



香港城市大學
City University of Hong Kong

Student participation in Design and Development of Construction Safety Planning model for Educational-BIM* in Hong Kong Civil Engineering and Building Industry

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Principal Investigator: Dr Ivan Wing Hong FUNG

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Abstract:

Past researches indicate that there is a lack of responsive instrument to assist construction students with addressing learning of effective construction safety planning. Current textbooks/ notes are primarily text-based standalone check-sheet type tools which are either accessed via paper or software interface.

Nowadays, the current and growing movement of Educational Building Information Modelling (E-BIM) in the construction technology curriculum [e.g. 4-D ArcGIS (India), ConSafeNet (USA) and 4-D BIM (Finland), etc.] is offering new means and approaches to improve the inefficiencies of paper-based processes.

Based on the basic concepts of 14 elements of Safety Planning Model (introduced by last TDGs 2010-2011), and aligned with Discovery-Enriched Curriculum (DEC) by EDGE at CityU, a submodel of safety planning for Educational BIM will be proposed with intensive student participation. Among with "Discover & Innovate" culture, the student-based planning model will be developed into more detailed for considering different scopes of construction project (e.g. builder's work, civil engineering work and renovation maintenance, alternation and additional work, RMAA, etc.). After a series of DEC with D&I activities, such as site visits and brainstorming workshops, construction students can design their "optimum" safety plan with corresponding risk assessment for each scope of construction project/work (after visiting & studying the real project) by referring to the Safety and Risk Management Instructor Programme (developed from last TDGs). Student will learn what it means to create new knowledge, communicate it, curate it, and cultivate it to benefit construction industry. Finally, selected outputs of the student submission will be participated in OSHC Best Project Award Competition 2014 held yearly by Occupational Safety and Health Council in Hong Kong in terms of public and professional assessment.