

ARCHITECTURAL DESIGN OF A NATURE-CONNECTED BUILDING: AN INNOVATIVE TEACHING AND LEARNING PROJECT

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ABSTRACT

Innovative teaching and learning methodologies challenge conventional architectural design education for improved students' creativity, knowledge, skills and competences. These new strategies can improve students' engagement, motivation and attainment, but they also demand a great effort of the teaching team and are linked to a set of difficulties. This article analyses and unfolds the keys of an innovative teaching project proposal, devised and planned by me to be developed, as a lecturer and postdoctoral researcher, at the Royal Danish Academy of Fine Arts in Copenhagen (KADK) School of Architecture (the top university in the field of architectural design in Denmark), the Institute of Architecture and Design (IAD).

The proposal emerged from my visit to IAD's facilities and building materials workshops, invited and accompanied by Professor of History of Architecture and Interior Design and Head of the MA program Spatial Design within IAD at KADK PhD Peter Thule Kristensen. The project design blends diverse teaching and learning experiences: 1. My extensive collaboration with the teaching and research team Grupo 4!, Bachelor architecture studies, Architectural Design Department (DPA), School of Architecture (ETSAM), Universidad Politécnica de Madrid (UPM), which has an outstanding track developing innovative teaching projects by gamification methodology [1] [2] 2. My involvement in several teaching innovation workshops organized by the Institute of Educational Sciences (ICE), UPM; 3. My participation as guest speaker and external evaluator in the seminar "Consolidation and improvement in the independent collaborative learning of first courses architecture students: housing and dwelling" arisen from the innovative education projects developed through the academic collaboration between the History of Architecture and Architectural Design Departments, School of Architecture, Universidad de Sevilla (US).

The project, where the classroom is conceived as an architectural laboratory where the meeting between the disciplines of Architectural Design and Building Construction takes place, integrates a variety of innovative education methodologies: Gamification, Flipped Classroom, Learning Based on

Challenges, Design Thinking, Collective Intelligence, etc... Through it, architecture students are able to achieve creativity, diverse knowledge, strengths and complementary skills, among them: the creation of a private space, reflection on the idea of inhabiting a dwelling space, exploration of

Nature-connected architectural design, notions of sustainable design and recycling, their creative and critical thinking, oral and written communication skills, independent and original thinking, leadership and organisational skills, co- design, time management, problem-solving and decision making skills.

The article offers resources for innovative teaching good practice and implementation, and therefore to facilitate innovation at the classroom level. It gives tools to overcome the challenges facing innovative learning models in architecture education. Above all, it aims to foster innovation in architectural design education by empowering and inspiring teachers and other education staff to use innovative teaching methods while sharing best practices and experiences with their colleagues.

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