A Study on Course Content Requirements and Design Strategy of Tea Art E-Learning

Biyun Hong^{1,2,a}, Min-Yuan Ma¹, Yueshuang Lou²

¹Department of Industrial Design, National Cheng Kung University No.1, University Road Tainan City 701, Taiwan ² Anxi College of Tea Science, Fujian Agriculture and Forestry University No.15 Shangxiadian Road, Cangshan District, Fuzhou City 350002, Fujian Province, China ^a490274603@qq.com

Abstract

Tea art is not only an important component of tea culture, but also the main way to spread tea culture. Traditional tea art mainly depends on face-to-face instruction between tea art specialists and students. With the development of science and technology, E-learning becomes more and more popular. People also start to learn tea art by online teaching video. How to develop and design effective E-learning method of tea art is becoming urgent. Therefore, the study used literature research method and expert interviews method to sum up the course content requirements of tea art E-learning. Then, applying Kano Model to summarize four attribute categories requirements (attractive attribute; one-dimensional attribute; must-be attribute and indifferent attribute); concluded the design and development strategies for it by Focus Groups Method. It hopes to provide reference for relevant tea art teaching staff and promote the online teaching process of tea art.

Key words: Kano Model; E-learning; Tea art; Design strategy

Introduction

With the craze for traditional Chinese culture, tea culture which is also part of it is becoming more and more popular. Tea art is an important component of tea culture. It brings people into the wonderful tea world through some actions. The actions (enjoying the tea leaves, making tea, drinking tea, smelling the tea) are a series of movements that blend the five senses. It is often seen as an introduction to the tea culture. Because of its strong participation, low starting point and has strong experience.

A. Tea art education

Tea art means tea practice under the guidance of the tea art spirit, aesthetic theory and tea theory and is seen as an art of life with tea as the medium. It includes tea art skills, the art of tasting tea and the psychological experience of tea people which is often derived from the tea practice process.^[1] In this process, people can communicate with nature, introspect, please their own mind and improve themselves. The promotion and learning of tea art can popularize tea culture, promote social contact and improve self-cultivate. Traditional tea art learning mainly depends on face-to-face instruction between the teacher and student. There are three main approaches to tea art learning: the first way is that learning tea art courses offered by colleges and universities or vocational and technical colleges, the second is the relevant training organized by the labor department, which aims at assessing the tea art specialists, the third way is some outstanding tea art specialists conduct training courses. ^[2]

At present, although the tea art education becomes more and more mature, there are also a lot of problems in it. Firstly, the course content is not reasonable enough which mainly manifested in the emphasis on theory over practice. Secondly, the traditional face-to-face instruction mode leads to limited teaching resources, which is difficult to meet the learning needs of many students. The limited teaching resources include the imbalance of teacher-student radio and inadequate teaching equipment. Lastly, there are many problems in the one-to-one teaching of tea art by tea art specialist. For example, high cost, the site is limited (usually in the tea master's own tea room or training room), the learning method is not flexible enough, teacher is difficult to find. Therefore, the introduction of modern teaching forms and means to break the traditional form is the top priority of contemporary tea art teaching. ^[1]

B. E-learning

With the development of science and technology, the pace of modern life is becoming faster and faster. More and more people start to learn online or a combination of online and offline. This way of learning can not only reduce the waste of time, but also greatly reduce the cost of learning. Online learning is a way of learning using electronic information technology and application systems. [4] Online Course refers to one in which most or all of the content of a course is completed online, usually without face-to-face communication. And the proportion of online learning content is 80% or more. ^[5] Online learning has the following characteristics. (1) provide consistent, worldwide training;(2) reduce delivery cycle time;(3) increase learner convenience;(4) reduce information overload;(5) improve tracking; (6) lower expenses. ^[6] Therefore, online learning is favored by more and more people.

Through the investigation of tea science majors in Anxi College of Tea Science of Fujian Agriculture and Forestry University, it was found that about 80% of the students studied tea art through video to improve their tea art skills. For beginners in tea art, online learning is a viable way. Because tea art mainly relies on students' self-study and practice after class to enhance their skill level. Therefore, how to develop and formulate the course content to be suitable for online tea art learning is a direction which deserves more investigation in the modern tea industry.

C. KANO Model

KANO model is a two-dimensional cognition of quality characteristic satisfaction and customer satisfaction. According to the objective performance of products and services and users' subjective feelings, the quality attributes of products and services are divided into six categories: attractive attribute (A), one-dimensional attribute (O), must-be attribute (M), indifference attribute (I), reverse attribute (R), and questionable attribute (Q). [7] It was formally proposed and established by Noritaki Kano in 1984.It can be used to classify and prioritize the quality characteristics of service/product, help enterprises understand different levels of customer needs, and provide direction for the improvement of service/product quality. Kano Model was initially applied in the research of product requirement attributes. More and more experts and scholars use this model to study the demands related to education industry. The relevant research includes curriculum evaluation, curriculum demand, Influence factors of teaching quality, and so on. Therefore, this study intends to use KANO model to explore the content demand attributes of online tea art courses in China and summarize the design and development strategies of it.

Research process

Extracts the tea art course content points though literature research and expert interviews from textbooks and books related to tea art. Summarize the content requirements of online tea art courses through focus groups. There are 10 experts, including 4 teachers with more than 10 years'

experience in tea art teaching, 3 senior tea specialist, and 3 teachers with more than 10 years' experience in tea science. Focus group member consists of three senior tea specialist and two tea teachers of tea science.

Applying Kano model to summarize the attributes of course content. Develop a Kano questionnaire. The participant should have online learning experience and tea art learning experience. The participant ' response to the existence or absence of a tea art online course content are measured by positive questions and negative questions. Calculate the Worse-Better matrix coefficient. Each participant has two attitudes toward each requirement attribute (Attitudes with and without). The combination of these two attitudes confirms the attributes of the course content requirements. Refer to KANO evaluation table (see in table 1). The Worse-Better matrix coefficient is calculated by the percentage of functional attributes classified. This coefficient represents the degree to which this attribute category affects satisfaction. Draw a Worse-Better coefficient matrix table for online teaching requirements of tea art based on the Better-Worse coefficient. According to the matrix table, four attribute modules of tea art online teaching content requirements are obtained.

According to the results of Kano Model, used Focus Group Method to propose design and develop strategies for tea art E-learning. The focus group members include 4 tea art teachers with more than 5 years of tea art teaching experience and 2 tea art specialists with 10 years of tea art practical experience.

			TABLE 1						
			KANO EVALUATION						
User attributes		Dysfunctional							
		satisfied	It should be that way	I am indifferent	I can live with it	Dissatisfied			
	satisfied	Q	А	А	А	Ο			
Functional	It should be that way	R	Ι	Ι	Ι	М			
	I am indifferent	R	Ι	Ι	Ι	М			
	I can live with it	R	Ι	Ι	Ι	М			
	Dissatisfied	R	R	R	R	Q			

Notes : A, attractive ; M, must-be; ; O, one-dimensional ; I, indifferent ; R, reverse ; Q, questionable.

Results and analysis

A. Course content requirements of tea art E-learning

13 kinds of course content requirements were concluded. See in table 2. All the requirements were coding like in the table. And coding in R1 R2, R3...

They are tea industry information, tea set knowledge, tea culture history and dissemination, design of tea banquet, tea appreciation, purchase and storage, service and management of tea art, introduction to tea art, tea art skills and training, tea art etiquette specification, interpretation ability of tea art specialists, tea art appreciation, scientific drinking tea and health preserving, tea drinking customs.

TABLE 2 COURSE CONTENT REQUIREMENTS OF TEA ART **E-LEARNING**

NO.	Course Content Requirement	Code
1	Tea industry information	R1
2	Tea set knowledge	R2
3	Tea culture history and dissemination	R3
4	Design of tea banquet,	R4
5	Appreciation, Purchase and storage of tea	R5
6	Service and management of tea art	R6
7	Introduction to tea art	R7
8	Tea art skills and training	R8
9	Tea art etiquette specification	R9
10	Interpretation ability of tea art specialists	R10
11	Tea art appreciation	R11
12	Scientific drinking tea and health preserving	R12
13	Tea drinking customs	R13

B. Attributes category of the requirements

A total of 100 KANO model questionnaires were distributed. And 91 of them were collected. Participants without online learning experience and tea art learning experience were

excluded, and 52 effective questionnaires were obtained.

table of the Worse-Better coefficient is shown in figure 1.

According to KANO model calculation, the result of the Worse-Better coefficient is shown in table 3, and the matrix

Course Content Requirements	Kinds of Attributes in Kano Model					odel	Worse Coefficient	Better Coefficient	Attributes Category
of Tea Art E-Learning	A I M O		Q R						
R1	26%	42%	4%	23%	6%	0%	-26%	49%	Ι
R2	21%	15%	15%	43%	6%	0%	-58%	64%	Ο
R3	26%	28%	6%	34%	6%	0%	-40%	60%	А
R4	38%	26%	0%	30%	4%	2%	-30%	68%	А
R5	32%	21%	9%	34%	4%	0%	-43%	66%	0
R6	25%	51%	4%	15%	6%	0%	-19%	40%	Ι
R7	17%	55%	11%	9%	8%	0%	-21%	26%	Ι
R8	13%	15%	11%	57%	4%	0%	-68%	70%	0
R9	17%	21%	21%	38%	4%	0%	-58%	55%	М
R10	32%	26%	9%	28%	4%	0%	-38%	60%	А
R11	23%	32%	0%	42%	4%	0%	-42%	64%	0
R12	28%	26%	2%	36%	6%	2%	-38%	64%	А
R13	36%	23%	8%	28%	6%	0%	-36%	64%	А
					Av	/erage	-40%	58%	



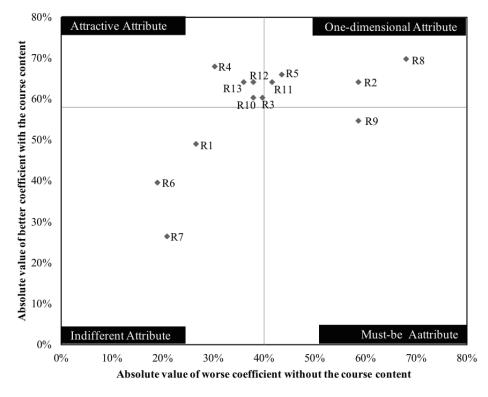


Fig.1 Worse-Better coefficient matrix diagram

The course content requirement with must-be attribute is the tea art etiquette specification. It means that in the online teaching of tea art, if it has the part of teaching of tea art etiquette specification, users will take for granted. If not, they will be very dissatisfied. So, when design and develop the course, it should always pay attention to this content to meet the basic needs of most users. The course content requirements with one-dimensional attribute are tea art skills and training, tea set knowledge, appreciation, purchase and storage of tea, and tea art appreciation. It means that if these parts are qualified, the user will be satisfied; if not, they will be dissatisfied. The four contents are the important part to be developed. Because the emotion of users is easy to be influenced by them. From fig.1, it can be found that, the degree of one-dimensional attribute is: tea art skills and training> tea set knowledge> appreciation, purchase and storage of tea > tea art appreciation. It indicates important degree of the four parts is to be like that, when design and develop the course.

The course content requirements with attractive attribute are Design of tea banquet, tea drinking customs, Interpretation ability of tea art specialists, tea culture history and dissemination, scientific drinking tea and health preserving. It means that users will be very happy with these parts, if not, it does not matter. These five parts are the surprise to users. So, after ensuring the basic contents of the course is available, it will be surprise to users if the course exploring these five parts contents. Therefore, these five content like icing on the cake for the tea art E-learning.

The course content requirements with indifferent attribute are tea industry information, service and management of tea art and the introduction to tea art. It means that whether this part exist or not will have little or no impact on users. Therefore, when design and develop the course, these three parts can be regarded as a relatively minor part. They can be optional contents of the course. They have do not a great impact on the whole course.

Course design strategies

Base on the results and analysis of Kano Model, the study summarized the design and development strategies of the course contents for the tea art E-learning though Focus Groups Method. Focus groups members were constituted with 4 tea art teachers with more than 5 years of tea art teaching experience and 2 tea art specialists with 10 years' experience.

Ensure the basic status of tea art etiquette specification in the course. There are six elements making up tea art, they are human, tea, water, utensils, environment and art. The beginning of tea art aesthetic is the beauty of tea art specialists, which gives the most intuitive impression. Tea, water, tea sets, environment and art run through with the introduction of tea art specialists (human). Tea art etiquette specification is the core of creating the "human beauty" in the tea art. Therefore, when we design and develop design contents, it should make the tea art etiquette specification as the most basic part, keep it throughout the course. And guide learners to observe the etiquette specification of tea art from beginning to end. Thus, he beauty of tea art will be carried out to the end.

Take tea art skills and the directly related to them (the knowledge of tea sets and tea leaves) as the core development. Tea art skills are the core part of tea art learning. There is no doubt that it is the core of online course development of tea art. Tea art is used to demonstrate the process of making tea. It can't be inseparable from the tea sets and tea leaves. Therefore, when design and develop the course, it should take the knowledge of appreciation, purchase and storage of tea into account, as well as the relevant knowledge of tea sets in addition to the movement and process of tea art. Thus, could lead learners to learn to make tea really and well.

Develop distinctive tea art skills derivative course content. For example, Design of tea banquet, tea drinking customs, ability training of tea art specialist, tea culture history and dissemination, scientific drinking tea and health preserving. Develop the distinctive course content by starting from the cultivation of these related skills reasonably. If there is no derivative content, students can bear it, but if there is, it can improve students' satisfaction. Therefore, it needs to ensure the basic status of tea art etiquette specification in the course of teaching. According to their advantages, develop reasonably distinctive tea art derivative course content. This way can effectively improve the attractiveness of online courses and user satisfaction.

Conclusion

This study sorted out the E-learning requirements of tea art, and used KANO model to classify the attributes of these requirements. Four attribute categories of E-learning content of tea art are summarized. Then conclude the strategies of designing and developing of course contents for tea art E-learning. They are to ensure the basic status of tea art etiquette specification in the course of teaching. Take tea art skills and knowledge of tea sets directly related to them as the core development content. According to their own advantages, develop reasonably distinctive tea art derivative course content, then to improve user satisfaction. It hopes to provide reference for relevant tea art teaching staff and promote the online teaching process of tea art.

Reference

- [1] N. Ye, *Introduction of Tea Science*, Beijing: China Agricultural Press, 2013, pp. 54.
- [2] Y. Yu, et al., "New Stage of Tea Art Education Development—Speech at the Opening of the First Tea Art College Class in Nanchang Women's Vocational School". *Agricultural Archaeology*, (04), 2002, pp. 120-128.
- [3] Y. Gao, "Analysis on the Present Situation of Tea Culture Teaching and the Quality Education Model of Tea Culture". *Tea in Fujian*, 38(09), 2016, pp. 222-223.
- [4] M. Abdellatief, et al., "A Technique for Quality Evaluation of E-learning from Developers Perspective". American Journal of Economics and Business Administration, 3 (1), 2011. pp. 157–164.
- [5] I. E. Allen, et al., "Online Report Card: Tracking Online Education in the United States". *Babson Survey Research Group*, 2016
- [6] E. T. Welsh, et al., "E-learning: emerging uses, empirical results and future directions". *International Journal of Training and Development*, 7(4), 2003, pp. 245-258.
- [7] N. Kano., et al., "Attractive Quality and Must-be Quality", *Hinshitsu (Quality, The Journal of Japanese Society for Quality Control)*, 14, 1984, pp. 39-48.