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The Application of Idea Generating Approach: A Case Study from Fashion Design

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***Abstract*—This research conducted a case study that focused on an idea generating process from fashion design that investigated the idea generating processes of an outstanding student in a fashion design contest (i.e. Fuse 2006) which was held in Taiwan. Meanwhile, an in-depth analysis of the idea generating approaches applied to problem solving as well as the idea generating results of the winning student was provided. The participant was a student at a University Department of Fashion Design and Management. Below is the conclusion: 1) Idea generating method: Object exploration was major approach most frequently applied by the student at the fashion design contest, 2) Original idea screening method: The student picked out feasible ideas by herself. On this basis, it was discussed how these findings may influence the idea generating, and considered how to facilitate the progression from designing programming approaches.**

Keywords- idea generating; fashion design contest; Fuse 2006

I. INTRODUCTION

Fashion design is one of the most oversubscribed subjects in higher education [1]. Important tasks in fashion design are to generate and refine design alternatives, and then to select a single design or a set of designs, to fulfill a particular need. For designers, developing ideas is the most difficult part of the creative process. Understanding the activities and output of the idea-generation process is the key to effective idea generation [2-3]. Successful fashion designers must maintain an open mind to acquire elements and ideas that will inspire the new clothing line for the latest season; moreover, the works of fashion design allows people to see the designers' thinking process, to track their thoughts and the sources of their ideas [1]. Thus, paying more attentions to the activities and management of the idea generation is important for fashion designers. Unfortunately, only a few techniques are available for specific support of idea generation activities in fashion design education.

II. THEORETICAL BACKGROUND

Some research results about the process of fashion design, idea generation, and creativity and design problem solving are reviewed here.

A. The Process of Fashion Design-From a Brief to Assessment

The process of fashion design from a brief to assessment is shown in Fig. 1.

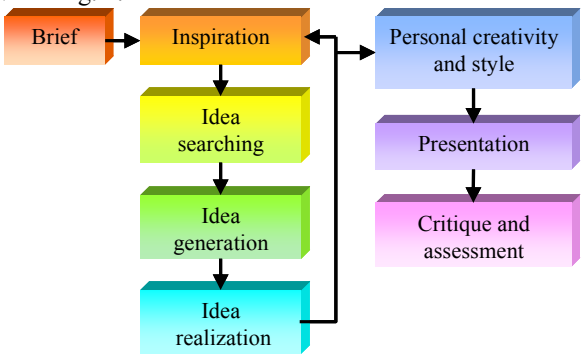

Figure 1. The process of fashion design – from a brief to assessment.

The purpose of a project brief is to develop fashion designer's creativity to respond to a particular set of requirement. The brief will usually tell fashion designer what the overall aims of the project are and what objectives fashion designer should be able to demonstrate by the end of the project to enable fashion designers to measure their own progress [1].

1) Inspiration: In their search for inspiration, designers must learn to keep their eyes and ears open. Colleges encourage students to paint and draw from life and nature as primary source of design.

2) Personal Creativity and Style: People do their own thing. Some are romantic things, some do conceptual, and some do commercial. You can't compare us because we are doing what we want [1].

3) Presentation: A good presentation will give those who to see it a window onto a fashion designer's thinking processes and clues as to the origination of fashion designer's idea.

4) The Critique and Assessment: The critique is the occasion on which staff evaluate fashion designer's response to the brief [1]. It is also an objective and a subjective assessment of how a fashion designer has fulfilled the requirements. It is also an exchange of ideas. Assessment is a matter of judgment, not simply of computation.

B. Idea Generation

How to define the boundary of an idea? Ideas can result in a new solution to a problem, a new method or device, or a new artistic object or form. Generating new ideas and finding new

solutions are essential for surviving and vital characteristics to contributing to the development of mankind. Idea generation (ideation) is critical to the design and marketing of new products, to marketing strategy, and to the creation of effective advertising copy. In new product development, for example, idea generation is a key component of the front end of the process, often called the "fuzzy front end" and recognized as one of the highest leverage points for a firm [4].

Linkography has been used for investigating the structure of design idea generation processes and for comparing design productivity. It is a graphical representation of design processes in terms of the links between design moves. In Goldschmidt's linkography, design moves were derived from verbal data using the turn taking of conversation as an indicator of the next move; other activities were consulted but not coded. Another approach is to code all non-verbal events that trigger moves, such as drawing, gesturing, etc. However, since most of these moves happened either simultaneously or in parallel with the conversation, it makes sense to group some of those with the verbal protocol [5-7].

Though students would apply cross-domain ideas to fashion design at department of fashion design in higher education [8]; Up till now there are few researches have been conducted on idea generating among fashion design students at higher education. Adequate fashion design solutions often are based on renewed or new ideas; consequently they are indispensable a worthwhile task to investigate how students at department of fashion design generate new ideas and solutions.

C. Creativity and Design Problem Solving

Creativity can be characterized as a complex activity, consisting of a special form of problem solving [9-11]. A main characteristic of creative tasks, such as design tasks, is that the initial state is ill defined [12-14]: designers have, initially, only an incomplete and imprecise mental representation of the design to be performed. The designers' mental representation evolves as the problem solving progresses. Therefore, each designer constructs his or her own representation of the design problem and deals with a problem that has become specific to him or her [14]. In practice, different designers, supposedly solving the same design problem, reach different solutions. This is especially due to the fact that they adopt various points of view and develop opportunistic reasoning [15-18].

Analogy-making may thus be considered as a central process leading to the emergence of new ideas [19-20]. Two kinds of analogies can be distinguished: intra-domain and inter-domain analogies; intra-domain analogies are related to the semantic domains of similar design objectives; inter-domain analogies are brought forth relatively when surpassed the emergence of categorical reality conception of the designed objects, inter-domain analogies seem to possess the most creativity on the ground of linguistics [18].

In view of the above premise, this study attempts to achieve the following goals: 1) Investigating where and in what way the participant in fashion design contest generated ideas linked to her learning environment; 2) constructing a mode to realize how the participant generated her theme in the fashion design contest; 3) analyzing the application of ideas that the participant was used at her works.

III. Research Design And Practice

Document analysis was used to analyze the student's fashion design diary to explore the application of ideas that was utilized of her works, and construct the mode to present how the participant generated her own design theme. Besides the present study is based on the aforementioned documents and used the research "Towards supporting evocation process in creative design: A cognitive approach [7]," as its theoretical background and draws upon its concept of three inspirational sources of the participant: intra-domain, close inter-domain, and far inter-domain to carry out the field study.

A. Participant

A purposive sample was chosen, at the age of twenty-one, studied at a southern Taiwan University of Technology Department of Fashion Design and Management. With a small sample size, generalizations will not be made beyond the scope of the study. However, findings may transfer.

B. Procedure and Tasks

1) From a brief

First of all, the teacher (i.e. researcher) provided the brief and the descriptions of the "Fuse 2006-Cultural and Creative Fashion Design Contest" which was held by the Ministry of Economic Affairs, R. O. C. for the student, there were four themes of the brief and are as follows:

a) Theme 1- Tranquility: Extending the ecological design that is in pursuit of sexy, healthy, elegant, and graceful life.

b) Theme 2- Stories: To fuse different folk and cultural attainment, and retrospect the past.

c) Theme 3-Attraction: Dressing up humorously and courageously, and mix "pop art" with "art nouveau" to express the avant-garde fashion. decide

d) Theme 4-Emulsion: Mixing the future technology with discovery, innovation, and primitivism.

2) Practice

The participant corresponded with the contest theme and keeps writing fashion design diary, and takes quite a long time to explore, generate, and relize ideas.

IV. Results

A. Idea Sources from Three Different Domains

The participant regulated the ideas sources from her fashion design diary, and categorized them into three different domains (i.e. intra domain, close-inter domain, and far-inter domain) to

make the idea sources table (see Table I). There were three different domain idea sources: 1) Ideas from intra domain ideas were the fashion designers' works, the classmates' works, the 2007 fashion trend, the wind & stack-up, and the quilt; 2) Ideas from close-inter domain ideas were paintings, architectural books, bridges, the great wall, design books, and the aesthetic books. 3) Ideas from far inter-domain ideas were passage to Mongolia, the Cosmos and the Milky Way, and the Cowherd and the Weaving Maid.

TABLE I. IDEA SOURCES FROM THREE DIFFERENT DOMAINS

Idea Sources	**Three Different Domains**		
	Intra domain	***Close-inter domain***	***Far-inter domain***
internet	• contest news • fashion trends • fashion designers' works	• paintings • aesthetic & architectural knowledge	---
dialogue	• design ideas & techniques	---	---
shopping	• purchasing fabrics, clothes & accessories • department stores' display	• book stores-purchasing artistic books	---
newspaper & magzine	• fashion trends • fashion designers' works	• design books & magzines	---
T.V. & movie	---	• movie about the "bridge"	• technological movie about the universe and the Milky Way
fashion design course	• developing design ideas • sewing & pattern-making techniques • fashion design creativity & idea generation • classmates' works	• paintings • aesthetic & architectural knowledge	---
travelling	• one day trip to cloth stores	---	• passage to Mongolia in 2006
lecture	• fashion designer's lecture • 2007 fashion trends	---	---
library	• sewing, pattern-making and fashion design books	• artistic, aesthetic & architectural books	• technological and the Milky Way books

B. *Idea Generation of the Theme "Milky Way Legend"*

There were many images written down as "the sources form of the design ideas", gathered together and exactly appeared in three different domains and eventually created a new design image. At the beginning she developed her first theme "Attraction" from 2007 fashion trend, and started drawing design drafts, and then she got another image from the close-inter domain (i.e. bridge design) and the far-inter domain (i.e. technological movie about the universe and the Milky Way) idea sources; she kept discussing her idea generation with teachers at the same time. Finally she decided her own design theme (i.e. the Milky Way Legend) through the practice of fashion design; the mode of the idea generation of the theme was shown in Fig. 1.

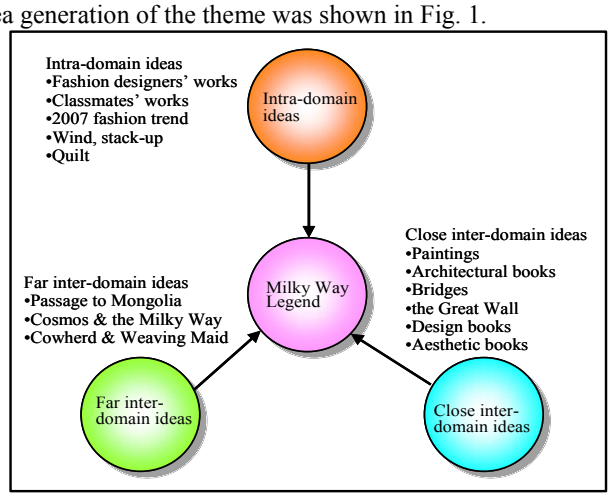

Figure 2. The mode of the idea generation of the theme.

C. *The Process from Inspiration to Idea Realization*

The participant decided on her own design theme that was the "Milky Way Legend". And then, she started sketching, pattern making, purchasing fabrics, cutting, fitting, and sewing to accomplish the whole outfits under teachers' instruction at school. The process from inspiration to idea realization is shown in Fig. 2.

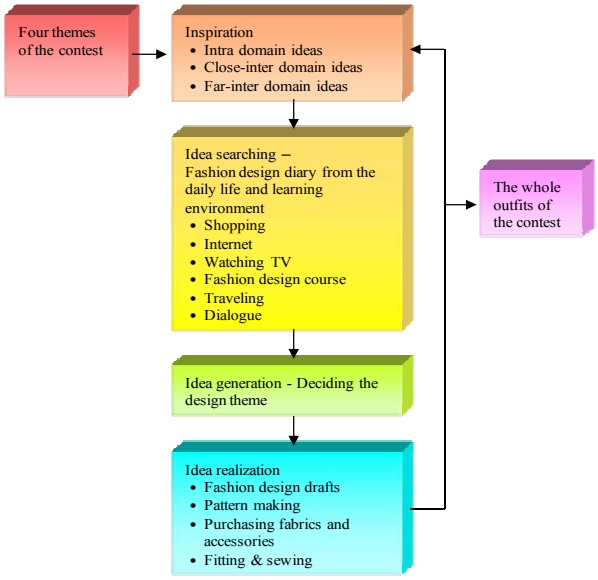

Figure 3. The process from inspiration to idea realization.

D. *Application of the Ideas of the Student's Works in the Fashion Design Contest*

The student made a connection between the Milk Way and the legend of Cowherd and Weaving Maid, utilized weaving textile and radian to present the image of the bridge of magpie and the Weaving Maid. Moreover, she also combined the idea generation and fashion design techniques to express strong ego-centric folk leisure style. The application of the ideas of the student's works in the fashion design contest is shown in Fig. 3.

No.	Works	Application of the Ideas
1		● the legend of the Cowherd and the Weaving Maid ● 2007 S/S fashion trend ● the Milky Way ● bridge ● lines ● stitches ● Chinese folk embroidery
2		● the bridge of magpie golden stitches ● the folklore ● wind, stack-up, and weaving ● layering and weaving ● the comfortable stripe knit ● the comfortable and formal styles
3		● the Milky Way ● stripe, curve and stitches ● arched bridge ● comfortable stripe knit ● overlapping and layering style ● life of leisure and vacation
4		● the Milky Way, starry sky, the bridge of magpie and Weaving Maid ● curving lines, stitches ● bending techniques ● vest ● long culottes ● waving culottes hem
5		● work of art ● stitches, quilt and curving line ● folklore ● a life of vacation ● 2007 S/S fashion trend ● works of clothing
6		● Cowherd and bridge ● unisex and tailored suit ● stitches, quilt and layering ● folding cutting techniques ● variation of lines ● folk and recreational style ● neat style with pants

Figure 4. Applying ideas to the fashion contest works by the student.

The student made a connection between the Milk Way and the legend of Cowherd and Weaving Maid, utilized weaving textile and radian to present the image of the bridge of magpie and the Weaving Maid. Moreover, she also combined the idea generation and fashion design techniques to express strong ego-centric folk leisure style.

V. CONCLUSION

Fashion brands not only just produced garments anymore but also started to create their own image or started designing for certain target groups and/or sub cultures. This paper presented a study that focused on investigating the imaginative idea generating processes of an outstanding student in a fashion design contest; document analysis was used to explore the sources of ideas based on the student's fashion design diary, below is the main points that follow from data analysis and results.

A. *Idea Sources from Three Different Domains*

Participant preferred concurrently applied the far inter-domain, close inter-domain, and intra-domain idea sources to fashion design, the result can be exhibited that the participant would picked out feasible ideas by her. It supported the research that idea generation in cross-domain idea acquisition is a method that is worth developing for fashion design students [8].

B. *The Mode of the Idea Generation of the Theme*

The main theme of the participant was derived from the three different domains, and then constructed the mode of the idea generation of the theme. It indicated that this mode would probably apply to some other design project since idea generation is a key component of the front end of the process [4].

C. The Process from Inspiration to Idea Realization

The participant fulfilled the process from inspiration to idea realization in accordance with the instruction of fashion design course principles [1]. The result does indicate that it is important to note that the participant would better utilize what they learned from fashion design course.

D. Application of the Ideas of the Student's Works in the Fashion Design Contest

The student created and produces her works by means of the collision and intersection of Milk Way, the legend of the Cowherd and the Weaving Maid, the bridges design, weaving textile, lines, folk style, and quilt. The result showed that the student enjoyed the elements of fashion design (i.e. silhouette, details, and color etc.) as an outcome in their own.

On this basis, it was discussed how these findings may influence the idea generating, and considered how to facilitate the progression from designing programming approaches.

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