

Self and Mutual Interactions in Design Education

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Keywords

architectural education; design critiques; design studio; forms of representation; freehand drawing; hand drawing.

Working paper

Architectural design education has been significantly impacted by the growing use of digital tools in the last decades. Computerized design has become a standard practice, and digital processes are widely used and considered essential in the education of new architects. This has raised questions about the relevance of traditional forms of representation, such as freehand drawing, and their place in architectural education. While conventional freehand drawing remains a requirement in some educational programs, the use of traditional analogue methods is disappearing from architecture schools.

This research focuses on the relevance of freehand drawing in architectural design teaching by addressing three research questions. The first question seeks to identify the various ways in which freehand drawing is currently used in design education. The second question aims to explore the reasons behind the continued use of freehand drawing in design education despite the rise of digital tools and technologies. The third question aims to identify new ways in which freehand drawing could be incorporated into architectural design education.

The research is based on an embedded multi-case design, using qualitative data with supplementary quantitative data. Three schools are used as case studies: the Faculty of Architecture of the University of Porto, the Scuola di

Architettura Urbanistica e Ingegneria delle Costruzioni of the Politecnico di Milano, and the Massachusetts Institute of Technology School of Architecture and Planning. Data collection methods were mainly naturalistic and participatory observation, individual and group conversations, and document and archival consultation. Raw field notes were recorded during design classes in these three schools between 2019 and 2022, then transcribed for the so-called didactic registration units, complemented by photographs, videos and documental records. The collected data were organized in a database, and submitted to thematic analysis, using Atlas.ti and complemented with Excel.

The results demonstrate that freehand drawing continues to be used for representation in the three schools and remains significant. Even students with no formal drawing training use drawing dynamically during the design process. The significance of freehand drawing is especially evident during critiques, where it serves as the primary mode of interaction between instructors and students in these schools. Lastly, three indications are presented for the future of freehand drawing: the consolidation, transition, and training perspectives.

