea drinks is small. She rarely plays games (she usually lives at school and cannot bring electronic products to school) and plays cards. He plays board games and occasionally plays sports. His usual hobbies are mainly sports and dancing. She knows traditional Chinese culture mainly from the traditional festivals. Not interested in traditional culture. She does not know much about tea culture. The main sources of information about traditional culture are Douyin and WeChat mini-programs.

Interviewer 3, Zou Xiuliang: Male, living in Zhanjiang, born in 2005. His family rarely drinks tea, and the probability of him buying tea drinks is small. He rarely plays games (he usually lives at school and cannot bring electronic products to school). He plays card games, enjoys collecting blind man's buff dolls, and occasionally plays sports. His knowledge of traditional Chinese culture comes mainly from the traditional festivals. He does not know much about tea culture, so his whole experience is focused on learning.

University Group

Interviewer 4, Lv Shiliang: Male, living in Guangzhou, born in 2001. Drinking tea is common in his family. He also drinks tea at school. Drinking tea quenches his thirst, refreshes him, and relaxes his mind. He drinks tea with friends and does not know much about the importance of tea culture, so he goes to tea houses to drink tea. He usually plays games with his classmates and plays offline board games. He learns about traditional culture through museums, books, study courses, Douyin, Xiaohongshu, WeChat, and other applications.

Interviewer, 5 Lv Haimei: Female, living in Guangzhou, born in 1999. In her family, it is customary to drink tea. She rarely drinks tea at school. Drinking tea quenches her thirst, refreshes her, and relaxes her mood. She usually likes to go to a

few novel tea houses to have a check-in experience. She goes to tea houses with friends to drink tea and has some understanding of tea culture. She likes to play board games and collects blind box dolls. She has been to tea gardens and watched tea art demonstrations there. The main ways to understand traditional culture are through museums, books, courses, and apps like Douyin and Xiaohongshu.

Interviewer 6, Xu Qing: Female, living in Guangzhou, born in 2002. Her hometown is Jieyang, and it is customary to drink tea in her family. She does not often drink traditional tea at school. Drinking tea can quench her thirst and refresh her. She has had some new experiences when checking in at the tea house. She orders milk tea with her friends and has some understanding of tea culture. She likes to play board games and collect blind-box dolls. The main ways to understand traditional culture are through museums, books, course learning, Douyin, and Xiaohongshux, also waiting for more mobile applications on this.

Graduate Professionals Group

Interviewer 7, Li Zihan: Male, living in the city of Chaozhou. His family has the habit of drinking tea. He goes to tea houses with friends to drink tea. He has a certain understanding of the connotations of tea culture. He collects cartoon IP ornaments and dolls and goes to tea houses with friends. He likes playing board games, goes to a tea garden, and watched a tea art demonstration there. He usually likes traveling and the main ways to understand traditional culture are museums, books, course studies, Douyin, Zhihu, and other applications.

Interviewer 8 Luo Zhanhui: I am in Shenzhen, my hometown is Jieyang. My family has the habit of drinking tea. I go to tea houses with friends to drink tea. I have a certain understanding of tea culture. The most important way to understand traditional culture is through museums. Books, learning Douyin, Zhihu, Zakuu, and other apps.

Interviewer 9 Fang Wenqi: Do your family members in Shenzhen, where you live, have the habit of drinking tea? They rarely drink traditional tea. They go to tea houses with friends to drink tea. They do not know much about the importance of tea culture. They usually like to collect blind tins. I like to travel and learn about traditional culture through museums, books, classes, Douyin, Zoku, WeChat mini-

programs, and other apps.

Organize the data. The first step is to code the interviewees. As shown in Table 8. The second step is to compile the answers to the interviewees' questions, as shown in Table 9.

Table 8. Interviewee Code

Made by Lei Qiao

Interviewee Code						
Date	Interview Format	Group	City	Year of Birth	Sex.	No.
03/05/2022	Online Interview	Pre-University	Hangzhou	2008	M	1
03/05/2022	Online Interview		Zhanjiang	2009	F	2
03/05/2022	Online Interview		Zhanjiang	2005	M	3
08/05/2022	Face-to-face Interview	During University	Guangzhou	2001	M	4
08/05/2022	Face-to-face Interview		Guangzhou	1999	F	5
17/10/2023	Online Interview		Guangzhou	2002	F	6
17/05/2023	Face-to-face Interview	Graduate Professionals	Chaozhou	1999	M	7
17/10/2023	Online Interview		Shenzhen	2002	M	8
17/10/2023	Online Interview		Shenzhen	2001	F	9

Table 9. Compilation of Interview Data Questions & Answers

Made by Lei Qiao

Organizing the Interview Content	This situation exists for the respondent	%
Elders have the habit of drinking tea.	1.4.5.6.	44%
Often Drinking tea with family	1.4.5.6.7.8.	66%
Drinking tea with friends	4.5.7.8.9.	55%
Usually like to play card games	1.2.3.4.5.6.7.	77%
Due to study restrictions, cannot play digital games	1.2.3.	33%
Learn about culture through APP or Online	1.2.3.4.5.6.7.8.9	100%
Interested in blind box dolls	1.5.6.7.9	55%
Do not understand the connotation of tea culture.	1.2.3.4.5.9.	66%
The effect of tea is believed to be beneficial to the	1.4.5.7.	44%

human body		
Will go to the teahouse to drink tea	4.5.7.8.9	55%
Traveled to tea gardens	1.4.5.7.	44%
Have a little understanding of tea culture	6.7.8	33%

3.3.1.4 Interview Data Analysis

Summary of interview results: Three groups of people mentioned that card games accounted for 77% of the total interviews, and the media source of information, the Internet or online APP, accounted for 100% of the total. 9 people were interested in collecting blind boxes. 55% of the total. The number of people who have some understanding of tea culture accounts for 33% of the total.

3.3.2 Observation

The author designed and conducted a cross-city field study to systematically and thoroughly investigate the extent to which young people are aware of tea culture and what their preferences are when it comes to consuming tea-related content. In this study, the method of participant observation was used and several representative cities were selected as sample points. These cities have their own characteristics in terms of the heritage and modernization of tea culture.

In the survey, the author went to various types of tea house environments, including traditional tea houses, modern tea art spaces, and tea culture experience halls that integrate innovative elements, to observe the behavior patterns, communication contents, and consumption choices of young consumers. By recording and analyzing young people's interaction during tea tasting, their feedback on tea art performances, and their preferences for tea types, tea set design, tea room atmosphere, etc., the author attempted to provide a multidimensional framework for young people's tea culture cognition.

These first-hand materials provide an important basis for analyzing the role and contribution of young people to the heritage and innovation of tea culture.

3.3.2.1 Observing the Selection of Tea Houses in Different Cities

In order to ensure the rationality of the structure of the observation data, the observation cities of Chaozhou, Huizhou, Beijing, Guangzhou, and Hangzhou were selected and the following three aspects were considered, as shown in Table 10.

(1) The diversity of regional culture: These five cities represent the characteristics of tea culture in different regions of China. Chaozhou is famous for its Gongfu tea, which emphasizes the delicacy and ritual sense of tea art; Huizhou combines the characteristics of Hakka and Cantonese culture, and the tea style is simple and enthusiastic; Beijing, as an ancient capital, has a tea culture with deep historical heritage and royal style; Guangzhou's tea culture is closely related to Lingnan food culture, and the culture of morning tea is particularly rich; Hangzhou is the hometown of Longjing tea, and tea complements landscapes, poetry and painting. Such a classification can fully reveal the regional diversity of Chinese tea culture and provide rich examples for research.

(2) The degree of integration of history and modernity: These cities have different degrees of reflection on the heritage of tea culture and modern innovation. Chaozhou and Huizhou have preserved the traditional customs of tea art and are important showcases for the exploration of traditional tea culture, while Beijing, Guangzhou, and Hangzhou, on the basis of preserving traditions, have integrated more modern elements such as modern tea art spaces and innovative tea products, showing the vitality and transformation of tea culture in the new era. By observing these cities, we can deeply analyze the heritage and changes in tea culture between history and modernity and explore its path and strategy to adapt to modern society.

(3) Differences in economic and social development: Chaozhou, Huizhou, Beijing, Guangzhou, and Hangzhou differ in their economic level, social structure, and population composition, which directly affects the spread and acceptance of tea culture. For example, economically developed cities may have a more diversified market for tea consumption and a wider range of dissemination channels for tea culture, while cities with a younger population structure may have a more innovative

perception and acceptance of tea culture by their youth groups. By comparing the current state of tea culture in these cities, we can reveal the regularities and characteristics of tea culture development under different socio-economic conditions and provide a scientific basis for the formulation of tea culture promotion strategies.

Table 10. Teahouse Inspection Time, Location, Teahouse, Tea Shop Name, and Number

Made by Lei Qiao

Field Investigation and Observation of Teahouses and Tea Shops			
Shop Name	Inspection Time	City	No.
Sanhe on the lake Courtside stove making tea	14/05/2022	HUI ZHOU	S1
Youxi Tea House in Guatian	13/11/2022	GUANG ZHOU	S2
Tea Dance	25/05/2022	GUANG ZHOU	S3
Bawang Tea Fairy	03/03/2023	GUANG ZHOU	S4
Acha Shop	15/06/2022	CHOU ZHOU	S5
Duibai Tea House	08/07/2023	HANG ZHOU	S6
Fuquan Tea Courtyard	21/08/2022	HANG ZHOU	S7
One moment Tea House	25/07/2022	HANG ZHOU	S8
"HUI" Temple Tea House	08/11/2023	BEI JING	S9
Boiled Tea Tea House	09/05/2022	BEI JING	S10

3.3.2.2 Observational Data Analysis

If the observed content is defined as the purpose of visiting the teahouse, it can be finely divided into the following categories, which not only cover the traditional experience of tea culture but also include modern, diversified needs, as shown in Table 11:

Leisure and entertainment: In this category, customers want to relax and enjoy the quiet and comfortable surroundings of the tea house. They can read, take a nap, play chess, listen to music or simply enjoy a cup of good tea away from the daily hustle and bustle. Tea can give young people a lifestyle in advance.

Meeting with friends: The tea house is a sociable place where many friends

and family members gather. It not only provides a comfortable meeting place, but also enhances the fun and interactivity of the gathering through tea art performances, sharing tea snacks, etc., making the gathering warmer and more memorable. In observation, we can see how young people like to get together, such as the chess and cardboard games offered by some teahouses.

Experience tea tasting: For lovers of tea culture, the tea house is an excellent place to taste different types of tea, learn about the art of tea, and feel the spirit of the tea ceremony. They come here specifically to savor the unique charm of each tea and enjoy the tranquility and elegance of tea tasting.

Hanfu experience: In recent years, with the rise of Hanfu culture, some teahouses have begun to offer Hanfu rental and Hanfu experience services. Customers can wear exquisite Hanfu, learn about the elegant life of ancient literati, and take beautiful photos at the same time, creating beautiful scenery in the teahouse.

Tea set collection or gift exchange: Tea houses often display a variety of exquisite tea sets, attracting many tea set collectors to appreciate and buy. In addition, some tea houses also offer points exchange or membership schemes. Customers can collect points through their consumption and exchange them for their favorite tea sets or tea gifts.

Buy tea products or cultural and creative products and choose gifts: As a sales platform for tea and tea culture products, the tea houses offer customers a wide selection. Whether for personal use or as gifts, customers can find their favorite tea products, tea sets, tea culture books, creative tea sets, etc. here. The tea houses also offer limited edition gift boxes for festivals or special occasions to fulfill customers' gifting needs.

Enjoy the scenery: Some teahouses are in scenic spots, such as by a lake, in the mountains or high up in the city. While the customer drinks his tea, he can enjoy the beautiful scenery outside the window and feel the harmonious coexistence of nature and man. This unique experience makes the teahouse a piece of land in the city, attracting many customers who aspire to a quality life and visit it.

Table 11.The Purpose of Young People Visiting the Teahouses

Made by Lei Qiao

The Purpose of Young People Visiting the Teahouses											
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	%
Leisure	1	1	1	1	1	1	1	1	1	1	100%
Meeting Friends	1	1	1	1	1	1	1	1	1	1	100%
Tea Tasting Experience		1				1	1	1	1	1	60%
Hanfu experience			1								10%
tea set collection or exchange points for gifts			1		1					1	30%
Buy tea products or cultural and creative products, choose gifts				1		1	1	1	1	1	60%
Enjoy the scenery	1					1	1	1	1		50%

3.3.3 Questionnaire

Through a combination of interviews and observations, a questionnaire survey was conducted on the tea brands preferred by young people of Generation Z. The main purpose was to conduct further case studies by understanding the tea brands preferred by Generation Z young people, finding out the reasons for their preference and summarizing the experience of visual design.

3.3.3.1 Questionnaire Design for Tea Brands Favored by Generation Z

The questionnaire mainly examines four aspects: basic information (to determine whether respondents belong to Generation Z), tea consumption habits, brand awareness preferences, brand characteristics and appeal. Details of the questionnaire can be found in Appendix 2.

3.3.3.2 Questionnaire Analysis

The results of the questionnaire survey conducted on the Wen Juanxing online platform revealed the unique preferences and priorities of Generation Z in the area of tea product consumption. A total of 120 questionnaires were distributed in this

survey and 117 valid questionnaires were successfully analyzed. In combination with the data feedback in Tables 12-14, several core trends emerge. These trends are closely related to the expectations and selection criteria of Generation Z for tea products and at the same time provide a data basis for the subsequent design.

Table 12. The Key Factors for Generation Z in Choosing Tea Brands

Made by Lei Qiao

Factors	NO.	%
Taste and Quality	115	98.29%
Brand Awareness and Image	98	83.76%
Packaging Design and Creativity	102	87.17%
Price Rationality	82	70.08%
In-Store Environment and Service Experience	79	67.52%
Social Sharing Value	86	73.50%
Others	6	0.51%

Table 13. The Attractive Factors of Tea Brands that Generation Z Considers

Made by Lei Qiao

Factors	NO.	%
Personalized and customized beverage selection	105	89.74%
Unique brand story and cultural background	89	76.07%
Innovative marketing strategy and social media interaction	111	94.87%
Brand concept of environmental protection and sustainable development	91	77.77%
Online and offline integrated consumer experience	88	75.21%
Convenient purchase channels and payment methods	87	74.35%
Others	7	0.59%

Table 14. Tea Brand Preference Rating

Made by Lei Qiao

Brand	Score				
	5	4	3	2	1
Chali	82	35			
Yi Fu Tang		12	90	13	
Xiao Guan Tea	2	12	103		
T2 Tea		3	114		
Hey Tea	84	33			
Cha Yan Yue Se	97	20			

Cha Bai Dao	90	19	8		
Chagee	109	8			
Gu Ming	95	22			
Other brands					

Generation Z demands high-quality tea products with unique flavors, reflecting their pursuit of a high-quality lifestyle and preference for personalized items. Packaging and promotional strategies are crucial, with simple, fashionable, and distinctive designs appealing to their aesthetic and desire for self-expression. Effective advertising enhances brand connection and purchasing decisions.

Generation Z values a brand's cultural heritage and commitment to sustainability, supporting brands with meaningful stories and eco-friendly practices, aligning with their social responsibility. They also prioritize convenience in purchasing and frequent social interaction, facilitated by online platforms and innovative marketing.

In summary, tea brands must excel in product quality, design, marketing, brand culture, and sustainability to attract Generation Z, understanding their consumer behavior to gain trust and loyalty in a competitive market.

3.3.4 Tea Brand Design Case Study

In conjunction with the conclusions of the questionnaire, a case study was conducted on Cha Li and Chagee. The main purpose was to summarize the experience of brand and visual design through the research and use it for further research. During the research, the author found that Chali's brand design is bright and colorful and has a strong visual appeal to Generation Z (Figure 17).

Figure 17. Chali tea packaging

Source: Chali official Weibo. https://weibo.com/3866014827/MevTSrMCg (2024)

There are special gift boxes at certain times, such as the Spring Festival and

Year of the Dragon gift boxes. They use many traditional Chinese elements but also have new innovative approaches. In the advertisement for the Year of the Dragon gift boxes, we can see that the product has a flat design of dragon and firework elements, which highlights its sense of time while conveying the traditional culture (Figure 18).

Figure 18. Chali Dragon Year Limited Edition Gift Box

Source: Chali official Weibo. https://weibo.com/3866014827/MevTSrMCg (2024)

Chagee uses many traditional Chinese elements for the design of the store. For example, the name of the store Chagee is designed with the Chinese element silk (Figure 19).

Figure 19. Chagee Font Design for Storefronts

Source: Photo by Lei Qiao (2023)

The Chagee brand integrates Western esthetics into its design and transforms the Chinese opera character "Yu Ji" from a realistic style to a flat painting style, which is more in line with the esthetic orientation of Generation Z (Figure 20).

| Before | After |

Figure 20. Comparison of the Chagee Brand Logo before and after the Upgrade

Source: https://www.sohu.com/a/539482803_121218714 (2023)

It was also found that both tea brands have peripheral products such as scarves to interact with users and integrate tea culture into Generation Z's everyday life, (Figure 21-22). Limited editions are launched on specific dates.

Figure 21. Chali Daily Tea Limited Edition Silk Scarf

Source: Chali official Weibo. https://weibo.com/3866014827/MevTSrMCg (2024)

Figure 22. Netizens Wearing Chagee Limited Edition Scarves

Source: www.xiaohongshu.com (2024)

In summary, the tea brand design that is loved by Generation Z chooses bright colors, designs the tea products, and incorporates many traditional Chinese pattern elements and national trend elements into the design. It also interacts with

Generation Z through limited-edition gifts, reinforcing this group's love for the brand.

3.4 Constructing the Theoretical Derivation Method of Tea Culture Intra-Generational Model

3.4.1 Research on Communication Theory in the Literature Review

Based on the literature review in Chapter 2, the author has studied a variety of communication theories and models, especially effective strategies for cultural heritage. These theoretical studies reveal the following factors that are crucial to cultural inheritance:

Multiple channels of communication: The literature indicates that the use of multiple media and platforms, such as social media, short video platforms, online communities, etc., can significantly increase the reach and influence of cultural content.

Interactivity and participation: Research shows that designing interactive activities and experiential projects can effectively enhance users' sense of participation and interactivity and make the cultural heritage process lively and interesting.

Cultural identity: The literature emphasizes that strengthening a sense of identity and pride in culture is an important means of ensuring cultural heritage.

3.4.2 Case Study on the Communication of Hanfu Intra-generational Generation Z

In conjunction with the case studies in the literature review section, especially the successful cases of self-inheritance of Hanfu among Generation Z, the author summarizes the following rules of success:

Linking multiple channels: Hanfu successfully utilizes multiple

communication channels such as social media and short video platforms to widely disseminate its cultural content and be accepted by Generation Z.

Interactive experiential activities: Hanfu has strongly encouraged the participation and interactivity of Generation Z and promoted cultural heritage through interactive experience activities such as exhibitions and cultural festivals.

Cultural stories and sense of identity: By telling the historical stories behind Hanfu, Generation Z's sense of identity and pride in Hanfu is strengthened, creating a positive cultural identity.

In addition, the Hanfu audience spontaneously designs and wears Hanfu, and through online and offline activities, Hanfu has been widely popularized among Generation Z. These spontaneous behaviors not only show the beauty and cultural heritage of Hanfu but also arouse young people's interest and love for Hanfu, thereby further promoting the heritage and development of Hanfu culture.

3.4.3 Tea Culture Intra-Generational Communication

By analyzing the current state of the spread of tea culture in conjunction with the conclusions of the literature review and the case study, the author concluded that there are several deficits in the intragenerational spread of tea culture in Generation Z:

Lack of an intragenerational inheritance model: Although traditional tea culture relies on the family and traditional upbringing for an intergenerational inheritance, there is a lack of a mechanism that allows for effective diffusion and inheritance among peers in Generation Z. There is less cultural exchange and dissemination within Generation Z, leading to a weakening of the influence of tea culture in this generation.

Lack of interactive dissemination methods: The traditional dissemination methods of tea culture are relatively one-sided, lacking interactivity and participation, and it is difficult to capture the attention of Generation Z. Thus, the dissemination of tea culture mainly relies on books and lectures and does not make full use of modern digital and interactive means.

Lack of modern expression: The content of tea culture is relatively traditional, is not compatible with modern lifestyles, and is difficult for Generation Z to accept. For example, the expression and content of tea culture are not compatible with the modern esthetics and interests of young people, which makes it unappealing to Generation Z.

Based on the lack of dissemination of tea culture within Generation Z in conjunction with communication theory, a strategic model for the dissemination of tea culture within Generation Z is derived (Figure 23).

When it comes to intrapersonal communication, its core content revolves closely around the inner world of the individual and mainly comprises the following five aspects:

The intertwining of perception and emotion: Internal communication begins with the perception of the external environment, including multisensory experiences such as seeing, hearing, and touching, which then trigger emotional responses such as joy, sadness, or surprise. Emotions are intricately linked to perceptions and together form the individual's initial understanding and experience of the world.

Echoes of memory: Perceptions and emotions are stored in memory and become part of personal experience. Memory not only records past events but also influences the current emotional state and future decisions through recollection and reflection. Internal communication builds a bridge between memory and current perception and enables the individual to interpret the present based on past experiences.

Deep exploration of thinking: Based on perception, memory, and emotions, people think deeply, analyze problems, make plans, and develop new ideas. Thinking activities are the advanced stage of inner communication that promotes the deepening of self-knowledge and the improvement of cognitive abilities.

Infinite possibilities of imagination: Imagination is another important aspect of inner communication that enables individuals to transcend the boundaries of reality, build an inner world, and explore unknown realms. Imagination not only enriches the spiritual life of the individual but also stimulates creativity and innovation.

Emotional regulation and integration: Internal communication involves continuous emotional regulation to balance positive and negative emotions, ensuring mental health through self-talk and emotional management. Emotional stability is essential for effective interaction with others.

Internal communication is complex, engaging perception, memory, thinking, imagination, and emotions, with information integrated through repeated interactions.

Interpersonal communication, rooted in Symbolic Interactionism, underscores the role of symbols like words, gestures, and expressions in social interactions. This multidirectional process facilitates shared meanings, relationship building, conflict resolution, and collaborative goals through responsive exchanges.
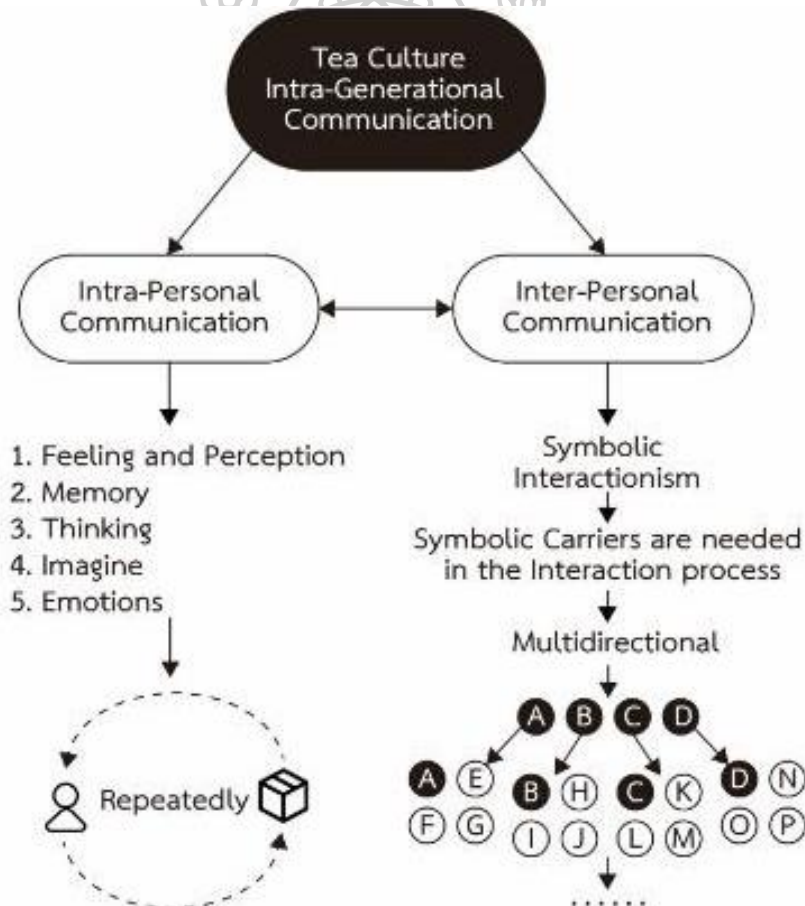
Figure 23. The intra-generational communication model of tea culture

Source: Made by Lei Qiao (2024)

3.5 Design Experiment

3.5.1 Applying Design Thinking Methods to Design Practice

Design thinking is a human-centered innovation method that focuses on solving complex problems by understanding user needs, defining problems, brainstorming, prototyping, and testing iterations. Using the design thinking model to design communication media design can effectively improve communication impact and user experience (Figure 24).
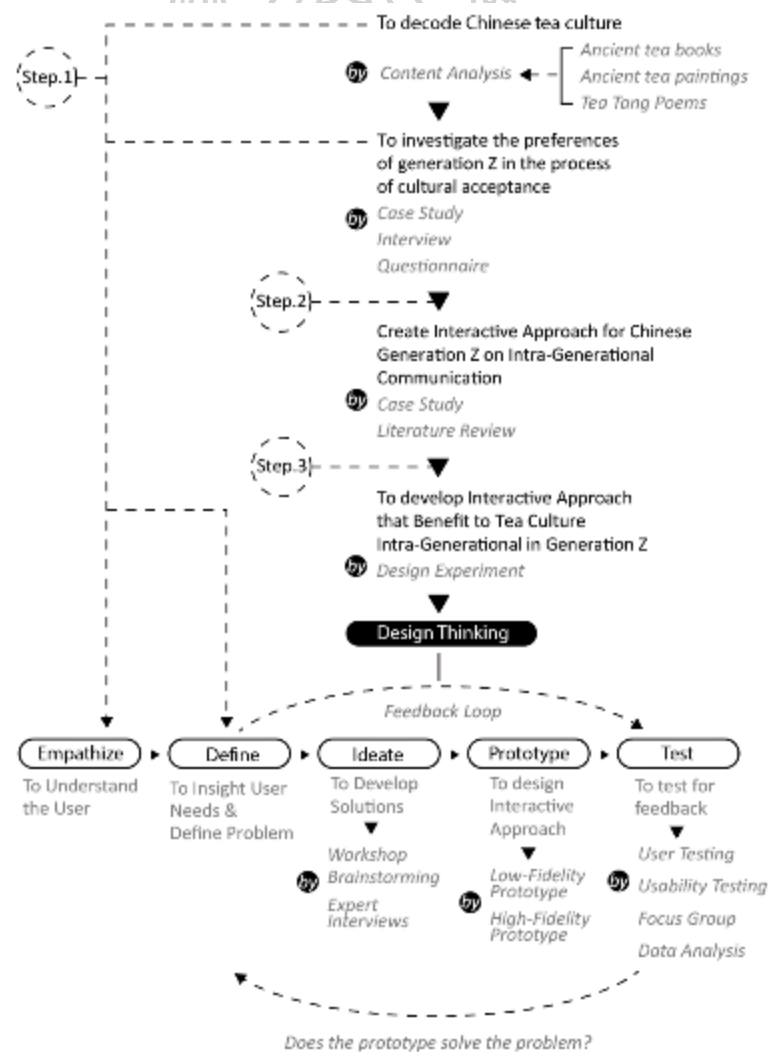
Figure 24. Design Thinking Methods

Source: Made by Lei Qiao (2024)

(1) Empathize

In the initial design stage, understanding the target audience's needs, behaviors, and challenges is essential. Feedback is gathered through interviews, questionnaires, and observations. The design direction is informed by step 1 and 2 of the research and considers intra-personal and inter-personal communication. Analyzing users based on what they say, do, think, and feel helps build empathy and create products that meet their expectations, facilitating tea culture communication within Generation Z.

(2) Define

Based on the findings from steps 1 and 2, it is crucial to identify which aspects of tea culture should be promoted to Generation Z. A guiding question for future design is: "What elements of tea culture should be promoted to Generation Z, considering the current lack of peer-to-peer delivery models and the limitations of existing methods in capturing their attention, fostering interactivity, and enhancing participation?"

(3) Ideate

After defining the problem, brainstorm to generate multiple solutions. Use workshops to involve users in the design process, gather their input, and consult experts for co-design. Explore solution ideas broadly and determine product content and design functions based on "user importance" and "feasibility."

(4) Prototype

Implement the ideas from the creative phase in low-fidelity and high-fidelity prototypes and test and verify the design ideas and conclusions from the conception phase using the model derived in step 2. Simulate the actual product features, styles and content.

(5) Test

Test the prototype, collect user feedback, find out the shortcomings and improvements in the design, iterate the prototype further based on the verified feedback, conduct user testing, invite the target audience to use the prototype, observe their usage behavior and feedback, and finally adapt it to a high-fidelity

prototype until the product development is complete.

The conclusions from the first and second research steps were obtained through a literature review, a content analysis of tea culture, interviews and field research. Design products that provide interactive methods for 3 types.

(1) **Board game:** Design a realistic medium (product) that people can interact with and integrate the design into the brand touchpoint.

(2) **Humorous tea set:** Design a realistic interactive medium (product) with realistic people and objects, their interactions, derivatives (AR package) and scarves. The content is designed by integrating the brand design concept.

(3) **Teatime interactive application:** Design a virtual interactive medium (product) between people and between people and themselves. The application was designed using the double diamond model (Figure 25).
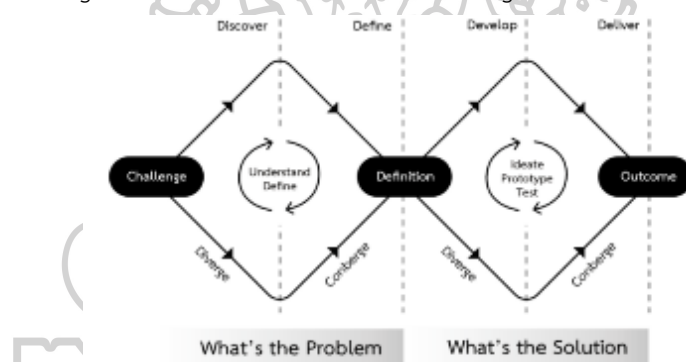
Figure 25. Application Development Model-double Diamond

Source: Made by Lei Qiao (2024)

3.5.2 Workshop

3.5.2.1 Workshop Content

The researcher shared the preliminary analysis with students in the Visual Communication Design program and hosted a workshop to create the following projects:

Board game, Humorous tea set, Time management application "Teatime".

The workshop was held on February 21, 2023, with a total of 24 participants, all third-year students majoring in Visual Communication Design, selected by the researcher (Figure 26).

Figure 26. *Workshop Scene*

Source: Photo by Lei Qiao (2023)

3.5.2.2 Group Discussion

The researchers divided all participants into 6 groups, A.B.C.D.E.F., with 4 people in each group. The specific distribution is as follows:

Group A.B: Discuss the creation of board games

Group C.D: Discuss the design of doll tea sets

Group E.F: Discuss the design of the time management application "Teatime"

3.5.2.3 Workshop Objective

Create board games: Combine elements of tea culture with board game design and develop a prototype concept for board games so that tea culture can be spread playfully among Generation Z peers and tea culture can inherit itself.

Design humorous tea sets: Based on tea culture, tea sets, sculptures, fun and other factors, design a prototype concept for humorous tea sets.

Develop time management applications: Design an app based on the lifestyle, relaxation, leisure, meditation and other daily activities that tea culture brings to people. Develop an app with time management as the main function to help users better manage time and understand the tea culture, feel the tea culture themselves and share the tea culture with peers.

3.5.2.4 Group Discussion

The group discussion after the workshop should include the following:

Project review: Discuss the creative process and results of each group and show their respective design prototypes. Share the challenges and solutions encountered during the creative process.

Feedback and improvement: Collect feedback from each group member and discuss which parts can be optimized. Suggest improvements for the specific details of each project.

User experience testing: Create a plan for user testing, invite potential users to participate in the tests and collect real user feedback. Further customize and improve the design prototype based on user feedback.

Project outlook: Discuss the next work plan and how the design prototype will be transformed into an actual product. Create a timeline and task assignment to ensure the project runs smoothly.

3.5.2.5 Feedback Data Analysis

By distributing questionnaires to the participating groups, collecting data and conducting analysis. The participants' attitude towards this workshop is very satisfied and positive. They acknowledge the design concept, rules and innovative points of the project, are satisfied with the organization and team collaboration of the workshop and express their willingness to participate in the future (Table 15).

Table 15. Workshop Satisfaction Survey

Made by Lei Qiao

NO.	Subject	Very Good	Good	Fair	Poor	Very Poor
1	Your satisfaction with the design concept of the group project?	18	4	2	0	0
2	Do you think the rules of the project are interesting?	19	2	2	0	0
3	What do you think of the innovation of the project?	22	1	1	0	0

4	What do you think about the organization and arrangement of the workshop?	20	2	1	1	0
5	How satisfied are you with the experience of group collaboration?	22	1	1	0	0
6	Would you be willing to participate in similar workshops in the future?	18	4	2	0	0

The data shows that board games excel in design concepts, rule design, cultural diffusion effects, and overall experience, highlighting their appeal and value. Therefore, board games are worth further development and optimization to enhance quality, expand influence, and offer players more exciting and memorable experiences (Table 16).

Table 16. Questionnaire Data of Board Game Project Team

Made by Lei Qiao

NO.	Subject	Very Good	Good	Fair	Poor	Very Poor
1	Do you think the design concept of the board game is clear?	6	1	1	0	0
2	How satisfied are you with the rule design of board games?	7	1	0	0	0
3	How do you evaluate the communication effect of board games on tea culture?	5	2	1	0	0
4	How satisfied are you with the overall experience of board games?	4	3	1	0	0

The data shows that participants highly value creative elements such as the design of humorous tea sets, AR packaging, and the use of visual elements to design edge products and believe that they all have high appeal and potential (Table 17).

Table 17. Questionnaire Data of Humorous Tea Set Project Team

Made by Lei Qiao

NO.	Subject	Very Good	Good	Fair	Poor	Very Poor
1	Do you think the design of humorous tea sets is innovative?	5	2	1	0	0
2	How convenient is it for you to use humorous tea sets?	7	1	0	0	0
3	What do you think about the humorous tea sets' ability to bring about self-reflection to users and their thinking effects on daily life?	3	2	3	0	0
4	Do you think the AR packaging of tea sets is a novel idea?	6	2	0	0	0

| 5 | Do you think using the visual elements and symbols of humorous tea sets to design peripheral products can give users more interactive experiences? | 4 | 3 | 1 | 0 | 0 |

After analyzing the participants' questionnaires, the "Tea Time" application scored well in terms of functionality, practicability, logical clarity, guidance for meditation and relaxation, and social content. Therefore, the project has the potential for further design and optimization, as shown in Table 18.

Table 18. Questionnaire Data of Teatime App Project Team

Made by Lei Qiao

NO.	Subject	Very Good	Good	Fair	Poor	Very Poor
1	What is your evaluation of the functionality and practicality of the 'Teatime' application?	7	1	0	0	0
2	What do you think of the logical clarity of teatime for a time management-focused functional app?	6	2	0	0	0
3	What do you think is the role of teatime setting in guiding users to meditate and relax?	5	2	1	0	0
4	What do you think of the current interactive format for setting teatime?	6	2	0	0	0
5	Do you think the setting of teatime is useful for current social content?	4	3	1	0	0

3.6 Validity of the Research Framework

In this section, the expert judgment method is used to assess the validity of the research framework. To ensure the objectivity and authority of the evaluation results, the author specifically commissioned several experts from the field of design to evaluate the conclusions of the workshop.

3.6.1 Invited Peers

For this study, 5 experts were invited to evaluate the research methods, including two experts in design science and education and three experts in design

practice and management. The basic information provided by the experts is shown in Figure 27.

Figure 27. Invited Peers

Source: Made by Lei Qiao (photos from five peers)

3.6.2 Validity Assessment

This study on the validity of peer assessments was conducted from August to October 2023 through face-to-face and online communication. Researchers explained the research design and related details to peers in one-on-one meetings and solicited feedback on the assessment.

3.6.3 Result of Validity Assessment

The data recovery statistics of the peers' opinions are shown in Table 19 and resulted in 91.11% agreement in the validity assessment. The feedback forms can be found in Appendix 3.

Table 19. Expert Opinions

Made by Lei Qiao

	Prof. Dongping Zhu	Dr. Xing Yang	Mrs. Fang Yang	Mrs. Wencong Wu	Miss. Yunhe Pan
Question 1	Yes	Yes	Yes	Yes	Yes
Question 2	Yes	Yes	Yes	Yes	Yes
Question 3	Yes	Yes	Yes	Yes	Yes
Question 4	Yes	Yes	Yes	Yes	Yes
Question 5	Not Sure	Yes	Not Sure	Yes	Yes
Question 6	Yes	Yes	Yes	Yes	Yes
Question 7	Not Sure	Yes	Yes	Yes	Yes
Question 8	Yes	Not Sure	Yes	Yes	Yes
Question 9	Yes	Yes	Yes	Yes	Yes
Agreement	91.11%				

3.7 Summary

This chapter presents the research methods of this study in detail, including the research design, research topics, research instrument design, data collection and analysis methods, and the credibility and validity of the research. Through scientific research methods and a rigorous analysis process, the reliability and validity of the research findings are ensured and new ideas and practical guidance for the dissemination of tea culture are provided.

CHAPTER 04 EXPERIMENT AND RESULTS

This chapter uses the research basis from chapter 3 to design products through the provision of interactive media. It combines the research model, Generation Z's tea culture, and the intra-generational communication model to stimulate Generation Z's intrinsic interest and self-identity in tea culture through users' active participation and personal experiences. The researchers integrated this content into the design of three interactive media. The data collected through questionnaires, focus group interviews and user testing were analyzed quantitatively and qualitatively to evaluate the communication impact of the four tea culture communication tools on Generation Z.

4.1 Board Game Design

4.1.1 Game Content Settings

The first step: Board game design

Game goal setting: Users can learn about the tea ceremony of Gongfu tea through board games and understand its connotation.

Game rule design: The number of players in the game is 3-6. The game participants must first study the secret book of 21-style Gongfu Tea. Participants must have a demonstrator and referee to follow one of the 21 steps of the Gongfu Tea brewing procedure from the secret book. Demonstrate in one step. The rest of the players take part in the guessing game and shoot for zero to answer the question. The player who answers this step wins the round and receives one of the 21 Kung Fu Tea cards. Players can determine the number of rounds themselves, depending on how long they play the game, up to 21 rounds. The player who has the most cards at the end wins.

The content and connotation of the 21 steps of Gongfu Tea: Gongfu Tea

21 Styles is a complete tea ceremony system that integrates spiritual connotation, etiquette, brewing skills, the art of tea patrol, and quality evaluation. The entire process is also a ritual that allows people to come to rest.

Table 20. Gongfu Tea Brewing Procedure: 21 Steps Content and Connotation Comparison

Data source: National Intangible Cultural Heritage Project. Made by Lei Qiao

Gongfu Tea Brewing Procedure: 21 Steps Content and Connotation Comparison			
NO.	Step	Details	Connotation
1	Prepare equipment (carefully prepare equipment)	Place the utensils in the corresponding positions. As the saying goes, "tea three times wine four", the teacups should be placed in the shape of the "flavor".	Here the word "pin" means to have a high moral character. If more than 3 people drink Gongfu tea, 3 cups are used, which can reflect the spirit of humility.
2	Make a fire (cooling the spring with olive charcoal)	Set a fire in the clay stove, put water in the sand pot and add charcoal to fan the air.	
3	Clean hands (wash your hands with good tea)	The clean utensils for making tea all depend on your hands. Prepare the tea with clean hands and serve it in rolling cups.	
4	Wait for the fire (fan the wind to make the charcoal white)	When the charcoal fire burns until the surface turns gray, it means that the charcoal fire has burned completely, the various odors have dissipated and the charcoal can be used to make tea.	
5	Qingcha (Jia Ming Qing plain paper)	The plain paper used is tissue paper, which is flexible and breathable and is suitable for roasting tea to enhance the aroma.	At this point, you can see the shape and color of the dry tea and appreciate the dry tea.
6	Zhicha (Phoenix bathed in fire again)	Roasting tea can make the tea fragrant and pure. When roasting tea, the tea leaves should move around on the stovetop instead of staying there. Turn the tea leaves once or twice until the aroma is clear and pure.	
7	Warming pot (Meng Chen soaks his body to warm himself)	The pot must be clean, pure, and warm. Heat the kettle to raise the temperature of the kettle, which will benefit the flavor of the tea.	
8	Warming cup (hot cup	The cup should be rolled quickly and easily.	

	and clever rolling cup)	After a slight twist, the remaining water in the cup must be drained. This is the unique cup-warming method of Chaozhou Gongfu tea art.	
9	Nacha (Zhu Hu Na Oolong)	When you take tea, put some of the tea leaf strips on the bottom of the pot, put the fine tea powder on the middle layer, and then put the remaining tea leaf strips on the top layer. The amount of tea used should be about 80% of the capacity of the teapot.	
10	Runcha (sweet spring moistens tea)	Pour boiling water into a circle along the opening of the pot, lift the sand pot, and pour boiling water around the edge of the pot. Continue until the water is full and overflows.	
11	Scrape foam (remove the lid to foam the face)	Lift the lid of the pot, carefully swirl and scrape off the tea foam, close the lid, and then pour boiling water over the lid.	
12	Hot cup (pouring tea and warming cup)	Place the pot between three cups, pour the tea soup into the cups, and then dispose of the tea soup in the cups in the side rinse. Increase the temperature of the teacup.	
13	High Chong (High Note Longquan)	Strong frothing is good for the aroma, low frothing is helpful to release the rhyme, and the interaction of strong and low frothing gives the tea a better taste.	
14	Cup rolling (cup rotation)	Rinse the teacups in boiling water. For Chaozhou Gongfu tea, paying attention to the temperature of the tea soup, and reheating is essential.	
15	Pour slowly (Guan Gong patrols the city)	Every teacup is like a "city gate". While pouring tea, you must pause for a moment at each "city gate" to pay attention to the amount and color of tea soup in each cup. The three cups are evenly distributed, which is called "Guan Gong's inspection of the city".	Look at the color of the tea soup
16	Order tea (Han Xin orders troops accurately)	The main purpose of dripping tea soup is to regulate the intensity of each cup of tea. The technique must be steady, precise, and even so that all remaining drops are absorbed, which is called "Han Xin's dripping".	Adapt the strength of the tea to the preferences of different people. Just like different people's lives, not everyone has the same standard.
17	Invite tea (please	Stretch out the palms of your hands and invite	

	respectfully invite fragrant tea)	the tea drinkers to a cup of tea.	
18	Smell the fragrance (smell first to find the fragrance)	Gently pinch the rim of the cup with your thumb and forefinger and pour a little tea soup onto the surface. Hold the bottom of the cup with your middle finger and lift it up. The rim of the cup touches your lips and the surface of the cup hits your nose. You can smell the full aroma.	
19	Sip and taste (sip again to find the taste)	Sip in three gulps. The first sip is for drinking, the second sip is for drinking and the third sip is for tasting. The fragrance overflows the teeth and cheeks, and the sweetness moistens the throat and kisses.	
20	Review the rhyme (three sniffs to review the rhyme)	Pour the remaining water in the cup into the tea wash, light it, gently fan the cup and smell the bottom of the cup to enjoy the aftertaste in the cup.	
21	Xie Bin (congratulations to the guest)	When the tea is over, smile and bow to the tea drinker to express your gratitude.	

4.1.2 Design Element Extraction

Color element extraction: Lu Yu once said in "The Classic of Tea" that "The tea maker is also the Jiamu in the south". A cup of tea is composed of all five elements, the tea itself is wood, fire is used to roast the tea to determine its texture and shape its fragrance, which belongs to fire, the roasting process is finished in an iron pot, which belongs to metal, water is used to prepare the tea, its leaves relax, release their fragrance and belong to water, the necessary utensil for brewing is ceramic or porcelain, which belongs to earth (Earth). The design color is thus extracted from 5 rows (Figure 28).
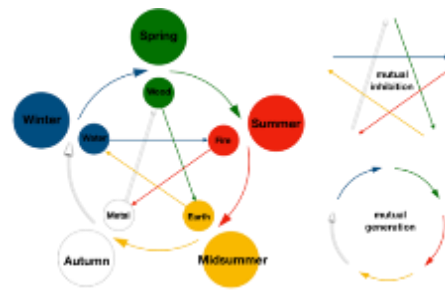
Figure 28. The Five Elements

Source: Made by Lei Qiao, 2023

Visual element extraction: Mainly extract related forms from the utensils in the Gongfu tea brewing process (Figure 29).

Key elements

Red clay stove   Kettle   Teacup   Teapot
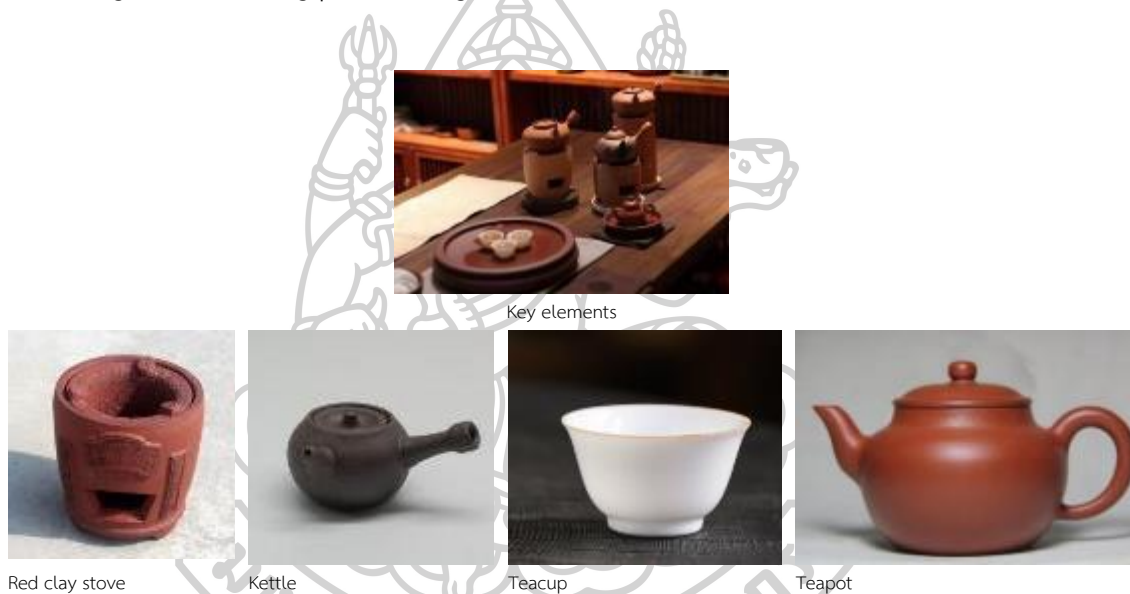
Figure 29. Utensils used in the Gongfu tea brewing process

Source: Google Image

4.1.3 Prototyping

(1) The 21 illustrations of the 21 Kung Fu Tea formulas are graphically drawn with the names or elements of the 21 formulas (Figure 30).
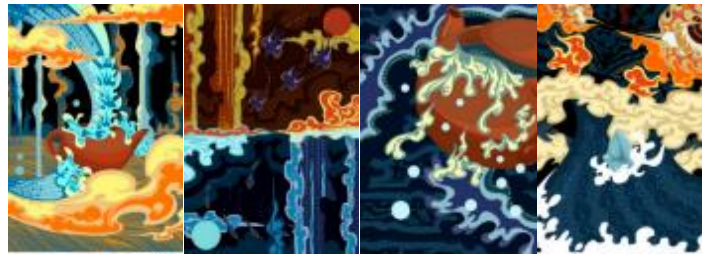
Figure 30. Gongfu Tea 21 Style Board Game Illustration

Source: Made by Lei Qiao & Qisi Zhang, 2023

(2) The source of inspiration for the chosen book binding format for the 21 Kung Fu Tea Secrets. "Reporting Mistakes and Filling the Void and Cutting Rhymes" was written by Wang Renxu of the Tang Dynasty, annotated by Changsun Nayan, and composed by Pei Wuqi. It is printed on thick plain paper and decorated with dragon scales. 5 volumes, written by Wu Cailuan from the Tang Dynasty, rhyming book 25.5 cm, width 47.8 cm (Figure 31).

Figure 31. Reporting Mistakes, Filling the Void and Cutting Rhymes

Source: Collection of the Palace Museum, Beijing

(3) Referring to the source of inspiration for the cheat book, the 21-style kung fu cheat book is designed in a dragon scale costume to emphasize the ritual sense of the cheat book (Figure 32).

Figure 32. *Secret design steps and finished products*

Source: Made by Lei Qiao & Qisi Zhang, 2023

4.1.4 Prototype Testing

To verify the usability of the first version of the high-fidelity prototype and understand the real user experience, the researchers invited 36 students to a prototype test and divided them into 6 groups to experience the prototype and evaluate its effectiveness (Figure 33).

Figure 33. *Group test site pictures*

Source: Photo by Lei Qiao, 2023

4.1.4.1 Test Plan

User sample selection: To ensure that the test users cover Generation Z defined in this study, the researchers invited second-year students majoring in design to conduct the test.

Test environment: Simulate the real usage scenario for the test, experience the whole experience process of the product, and divide into 6 groups for the test of the tea game.

Test indicators: User experience score (clarity, fun and ease of use of the game in teaching the 21 types of Gongfu)

Evaluation of the learning effect: The 21 styles of Gongfu (whether the ritual can be mastered, recall rate, etc.)

User feedback collection: (including suggestions for improvement, satisfaction, etc.)

Iterative testing: The iterative design is conducted according to the results of the first test, and the test review is conducted again until the expected goal is achieved.

Test Results: Through the game, they can learn about the 21 styles of Kung Fu Tea.

4.1.4.2 Feedback Data Organization and Analysis

Core issue:

The illustration design lacks an explanation of action.

The correlation between color design and tea color is not high.

The game has a high memory difficulty and uneven participation.

The cipher design has a sense of ceremony but may be too abstract.

4.1.4.3 Design Optimization Strategy

Optimize illustrations and action instructions

Add instructions for action: Add a short action description or a description of the individual steps next to or below the illustration so that users can intuitively understand the meaning of each action.

Dynamic demonstration: Consider turning some key steps into animations or videos to dynamically show the process of Gongfu tea making to increase interactivity and understanding.

Color design adjustment

Color mapping: Revise the color scheme to ensure that the color can accurately reflect the color characteristics of the tea (dry tea, tea soup, tea base). You can get accurate information by examining the color of real tea leaves or consulting tea art experts.

Color psychology: Use the principles of color psychology to enhance the consumer's perception of tea quality. For example, use warm tones to express the smoothness of the tea soup and fresh tones to express the freshness of the tea leaves.

Game play improvement

Learn in stages: Divide the 21 types of Gongfu tea into several stages or topics. This allows users to master the individual stages first and then gradually unlock the remaining content.

Interactive mode: Add a multiplayer collaborative or competitive mode to allow each player to actively participate, such as taking turns performing or teaming up to complete tasks.

Memory aids: Provide memory cards, review levels, or hint systems to help users remember and repeat what they have learned.

Cheats design optimization

Balance between ritual and practicality: Maintain the mystery and ritual of the cheats while adding more specific operating instructions or tips to make the cheats

easier to use.

4.1.5 Iterative Design of Board Games (Tea Merchant's Road)

Based on the feedback of the prototype from the first step of the board game design, the design color is adjusted. To enable users to intuitively and visually feel the atmosphere of tea culture and their intentions related to tea culture, the colors of tea are extracted and sorted.

4.1.5.1 Tea Color Extraction

In this part of the study, the color of the tea leaves in the drying stage, the color of the tea leaves in the brewing stage, and the color of the tea leaves after brewing are extracted. The same light source and camera equipment are used, and the color capture tool of the real-time design app is used to extract the color. The six main tea categories in China include green tea, black tea, oolong tea, white tea, yellow tea, and dark tea. The color of each type of tea reflects the unique production process and quality characteristics. Extracting and analyzing the colors of these teas not only helps to better understand the quality characteristics of tea but also serves as a reference for the packaging design and marketing promotion of tea products.

Selection of samples: In order to comprehensively study and grasp the color characteristics of the six major tea varieties in China, we will select samples from the ten most famous tea varieties in China for color extraction. However, among the ten most famous teas in China, there is no white tea or black tea, so we selected the more famous teas of these teas for extraction. The specific teas and samples are as follows:

-**Green tea:** West Lake Longjing

-**Black tea:** Keemun black tea

-**Oolong tea:** Dahongpao

-**White tea:** Shoumei

-**Yellow tea:** Junshan Yinzhen

-**Dark tea:** Pu'er tea

Color extraction steps

Sample preparation: Purchase high-quality samples of the above tea types from the Internet to ensure the representativeness and quality of the samples (Figure 34).

Figure 34. Purchased tea samples

Source: Photo by Lei Qiao, 2023

Shooting samples: Use professional photography equipment to shoot tea samples under standard light sources to ensure the accuracy of color reproduction (Figure 35).

Figure 35. 6 Shooting samples and scenes

Source: Photo by Lei Qiao, 2023

Image processing: Use image processing software to process the photos and extract the main colors of the tea leaves. You can use the color extraction tool in the image processing software in Instant Design. Perform the color extraction of dry tea (Figure 36). Perform the color extraction of tea soup and tea base. For the tea

soup part, the tea soup should be brewed 1-4 times. Use the color selection plugin in the Instant Design application to extract colors (Figure 37).
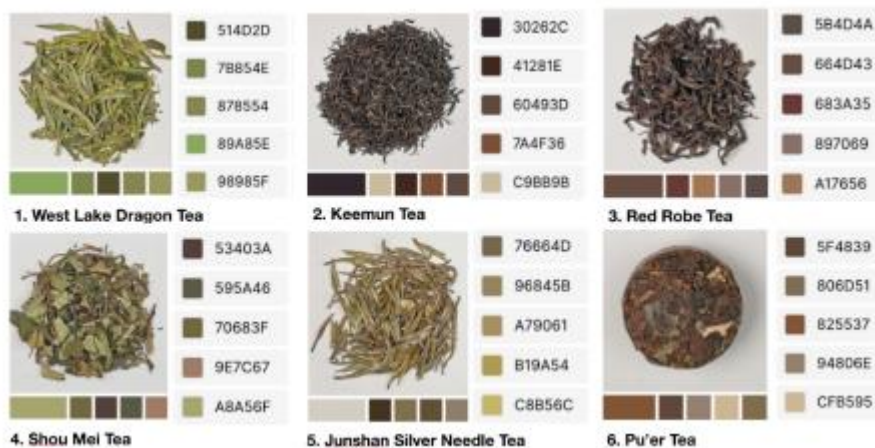
Figure 36. 6 categories of tea color, dry tea color collection

Source: Photo by Lei Qiao, 2023
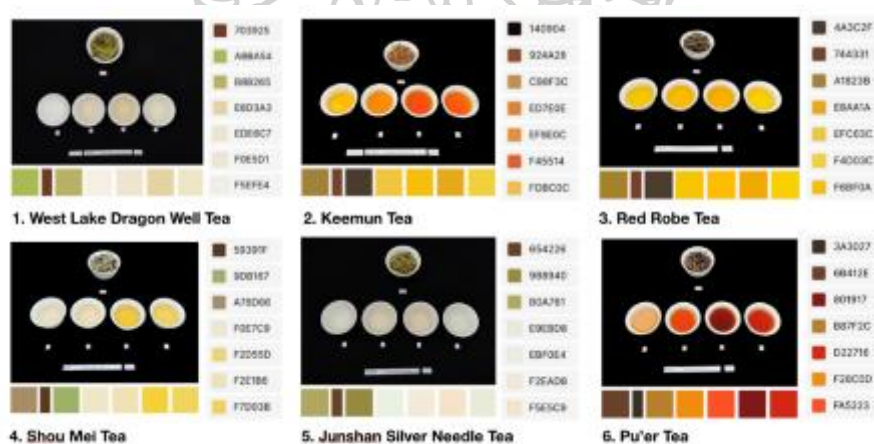
Figure 37. 6 Collect tea soup + tea base color

Source: Photo by Lei Qiao, 2023

Data recording: Record the extracted color data and the RGB value of the color. Each type of tea needs to extract multiple-step samples for comprehensive analysis to ensure the representativeness of the data, as shown in Table 21-22.

Table 21. Dry Tea Color, Brewed Tea Color, and Tea Color after Brewing

Made by Lei Qiao

Tea Types	Name	Dry Tea Leaf Color	Brewed Tea Color	Tea leaf color after Brewed
green	West Lake Longjing			

black	Keemun black tea			
yellow	Junshan Silver Needle			
White	Shoumei			
Dark	Cooked Pu'er			
Oolong	Big red pouch			

Table 22. Extract Color Brightness and Sort from Low to High

Made by Lei Qiao

Extract 72 Colors from Dry Tea Leaf, Brewed Tea, and Brown Color of 6 Typical Types of Tea, Sorted from Low to High according to Color Brightness

140904	5B4D4A	744331	89A85E	A1823B	C8B56C	ED7E0E	F2EAD8
30262C	5F4839	76664D	924A28	A78D66	C98F3C	EDE6C7	F45514
3A3027	60493D	7A4F36	94806E	A79061	C9B89B	EF8E0C	F4D03C
41281E	654226	7B854E	96845B	A8A56F	CFB595	EFC63C	F5E5C9
4A3C2F	664D43	801917	988940	ABBA54	D22716	F0E5D1	F5EFE4
514D2D	683A35	806D51	98985F	B0A761	E6D3A3	F0E7C9	F6BF0A
53403A	6B412E	825537	9DB167	B19A54	E8AA1A	F28C0D	F7D03B
59391F	703925	878554	9E7C67	B87F2C	E9EBD8	F2D55D	FA5223
595A46	70683F	897069	A17656	B8B265	EBF0E4	F2E1B6	FDBC0C

Color analysis: Analyze the extracted color data and summarize the most important color features. Provide data to support the subsequent design.

From the data, the color of the tea is hugely different at different stages. The color obtained from the dry tea is stable, and the color obtained during brewing is bright. Through this research, the author has gained a better understanding of the color of tea and broken the previous stereotype of tea color. These bright colors during the brewing process are remarkably close to the esthetic orientation of Generation Z and can be applied to interactive media products.

4.1.5.2 Design element iteration

Combining the test results of prototype 1, the design results of the board game and the design adjustments, the design was improved according to the specific actions of the 21-step Gongfu tea preparation process. To make the content of the 21 steps of Gongfu, the author found videos of Gongfu steps of Gongfu tea on the Internet. The author will design Gongfu Tea secrets based on these video contents (Figure 38).

Figure 38. Screenshot of Main Steps in the Video of Gongfu Tea's 21-step

Demonstration

Source: Tea guest Liu on Bilibili website and China Pu'er website.

Make a preliminary sketch based on the main steps of the 21-step Gongfu tea ceremony ritual in the collected information (Figure 39).
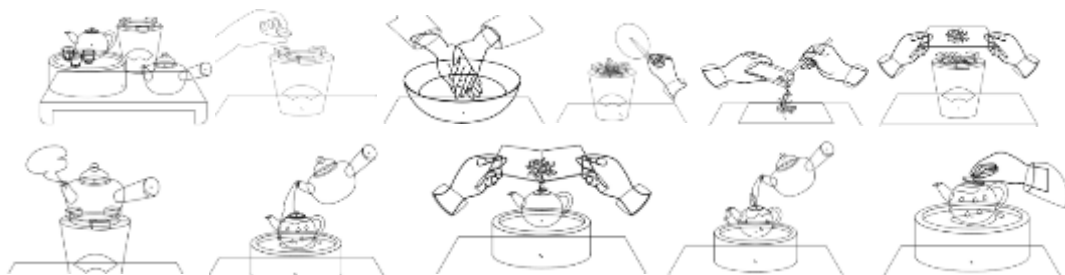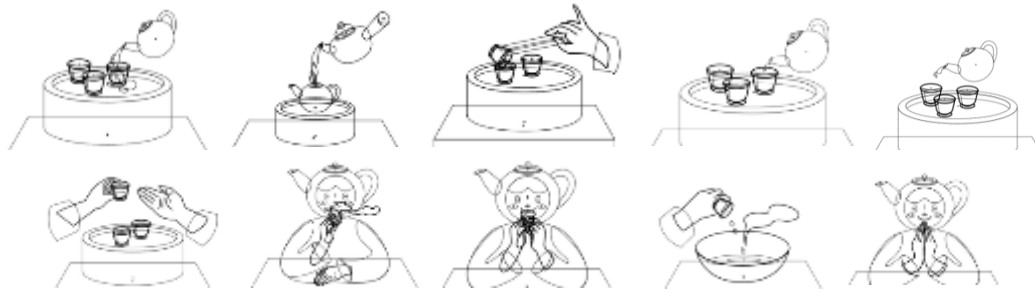
Figure 39. Sketch of the 21-step Gongfu Tea Ceremony Ritual

Source: Make by Lei Qiao, 2023

Through iterating the visual elements and the colors, the final image setting for the illustration is made, as shown in Figure 40. The selected color is a warm color series based on the conclusion of brown color extraction combined with color psychology. This kind of color can bring the user closer and make him feel good (Figure 40).

Figure 40. Illustration of the 21 Styles of Gongfu Tea Brewing

Source: Made by Lei Qiao, 2023

Main visual illustration of board game: Based on the analysis of the content of the tea culture, visual elements are extracted and applied to the design. The little girl on the pot can constantly produce good tea, and the tea gods gather to form tea mountains and tea seas. As a citizen of the tea land, the kitten can travel in the ocean of tea. Use tea sets, pavilions, and other elements to emphasize the lifestyle and environment that tea brings and use these elements for design.

This illustration will be used in the Dragon Scale Edition of the 21-Step Secret Manual of the Gongfu Tea Ceremony. When the pages of the Dragon Scale edition

are turned, a different scene will be depicted, so the visual design will be done with two color schemes (Figure 41).

Figure 41. Main Visual Illustration of Board Game

Source: Made by Lei Qiao, 2023

Secret Book Design (Dragon Scale Outfit Design Dismantling) and Dragon Scale Outfit Design Dimensional drawing scheme (Figure 42).
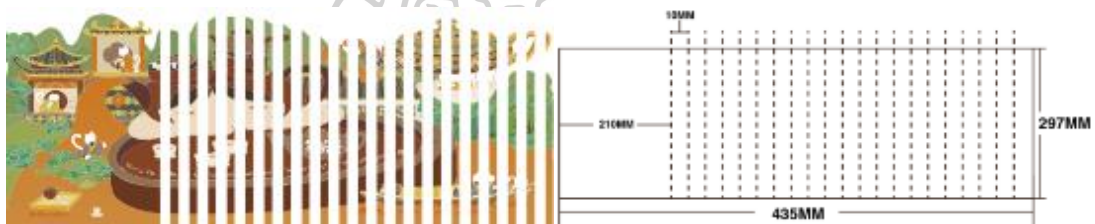

Figure 42. Dragon Scale Outfit Design Dismantling and Dimensional Drawing

Source: Made by Lei Qiao, 2023

According to the results of the analysis so far, the game requires props for the 21-step Gongfu ritual. The 3D experiment with the prop model is applied (Figure 43).

Figure 43. Game Prop Model 3D Experiment

Source: Made by Lei Qiao, 2023

4.1.5.3 The Final Presentation of Tea Merchant's Road Board Game

After the above design feedback results, the board game was revised and it was finally determined that the board game would iterate the game concept in the form of Monopoly. During the game, you can learn the steps of the 21-Gongfu tea and through these steps understand the deep meaning behind it, such as a calm and tranquilizing lifestyle and how to treat people. The props of the game include a treasure chest with ritual characters, design instructions, secrets of 21-style, a chessboard with the ten most famous teas in China, a tea set for demonstration, secret cards, coins, a representative chess set, cards with ownership certificates, privilege cards (Figure 44).

Figure 44. Dragon Scale Outfit Design Dismantling and Dimensional Drawing

Source: Made by Lei Qiao, 2023

4.2 Humorous Tea Set Design

4.2.1 Preliminarily Design the Prototype of the Humorous Doll

The first step is to design interesting tea set dolls that make Generation Z think about their daily lives and understand tea culture on a spiritual level (Figure 45-46).
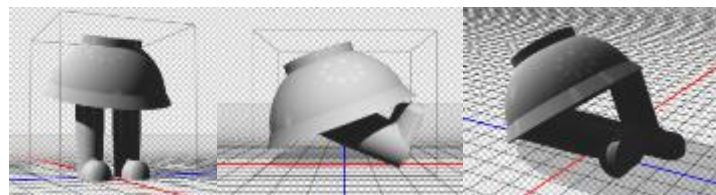
Figure 44. 3 Postures 3D Model Making
Source: Made by Lei Qiao, 2023

Figure 45. 3 Postures Physical Printing
Source: Made by Lei Qiao, 2023

4.2.2 Prototype Testing

Invite the 9 interviewees mentioned in Chapter 3 who are familiar with the preferences of Generation Z to provide feedback on this design.

4.2.3 Prototype Testing Feedback

Interviewees had some concerns about the lack of a teapot in the tea set and suggested that users could better experience the whole process of tea culture if more complete elements were integrated, and that the design would be more in line with the four postures of people's daily life, with walking, sitting and lying

postures. Most of the interviewees hoped that this design set could really be used as a tea set, which would be more interesting.

4.2.4 Humorous Tea Set Design Iteration

4.2.4.1 Humor Tea Set High Fidelity 3D Model

According to the test feedback from 4.2.3, the doll is adapted, integrated into the practicality and formed into a set with the teapot. Design of standing, sitting and lying down Humorous teacup, design of anthropomorphic teapot. People's daily postures, standing, sitting and lying down, can reflect their living conditions. The doll's tea set uses this as a source of inspiration for the design of the doll's tea set. Through the humorous form, users can use the tea set with interest and relate it to their attitude to life when walking, standing, sitting and lying down. To understand life and thus fulfill the purpose of intra-generational of tea culture in Generation Z.

Walking, standing, sitting and lying down are all Buddhist principles. Buddha is the sublimation of tea, and tea is the Zen mind of Buddha (Huang, 2015). A cup of tea can help you practice serenity and learn etiquette. Every little thing in life may seem invisible, but the character of life is established in stillness (He, 2012). Gu Jianhua believes that the Tao is in our daily life, around us, in eating, in sleeping, in words, in actions, in walking, in standing, in sitting and in lying down, everything is Tao (Q. Yang, 2015). Sen Sotan also said, "The tea ceremony is not only in front of people, it is inseparable from daily life, walking, standing, sitting and lying down. It is everywhere in what the eyes see and the heart feels. The spirit of the tea ceremony is in the mind day and night" (Ito, 2005). The inspiration for the design of the humorous tea sets comes from people's walking, standing, sitting and lying down in their daily lives (Figure 47).

Figure 46. 3D Model and Printed

Source: Made by Lei Qiao, 2023

4.2.4.2 Ceramic Humor Tea Set

To realize the real user experience of the humorous tea sets and facilitate user testing, the 3D prototype of the humorous tea sets was converted into ceramic to experience the real texture and feel of ceramic. This allows users to experience the tea sets not only visually but also tactilely, providing an additional level of interaction with the tea sets. The main texture is ceramic to reflect the simple life that tea brings, as shown in Figure 48.

Figure 47. Ceramic Humor Tea Set

Source: Photo by Lei Qiao, 2023

4.2.5 AR Humorous Tea Set Packaging and Derivative Product Design

4.2.5.1 AR Logo Graphic Design

The AR logo on the humorous tea set packaging converts the five components into flat graphics. When users scan the code, they can access stories about the product. A series of videos narrate daily life scenes with the tea set, highlighting the harmonious lifestyle tea brings. Each story leads to the next, encouraging users to collect the full product set. The AR logo combines flat graphics of the five components with bamboo elements in a literati style for the font design, offering users an intuitive understanding of the product contents(Figure 49).

Figure 48. Walk. Stand. Sit. Lying. Pot Graphic Element Extraction

Source: Made by Lei Qiao, 2023

The brand name for the humorous tea service product is defined as "Tea Life", with a corresponding font design. Inspired by a quote from Su Shi's "Yu Qian Monk Luyunxuan" in the Song Dynasty "It is better to eat without meat than to live without bamboo" which reflects a philosophical attitude valuing the spiritual over the material, bamboo was chosen as the element for the logo design. This aligns with the deeper connotations of tea culture and its transcendental approach to life (Figure 50).

Figure 49. Ceramic Humor Tea Set

Source: Photo by Lei Qiao, 2023

4.2.5.2 AR Interaction Tea Set Story Animation Design

Design a set of humorous life scene animation videos with storylines of the daily life of tea sets, meeting friends, tasting tea, and visiting art galleries (Figures 51-52).
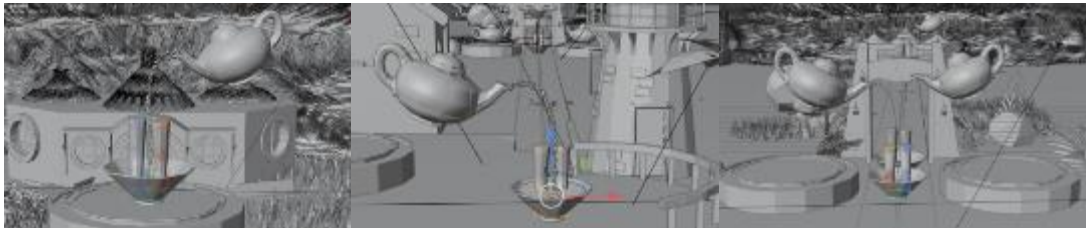

Figure 50. Humorous Tea Set Story Animation Modeling

Source: Photo by Lei Qiao, 2024

Figure 51. Humorous Tea Set Story Animation Clip

Source: Photo by Lei Qiao, 2024

Tea set story

Clip 1: The tea service doll wakes up to greet the day, interacting with the teapot doll as they begin the morning tea preparation. As the tea brews, the air fills with a fragrant aroma. After enjoying their tea, the dolls set off with a sense of excitement, ready to explore and appreciate tea culture.

Clip 2: The tea service doll meets a friend, another tea set enthusiast, and they visit a teahouse to enjoy tea and conversation. As they savor the tea, they bond over their shared love for tea, discussing its origins and the deeper meaning behind the culture.

Clip 3: After the tea tasting, the dolls head to Tea Culture Square. A mysterious wind brings fallen tea leaves, inspiring a conversation about tea, nature, and destiny. They brew a new pot of tea using these leaves, finding joy in the unexpected experience and the deeper connections it fosters.

Clip 4: The tea sets sit together outdoors, reflecting on the day while sipping tea. The tea not only nourishes their bodies but also brings peace and clarity to their minds, deepening their understanding of life.

Clip 5: In the afternoon, the tea service doll visits a Tea Set Museum, where the ancient tea sets tell stories of craftsmanship and history. Immersed in the culture, the doll gains a deeper understanding of tea as both an art and a life philosophy, reinforcing the importance of preserving and exploring tea culture in modern life.

WeChat AR Scan

After scanning, a dynamic video of the illustration is displayed, making the packaging more interactive (Figure 53). Step 1: Scan the Left QR code on WeChat. Step 2: Scan the right illustration pattern below.

Figure 52. AR Scan Packaging Logo

Source: Made by Lei Qiao, 2024

4.2.5.3 Product ID Card Design

The humorous tea set packaging includes a product ID card that incorporates key natural elements from Tang Dynasty tea poems and songs, enhanced with AR technology. Scanning the code activates a dynamic ID card effect, allowing users to explore tea culture through visual symbols representing its artistic concepts. This interactive feature enriches the user experience (Figure 54).

Figure 53. Product ID Card Design

Use the Kivicube software to implement AR effects. Users can scan the QR code on the left side of the image below via WeChat, and then scan the illustration on the package. After scanning, a dynamic video of the illustration will be displayed, making the packaging more interactive. Step 1: Scan the Left QR code on WeChat. Step 2: Scan the right illustration pattern below (Figure 55).

Figure 54. AR Scan of Product ID Card

Source: Made by Lei Qiao, 2024

4.2.5.4 Derivative Silk Scarf Design

The color of the tea soup from the color experiment was selected as the color for the silk scarf derived from the brand, the graphic elements from the humorous tea set and the wireframe elements from the shape of the tea leaf in the logo design were extracted and continuously combined to obtain the silk scarf pattern elements (Figure 56).
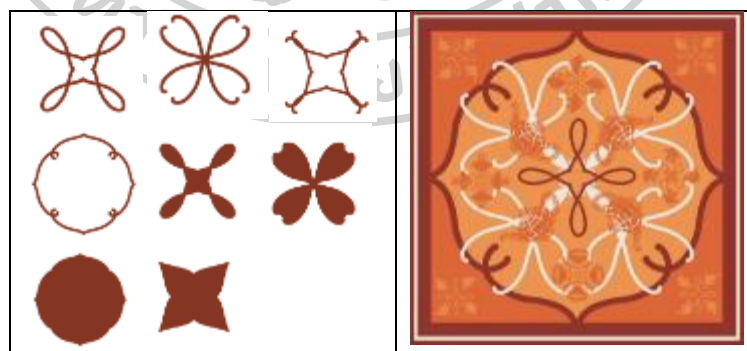

Figure 55. Derivative Silk Scarf

Source: Made by Lei Qiao, 2023

4.3 Teatime Management Application Design

In antiquity, "a cup of tea" could also be used as a quantifier of time, about 10-14.4 minutes. This is a poetic expression that emphasizes meditation and tranquility in tea culture. Therefore, this application is named after "Teatime".

### 4.3.1 Application Function Description

(1) For personal time management, meditate by listening to the sound of tea while resting and meditate by looking at pictures of tea.

(2) The calendar function reminds people of what they must do. If they have too many things to do in a day, it will remind people in real-time to calm down and rest their bodies and minds. Take care of your health and do not overwork yourself.

(3) Users can record the sounds and pictures of life and enter the visual and auditory state of meditation during meditation. At the same time, users can share the recorded sounds and pictures with friends. (Interaction between you and others) Complete meditation or concentration tasks together to receive rewards. Use rewards to encourage users' willingness to interact with friends.

4.3.2 Prototype Design

Based on the research results to date, a low-fidelity prototype design for the functional points of the app is created (Figure 57).
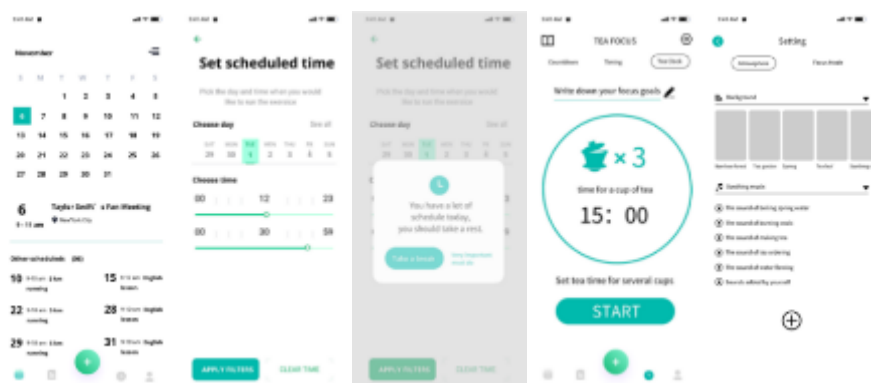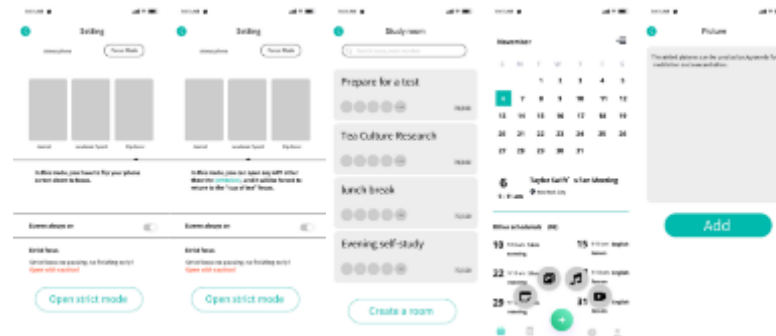
Figure 56. Teatime Management App

Source: Made by Lei Qiao, 2023

4.3.3 Prototype Testing

After the design of the application functions was finalized and a low-fidelity prototype was created, the author conducted a comprehensive test of the model. The purpose of the model test was to evaluate the feasibility of the application function, the user experience, and the actual impact of improving users' lifestyles.

4.3.3.1 Test Content

Verify whether the app function can effectively help users manage time and meditate.

Evaluate the user experience when using the app.

Collect user feedback and suggestions to provide a basis for subsequent optimization.

4.3.3.2 Test Methods

User recruitment: Recruit 10 Generation Z users to participate in the test discussion to ensure that the sample is representative. Users should have basic smartphone skills and some interest in time management and meditation. Discuss whether the functions of the app are useful and whether intrapersonal and

interpersonal communication can be achieved through the design of the app prototype.

Test process and data collection:

Preliminary introduction: Provide a detailed overview of the app's functions and usage. Usage test: Participants use each function as instructed and record their feedback. In-depth interview: Conduct interviews with select participants to gather detailed experiences and suggestions.

Test content:

Personal time management function: Test the user experience of using the calendar for appointment reminders and time management. Evaluate if it effectively reminds users to rest and prevent overwork.

Meditation function: Test if users can meditate by listening to tea sounds and viewing tea images during rest. Assess if the app helps users achieve relaxation.

Recording and sharing function: Test users' ability to record sounds and images for meditation. Evaluate their willingness to share these with friends and collaborate on meditation tasks.

4.3.3.3 Data Analysis and Recommendation Integration

Through this model test, the author has verified the feasibility and effectiveness of the application functions and collected feedback and suggestions from users. Next, the author will optimize and improve the application based on this feedback to further enhance usability and functionality. The goal is to create an application that truly helps users manage their time and meditate, improve their living conditions, and instill the tea culture lifestyle.

4.3.4 Iterative Design

Based on user experience feedback from the prototype test, the author iterated the design. By combining the five elements of the product experience (Figure 58), the product was customized at the presentation, framework, structure,

scope, and strategy layers to perform an iterative design of the Tea Time application. Figure 59 shows the main visual interface of the presentation layer.
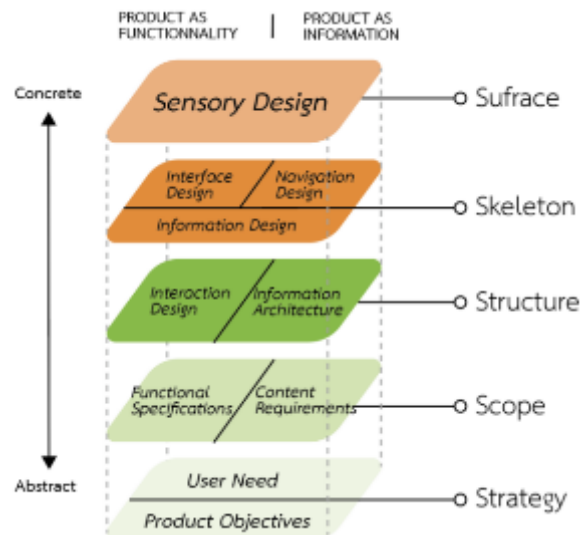

Figure57. 5 Elements of Product Experience

Source: Made by Lei Qiao, 2024
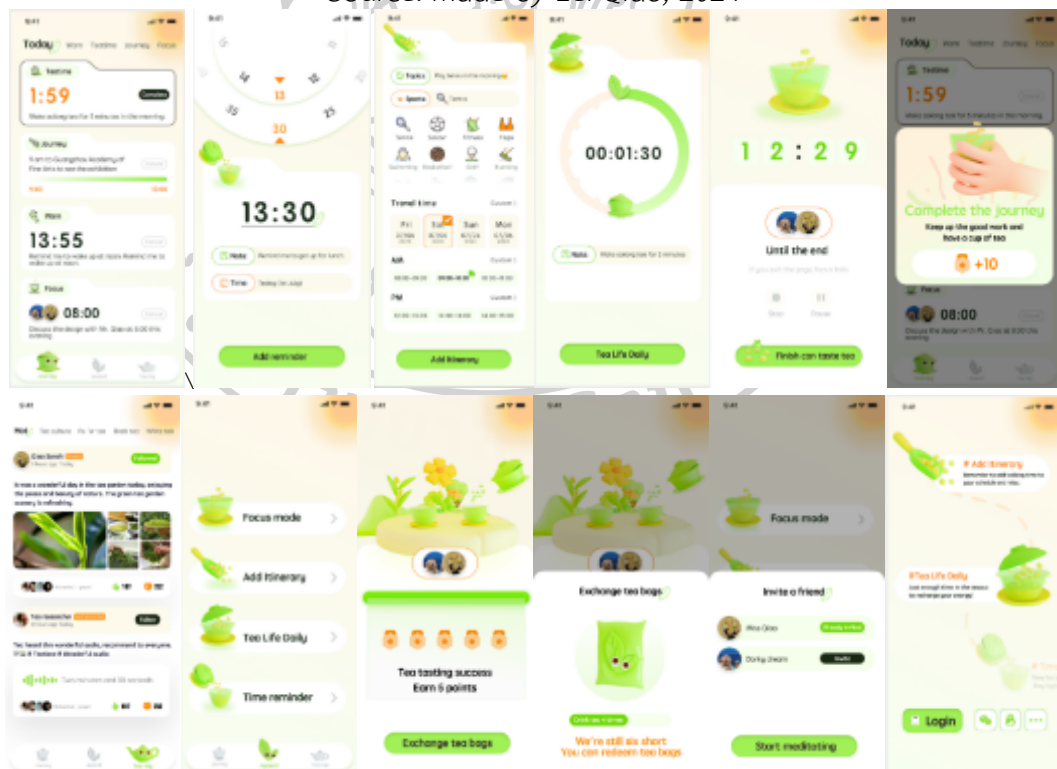
Figure 58. Teatime High-fidelity Iterative Interface Design Demonstration

Source: Made by Lei Qiao, 2024

4.4 Questionnaire Survey Results

4.4.1 Sample Characteristics

A total of 90 valid questionnaires were collected, with 60% from college students, 30% from young professionals, and 10% from other occupational groups. Among the participants, 55% were female and 45% male, with the majority (70%) aged between 18 and 24 years, as shown in Figure 60.
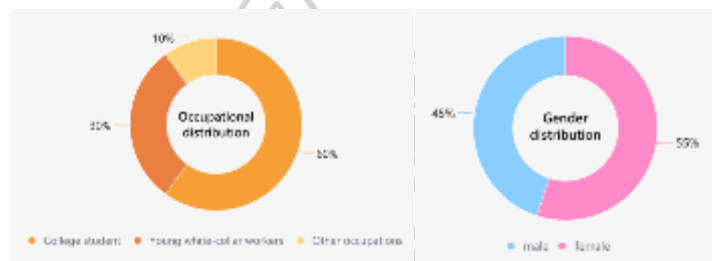
Figure 59. Occupational and Gender Distribution

Source: Made by Lei Qiao, 2024

4.4.2 User Experience and Satisfaction

User experience: The average score is 4.2 (out of 5), and the tea culture board game scored the highest at 4.5.Satisfaction: The average satisfaction is 4.1, and the tea culture board game and AR package are 4.4 and 4.3 respectively. Humorous tea sets and time management applications are 4.0 and 3.8 respectively, but they are still more than half, and the effect is significant(Figure 61).

Figure 60. User Experience Score Chart

Source: Made by Lei Qiao, 2024

4.4.3 Impact on the Cognition and Interest in Tea Culture

The questionnaire results show that participants' knowledge of tea culture increased by an average of 20% after using the communication tools. Additionally, their interest in tea culture grew by an average of 15%, with tea culture board games having the greatest impact on increasing interest.

4.5 Focus Group Interview Results

4.5.1 Tea Culture Board Games

The participants are generally of the opinion that board games on tea culture are remarkably interesting and educational. Learning tea culture knowledge through games encourages participation and motivation to learn.

Some participants suggested adding more game pieces and storylines to increase the richness and interactivity of the game.

4.5.2 Humorous Tea Sets

The participants agreed with the design and background of the story of the humorous tea sets. They felt that this form was novel and interesting and easily generated response and interest.

4.5.3 AR Packaging

Participants appreciated the innovation and interactivity of AR packaging and felt that displaying tea culture content through augmented reality technology enhances the shopping experience and brand identity. Some participants criticized the slow loading speed of the AR content and suggested optimizing the technology to achieve a smoother user experience.

4.5.4 "Teatime" Time Management APP

The participants were satisfied with the design of the user interface and the functions of the time management app and believe that it can help to integrate the concept of tea culture into daily life. It is recommended to add more personalized functions and tea culture-related content, such as recommending tea art classes and activities based on the user's habits and interests.

4.6 User Experience Test Results

4.6.1 Tea Merchant's Road Board Game

Users showed a high level of participation and interest in actually using the board games, and the interactive and competitive elements in the gameplay increased users' enthusiasm and sense of involvement.

The test data shows that the memory and understanding of tea culture knowledge improved significantly during the course of the game and the learning effect is good.

4.6.2 Humorous Tea Sets

Users showed great interest in the design and background of the humorous tea sets and were willing to buy and collect them.

The test revealed that users are more inclined to interact with the background of the story and characters of the humorous tea sets, e.g. to learn more about the background story or to participate in interactive role-playing games through animations scanned by the APP AR.

4.6.3 AR Packaging

Users showed a strong sense of curiosity and exploration when using AR packaging, and the process of scanning the packaging to receive virtual content enhanced the user's shopping experience and brand identity.

The test data shows that the interactivity and innovation of AR packaging is highly appreciated by users, but some technical limitations (such as loading speed) still need to be further optimized.

4.6.4 Time Management APP

When users use the time management app, they are very satisfied with the design of the user interface and the functions, especially with the tea art reminder and time management tools, which are well received by users.

The test data shows that users can not only better manage their time through the APP, but also integrate the concept of tea culture into their daily life and develop good living habits.

4.7 Discussion of Research Results

The research results show that by designing interactive and visually attractive cultural communication tools, it is possible to effectively promote Generation Z's awareness of and interest in tea culture. This confirms the application value of communication, design thinking and brand design theory in tea culture communication.

As an entertainment and education tool, tea culture board games can effectively increase users' interest and perception, which is consistent with the theory of entertainment and education in communication.

Humorous tea sets and AR packaging enhance users' sense of involvement and brand identity through novel design and technical means, reflecting the application of design thinking and brand design theory.

The time management application helps users integrate tea culture into their daily lives by combining tea culture concepts and time management functions, strengthening user experience and cultural identity.

4.8 Limitations of the Study

Sample Limitation: Although 90 valid questionnaires were collected in this study, the samples were mainly focused on college students and young employees, which may not fully represent the views and needs of all Generation Z groups.

Tool range: Only four tea culture communication instruments were developed in this study, which may not cover all communication methods. Future research can explore more innovative tools and methods.

Time Limit: Due to the limited research time, no long-term follow-up research or impact evaluation was conducted. Longer-term research may be conducted in the future to observe the ongoing impact of the communication tools.

4.9 Summary

This chapter evaluates the communication effects of four tea culture communication tools on Generation Z by presenting the results of questionnaire surveys, focus group interviews and user experience tests in detail. The results show that these tools have a significant effect on users' perception of and interest in tea culture and confirm the application value of communication, design thinking and brand design theory in tea culture communication.

Although this study has certain limitations, it can provide valuable insights and guidance for future research and tool development through a comprehensive analysis of user feedback and suggestions.

CHAPTER 05 CONCLUSIONS

This chapter contains the conclusions of the study, a discussion of the problems found during the research, contributions of the study and suggestions for future research and development on the topic.

5.1 Research Restatement

This study makes extensive use of the methods of document analysis, data analysis, historical comparative analysis, interview research and field research to define a hypothesis and three main questions.

Hypothesis:

Interactive methods can help Chinese tea culture to form its Intra-Generational Communication among Generation Z.

Question:

Question 2: Intra-Generational Communication among Chinese Generation Z?

(1) How to design innovative visual communication elements (such as graphics, animations, infographics) to capture the attention of Generation Z and properly convey the richness of tea culture?

(2) Which interactive methods (such as gamification, AR, VR and social media interaction) are best suited to Generation Z preferences, can create immersive tea culture experiences and encourage self-inheritance?

(3) How can visually stunning and interactive content be developed based on Generation Z's lifestyle, hobbies and needs for self-inheritance?

Question 3: What is the effect of intra-generational communication using interactive media as the inheritance method?

(1) What indicators of user engagement best reflect the effectiveness of interactive media in promoting intra-generational communication of Generation Z tea culture?

(2) How to effectively collect feedback from Generation Z to assess their participation, understanding and appreciation of tea culture? How can this feedback lead to the improvement of subsequent communication strategies?

(3) What case studies demonstrate successful experiences in effectively communicating traditional heritage to Generation Z? What elements of these successful practices can be distilled into replicable best practices to ensure the continued legacy and stimulation of interest in tea culture?

To answer these three questions, this study has set itself three research objectives:

Objectives:

Objective 1: To investigate the problems of teaching traditional Chinese tea culture to Chinese Generation Z.

Objective 2: To develop an interactive approach to intra-generational Chinese Generation Z.

Objective 3: Evaluate the effectiveness of the interactive approach.

Interpreting Chinese tea culture. This study uses the literature review method to analyze the material and spiritual connotations of tea culture through content analysis.

To create an interactive way to share tea culture with Generation Z, we conducted interview research, field investigation and observation methods, and used design thinking to develop kung fu tea tray games, humorous tea sets and time management applications.

To evaluate the impact of these interactive media on Generation Z's inheritance of tea culture, we conducted user experience testing and questionnaire analysis.

5.2 Research Summary

This study aims to explore the effects of these tools in promoting Generation Z's awareness of and interest in tea culture and whether they can play the role of Intra-Generational among Chinese Generation Z by developing and evaluating the interactive methods of four innovative communication tools for tea culture. Through a systematic literature review, the construction of a theoretical framework, the design and development of tools, a questionnaire survey, a focus group interview and a test of user experiences, the following main conclusions are drawn:

Literature review: A systematic review of the existing literature revealed that Generation Z generally has a low level of knowledge and interest in tea culture, but shows a high level of acceptance and willingness to participate in innovative interactive methods.

Theoretical construction of the framework: Based on the results of the literature review, a theoretical framework is constructed with the three dimensions of knowledge enhancement, interest stimulation and interactive participation, which serves as a guideline for the subsequent development of the tool.

Tool design and development: Four innovative tea culture communication tools were designed and developed, including a virtual tearoom, an interactive tea culture course, a tea culture social media platform and a tea culture game. Each tool combines interactivity and education and aims to engage Generation Z in different ways.

Questionnaire survey: A questionnaire survey was conducted among the participants to collect their feedback and suggestions on the use of each tool. The results showed that most participants felt that these tools were effective in increasing their knowledge and interest in tea culture.

Focus group interviews: Through focus group interviews, we were able to gain an in-depth understanding of participants' experiences and feelings about using these tools. Participants generally felt that highly interactive tools could spark their interest and willingness to participate.

User experience testing: In the testing, it was found that the virtual tea room and tea culture games were effective in increasing participant interest, while the interactive tea culture courses and tea culture social media platforms were good at driving awareness.

5.3 Main Findings During the Research Process

Tea culture board games can effectively improve the interest and perception of users. They are highly engaging and educational and can increase user engagement and motivation to learn through interactive and competitive elements.

Humorous tea sets and AR packaging promote user engagement and brand identity through novel design and technical means, fully reflecting the application value of design thinking and brand design theory.

The time management APP helps users integrate tea culture into their daily lives by combining tea culture concepts and time management functions, enhancing user experience and cultural identity.

5.4 Research Contribution

This study has made an important contribution to the two dimensions of Generation Z's cultural heritage and the modernization of tea culture. It not only provides a practical solution for Generation Z's self-communication in the process of cultural inheritance, but also promotes the innovative communication methods of tea culture in modern society. The specific contributions are as follows:

5.4.1 New Path for Cultural Intra-Generational Communication

This study successfully breaks through the boundaries of traditional cultural inheritance and external communication education and explores a new path for Generation Z's self-communication in cultural inheritance. By emphasizing the dual interaction mode of self-self and self-external interaction, the practice verifies the

key role of these two interaction methods in Generation Z's intra-generational cultural communication and provides strong support for the natural inheritance and dynamic development of culture among the young generation (Figure 62).

In defining the elements of traditional Chinese tea culture and applying them to the design of humorous tea sets and tea set packaging, the author combines the dimensions of "feeling and perceiving", "memory" and "thinking" in intra-personal communication, and combines Blumer's Symbolic Interactionism (Blumer, 1986) and Cognitive Consistency Theory to extract the symbolic elements of tea culture.

Incorporating these elements into the design of humorous tea sets and tea set packaging can stimulate users' thinking and imagination. Combined with a modern, minimalist style, it not only reflects cultural heritage, but also conforms to modern esthetics. Enhance memory points and promote cultural heritage. People can not only feel the charm of traditional culture when they taste tea, but also deepen their understanding and appreciation of tea culture in a humorous and entertaining way.

When designing the content, the target audience is clearly defined as a group of two or more people to promote consensus and emotional sharing, which naturally leads to the need for social interaction. Based on the theory of group dynamics, we recognize the importance of in-group dynamics for information transfer and emotional exchange. Consequently, the design must incorporate implicit interpersonal communication and explicit communication motivations rooted in Maslow's hierarchy of needs, particularly the needs for affiliation and love as well as esteem, which motivate individuals to seek connection and identity within the group.

To achieve this goal, the design should emphasize the social, entertaining and informative functions of the content, which complement each other and form the cornerstone of the interactive experience. The decentralization of the design encourages everyone to become the center of communication, promotes decentralized information dissemination and at the same time strengthens the users' sense of participation and belonging.

In the implementation, we take an interactive and fun approach to communication by using highly interactive design techniques such as gamification elements and real-time feedback mechanisms to make the communication process

fun and engaging. This design encourages users to not only interact with others, but also to reflect and express themselves (Interact with self). In this way, communication goals are effectively achieved, emotional engagement is deepened and ultimately a wide distribution and profound impact of the designed content is achieved.
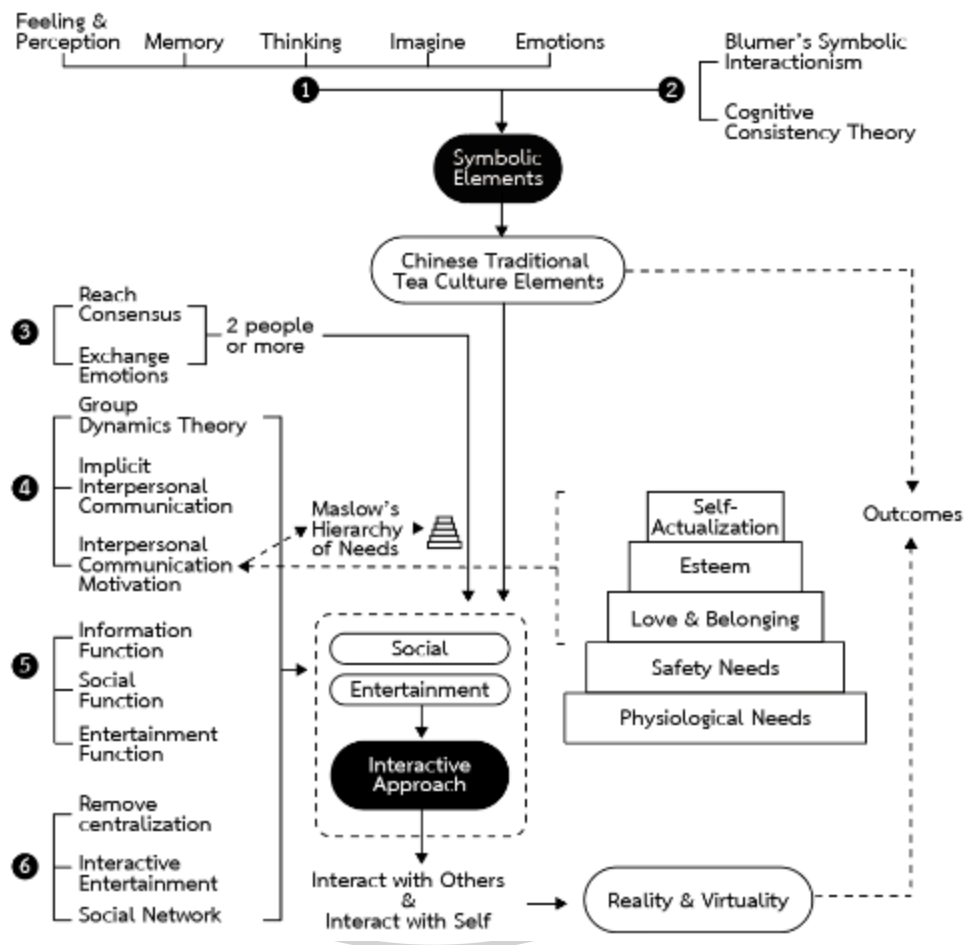
Figure 61. Dual Interaction Between Self and Outside

Source: Made by Lei Qiao (2024)

5.4.2 Theoretical Framework and Method Innovation

Through the in-depth study of the cultural characteristics, interactive media usage habits and autonomous learning behaviors of Generation Z, this study establishes a theoretical research framework suitable for this group, providing a solid theoretical foundation and scientific guidance for the development of interactive

methods for tea culture self-inheritance. At the same time, the research method combining qualitative and quantitative methods, as well as advanced means such as user experience design, are innovatively applied to explore the needs, preferences and behavioral patterns of Generation Z in depth to develop an effective tea culture content design method that attracts their participation (Figure 63).
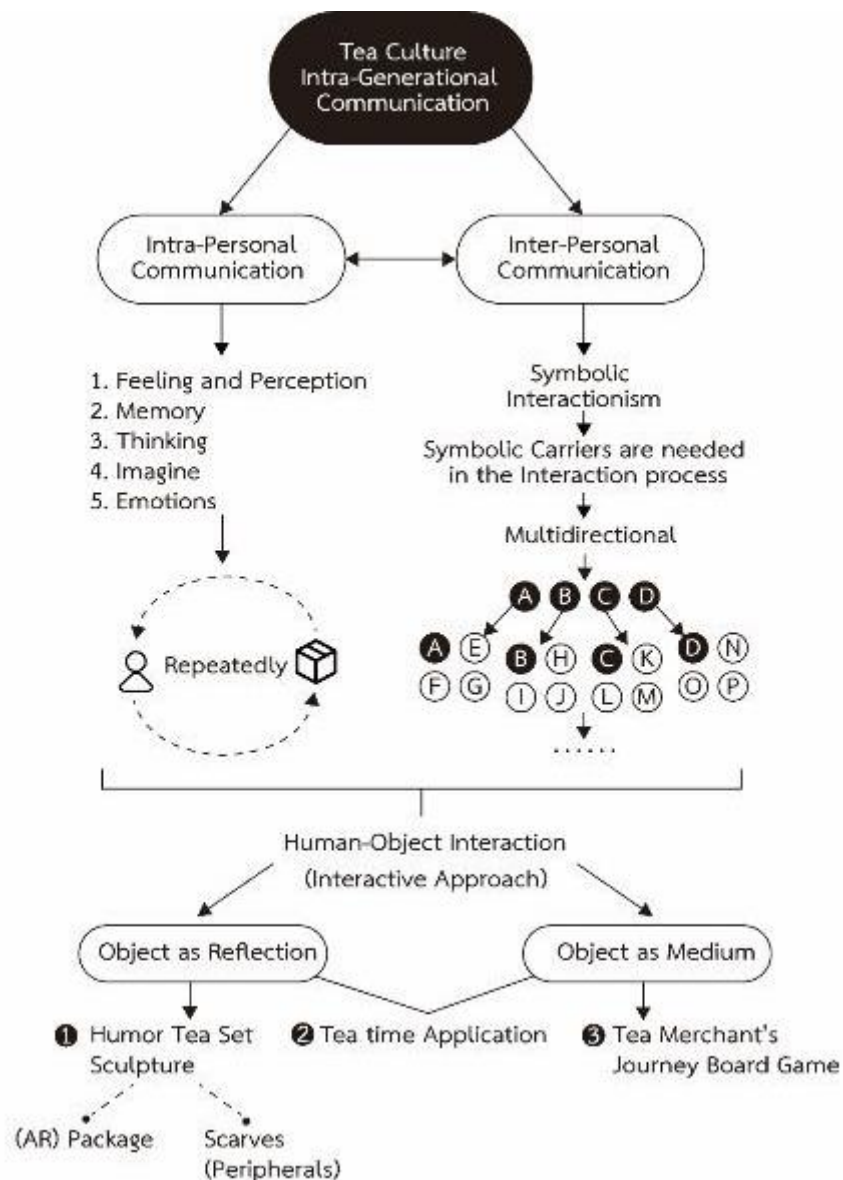

Figure 62. The Intra-generational Communication Model of Tea Culture

Source: Made by Lei Qiao (2024)

5.4.3 New Methods and Tools for the Modernization of Tea Culture

This study not only focuses on cultural self-legacy, but also actively explores new methods and tools for the modernization of tea culture. By verifying the application value of communication, design thinking and brand design theory in cultural communication, this study provides new ideas and new tools for the wide dissemination of tea culture. Through detailed user research and data analysis, the specific needs, and preferences of Generation Z for tea culture communication tools are revealed, providing an important reference for the design and development of future tools.

5.3.4 Innovative Practical Results

Based on the above theoretical and methodological research, this study has successfully developed three innovative practical results:

Outcome 1: Tea Merchant's Road Board Game: This board game simulates the business way of tea traders and allows Generation Z to experience the charm of tea culture in a fun way in the game, thus promoting their interest and knowledge of tea culture.

Outcome 2: Humorous Tea Set (& AR product packaging): The tea set and its packaging, which combine humorous elements with augmented reality (AR) technology, not only enhance the fun of the product, but also show the rich connotation of tea culture through AR technology, offering Generation Z a new way to experience tea culture.

Outcome 3: Time management application (Teatime): This time management application is themed "Teatime". It encourages Generation Z to schedule a fixed time for tea tasting in their daily lives and promotes the daily integration and sharing of tea culture through technological means.

A. 5.4.5 Dual Contribution of Theory and Practice

This study enriches the research field of cultural communication and design thinking in theory and expands the application boundaries of relevant theories; in practice, it provides practical and innovative ideas and practical guidance for the heritage and promotion of tea culture. By summarizing the research results and refining the design principles and methods of the practical intra-generational communication method of tea culture, this study is committed to making these successful experiences accessible to a wider range of fields and contributing to the modernization and development of traditional culture.

5.5 Suggestions for Stakeholders

For tea culture promotion organizations and brands: focus on innovation and interactivity, design more engaging and educational communication tools, and strengthen users' sense of involvement and identity.

For designers and developers: Combine user needs and feedback, explore innovative design and technical means, and continuously optimize and improve the user experience of communication tools.

For policy makers: Support and promote cultural innovation, provide more resources and platforms, and promote the modernization of traditional culture.

5.6 Future Research Directions

Sample expansion: Future research should increase sample size and diversity, include users of different age groups, occupations and regions, and conduct more comprehensive research and analysis.

Tool innovation: Explore more innovative tea culture communication tools and methods, such as the use of new technologies like virtual reality (VR) and mixed reality (MR) to develop more immersive and interactive communication tools.

Long-term tracking research: Conduct long-term studies to monitor the ongoing impact of communication tools on user perception and interest over different time periods and evaluate the long-term impact and potential improvement points of the tools.

User behavior analysis: In-depth analysis of data on user behavior when using communication tools, combined with data mining and machine learning techniques to explore user behavior patterns and preferences and provide data for tool optimization.

5.7 Summary

This study investigated the impact of these tools on improving Generation Z's knowledge of and interest in tea culture by developing and evaluating four tea culture communication tools. The results show that these tools have a significant effect on users' awareness and interest in tea culture and confirm the application value of communication, design thinking and brand design theory in tea culture communication.

Although this study has certain limitations, the comprehensive analysis of user feedback and suggestions can provide valuable insights and guidance for future research and tool development. Future research can address the expansion of the sample, innovation of tools, long-term follow-up research, and analysis of user behavior to promote the modernization of tea culture.

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APPENDIX

Appendix 1: Tea Ancient Painting Sample

NO.	Dynasty	Painting's Name	Author
1	Late Tang	Tang Dynasty Palace Music Pictures	Anonymous

NO.	Dynasty	Painting's Name	Author
2	Tang (Song copy)	Xiao Yi Earns the Lanting Pavilion	Yan Liben / Anonymous

NO.	Dynasty	Painting's Name	Author
3	Tang (Song copy)	Xiao Yi Earns the Lanting Pavilion	Yan Liben / Anonymous

NO.	Dynasty	Painting's Name	Author
4	Southern Song	Tea Chase Picture	Liu Songnian

NO.	Dynasty	Painting's Name	Author
5	Southern Song	Mingyuan Gambling Market	Liu Songnian

NO.	Dynasty	Painting's Name	Author
6	Southern Song	Xiyuan Gathering	Liu Songnian
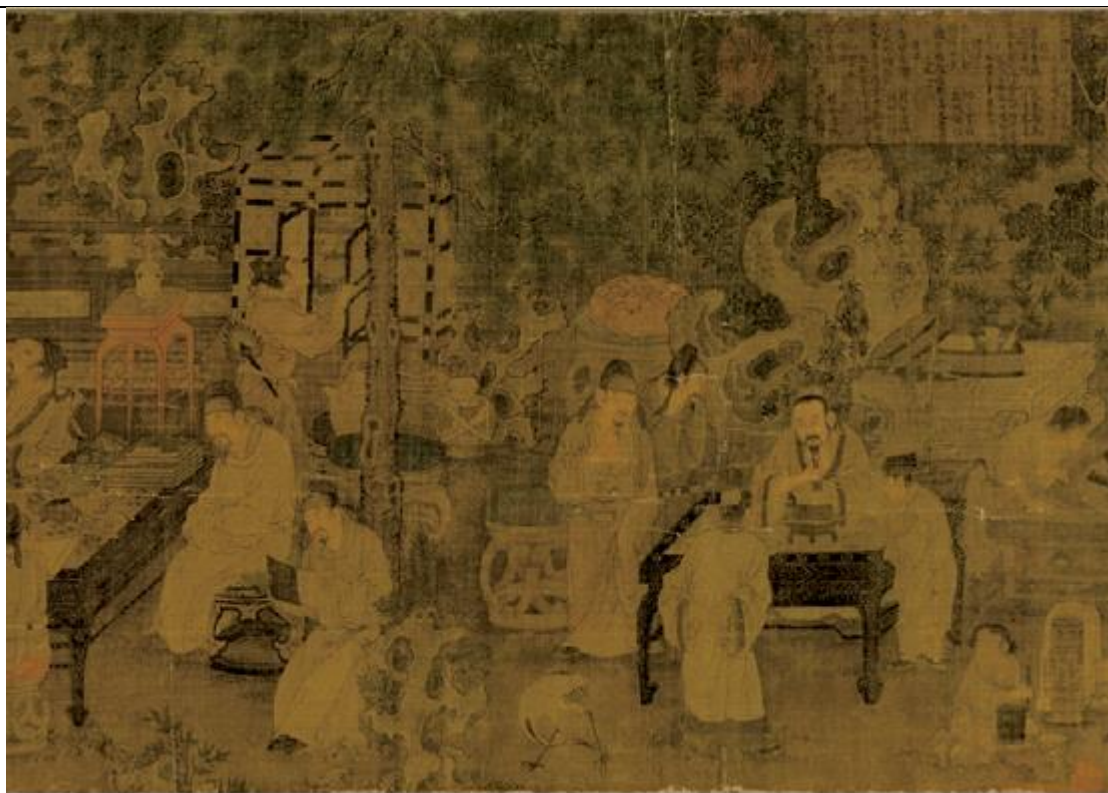
NO.	Dynasty	Painting's Name	Author
7	Southern Song	Eighteen Bachelors Pictures	Yan Liben

NO.	Dynasty	Painting's Name	Author
8	Southern Song	Wen Hui Tu	Zhao Ji

NO.	Dynasty	Painting's Name	Author
9	Song	Bogutu Map Around the Stove	Zhang Xunli

NO.	Dynasty	Painting's Name	Author
10	Song	Eighteen Bachelors Pictures	Anonymous

NO.	Dynasty	Painting's Name	Author
11	Yuan	Picture of Lu Tong Making Tea	Qian Xuan

NO.	Dynasty	Painting's Name	Author
12	Yuan	Listening to the Piano	Anonymous
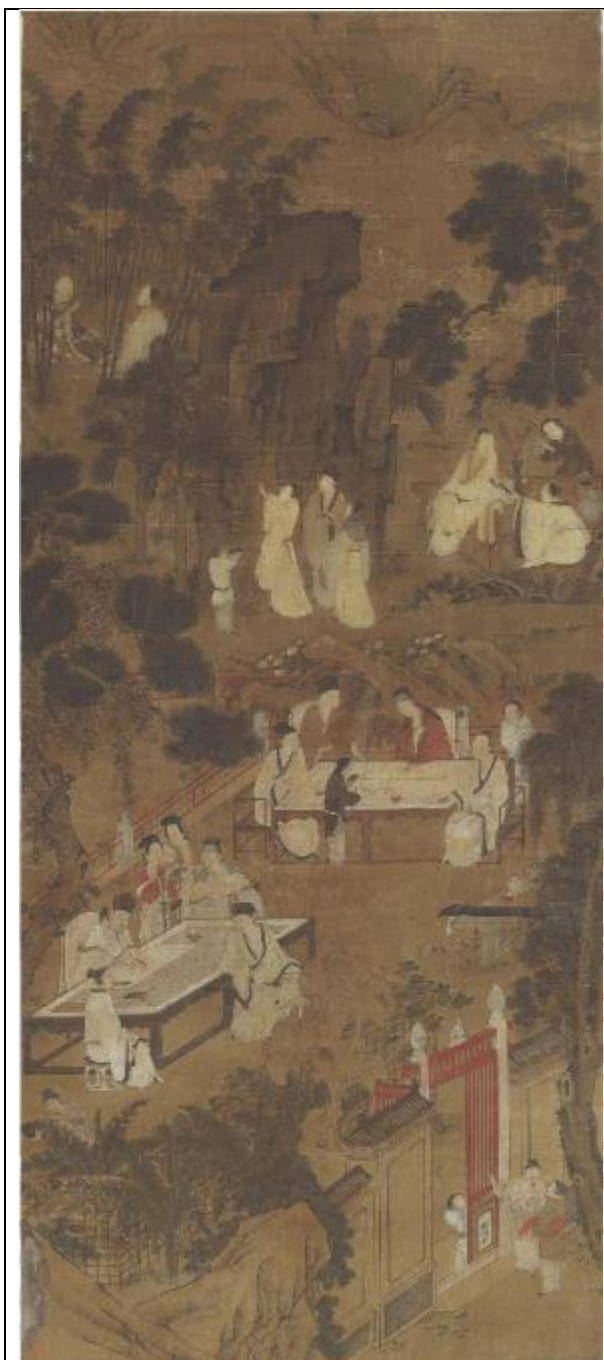
NO.	Dynasty	Painting's Name	Author
13	Ming	Huishan Tea Party Picture	Wen Zhengming

NO.	Dynasty	Painting's Name	Author
14	Ming	Tea Tasting Picture	Wen Zhengming

NO.	Dynasty	Painting's Name	Author
15	Ming	Ten Poems About Tea Sets	Wen Zhengming

| NO.	16	NO.	17
Dynasty	Ming	Dynasty	Ming
Painting's Name	Qiao Lin Cooking Tea Picture	Painting's Name	Tea Tasting Picture
Author	Wen Zhengming	Author	Ju Jie

| NO.	18	NO.	19
Dynasty	Ming	Dynasty	Ming
Painting's Name	Xi Yuan Elegant Gathering	Painting's Name	Xi Yuan Elegant Gathering
Author	Qiu Ying	Author	Qiu Ying

NO.	Dynasty	Painting's Name	Author
20	Ming	Long Summer River Village	Qiu Ying

NO.	Dynasty	Painting's Name	Author
21	Ming	Pine Pavilion and Spring Water	Qiu Ying

NO.	Dynasty	Painting's Name	Author
22	Ming	Wang Wen Brewing Tea	Wang Wen
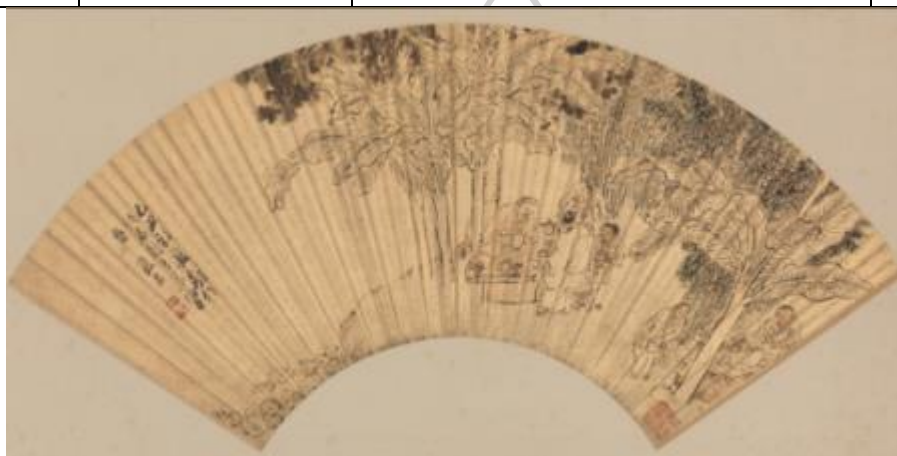
NO.	Dynasty	Painting's Name	Author
23	Ming	Tea Tasting Picture	Zhang Hong
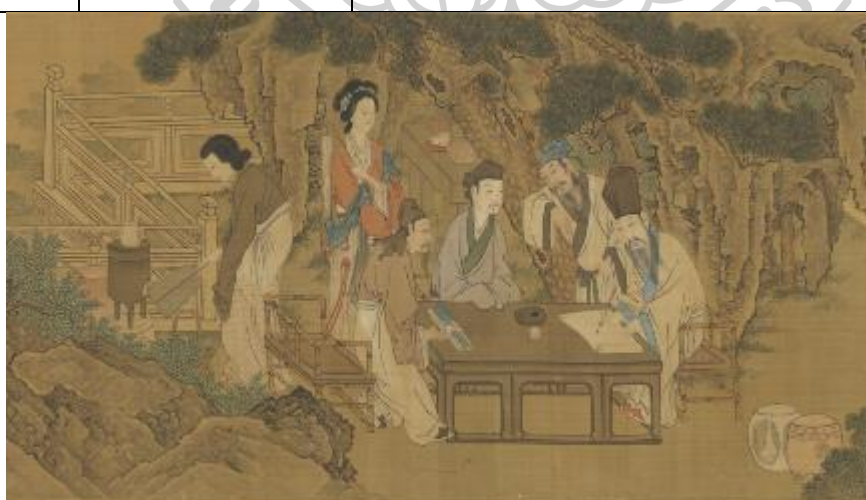
NO.	Dynasty	Painting's Name	Author
24	Ming	Xi Yuan Elegant Gathering	Tang Yin

NO.	Dynasty	Painting's Name	Author
25	Ming	Tea Fight Picture	Tang Yin

NO.	Dynasty	Painting's Name	Author
26	Ming	Preaching in the Pines	Tang Yin

NO.	Dynasty	Painting's Name	Author
27	Qing	Xi Yuan Elegant Gathering	Ding Guanpeng

NO.	Dynasty	Painting's Name	Author
28	Qing	Selling Pulp Picture	Yao Wenhan

NO.	Dynasty	Painting's Name	Author
29	Qing	Spring Tasting	Jin Tingbiao

NO.	Dynasty	Painting's Name	Author
30	Qing	Pine and cypress shade Tea Tasting	Niu Shu

Appendix 2. Questionnaire for Tea Brands Favored of Generation Z

Basic information:

(1) Do you consider yourself a member of Generation Z? (Generation Z usually refers to the generation born between 1995 and 2010)

A. Yes   B. No (If no, please end the questionnaire)

Tea consumption habits

(2) How often do you usually buy tea?

A. Every day

B. A few times a week

C. A few times a month

D. Rarely

(3) What is the main factor in your choice of tea? (Multiple choices are allowed)

A. Taste and quality

B. Brand awareness and image

C. Packaging design and creativity

D. Price rationality

E. In-store environment and service experience

F. Social sharing value

G. Other, please specify:_____

Brand awareness and preference

(4) Have you heard of the following tea brands? (Multiple choices are allowed)

A. Cha Li

B. Yi Fu Tang

C. Xiao Guan Tea

D. T2 Tea

E. Hey Tea

F. Cha Yan Yue Se

G. Cha Bai Dao

H. Ba Wang Cha Ji

I. Gu Ming

(5) Among the above brands, which brands of tea have you bought? (Multiple choices are allowed)

A. Chali

B. Yi Fu Tang

C. Xiao Guan Tea

D. T2 Tea

E. Hey Tea

F. Cha Yan Yue Se

G. Cha Bai Dao

H. Ba Wang Cha Ji

I. Gu Ming

J. None of them have been purchased

(6) For the following brands, please rate them according to your preference (1 is very unfavorable, 5 is very favorite):

A. Chali: _____

B. Yi Fu Tang: _____

C. Xiao Guan Tea: _____

D. T2 Tea: _____

E. Hey Tea: _____

F. Cha Yan Yue Se: _____

G. Cha Bai Dao: _____

H. Ba Wang Cha Ji: _____

I. Gu Ming: _____

Brand characteristics and appeal

(7) What factors do you think make a tea brand more attractive, especially for young people of Generation Z? (Multiple choices are allowed)

A. Personalized and customized beverage selection

B. Unique brand story and cultural background

C. Innovative marketing strategy and social media interaction

D. Brand concept of environmental protection and sustainable development

E. Online and offline integrated consumer experience

F. Convenient purchase channels and payment methods

G. Others, please specify: _____

(8) In your opinion, which brands perform particularly well in the above factors and are particularly attractive to young people of Generation Z? Please briefly explain the reasons.

Appendix 3: Feedback of Peer Validity Evaluation

Feedback of Validity Evaluation from peer 1

(Prof. Mr. Dongpinng Zhu, Renmin University of China)

Expert's Feedback on the Validity of the Research Design

Topic: Interactive Approach to Tea Culture Intra-Generational Communication among Chinese Generation Z

1. Whether the background of the researcher is suitable for this research?
   ☑ Yes   ☐ Not Sure

2. Is the Content Analysis method valid?
   ☑ Yes   ☐ Not Sure

3. Is the interview questionnaire on tea culture cognition and daily preferences of Generation Z effective?
   ☑ Yes   ☐ Not Sure

4. Is the interview grouping reasonable?
   ☑ Yes   ☐ Not Sure

5. Is it reasonable to conduct a questionnaire survey on tea brands favored by Generation Z?
   ☐ Yes   ☑ Not Sure

6. Are the objectives of the workshop discussion reasonable and is the data analysis valid?
   ☑ Yes   ☐ Not Sure

7. Is the first step of the research framework valid?
   ☐ Yes   ☑ Not Sure

8. Is the second step of the research framework valid?
   ☑ Yes   ☐ Not Sure

9. Is the third step of the research framework valid?
   ☑ Yes   ☐ Not Sure

Signature 沈东平

Day 21 Month 3 Year 2023

Feedback of Validity Evaluation from peer 2

(Ph. D. Mr. Xing Yang, Huizhou University)

Expert's Feedback on the Validity of the Research Design

Topic: Interactive Approach to Tea Culture Intra-Generational Communication among Chinese Generation Z

1. Whether the background of the researcher is suitable for this research?

   ☑ Yes   ☐ Not Sure

2. Is the Content Analysis method valid?

   ☑ Yes   ☐ Not Sure

3. Is the interview questionnaire on tea culture cognition and daily preferences of Generation Z effective?

   ☑ Yes   ☐ Not Sure

4. Is the interview grouping reasonable?

   ☑ Yes   ☐ Not Sure

5. Is it reasonable to conduct a questionnaire survey on tea brands favored by Generation Z?

   ☑ Yes   ☐ Not Sure

6. Are the objectives of the workshop discussion reasonable and is the data analysis valid?

   ☑ Yes   ☐ Not Sure

7. Is the first step of the research framework valid?

   ☑ Yes   ☐ Not Sure

8. Is the second step of the research framework valid?

   ☐ Yes   ☑ Not Sure

9. Is the third step of the research framework valid?

   ☑ Yes   ☐ Not Sure

Signature _____

Day 21   Month 3   Year 2023

Feedback of Validity Evaluation from peer 3

(Mrs. Wencong Wu, Creative Director of PRAP Consultants China)

Expert's Feedback on the Validity of the Research Design

Topic: Interactive Approach to Tea Culture Intra-Generational Communication among Chinese Generation Z

1. Whether the background of the researcher is suitable for this research?

   ☑ Yes   ☐ Not Sure

2. Is the Content Analysis method valid?

   ☑ Yes   ☐ Not Sure

3. Is the interview questionnaire on tea culture cognition and daily preferences of Generation Z effective?

   ☑ Yes   ☐ Not Sure

4. Is the interview grouping reasonable?

   ☑ Yes   ☐ Not Sure

5. Is it reasonable to conduct a questionnaire survey on tea brands favored by Generation Z?

   ☑ Yes   ☐ Not Sure

6. Are the objectives of the workshop discussion reasonable and is the data analysis valid?

   ☑ Yes   ☐ Not Sure

7. Is the first step of the research framework valid?

   ☑ Yes   ☐ Not Sure

8. Is the second step of the research framework valid?

   ☑ Yes   ☐ Not Sure

9. Is the third step of the research framework valid?

   ☑ Yes   ☐ Not Sure

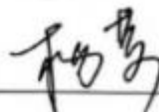Signature _____

Day 21 Month 3 Year 2023

Feedback of Validity Evaluation from peer 4

(Mrs. Fang Yang, Design Director of ART PRO)

Expert's Feedback on the Validity of the Research Design

Topic: Interactive Approach to Tea Culture Intra-Generational Communication among Chinese Generation Z

1. Whether the background of the researcher is suitable for this research?

   ☑ Yes   ☐ Not Sure

2. Is the Content Analysis method valid?

   ☑ Yes   ☐ Not Sure

3. Is the interview questionnaire on tea culture cognition and daily preferences of Generation Z effective?

   ☑ Yes   ☐ Not Sure

4. Is the interview grouping reasonable?

   ☑ Yes   ☐ Not Sure

5. Is it reasonable to conduct a questionnaire survey on tea brands favored by Generation Z?

   ☐ Yes   ☑ Not Sure

6. Are the objectives of the workshop discussion reasonable and is the data analysis valid?

   ☑ Yes   ☐ Not Sure

7. Is the first step of the research framework valid?

   ☑ Yes   ☐ Not Sure

8. Is the second step of the research framework valid?

   ☑ Yes   ☐ Not Sure

9. Is the third step of the research framework valid?

   ☑ Yes   ☐ Not Sure

Signature _____

Day _21_ Month _3_ Year _2023_

Feedback of Validity Evaluation from peer 5

(Miss. Yunhe Pan, Senior Interaction Design Manager of IQYI)

Expert's Feedback on the Validity of the Research Design

Topic: Interactive Approach to Tea Culture Intra-Generational Communication among Chinese Generation Z

1. Whether the background of the researcher is suitable for this research?

☑ Yes   ☐ Not Sure

2. Is the Content Analysis method valid?

☑ Yes   ☐ Not Sure

3. Is the interview questionnaire on tea culture cognition and daily preferences of Generation Z effective?

☑ Yes   ☐ Not Sure

4. Is the interview grouping reasonable?

☑ Yes   ☐ Not Sure

5. Is it reasonable to conduct a questionnaire survey on tea brands favored by Generation Z?

☑ Yes   ☐ Not Sure

6. Are the objectives of the workshop discussion reasonable and is the data analysis valid?

☑ Yes   ☐ Not Sure

7. Is the first step of the research framework valid?

☑ Yes   ☐ Not Sure

8. Is the second step of the research framework valid?

☑ Yes   ☐ Not Sure

9. Is the third step of the research framework valid?

☑ Yes   ☐ Not Sure

Signature 潘云鹤

Day 21   Month 3   Year 2023

VITA

NAME	LEI QIAO
INSTITUTIONS ATTENDED	EDUCATIONAL BACKGROUND

2006, Bachelor of Arts (Art Design), Renmin University of China, CHINA

2009, Master of Arts (Design Arts), Renmin University of China, CHINA

2024, Entered the Doctor of Philosophy Program in Design Arts (International Program), Graduate School, Silpakorn University, THAILAND

CAREER BACKGROUND

2017-2021 Visual Design Consultant, Hangzhou Aoyi Network Technology Co., Ltd.

2015-2020 Design Director, Hangzhou Dashu Network Technology Co., Ltd.

2013-2015 Visual Design Manager, Beijing Yuanxin Technology Co., Ltd.

2012-2013 Beijing Qianxiang Netscape Technology Development Co., Ltd. Renren Shopping UI Senior Designer

2010-2012 Beijing Hexun Network Technology Co., Ltd. Web Designer

2009-2010 Beijing Caixin Media Network Technology Co., Ltd. Graphic Designer

2007-2008 Beijing Olympic Landscape Deepening Visual Designer

PUBLICATION	Qiao, L., J. Vongphantuset, J. & Sirivesmas, V. (2022). User Experience Process of Android Tea-Themed Mobile Online Games. Journal of Modern Technology and Engineering.

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Qiao, L., J. Vongphantuset, J. & Sirivesmas, V. (2023). Exploration of Teaching Practice of Integrating Traditional Culture into User Interface Design Course based on the OBE-CDIO Model. In NMDME 2023: Proceedings of the 3rd International Conference on New Media Development and Modernized Education, NMDME 2023, October 13–15, 2023, Xi'an, China (pp: 221). European Alliance for Innovation. doi:10.4108/eai.13-10-2023.2341345

Qiao, L., J. Vongphantuset, J. & Sirivesmas, V. (2024). Development Study of Chaozhou Gongfu Tea Culture Study Tourism Based on the SWOT-QSPM Model. Journal of Roi Kaensarn Academi. Volume 9(7),(pp:627-643). (Tci.1)

Qiao, L., J. Vongphantuset, J. & Sirivesmas, V. (2025). Behavioral Guidance on Intra-Generational Cultural Communication: Taking Teatime Application Design as a Case. (Tci.1)

AWARD RECEIVED

1. The 3rd London Chinese Art Exchange Exhibition. A Miaomiao IP Design won the bronze medal in the global finals (2022).

2. Milan Design Week China Design Exhibition won the Second Prize (2023).

3. Certificate in ARCADE 2022, International Art Craft and Design Seminar at SILPAKORN University Workshop with Academic Program, Bangkok Design Week 2023.