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Enhancing professional development of internee through reflection in textile & apparel design

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Abstract. Although our society is most dependent on the services of professionals, still the professions are facing problems with the reliability of knowledge in individuals. As there is an element of uncertainty in the minds of professionals. The same problem is being faced by design industry professionals. Juniors and students who have to ultimately work in an organization as professionals are so confused with the demands from the designers to fulfill needs of the tentative profession. Students of design often ask questions about their ability and power to take sound and responsible decisions to make an effective design to influence design industry. Students are aware of the complications of the design process, which follows a complete step by step process, from transforming an idea to a design of value that serves manufacturers as well as consumers. Designers have the responsibility to create aesthetic and functional design as well as to keep focus on sustainability and ethical side of design.

Keywords. Enhancing professional development, internee, textile and apparel design

1. Introduction

Although our society is most dependent on the services of professionals, still the professions are facing problems with the reliability of knowledge in individuals. As there is an element of uncertainty in the minds of professionals. The same problem is being faced by design industry professionals. Juniors and students who have to ultimately work in an organization as professionals are so confused with the demands from the designers to fulfill needs of the tentative profession. Students of design often ask questions about their ability and power to take sound and responsible decisions to make an effective design to influence design industry. Students are aware of the complications of the design process, which follows a complete step by step process, from transforming an idea to a design of value that serves manufacturers as well as consumers. Designers have the responsibility to create aesthetic and functional design as well as to keep focus on sustainability and ethical side of design.

Designers are the dynamic drivers of design process who use their knowledge, experience and intuition to take through the design process in a direction where solution comes out in form of a desirable outcome Boling (2008), Cross (2011). Each design relies strongly on designer that how does he use his knowledge and experience to make a judgment about design process, and that is very personal and cannot be separated from design process (Nelson and Stolterman 2012). Design knowledge emerges from each person's history of design consequences and

design matters of choices both directly practiced and observed. Because this history of design associated with a designer is asset of an organization with which he is working for, so this can never be denied.

Reflection is what allows us to learn from our experiences: it is an assessment of where we have been and where we want to go next. Kenneth Wolf cited by Barbara(2012).

Contemporary design process is having to place greater emphasis on plan, knowledge, communication, use, and social impact, but value and meaning are getting less focus that are embedded in the design (Friedman, 2012; Margolin, 2002; Norman, 2010). Whenever design process takes place, arrangement, knowledge and making a design always get more attention. But in this process meaning making and value that has to be added in society through the design is not kept under focus. In our design community, and an era of competition in contemporary design everybody seeks to have a high dilemma of exquisation. This is may be due to the reason that the traditional form for design practice put very little emphasis on the response of end user contribution and completing the process of design through action and meaning making (Kimbell, 2012), it also suggests that design might be understood in a better way. For instance, designer would have to act as facilitator for social action, rather than developing a product only but also to serve that product for consumer. The consumer is a vital part of the design process and how they use, incorporate, and individualize a design (Kimbell, 2012). The designer and the consumer are two main parts of the design system (stakeholders)' (p. 10). That is why an ethical practice is required where designers are more prioritised than the designed objects. Designers must be concerned with the idea of effectiveness, that what they are developing is most suitable according to demand of consumer according to their demand.

2. Background

In the design process, Designers act as reflective participants (Scott et al. 2007; Valkenburg and Dorst 1998). Schon(1983) describes that whenever designers reflect on the strengths and weaknesses of the design while it is in progress, it always have a reflective communication in process. Unless realizing what they are doing and what is required and either their work is meeting the demands or not is very important for designers to understand. In the traditional setting of design process, designers laid more focus on making an end output, without knowing its strengths and weaknesses. Less focus is kept on the utility and user friendliness of product. In this matter growth of both organization and designer is being affected.in such setting designers deal with inherited ill-situations in an organisation of uncertainty, instability, individuality, and conflicted values. To realize designers having a reflective conversation in design process and interacting in each design step, design thinking routines always points to reflection in each design practice (Adams et al. 2003; Atman et al. 1999, 2005; Ball et al. 2010; Cross 2011; Goel and Grafman 2000; Guindon 1990; Scott et al. 2007; Valkenburg and Dorst 1998), mainly to reflection-in-action (Schon 1983, 1988).

3. Purpose of Study

As an industrial designer, I have observed that the practitioners (particularly fresh graduates and internee Designers) do not think about what they are doing at their workplace. So they may be drawn into the error which cannot be corrected until they realize what the requirement of work and what are they doing. So I think reflection on practice is an essential element to enable experiential learning for professional development. As some writers argue that; as adults, we cannot learn from experience without reflection (Smith, 1998; Burnard, 1991).

Significance of Reflection

Students and junior designers generally perceive that the focus in professional learning is only on producing an artifact. But creating critical understandings about practice both through action and reflection on it is very important and much needed in today's contemporary design process for our professional development (Schön, 1983; Bailey, 2002; Drew, Bailey & Shreeve, 2002). As reflection is the central aspect in idea generation that needs to be addressed is the deep process of conceptualizing the situation and reflecting on. This study will contribute to the design professional industry where importance of reflection will be realized and would see the possibilities in which it can be incorporated in a professional setting for development of system and also better learning of junior designers and internees. Who come with a fresh mind and they feel a gap when they directly go from academics to the professional life, hence feel difficulties in meeting demands of work (Moon, 1999b).

4. Research Question

- a) How can reflective practice be integrated to enhance the professional development of internees of industrial textile design department?
- b) What can be the effects of reflective practice on the professional development of internees in the industrial textile design department?
- c)

5. Literature review

Reflective thinking has been used as educational tool since long tradition in education practice. Dewey's conception of reflection emphasized on holistic learning for students to bring in reflection, free from the outside structure, on the other hand other scholars have supported novices in acquiring reflective skills. Generally it is seen that personal life of a student or professional is kept aside and are expected to give desired results. In this way goals are hard to be achieved. Because students cannot participate in activities as a whole when their prior knowledge and experience is kept aside. because student or professionals personal life are very important to be acknowledged for their better learning and understanding. So this is how holistic learning is important. And it should be implemented in both educational setting and professional setting. For example, Whipp(2003) performed an experiment with students to learn holistically in one of their online course. They were asked to share their personal experiences and their implementation for a certain task. And it came up really good, because when students involve their personal lives, they get to learn better.

Thus reflective practice is for sure a central feature of design thinking that set design as thoughtful activity to solve problems and get solutions as well as the possibility of conflicted values (Cross 2011; Lawson and Dorst 2009; Lowgren and Stolterman 2004). In this way designers take responsibility for the effects of their decisions rather than handing off responsibility to a single process or theory for a quality outcome (Nelson and Stolterman 2012). Designers are considered as integral part in process to successful design, where they put their role as active and change bringers by inserting their own experiences, perceptions and interpretations to the situation. Through transactional process of reflection, designers refine both their personal skill and perspective and also potential solutions to design problem (Tracey and Boling 2013). Reflection serves as the dialogic bridge between the designer's knowledge and design making for a problem by implementing their personal set of precedents, so it provides a facilitation for judgments, actions and decisions.

According to Schon, the practitioner approaches each situation in a unique way and not looking for standard solutions and implication of standard theories. Commonly, problems need to be solved in a reformulating way by planning an intervention. Hence reflective practice provides

an investigation eye to what they have practiced and also enhancing skills of evaluative analysis and getting ready to respond to new situations. In this way designer would be able to analyze the appropriateness according to demand or problem what they have designed. When this practice been repeated this way, can get very competent solutions to design in future (Schon, 1983). A profession comes with diverse situation that a designer has to face, so learning designers want to make sense of their own knowledge and skill and critical reflection is the best tool for it. From which they can diagnose their positions. Schon's ideas have been highly influential in design academics of professional preparation.

Emerging designers who are just starting to build design precedents and they do not get many opportunities to engage in reflection-in-action. That is why they have to face problems when they work in industry setting. They feel a gap between what they have learnt in their academic career and what they have to do in an industrial setting. So it is observed that mostly this is due to lack of reflection, that designers do not look at their strengths and weaknesses of what they are making. If acknowledgment is done at each level of design process, better results can be obtained (Atkins and Murphy 1993; Cross 2011). A research conducted with design students who demonstrated reflective practice, worked more positive effect in helping students to accommodate new experiences while providing a structure in professional knowledge towards a construction (Tillema 2000).

6. Methodology

a. Methodological approach

Qualitative research is quite a vast field. The most popular methodological approach in qualitative research is the protocol method. It is widely accepted in the domain of engineering and technology and also covers many design disciplines including fashion and textile. The reasons for this recognition might be the bond of textile & fashion design with the changing technology. In the past two decades, even fields like science and technology acclaimed the human involvement in the design process. In design studies and research techniques, it became significant to discuss that how and why design happens? What are the factors which influence the development of any design (Wallace and Hales 1989, Kennedy 1997)?

This type of studies is known as 'The ethnographic approach.' It is related to the written description of various circumstances, factors and behavioral patterns of a group. Purpose of this approach is to elaborate the details and comprehensive study of cohorts in certain conditions. Observations can be based on planned or unplanned activity/activities. Different situations can be developed or observed by the researcher. Instead of sitting outside, The participant observer enters the circumstances, experienced by the respondents or becomes an element of the people under observation.

The present study is based on qualitative analysis of progress, development and skill acquisition of the two groups of the designers. Observations are semi-structured based on discussion with respondent and feedback from an expert designer. The research method Research was based on primary data and was exploratory. The un-structured questionnaire was also used to support the result.

The presented study is the example if mix method approach. An experimental method is used with the combination of case study method. Case Study is the collection and presentation of detailed information about a particular participant or small group, frequently including data derived from the subjects themselves. The experimental method includes the comparative analysis of Control Group(CG) and experimental group(EG). The study will be quasi-experimental, with a pretest/posttest comparison group design.

b. Settings and Participants

The research was conducted in a design studio of an apparel brand based in Lahore and have various outlets across the country. The identity of the brand is not disclosed due to confidentiality purpose from the company. But the reached gained formal approval from the competent authority before conduction of the research. The brand will be addressed as Brand S in the study. Brand S mainly deal with various apparel products of women's wear. The purpose of the design studio is to generate ideas for the production of the apparel products. These products comprise of Trouser Shirt(Kurta Shalwar), shawl(Dupatta), tops, tunics and other bottom lines. Brand S has the technical facilities for dyeing, printing, and embroidery. Digital processing has also been used in design articles. Design studio creates ideas in the mode of manual arts works and digitally manipulated prints for the production. It is generally said that a competent designer should have the aesthetics sense, skill to the manipulate idea through any technique(i.e., drawing, painting, Computer software) and technical knowledge of his/her domain. The design studio has the hierarchy of designers and design consultants or managers. Senior designers usually generate ideas through existing and future trends. Master designers create the plans, and junior designers render or regenerate the ideas of senior designer. Companies hire internee designers as well. According to my perspective, the intention of appointing the internee designers are social responsibility o the companies so they could contribute and liaison with the education system. Another purpose of this initiative is to acquire fresh ideas from the fledglings. Creativity in design is subjective, and novelty could come from anywhere. So according to my experience, internee designers are given freedom to explore their maximum potential. They generally do not follow the patterns and layouts confined by senior administration. This phenomenon motivated me to select internee designers for my study. Internee designers are mostly undergraduates' students of textile and fashion design programs. It is mandatory for them to pass their four-semester so they could absorb the industrial culture. For the present studies, I took a sample of 8 internee designers(IDs). A sample of convenience comprised of 8 internees will be used. I involved all the IDs available from April 2018 to May 2018. IDs were segregated into two groups. There will be no gender limitation in the study. Age group of the respondents will be 20 to 25 years. All of them are enrolled in four years' bachelors program.

c. Activity

The total duration of the activity is six weeks. IDs are divided into two groups. On group is treated as Control Group(CG) and other as the experimental group(EG). By general tasks and requirement's of design studio, two works are planned with the consent of senior designer. Initially, the first task was assigned to both the groups.

A large number of the IDs were new to reflective written work, so EG group members are initially trained for reflective practice. So reflective composition assignments included specific prompts to give IDs framework for investigating issues identified with their characters as designers. This kind of organized reflective composition could be a helpful for the participant as they endeavor to explain and externalize convictions, encounters, activities, thoughts, and feelings that were beforehand inner and may be oblivious or then again unexplored.

A task was included designing conventional apparel articles. All the participants were given a brief introduction about emerging trends including the technical knowledge required for the assignment. Both the groups were provided identical material and resources for reference and practical work. The first task was based on three weeks. Control Group(CG) traditionally proceed in their work. They took references from the market trends and completed the task through drawing, rendering, and computer-generated designs. The Experimental group(EG) also gone through the process above but with the reflection on their work. Reflective activity

includes three tasks per week. One task is related to reflective writing about their work. The other tasks for CG included verbal sharing of the experiences with their colleagues and senior designer.

Generally, following steps are being followed to create a design

- a. Stages of readiness and planning that include: Concepts and essential investigations (Any examination and trial of the thought and affirmation of the likelihood to financially, naturally, lawfully and socially completing them).
 - Taking the choice to the legitimacy of the thought and its probability.
 - Preparing the work design.
- b. Phases of completing the outline, include:

Stages of the plan (This originates from an informative investigation to break down an example of the item and the general and uncommon specialized requests of the client, and configuration requests).

Processes of outline where the essential plans of the thoughts are made, at that point assessing the plan choices and survey of the essential outline and designing records. Design yields. In this procedure, the essential outline of the last plan is made, and the asset reports are evaluated.

7. Assessment and Rubrics

I mentioned before that activity included two phases. The First activity is of three weeks which covers completion of one design based on the requirements provided by the senior designer. After the first Phase of activity, there was a week break for design evaluation. The other task was of two weeks in which both the groups were assigned another task. The second task was similar to the first one but with different technical and inspirational requirement. The design was analyzed on the following basis by the senior designer.

Meeting the requirements: Is the design meet the basic requirement defined in the assignment instruction

Performance & Special features: Is the designer proposed any quality which enhanced the performance of the product

Conformance: Is the Design is according to customer requirement and emerging trends in apparel and textile

Aesthetics: These include tangible properties such as; the external appearance and other properties that the consumer desires.

Based on the above-mentioned parameters, designs of two groups were evaluated by the two expert designers. A duo of analysts included two senior designers, all of who were have minimum five years' practical experience. All participants design critically analyzed reactions by two of the underlying commentators; each analyst surveyed all designs. In this manner, each creation was studied by two evaluators and aggregate of both feedback was considered for final result and discussion.

An informal discussion with all the participants was held to evaluate their cognitive thinking regarding development of the design. The discussion was based on the query about following points

- Concept and Inspiration
- Pattern & Fit of the apparel product
- Material
- Innovation in Design function
- Customer requirements
- Aesthetics

- Target audience
- Garment construction
- Background research
- Concept & Communication
- Drawing and rendering
- Design research
- Details
- Time management
- Computer skills

8. Result & Analysis

Now and again it appears that textile Designers are completely different in their manners of thinking and standards. Textile designers are exploring different avenues regarding fiber building utilizing textile innovation and physical capacities while customary textiles still appear to be content on creating various designs even following the same conventional determination, yet it is in certainty basic that they are intuitive and remain so. I observed the difference in attitude between the two groups of designers.

CG wait for clarity. EG take action

You need to comprehend what you are before you can make sense of what you need to do. Mindfulness is an imperative piece of life, and it's particularly vital for creatives. Since such a large amount of what you make is fixing to your identity, you need to get clear on your personality. There's a correct way and a wrong approach to this. According to my observation and experts opinion (EO), a professional designer should play out our way into the polished methodology. A designer should first call himself/herself what we need to wind up, and after that get to crafted by management

Your confidence originates from recognizing what you are, and what are you doing. Reflection on your work follows up on that learning and confidence. It is evident from the presented study that CG act apathetic as compare to another group

Working on completion Vs. Working for improvement

According to perception, the attitude of the internee towards the assigned task varied. CG is more focused towards completion of the job. During the discussion, they emphasized on timeline and requirements. Contrary to the EG seek improvement on various steps of the assignment. Because of the reflection, they became aware of their pros & Cons which motivate them to improve in various ways.

Meeting the requirements

It is evident from the designs of both groups that are meeting the requirements of the task id the primary focus of both the groups. Segregating the difference of magnitude between various students is difficult. There is one observation recorded by one expert designer that CG group acted more rigid in the assignment boundary as compared to EG. The reason may be the significance of reflection on the work. When designer follow their work, they explored new dimensions and possibilities of the solutions

Performance & Special features

According to Expert's opinion, suggested designs of CG are more efficient in design in the context of performance and proposing special fealties in their products. One of the designer proposed involvement of technology in the products. This aspect was not noticeable among the designers who did not reflect on their work.

Conformance

Clarity comes with the discussion. According to the general feedback of the designers, verbal debate enhanced their understanding of the market and customer requirements. Not only the study of the market on the continuous basis but the internal feedback played an affirmative role in enhancing Conformance in the design activity

Aesthetics

Aesthetics is one of the most critical phenomenon in the creation of the design. Designers are trained to resolve the problem in a visually appealing way. According to Expert's opinion, Aesthetics of both groups didn't effect during the two activities. The reason might be the time frame of the events. Six weeks are scarce to evaluate this factor.

9. Conclusion

There is a selection of theories on reflection in the education literature. The implication this brings to practitioners is to recollect while and how they share as a part of their continuous getting to knowledge cycle. Similarly, whether the act of reflecting thought ought to be executed on my own or as part of a group or both will want to be installed. There are more than a few methods to reflect which consist of techniques like journal writing, discussions and use of generation inclusive of blogs.¹⁵ there are additionally various factors to be taken into consideration, for instance, man or woman perspective, crew dynamics and societal impacts. Ultimately, the intention of reflection might be to enhance practice and analyze from relevant reviews. It's far apparent that this comes from being an analytical reflector and shifting beyond original description. As literature shows, it is beneficial to recognize the emotional influence and mission of one's thoughts. In broader studying terms, it is also helpful to recall the relevance of earlier enjoy.

Reflection on action complements individual improvement by leading to self-cognizance. If the point of interest of reflection is development in the design process, it helps to amplify and broaden know-how and abilities. Reflection has been reckoned to sell most effective effectiveness and efficiency in an ever-evolving and complex design management through practitioners auditing their very own work. Reflective practice reminds amateur designer that there may be no end factor to studying about their private practice.

As part of the reflective process, reflection offers some opportunities to mature. First, it makes professional development more meaningful because it ensures designed to act on their learning. Second, reflection allows the code to become the focus of practice and improve quality of design work, Finally, reflecting on practice increases self-awareness and motivation to make improvements.

10. Limitations

The sample size is small, and the result may not be implemented on the population. The study will focus on the professional development of internees in the available environment and resources. Educational background of the respondents will not be considerably deliberated.

Time constraints is another limitation of study because one task might not be sufficient for valid results.

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