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Acquiring Construction Planning Skills through Simulations on
“Model Building”

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Abstract:

Construction planning is a crucial part of construction management, which demands good understanding of construction details, analysis of work sequences and site conditions. Owing to the “one-off” characteristics and complexity of building designs for building projects, students have difficulties in applying construction planning concepts to analyses project details for preparing construction programmes. Also, students concern for whether the construction programmes prepared could work well in the real world as it is difficult to bring in a “real case” physically in classrooms. The investigators observes students’ enthusiastic in model building and would like to borrow such learning experience to motivate and enhance students’ skills in construction planning. The proposed training deploys model buildings to simulate construction process and construction planning. In the simulation training, students have to prepare construction programmes for the model buildings assigned and to “build” the models in accordance with their programmes. They have to report concepts and rules in construction planning identified from the exercise. Their learning experience will be evaluated using construction process models formulated using Building Information Modeling (BIM), which is the latest advance digital presentation technology. The objective of the project aims at enhancing students’ planning skills through the discovery of knowledge by simulations.