



THE DESIGN EDUCATION WORKSHOP PROGRAM (1996 – 2007 DONG GUAN, CHINA)

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ABSTRACT:

Recently, design education is of increasing importance in China. Each year about 15,000 students graduate from the design divisions of various universities. They fulfill an important demand in the industrial design field in China.

We have been teaching industrial design to students in China over a period of ten years. During that time, we had three education methods, 1996-1999: the basic technique of design sketch and clay model making in the Japanese style, 2000-2004: the importance of concept design in industry and how to create new ideas by using the “MITATE” idea method, and 2005-2007: exploring new possibilities using computers in the design field.

Our education program was held at Dong Guan city, Guang Dong province, China. We carried out this program supported by Dong Guan TANITA Health Equipment Co., Ltd. TANITA is a manufacturing company specializing in body composition and weight measurement in Japan. Students who joined the education program came from various universities in China, including: Beijing University of Technology, Southern Yangtze University, Shanghai Jiao Tong University, Hu Nan University, and so on. The participants were mostly assistant teachers or master students in design.

Through this program, we were successful in affecting change in the following areas: 1) Teaching fundamental techniques and principles of industrial design, 2) promoting the concept of original design and the importance of design management among Chinese design university lecturers, 3) teaching the concepts of man-machine communication design, 4) Exploring methods for creative design workshops in education and developed an original method.

Key word: Design education, Workshop, China

1. INTRODUCTION

1-1 THE WORKSHOP PROGRAM: ENVIRONMENT AND BACKGROUND

Since the 1980's China has been successful in attracting a lot of manufacturing centered on "processing manufacturing", and was remarkable as the "Factory of the World". However, along with the economic growth in China the domestic consumption level has also increased, and so the cost of manpower and distribution rose. As a result the overseas production companies invested in China turned their attention to Southeast Asia in search of low-cost production. Thus it was necessary for China to begin the conversion from "processing manufacturing" to "Creative manufacturing" and this in turn began the shift from a "Manufacturing nation" to a "Consuming nation". The key to creative design in China is in training local Chinese designers to supply the growing domestic Chinese market. They alone are most suited to synthesizing the 5000 years of Chinese history and culture in order to produce designs in tune with the demands of the domestic Chinese market.

Design education in China is experiencing an unprecedented expansion, annually about 15,000 design students graduate and the numbers are increasing year upon year. However, the Chinese

educational method still focuses on the study of design expression technology, this method is not generally conducive to creative ideas, and the overall idea of interdisciplinary collaboration is difficult to implement in this educational framework.

1-2 AIMS OF THE RESEARCH

The Japanese TANITA Corporation established the International Art Training Center in Dong Guan China and has provided design training for Chinese students for ten years as part of their sponsored voluntary activity. To date over 220 trainees from more than 50 universities have taken part in the industrial design course. The unique training and management program has earned a high reputation in the design educational field in China.

This researcher aims to investigate and evaluate the results of the TANITA industrial design training program over ten years, to identify the development features of this training program that have effectively responded to Chinese social development needs, and to search for the ideal way of promoting creative design education currently necessary in the Chinese market.

The research analyzed the contents of the training curriculum and searched for the characteristics and the effects of our original workshop method.

2. DESIGN TRAINING OUTLINE

We carried out this program supported by TANITA Corporation. TANITA Corporation is a manufacturing company specializing in body composition and weight measurement in Japan. Since 1997, TANITA Corporation has been conducting industrial design training programs at the International Art Training Center established at the Dong Guan TANITA manufacturing facility. The trainees come from the whole of China, from as far north as Jiamusi, and from as far south as Guangzhou¹ (Fig. 1). The outline of the training is as follows²:

Policy: Contributing to the wider community, and fostering the talent of young designers and teachers to become future leaders of Chinese industrial design.

Trainee candidates: Student (for the 1st and 2nd training sessions) - Third and Fourth year undergraduate students with recommendations from their universities; Lecturers (For the 3rd and

later training sessions) – Teachers of up to 30 years of age with recommendations from their universities.

Number of Trainees: approximately 20 trainees per course. In total 220 trainees from 50 universities.

Training Period: from August 1997.

Length: Initially four weeks, but subsequently shortened to 9-11 days.

Theme: Measuring Health

Curriculum: Consists of Lecture, practice, discussion, factory observation, and production.

Materials and Equipment: Provided by the sponsor.

Fees: Travel expenses and expenses for meals and accommodation are provided by the sponsor.

Instructors: The team of instructors consists of teachers who have an interest in design education in China, designers, and corporate personnel.



Fig.1 Locations of participating universities

3. DESIGN TRAINING CURRICULUM

3-1 STAGE ONE: DESIGN TRAINING FUNDAMENTALS

The curriculum from 1997 to 1998 consisted of basic design knowledge and basic design technique for the university student (Table 1). In the 1990's Chinese industrial design education continued to expand, and many universities began to set up industrial design courses. At that time the TANITA training course showed an example of a systematic design education method in education whereas the contemporary Chinese universities were still in a stage of early development.

Table 1 Curriculum of the 1st Industrial Design Training

date	Theme	Curriculum (9:00 - 17:00) Instructor: Takashi Matsumaru
24 Feb.		Opening ceremony, Factory observation Grouping, Reader election, Self introduction, Discussion
25 Feb.	Construction	[Lecture] Grounding, Line, Plane, Solid [Practice]
26 Feb. – 1 Mar.	Conception method	[Lecture] Conception method [Practice] [Practice] Idea sketch, Rough sketch, Rendering
2 Mar.		Rest
3-8 Mar.	Rendering (1)	[Lecture] Grounding, Use of tools, Color expression, Transparency expression, Material expression [Practice]
9 Mar.		Rest
10-12 Mar.	Solid formation	[Lecture] Grounding, Harmonious in shape [Practice] Make a clay model [Lecture] Variation in shape [Practice]
13 Mar.	Drafting	[Lecture] Grounding [Practice]
14-15 Mar.	Plaster	[Lecture] Grounding, the use of the plaster, the use of the tools [Practice]
16 Mar.		Rest
17-20 Mar.		[Practice] Graduation work, theme chosen freely by students
21 Mar.		[Presentation]
22 Mar.		Ending ceremony

3-2 STAGE TWO: DESIGN TRAINING THAT VALUES THE DESIGNER'S NATURAL VIEW.

After running for two years, the TANITA training institute decided to change the focus from training students to training the educator's to support Chinese design education, and so in 1999 the direction changed from teaching university students to training junior university lecturers.

In turn the training program changed to facilitate this new target group. Many designers and the educators were invited from Japan to lecture on the concept based design process, method and management, and practical design (Table 2).

Through these presentations the concept of "Creative design" and teaching creative design using the conception method, trainees came to recognize the importance of design values based on a worldwide view rather than the prevailing view of "Improved design" in Chinese design education at that time.

Table 2 Curriculum of the 6th Industrial Design Training

date	Theme	Curriculum (8:30 – 21:00)
6 Aug.		Opening ceremony, Factory observation
	Design Management	[Lecture] Principles and technology of measurement (Minoru Hosaka) [Lecture] About measurement (Kunio Sano) [Lecture] Design information – Word wide
7 Aug.		[Lecture] Design process (Tamaki Shoji, Miho Kato) Q&A
8 Aug.		[Practice] KJ method analysis list, market trend mapping (Kunio Sano) [Lecture] Design information – Japan
9-10 Aug.		[Lecture] Information and Design (Shosaku Ota) self introduction, Q & A
11 Aug.		Rest
12-14 Aug.	Rendering	[Lecture] Rendering (Yoshiharu Shimizu) [Practice] Rendering (Yoshiharu Shimizu) Q&A
15-19 Aug.	Competition work	Competition work guidelines (Kunio Sano, Shosaku Ota) [Practice] competition work self introduction, Q & A
20 Aug.		[Presentation] Presentation + Evaluation Diner party (TANITA)
21 Aug.		Ending ceremony

3-3 STAGE THREE: HIGHLIGHTING THE IMPORTANCE OF MAN-MACHINE COMMUNICATIONS.

With the shift in Chinese society from "Manufacturing to Consumption", "creative design" and "Communication design" have become the key roles of the designer³.

In 2005 in line with this idea, the program was adapted to the rapidly developing Chinese information society. "Expressing man-machine communication through movement" was explored by using a "cricket" (a scaled-down computer) developed in MIT of America in addition to the concept based design training method (Table 3). In our daily lives we are constantly surrounded by machines, we by posing a new design challenge "What is the relationship between people and machines?" emphasized that man-machine communication design has become the designer's core role in the information society.

Table 3 Curriculum of the 9th Industrial Design Training

date	Theme	Curriculum (8:30-21:00)
14 Aug.		Opening ceremony
	Conception method	[Lecture] Conception method (Shosaku Ota) [Practice] Conception method (Shosaku Ota)
15 Aug.		[Presentation] Work presentation (Shosaku Ota)
	Design education	[Lecture] Design education in Japan and China (Yingyu Zhao) Self introduction, University introduction
16 Aug.	Design method	[Lecture] Design method of Japan and China (Xiangdong Yang) [Lecture] Information design (Tomoyuki Sowa)
	Information design	
17 Aug.		[Practice] Man-machine communication Design (Tomoyuki Sowa) Free discussion
18 Aug.		[Tour] External tour
19 Aug.	Competition	Factory observation [Lecture] Measurement; competition work guidelines (Tomiyoshi Yokouchi) Q&A
20 Aug.		[Practice] Competition work
21 Aug.		[Presentation] Competition work social event
22 Aug.		Ending ceremony



Fig.2 Training curriculum (a. Lecture b. Design practice c. Factory observation d. Presentation and evaluation)

Our training program includes a series of lectures, practice, factory observation, presentation and evaluation (Fig. 2). As above, the curriculum of the training program can be divided into three stages: (1) Design training fundamentals, (2) Design training that values the designer's natural view, (3) Design training highlighting the importance man-machine communications. The training curriculum was adjusted continually taking into account the students needs and performance, and the broader needs of the Chinese market in general.

4. TRAINING METHOD

4-1 THE USE OF TRAINING WORKSHOPS.

Recently, attention is being attracted by the role of workshops in the communications and advertisement business. It is possible to provide "a new learning environment" that can develop values and target images, by independently repeating the approach "making, presenting, and reflecting" on a particular theme or problem⁴.

The opportunities offered by this type of event are evident in the substantial influence of workshops in the field of Social Education in the post-war United States.

"Workshops for social workers tackling racial discrimination" done in Connecticut state under the lead of initiator Kurt Rebin of group dynamics was an event that was of definite importance in social education workshops⁵.

The phrase "Workshop bubble" has expressed well the social demand for a new creation method. Workshops can be classified into four kinds: (1) personal growth type, (2) body liberating type and body expression type, (3) social consensus building type, (4) creativity development type.

TANITA International Art Training Center has for ten years provided design training that uses the workshop method, and the style of the workshop has changed in conjunction with the changing curriculum: "body expression type" workshops were held in the first stage; workshops that include both "Body expression type" and "Creativity development type" were held at the second stage; and "Creativity development type" workshops were held at the third stage.

The rapid economic Chinese development, lead to a demand for domestic creative design, and development in design education and technique. Therefore, there was a need for creative design education and design literacy education, with this aim in mind the international art training institute established an important venue for the learning of the design expression technique. Subsequently, changing the nature of the course into a creative development workshop type, by request of the educational community in China.

4-2 THE IMPORTANCE OF TRAINEE SUBJECTIVITY.

The subjectivity of those participating in the workshop is the most important point, and the facilitator's role is to support the trainee's activity. We paid attention to the structure of the workshop in relation to the chosen topic.

To best provide a fertile creative environment for the trainee, the participant's activity schedule was closely observed and carefully corrected adjusted each year. The following is an example of the workshop "express a man-machine communication through movement" which was held in 2005. In this workshop, the trainee's action program was made as follows, and communicated beforehand to the trainee (Fig. 3).



Fig.3 Expressing man-machine communication through movement (a. Discussion of the program, b. Confirm movement of the machine by a program c. Make the shape d. Present the work)

- 1) Grouping
- 2) Group name and group logo design
- 3) Group introduction video, and strengthening group unity.

- 4) Research
- 5) Concept making and conception development through group discussion
- 6) Decide the division of labor independently
- 7) Design the shape and action /programming the movement.
- 8) Combine the movement and the shape to complete the work.
- 9) Presentation of work through group action

4-3 FACILITATOR'S BACKUP METHOD – RECORDING AND REFLECTION

The education effect can vary greatly depending on the method of backup by the facilitator. Although the facilitator's backup tends to be disregarded in workshops where the subjectivity of the participant is valued. It is most important to encourage proactive behavior in the participants, and to activate participant's creativity in the workshop.

"Recording" and "Reflection" were done as a backup by the facilitator in this training workshop. Participant's behavior was continually followed and recorded, and presented as a record of each phase of the person's training. The participant reviewed their actions, and this lead to further creative activity at the reflection stage.

5. CONCLUSION

In the TANITA International Art Training Center over the past ten years, the aim has been to develop a design education program and education method in response to Chinese social needs for creative design. The results can be summarized as follows.

- 1) The educational curriculum is divided into the following three stages: (1) Design training fundamentals, (2) Design training that values the designer's natural view and creative idea, (3) Design training highlighting the importance man-machine communications.

2) The workshop education method has changed along with the changing curriculum, moving to a creativity type workshop and design literacy education for Chinese original design with the coming of the information-intensive society.

3) The trainees are young teachers coming from the whole of China, and so, the developing a design community among the trainees became the one of the aims of the workshops. In the third stage of training, the "group work" and the "Recording and Reflection" particularly promoted active communication between participants. As a result, a strong bond of cooperation and healthy competition was formed, and that trainees continued correspondence and exchanging ideas through the Internet after the training was completed.

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