LINELT 2013

# The Impacts of Formalistic Approach in Architectural Design Process on Quality of Students' Learning, Case: Design Studio II, IV

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**Abstract**

Design process has a lot to do with curriculum and instruction development especially in determining the quality of students' learning. The paper is to find what are the differences between visual architectural learning and formalistic approach in architectural design process? To answer research questions six groups of students selected randomly, three groups in design studio II, and three groups in design studio IV. The results of the paper shows that formalistic approach toward architectural design process is not fruitful as much as it may be predicted especially in design studio IV however adoption of visual techniques shows a great success.

*Keywords:* formalistic approach, visual techniques, architectural design process, learning, design studio II, IV

## 1. Preface

Architectural education and learning is the basis of training new generation of architects. Therefore it is very important to consider more fruitful technics. The study of the impacts of formalistic approach in architectural design process on quality of students' learning is one of these efforts which aim at achievement of more success in architectural education and learning process, which is going to be examined in design studio II, IV.

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## 2. 2- Visuality in Architectural Design

The studies show that the visual techniques are used in guidance of the architectural design process. In several of this process can be seen many applications of these techniques. Many of the expert designers use this technique in their projects. Problems and tendencies of the development of the architectural sciences especially in cultural research aspects (Mahdavinejad & Moradchelleh, 2011b: 677-682) has a lot to do with architectural education and training (Mahdavinejad & Moradchelleh, 2011a: 554-560) and it can be seen as a community-oriented design for sustainability in architecture and planning (Mahdavinejad & Abedi, 2011: 337-344). Boyer and Mitgang (1996) in building community: a new future for architecture education and practice, a special report, propose a model of architecture education based on seven separate but interlocking priorities was proposed: 1- an enriched mission; 2- a more inclusive institutional context based on the principle of diversity with dignity; 3- a goal of standards without standardization; 4- an architecture curriculum that is better integrated with knowledge both within and outside the architecture discipline; 5- establishment of a supportive climate for learning; 6- a more unified profession based on partnership between schools and the profession; and 7- preparation of architects for lives of civic engagement. This report examines the problems and possibilities of architecture education as it has evolved in the United States and proposes a new framework for renewing architecture education and practice.

The studies conducted by Lawson (2005) in the book of "How Designers Think", shows that the visual process have a main role in the architectural designs. Bryan Lawson (2005) in how designers think, the design process demystified, emphasized on the different stage of design process in architecture. The studies about Design Strategies show that the visual methods have many applications in the way from question to answer. (Lawson, 2005, p.p. 181-199). The architect Ian Ritchie explains the importance of this to the whole process: Unless there is enough power and energy in this generative concept, you will actually not produce a very good result, because there is this three years or so of hard work to go through and the only sustenance, apart from the bonhomie of the people involved, is the quality of this idea, that is the food. It's the thing that nourishes, that keeps you, you know every time you get bored or fed up or whatever, you can go back and get an injection from it, and the strength of that idea is fundamental. It has to carry an enormous amount of energy. (Lawson 1994b) It is just as a commitment to the idea can be seen to 'nourish' the designer, as Ritchie puts it, so can the search for it in the first place. The central idea does not always appear easily and the search for it may be quite extensive. The architect Richard MacCormac describes this search: This is not a sensible way of earning a living, it's completely insane, there has to be this big thing that you're confident you're going to find, you don't know what it is you're looking for and you hang on. (Lawson 1994b) The central idea may not always be understood immediately it begins to appear. Richard MacCormac has described this in the development of the design for his acclaimed chapel at Fitzwilliam College in Cambridge. Very early in the design process the idea was established of the worship space being a round object at the first floor in a square enclosure: 'At some stage the thing became round, I can't quite remember how.' Eventually the upper floor began to float free of the structure supporting it. However, it was not until the design team was considering such detailed problems as the resolution of balcony and staircase handrails that the team finally understood the idea and made explicit the notion of the congregational space being a 'vessel'.

This was then to work its way right through to inform the detailing of the constructional junctions who articulate the upper floor as if it were a boat floating. Richard MacCormac has convincingly argued that this quality of design would have been extremely unlikely to emerge if the designers had changed between the outline and detailed design stages as is now common in some methods of building procurement. (Lawson, 2005, pp.192-194)