Chapter 18
Review of the Research on Design Education and Practices

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ABSTRACT

Since time immemorial, the space where teachers and students assembled for traditional learning was the classroom. But the internet has changed how people think about place, time, and space. The physical dimension no longer confines space; it also includes the virtual domain. Futuristic methods of teaching and learning have emerged based on improved cognitive understanding. As a result, the concept of a classroom has expanded and evolved. Spaces are no longer defined by their physical notions but identified by their intangible usefulness. Today, though technology and the internet have drastically reduced the importance of distance, space is still a crucial determinant for collaborative creative work. Building on the premise that the physical environment influences learning, this research intends to identify spatial characteristics that play a role in facilitating creativity and innovation, especially in the context of design education.

INTRODUCTION

Design

A specification of an object specified by an agent that aims to achieve a goal in a particular environment using a set of primitive components that meet the set of requirements subject to constraints. Here, specifications can be manifested as plans or finished products, and primitives are the elements that make up a design object (Broadbent, 1973).

Design is an interdisciplinary profession that meets several needs. Designers work in multidisciplinary teams, the type and composition of which vary from project to project. This makes it challenging to discuss a range of abilities or even particular knowledge areas. On the educational side, these will vary depending on the location and focus of the program and curriculum (Friedman, 2012).

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Objectives

- Recognizing the needs (physical, social, and contextual) of a design process in creative education to foster creativity.
- Identifying the role of the space in learning environments (design education institutes and design studios) to facilitate the design process in the context of creative education.

Methodology

- With the help of systematic empirical and theoretical investigation, we determine the pedagogical framework and methods and ascertain a design process's needs (physical, social, and contextual).
- Based on qualitative research, identifying the typologies and qualities of spaces conducive to creativity and facilitating student learning in the context of creative education.

Design Process

'You cannot hold a design in your hand. It is not a thing. It is a process. A system, a way of thinking.' Bob Gill, Graphic Design as a Second Language. Design as a system, a method for structuring the thinking process. Therefore, design is a process-oriented activity. The design process follows a schematic phase structure. Information and decisions made in one phase of the design process form the basis of subsequent steps. It typically goes back and forth between phases so that you can generate and solve ideas to develop creative solutions that meet the specified goals of your assignments. Each design area follows a specific process. The design process is inevitably cyclical. The design process helps ensure that the design meets all activities that serve both economic and design goals. This process creates several possible solutions and uses various techniques and mechanisms to encourage participants to think outside the box when looking for creative or innovative solutions.

Stages of the Design Process

The design process can be identified in the following seven steps:

1. DEFINE: First, one must define the design issues and the target audience. An accurate understanding of the problem and its boundary conditions can lead to the development of more accurate solutions.
2. RESEARCH: The investigation step reviews information such as design problem history, end-user investigations, and opinion-led interviews to identify potential obstacles.
3. IDEATE: Ideate is the phase in which end-user motivations and needs are identified and, perhaps through brainstorming, ideas are generated to meet them.
4. PROTOTYPE: Prototyping is a solution or modification of these ideas, submitted for review by user groups and stakeholders and then presented to customers.
5. SELECTION: Selection sees the proposed answers reviewed toward the design brief objective. Some answers are probably realistic however won't be the fine ones.
6. IMPLEMENT: Implementation includes design development and final delivery to the customer.