Design Thinking: Can Creativity Be Taught?

W. Cukier, W. Eagen, R.Bauer, O.Ngwenyama,

wcukier@ryerson.ca, ward@plop.ca, Robert.Bauer@rotman.utoronto.ca, ojelanki@ryerson.ca,
Ryerson University, [1]University of Toronto (Canada)

Abstract

"Design thinking" is an approach to problems that are difficult to solve with purely "rational" analysis because of their incomplete, contradictory, and changing requirements. Design thinking is iterative, emphasizing empathy, abductive reasoning, and rapid prototyping, and is characterized by loose boundaries and alternative solutions. Problems to be approached with design thinking may be as large as poverty, war or world hunger, but it is increasingly applied in entrepreneurial contexts. More and more, design thinking is seen as effective in resolving tensions between economic, technological and aesthetic constraints for marketing, advertising or the packaging of services and products. In an effort to capitalize on the demand for innovation, businesses are embracing "design thinking" as a strategy to harness and manage creativity. In response, programs are emerging at business schools, drawing on other disciplines that purport to teach creativity and related processes, but there has been limited evaluation of their effectiveness.

This paper explores the pedagogical models used to teach design thinking. It considers the design thinking process, which is multi-epistemic and draws on cognition, emotion, sensation, intuition, and other processes and skills. We ask, can design thinking skills be taught, and if so, how?

We present an operational model for design thinking in teaching and learning. We suggest that design thinking can be embedded in courses and even mainstreamed throughout educational institutions. Finally, we argue that engagement with design thinking results in graduates feeling comfortable rising to "creative" challenges, taking risks, tolerating uncertainty, working in teams, and succeeding in professional environments.