Female ID Graduates' Employment in Taiwan

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Abstract

Product/industrial design (ID) has been regarded as a masculine and male-dominated profession, and fewer females have reached the top of the profession and fewer female role models than in other design sectors. In the past decade, the number of females studying ID has increased dramatically and has reached to more than a half in Taiwan. However, a significant proportion of them still has been absent from design professions. The authors conducted semi-structured depth interviews with 15 female ID graduates in Taiwan. Based on the transcripts, the findings were summarized as the following aspects: 1) reasons for majoring in ID and choosing current jobs; 2) work contents and required qualifications for current jobs; 3) difficulties and adjustment; and 4) advantages and disadvantages for female ID graduates. The outcomes of this study would provide a reference to educate and guide female ID talent for their employment and career planning.

1. Introduction

Female participation in product or industrial design profession was not frequently in either Taiwan or other countries in the past. On the one hand, The adjective "industrial" for the ID discipline is used to associated with "greasy," "technical," "of factories," and therefore "not for women;" only a limited number of girls in senior high schools would like to apply for ID programs in colleges in the past [1]. On the other hand, design-educated women being absent in the design profession could be either career changes after graduation or resignation due to marriage and/or raising child. Hespe [2] claimed that there were fewer female role models in ID profession than those in display and graphic design. Taiwan established the first collegiate level ID department in 1964, and in the early stage, there was gender restriction on recruiting only male ID students in most ID programs. Also, most ID programs were established in engineering schools where males dominated the student population. As a consequence, there were far more male industrial designers than female ones in the workplaces. To date, the ratio of male to female bachelor graduates is about 2:3, compared with the ratio of 4:1 eighteen years ago, and the ratio of women studying ID has reached to 60% in Taiwan [3]. Thus, it is significant to explore their employment after graduation, including job titles, work contents, required qualifications, difficulties and adjustment, etc.

2. Research Design

There is a limited amount of literature articulating the study of female ID practitioners so far. Therefore, the authors conducted semi-structured in-depth interviews with fifteen ID-educated women who were selected by purposive sampling based on their job titles, type of the organization, length of working experience, and marital status (Table 1). The findings could be a basis for further designing a questionnaire survey in the future.

3. Findings

3.1 Reasons for Majoring in ID and Choosing Current Jobs

Table 1 Profile of Interviewees

Code	Age	Degree[1]	Total Working Experience[2]	Type of Organization & Industry[3]	Current Job Title	Current Job Experience[2]	Marital Status[4]
ID1	30	M	5y	SME In-house Design (ICT)	Industrial Designer	5y	S
ID2	29	M	3y 7m	LE In-house Design (ICT)	Industrial Designer	2y	S
ID3	29	M	2y	LE In-house Design (ICT)	Industrial Designer	2y	S
ID4	31	B	8y 3m	SME In-house Design (Furniture & Household)	Industrial Designer	7y	M & 1C
ID5	25	B	2y 9m	SME In-house Design (Infant & Children)	Industrial Designer	2y 9m	S
UI1	31	M	5y 8m	LE In-house design (ICT)	Interface Designer	2y 3m	S
PM1	29	M	5y	Design House	Project Manager	3y	E
PM2	33	M	9y	Design House	Sales Manager	7m	S
DR1	31	M	5y	Design House	Design Researcher	3y	S
PS1	35	B	9y 6m	Personal Studio	Freelanced Designer	1m	S
DP1	36	M	12y	Design Promotion Unit	Head of Industry Consulting	10y	M & 2C
DP2	35	B	11y	Design Promotion Unit	Design Commissioner	3y	S
DE1	45	M	25y	Art & Crafts Program in Senior High School	Teacher	12y	M & 2C
DE2	40	M	17y	ID Dept. in University	Lecturer	14y	M & 2C
DE3	37	D	8y 6m	ID Dept. in University	Assistant Professor	2y 6m	S

[1] B: Bachelor degree; M: Master degree; D: Doctoral degree
[2] y: year; m: month
[3] SME: Small and Medium Enterprise; LE: large enterprise; ICT: Information and Communication Technology
[4] S: single; M: married; C: child; E: engaged

Some interviewees formerly studied such related subjects in the senior high schools; some were influenced or persuaded by their relatives or family members with design backgrounds; some learned the ID field through flyers when they had to choose a subject to study in a university; some are interested in painting and arts since childhood. In sum, 15 interviewees entering ID programs are not necessarily because they are interested in ID but they all move forward in this direction after graduation.

15 interviewees held various reasons for choosing their current jobs. Some are interested in and feel achieved on the contents and natures of the jobs; some would like to have job flexibility and stability for taking care of family or fitting their own personalities. For most industrial designer interviewees, they are very interested in product design. Also, they are enthusiastic and having a sense of achievement when products are created from zero to realization. UI1 studied Usability Engineering at a graduate school and thus has entered into and stayed in this field to become an interface designer until now. DR1 was invited by an acquainted boss of a company after graduation; the work content is quite challenging and interesting for her and also matching what she studied. PM1 and PM2 thought they were average in designing abilities but highly interested in management during the school year. Also, they were outgoing and enjoyed participating in public affairs in the school. PS1 was employed as an in-house designer, prefers a diverse lifestyle and decided to become a freelancer now.

DP1 and DP2 are engaged in design promotion because they believed that they could meet many people from different fields. In addition, similar to some government organizations, working in design promotion units is more stable and able to meanwhile take care of family and job. Before becoming design teachers, DE1-3 worked as designers in industry. DE1 switched her career in academia because she would like to spend more time with children and share her rich design experiences with students. DE2-3 believed that the flexibility and autonomy for design teaching allow them to plan their own contents of teaching and take care of both design practice and research.

3.2 Work Contents and Required Qualifications for Current Jobs

To understand what relevant work women in the ID profession can be engaged in, work contents and required qualifications, 15 female ID workers with different job titles from various organizations and industries were selected. The work contents and required qualifications for current jobs are summarized as Table 2. For most (industrial) designers, their main task is to initiate design proposals. However, due to the diversity of tasks, the work contents and the requirements of knowledge and skills are slightly different among five industrial designers. On the other hand, the work contents and required qualifications for interface designers, project managers, sales managers, design commissioners, the senior high school's teacher, the lecturer and the assistant professor in the universities are obviously different.

3.3 Difficulties and Adjustment

Females face many difficulties and frustrations at work. When they are making a choice between jobs and advanced studies, they may go for their dreams of advanced studies, with support from their family, and decide to leave the job market. On the other hand, they may choose to give up advanced studies and continue to work due to a short of financial support. Some females are caught in the bottleneck at work because of deficient ability, e.g. lack of design ideas, inability to communicate independently due to language barriers or lack of progress due to long-term employment. In light of this, they will try to learn new knowledge through reading newspapers and magazines for constantly building up their professional competences, thereby reducing the possibility of being replaced in the workplace. Some females will choose to accommodate to their husband's work or lifestyle and give up the life she would have otherwise pursued when they have to decide between their marriage and job. On the contrary, PS1 is very career-oriented and insists on her ideal and will not give up or compromise when it is in conflict with her marriage.

3.4 Advantages and Disadvantages for Female ID graduates

Females' perceptual character, including their empathy of matters and willingness of listening to others, can make them to image user experiences and thereby understand consumers' needs. Females can also engage in the related works of ID, such as marketing, planning and management, etc. However, females tend to be self-handicap and succumb to traditional Chinese norms, makes females less open-minded for exploration. Some interviewees have experienced the doubt and stereotypical thinking cast on the recognition of female's work attitude or capability. In addition, females may be affected in their employment seeking and promotion when they are of the marriage age or will get married. Comparing with males, females in general have less stress-resisting ability and will be easier to be affected by emotions. Some interviewees also indicated that female's 3D software capability, logicality and extensity seem weaker than male; and females are generally not good at mechanism design. Other disadvantages for female include the difference in salaries- male's salary is higher than the female with the same positions; females are affected by their incapability of looking after work and family at the same time. Nevertheless, such situation occurs not only in the ID field but also in all industries.

4. Conclusion and Suggestion

There exist a multiple of career choices for ID graduates, such as industrial designers, design researchers, project managers, design promotion staff and design faculty, etc. There are specific work contents and required

Table 2 Work Contents and Required Qualifications for Various Titles

Code	Type of Organization & Industry and Title[1]	Work Contents[2]	Required Qualifications
ID1	SME In-house Design (ICT) Industrial Designer	Proposing design projects, Communicating with CAID to confirm the production drawings	Designing ideas, Ability of observing, Capable of discovering problems, Alias
ID2	LE In-House Design (ICT) Industrial Designer	Proposing design ideas, Analyzing & Writing documents of surface processing, Analyzing mass production with mechanism engineers	Designing ideas, ProE, Ability to communicate with engineers
ID3	LE In-House Design (ICT) Industrial Designer	Executing design research, Proposing the design ideas, Mass production affairs	Language ability, layouts, 3D graphics software, ProE, Ability of communicating and coordinating
ID4	SME In-House Design (Furniture & Household) Industrial Designer	Proposing the designing projects, Going to the model factory to confirm the products	Basic graphics software, Knowledge of processing and assembling, Understanding of how to detach modules
ID5	SME In-House Design (Infant & Children) Industrial Designer	Estimating costs for products, Developing mechanism with engineers, Supervising sampled products, Surveying the markets	English, Layouts, 3D graphics software (Alias, C4D)
UI1	LE In-House Design (ICT) User Interface Designer	Planning user interfaces, Giving suggestions to develop interface hardware, Making product operations of user behavior, Producing UI flow	Research methods of Usability Engineering, Understanding of interface design, logics and system design,
PM1	Design House Project Manager	Expanding the business, Maintaining the relationship with clients, Handling the process and quality of projects, Controlling budget	Good at communicating, social interactions, Understanding the design process, Sensitivity
PM2	Design House Sales Manager	Expanding the business, Managing design services, Selling own brand products	Logic, Oral ability, Outgoing, Leadership, Knowledge of designing
DR1	Design House Design Researcher	Researching daily life of users, Concept design, Leading strategy and direction in an innovative way	Design thinking, analyzing and observing, Capability to respect user needs
PS1	Personal Studio Freelanced Designer	Innovative designs on products, Designing projects	Passions, Design experience, Ability of communicating and social contacting, Distributing human resources, Sincerity
DP1	Design Promotion Unit Head of Industry Consulting	Assisting the industry to transform and to hold design competitions, Planning promotions of exhibiting abroad	Passions to design, Ability of consulting, planning, communication, Pressure handling
DP2	Design Promotion Unit Design Commissioner	Promoting the business and planning projects, Providing customized services	3D graphics software, Communication skill, Proposal writing
DE1	Art & Crafts Program of Senior High School Teacher	Training students' professional skills	Passions to and experience of teaching
DE2	ID Department in University Lecturer	Teaching, Execute design and research projects	Lecturing, Design experience, Researching and practical skills
DE3	ID Department in University Assistant Professor	Teaching, Design knowledge and skills, Executing design and research projects	Passions to teaching, Ability to answer the questions, Design experience

[1] SME: Small and Medium Enterprise; LE: large enterprise; ICT: Information and Communication Technology
[2] Computer Aided Industrial Design

qualifications for the various job titles related to ID. Majority of the interviewees are satisfied with current design career; however, most of them think that it is not easy for women to be balanced between work and family. There are traditional moral norms in the Chinese culture, and they often limit women's self-concepts to pursue their own careers and achievements. Based on the findings, those who are working within design promotion organizations or education institutions seem to be stable and not changing their job ever. Further studies can be conducted to establish female role models in the ID field to explore their factors of success and career paths starting at female students.

Acknowledgement

References

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