

Abstract

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The Impact of Building Information Modeling on Early Design Stages in Architectural Education: Quasi-experiment in Design Studio

The purpose of this paper is to investigate the impact of Building Information Modeling (BIM) on the early design stage in architectural education. The authors explored this through a quasi-experimental research method? in order to evaluate the design final product. Two groups of senior students worked on an architectural design task one group has already studied a BIM course and the other hasn't been introduced to BIM. The products were assessed by two experts using the Consensual Assessment Technique (CAT) against three main criteria: (1) theme manifestation, (2) programmatic solution, and (3) skin design and environmental solution. The results of the quasi-experiment revealed that there is no significant difference between the two groups except in two points: (1) BIM has negatively influenced theme manifestation, and (2) it showed a good potential in structural system which is one of the programmatic solution criteria. Thus, this research recommends that caution need to be taken in the introduction of BIM in early design stages.