

Creativity in Design Education

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ABSTRACT

Creativity is about unusual or surprising to create an environment that allows for creativity to emerge. This requires abandoning a rule driven environment and replacing this with more flexible structures and practices that allow the room for something novel and new. The present day education gives undue importance to memory and theoretical aspect of knowledge. Over the spirit of originality, creativity should form the focal point for the design education now. Today the role of design is fast changing from that of being artistic and creative to that of being innovative and strategic, from that of being just beautifiers to that of being different, creating utility and value. In this context, the function and nature of design education has changed too. The traditional, learning by doing methodology has to be complemented with learning by thinking as well. Stress needs to be given to the modes of teaching that transform and affects the minds as much as or more than the hands. This can be possible only if the curriculum is reframed so as to adapt to changing paradigm.

Introduction

The meaning of creativity is the *ability to create*. In words of De Bono "Being creative means to bring into being something that was not there before". It requires developing those skills, which changes one's perception and brings about flexibility in thinking. According to Thomas, creativity is not something limited to the domain of Art and Design, it is often thought of as an ability to think of alternatives.

Creativity is a thinking process associated with being original, generating different ideas and finding alternative possibilities. It

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requires the ability of taking risks to get away from usual routines or breaking rules, being imaginative and learning progressively through one's own mistakes. Creativity involves making unusual associations or new ways of looking at things. Hence, creative thinking process involves getting away from routine, breaking rules and being imaginative and last but not the least a nurturing environment for bringing forth flexibility in thinking and paradigm shift.

Approach in Design Education

There are different approaches for developing creativity like pragmatic approach – concerned with developing creativity with methods like De Bono's lateral thinking, Osborne's Brainstorming, etc. Psychometric approach – dealing with testing/measuring everyday creativity with Guilford Torrance Test. Cognitive approach – concerned with understanding the mental representations and processes involving a generative and exploratory phase using processes like retrieval, association, synthesis, transformation, etc. Social personality approach – dealing with personality developments in context of setting up of an environment that encourages creativity. When creativity enters the industry it becomes design (Betala, 2004).

Proceeding on the assumption that design aims to create something different from what already exists. There is still a noteworthy dominance in design education of technical, methodological and semantic knowledge following the principles of logical deduction and rational optimisation techniques. But information about concrete design projects and specialist's knowledge are not enough to create innovative design solution in our rapidly evolving world.

Boden (2004) and Csikszentmihaly (1996) do not attribute creative success to natural talent rather instigates initial interest in a domain and it is not simply hard work backed up by genuine interest rather it is openness to experiences that produces creativity. Guilford (1967) captured the idea of creativity by proposing that it involves divergent thinking rather than convergent thinking. Brainstorming is one of the ways of divergent thinking and is most effective with a large number of people working independently (Ofsted, 1995).

Reviewing at Design Education

Creativity is more of an attitude and an approach rather than skill (Mehta, 2005). Though most design schools do not teach creativity as a separate course, which leaves a lot to chance. Today the

emphasis needs to be placed to affect and transform the minds more than hands.

Consumer characteristics, such as unwillingness to follow established norms, sophisticated and individual tastes coupled with intense global competition, requires innovation in all aspects of design. The importance of innovation with respect to product highlights the re-emerging importance of design and designers. As a result, the role of design education has evolved to equip the designer with the means to meet the needs of competitive and discerning market. This involves the responsibility on providing the students with capabilities beyond traditional and formalised product development strategies.

The successful educational programmes need to support the learner in fully capitalising on their creative potentials. It should allow them to discover their own strategies and approach to the development of ideas, encouraging independence of thought. This can be achieved if consideration is given to the curriculum structure, student-teacher relationship, reward recognition and implementation strategies that will enhance student experimentation and growth. Emphasis should be placed to enhance creativity in an educational environment and those strategies that promote independence so that student will take these skills into working environment.

A fashion design must not only possess comprehensive design capabilities supported by thorough knowledge of material, cut, construction, performance, market considerations and fashion but also the knowledge what fashion critics consider to be good development in the field of fashion.

India has a tag of being the manufactures of fashion and not a provider of 'design service' for international market. With the rapid changes in post quota phase, the country needs to prepare on all fronts, i.e. designing, productivity, quality control and delivery to be competitive. The educational institutes need to bring these exigencies into classroom to prepare future designers for such a scenario. Fashion in India needs to establish its identity that is rooted in its unique image, yet be global. India has been known and recognised for traditional skills in embroidery, weaving, and handloom has been the most predominant of all. The time has come to realise the potential for which academic initiatives could gather industry around structuring and implementing initiatives.

The institutes must reframe their curriculum so as to adapt to the changing paradigm. Earlier role of designer, however, was limited.

to that of an interpreter of designer or sample coordinator or merchandiser as a result the training provided was mainly focussed on technical and business understanding with some measures of fashion communication. But the present challenge for upcoming design professionals is to demonstrate their personal design philosophy, design intelligence, and perpetuate innovation and creativity along with understanding the global market and adapting technology.

Fashion design is already one of the most popular ironically not yet well-understood applied design stream. Foremost stands out the perception that it is a glamorous field and offers easy opportunities for anybody without realising the challenging role of designers. His specialty and peculiarity recognise a designer. For achieving this, he has to think newer ways and means. It is his different thinking, which makes him recognisable.

Csikszentmihaly (1996) suggests that the rules of a domain must be understood before the individual can be creative because creativity requires altering the rules with deliberate intention. He suggests that possessing a rich and sophisticated database of knowledge and ideas as a result of extensive exposure to the domain allow the individual to show from broad and diverse sources and re-work them with new insight.

According to Lawson (1986), De Bon (2000) and Dorst, design innovation is primarily the result of a system of possibilities that create hypothesis and new visions. The production of new combinations of unexpected and uncommon responses is the cognitive ability of a life system, which is defined as creativity. A creative designer is the one who has vision and imagination and who makes connections between previously unassociated ideas and concepts. Because of this, as well as analytical, analogical and synthetic thinking, the designer operates through the way he sees.

Perception in Design Education

Oxman (2002) distinguishes between two levels of usual processing: low level visual process is applied to perception as a transformation process of sensory information into a model of real world. High level vision by comparison contributes to the understanding of the properties of the perceived object, involving previously stored information and is also known as visual cognition.

The basic skill in creation of new design is through perceptual reasoning, i.e. what the designer notice with all the senses, how he

interpret a situation, how analogies to other knowledge domains are made and how design solutions are developed. Hence, today design is more of a mental skill than physical one.

The design students need to go behind the senses to understand how perception happens, to see inside the senses and the seat of all perception – to explore, experiment and experience the anatomy and physiology of perception. The students need to be taught to understand the perception to perceive themselves, others and environment better. So that they can develop the sensitivity that helps them experience better and facilitate others. Therefore, topics like perceiving perception needs to form an integral part of design education.

In case of fashion, creative design may involve design modification that is evolutionary in nature and include the ability to manipulate proportion, colour and/or silhouette to create a new twist to an existing style. Otherwise it may require more explanatory ideas that create a big shift in fashion style.

Csikszentmihaly (1996) identifies nine elements of enjoyment as an extension of the creative flow process that have important implications for educators. They are:

- There are clear goals at every step of the way.
- There is immediate feedback to one's action.
- There is a balance between challenges and skills.
- Action and awareness are merged.
- Distractions are excluded from consciousness.
- There is no worry of failure.
- Self-consciousness disappears.
- The sense of time becomes distorted.
- The activity becomes autotelic or an end in itself.

Csikszentmihaly (1996) suggested three dimensions – fluency, flexibility and originality for promoting divergent thinking.

- Fluency results from deliberately coming up with as many ideas as possible without being discerning about its worth.
- Flexibility results when the student learns how to establish new idea paths and deliberately looks for diversity.
- Originality results when students are encouraged to think out of box, to come with absurd or deliberately unlikely solutions.

These strategies encourage students to put down ideas without fear and often these ideas provide good foundation for further

design development and assist students in developing creative thinking.

Hence, the conscious use of perception in design and its training allows students not only to significantly improve the originality of their final design but also to improve their working performance and their understanding of the diversity of life experiences. As a base for all creative thinking, introduction of cognitive approach in design education is a must. In each design thinking process, the student should carry out several exercises where they can feel and try out different thinking processes that they had felt during different working period. They should be assured of the influence from the environment and dynamics of the team with which they work. The capability to observe oddities and ambiguities is the foundation for the creative thinking attitude.

Curriculum Revision

Henceforth, curriculum structures must be supplemented by creativity promoting techniques and delivery strategies. Therefore, while delivering content on the use of domain such as design theory it is important that the student is able to explore the potential of the theoretical elements being discussed. For example, when analysing lines, the student should be made aware of the existing and potential influencing factors of lines to explore their own emotional responses to line and experiment with their own design ideas in response to line. A similar approach should be used to transfer knowledge across skill. Experimentation is also important for creativity development. The students should not just focus on finished product but on the process of experimentation so as to explore ways to be really creative.

To promote the effectiveness of this strategy and content focus, the teacher should not choose to tell the student what the expected outcome is. Instead guide him/her along the undirected path thus, focusing on process and not the final outcome. This will encourage students to explore their creative potentials.

Design thinking should involve both creative and analytical thinking in first year with emphasis being laid on putting these tools into practice. During consecutive years, instructions in thinking tools followed by practice and learning and later applying them in real world should be stressed upon.

The foundation programme should inculcate the development of values, attitudes and sensorial skills necessary for design specialisation. It aspires to create an awareness of changing

environment by constantly relating student's learning to real life situations. The programme should provide necessary direction, stimuli, facilities and experience to foster creativity and thereby help each individual discover his/her own identity, ability and potential.

Curriculum should be designed in such a way to address how mental skills like creativity and divergent thinking should be taught. This does not mean that old and traditional methods have to be replaced rather they need to be re-looked and re-oriented and complemented with newer methods to achieve the best of both tradition and modern.

The curriculum should be written to allow for flexibility and rules and regulations should be kept to minimum otherwise there will be no room for creativity to flourish. The curricula should foster learning through wide inquiry not merely through manually defined subjects. It must network with business organisations, educational institutes, social organisation and communities of people.

Teaching and Learning

The practical exercises should be carried in very informal atmosphere such as group-work, individual exercise or activities such as quiz, puzzles, educational film reviews, talks with practising designer, etc. These exercises are conducted in casual workshop with the purpose to make a mark in students memory, which could be retrieved or recalled for use anytime in future projects.

Most of the exercises in design thinking should be meant to trigger diverse ways of thinking, which could be further pursued and developed by the students in their future design projects. Students should be made to work on a variety of exploratory exercises focussing on different stages of creative thinking. One of the earliest models of the creative process is attributed to Graham Walls. He proposed that creative thinking proceed through four phases, i.e. Preparation, Generation, Incubation, and Evaluation.

Preparation includes starting with fresh perspective and if need be, re-defining the problem. Generation is to generate many ideas. In incubation individual is connected to problem sub-consciously even when not working on problem. Evaluation is evaluating the concepts through models/prototypes followed by selecting the best.

Thought process consists of following series:

Accept the situation ® Analyse ® Define ® Ideate ® Select ® Implement ® Evaluate.

To address the above issues and to provide adequate width and depth to the programme, Pearl Academy of Fashion, New Delhi modified their programme for gradual phase of developing skills in four-year duration course at four levels. The first level is planned as foundation studies with introduction to core design, technical skills, and liberal art and cognitive development. Level two and three are to learn business understanding. The level mature to independent learning. Level four initiate assignments to chart out guidelines for individual development and thus make pathway for the professionals to seek and establish a niche in the competitive market.

At Shristi School of Art, Design and Technology, Bangalore, skill building is the focus in first year and the application through projects, the focus in latter years. In the second year, students were allowed to interact with people in the field, which help in moulding their thinking quality. At final point, the students were asked to assess their work in addition to conventional method of teachers assessment. According to Kasturi, exploring new ways to teach design helps students in better learning. Teachers, practitioners and community at large balance and integrate the changing role of designers whose role is very different from that of the past.

Above all the importance of teacher cannot be overlooked. The attitudes of teacher are the most important characteristics of the inquiry environment. For such a curriculum the passion and philosophy of teacher plays an integral part in the education process.

Recruitment policies need to ensure that teachers are creativity focussed and possess the skills and personality to promote that to students, as teaching primarily is one activity where the output depends wholly on input.

Conclusion

Developing the perception in design thinking generates original ideas and practical solutions. The liberation from routine of perception is the basis of all innovation design. Hence, the curriculum in design education should be developed so as to create an environment that allows for individual experience so as to learn all important domain rules integrating experimentation and curiosity that foster the motivation to be creative.

Reputed fashion designers like Rohit Bal, Ritu Kumar, Rina Dhak learnt a great deal through market surveys and reports on various categories of merchandise and not through theoretical knowledge.

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