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# Experimental experience in design education as a resource for innovative thinking: The case of Bruno Munari

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## Abstract

Design education in general includes various design fields such as product design, graphic design, communication design and design in engineering. *Designing* as an activity captures all these various fields. *Design* refers basically to a problem solving method, a creative problem solving approach and relevant processes. *Design* as an activity has always been considered as a creative tool. Design education mainly focuses on enhancing creative approaches with various 2D and 3D project based basic design studies. As the tools of designing developed in parallel with technology, the core structure of the education is based on a model with creative and analytical aspects: *Designerly* way of thinking aims at originality and uniqueness. Today the need for innovation has become more evident than ever. The main purpose of the paper is to explore and to identify the relationship between creativity, innovation and design related to design education. Bruno Munari (Milano, 1907-1998) as a designer and a design educator, is one of the prominent names reflecting innovation and creativity in the history of Italian Design. His innovative contribution to Italian Design is reinforced by his experimental design educator background in research for creativity. The paper aims at exploring the educational structures through history of design and design education that leads to creative thinking and nurture sustainable innovation through the case study of Bruno Munari's works as a designer and as an educator.

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*Keywords:* Design thinking; design education; Bruno Munari; innovation; basic design; experiential learning.

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## 1. Introduction

Design as a term captures various fields such as; graphic, communication, fashion, engineering, architecture and product design. For each of the fields, the term performs a different content. Within the framework of this paper, the word, design refers mainly to the discipline of industrial product design. Design is defined as the conscious decision making process by which information (an idea) is transformed into an outcome, be it tangible (product) or intangible (service) (Von Stamm, 2003). Innovation during the 90's was barely related to technology and science as the outcome of the research and development processes. Since the beginning of the millennium the contribution of

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‘design’ for innovation and innovative thinking has become more evident, particularly for the business world. Innovation however is mainly related to technology, innovative thinking keeps a closer link to the design discipline. Innovation is considered essential in today’s business world, both for firms and individuals (Fixson, 2009). With the recognition of the increasing importance of innovation mainly for economic success, more attention is drawn towards the research to innovate. Today the core of the process of designing results as a core strategic tool for management and innovation. In 2008, *Harvard Business Review* allocated an article to design and innovation to drive forward the importance of ‘Design Thinking’ for innovation (Brown, 2008). Being a part of a whole creative process, designers are considered to be tolerant of ambiguity, ask questions, see possibilities, be divergent thinkers, risk takers and perceive the world differently (Von Stamm, 2003). Since innovation is associated with accepting high levels of ambiguity and uncertainty, original thinking, passion to drive the idea through to conclusion, willingness to take risk and the ability to inspire others, the overlapping characteristics of both of the fields warrant the bare link.

Since when the input of design in business as an economic value has gained attention, the two fields both in professional and educational ground have come closer to establish new models for innovation. Considering that a substantial part of product design and development involves creativity and iteration, it lends itself to being taught in an experiential fashion (Beard & Wilson, 2006). With reference to a recent research made on the teaching of innovation within the Product Design and Development education programmes in the US (Fixson, 2009), we see that majority of the design education programmes aim at educating inventors rather than conventional professional experts using educational methods less traditional, more explorative in nature and collaborative in style.

Some have described innovation itself as a constant learning process, which ‘moves its participants between the concrete and the abstract worlds’ (Fixson, 2009). Innovation is not a one time action or activity; it is a mindset therefore the educational system that leads to nurture innovative mindset needs to be explored. From this contemporary context, the situation offers a new vision towards design education. As innovative approach gains importance, we see the main problem arising as; *can innovation be taught?*

The evidence of the bare relationship between creativity, design and innovation needs to be underlined. Design education creates a mindset, a way of seeing and thinking. It is a process with a series of experiential exercises. The aim of the paper is to set out and to explore the inter-relations between innovation-creativity-design and design education. To be able to draw attention to this process, the purpose is to analyze the experiential creation methods of Bruno Munari as a reference case study. In the first part of the paper will focus on the structure of design education with its interrelations in art. The learning model and the methods will be briefly set out. Then the second part of the paper will capture the analysis of the case of Bruno Munari; his methods towards art and design education, his works as examples of innovation, and his contribution in research of sustaining the relationship of creative education through experiential and experimental approaches.

### *1.1. Art and design education: Form of experiential learning*

The arts are called ‘creative’ fields because there are no predetermined correct answers to the problems (Lauer, 2005). Creative production; be it an art piece or a product, is a research process seeking a diverse way of seeing, interpreting or communicating. The process is a journey from abstract to concrete in research of ‘the diverse’. Creative mind does not always have an innate characteristic. Everyone can have the capacity to think creatively. But the artistic background due to art education focuses on creativity that makes the field a unique creative resource.

In experiential learning the fundamental ‘method’ is the provision of experience. According to Beard & Wilson, (2006), with reference to Dales’s ‘Cone of Experience’, we see that; more concrete the learning experience gets, the percentage of the tendency for remembering the content gets higher. As the learning experience gets more concrete towards the base of the cone, the learning outcomes such as; analyzing, designing, creating, evaluating demonstrate more permanent characteristics. The learner participates actively and the outcome is a concrete process: *doing the real thing*. As the sources of creative activity are *thinking, looking, doing* (Read, 1956); the link between experiential learning and creativity becomes more evident.

‘Basic Design’ also known as the ‘Foundation Courses’ is an experience based art and design education programme. ‘Basic Design’ form of teaching and learning develops the creative spirit of students by introducing them to shapes, colors, rhythm and light outside of any academic approach that allows students to discover a personal bond with various materials (Boucharenc, 2006). The basis of the pedagogy of the course was formed by

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