

Content Analysis of Case Studies Collected to Improve Construction Management Education

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Real world experience is a crucial part of a student's Construction Management (CM) education. Educators may find it challenging to stay current with this dynamic and developing industry, so it can be difficult to incorporate real world examples in construction management courses. Textbooks often provide examples to illustrate concepts described, but often times these can be outdated or too general. Providing students with specific examples from current CM professionals illustrating the concepts taught by educators would give them the opportunity to think critically and propose solutions to specific problems that have occurred in the industry. Educators incorporate internships, short-term externships, site visits, guest speakers, and case studies into the CM curriculum in an attempt to address students' need for up to date, real world experience. These efforts exist to expose students to current and relevant professional situations, which they may eventually face. In addition, the inclusion of real-world problem and solution sets, or case studies, into the classroom exposes students to these problems on a regular basis rather than waiting for the next guest speaker or for a summer internship. This allows students to discuss real problems more often, tying together a student's education and the CM industry. The objective of this presentation is to analyze a set of case studies that have been collected in the past few years using an online survey administered to professionals from the construction industry. The authors hypothesize that industry professionals present their experiences in certain topics more frequently compared to the others. In order to collect real world case studies, researchers in a previous study developed an online survey and distributed it to CM and general contracting (GC) companies in the northeast region of the United States with minimum annual revenue of 100 Million USD. In this part of the study, authors used qualitative methodologies to categorize responses/case studies by keywords towards the generation of a searchable database. The analysis also includes determining learning outcomes that can be associated with each case to help identify methods of integration into the construction curriculum. Results of the keyword analysis conducted on forty-seven case studies illustrate that the majority relate to "scheduling" and "subcontractor/vendor relations". Other topics include "design", "payment procedures", and "safety". In addition to general topical analyses, this poster presents discussions of three (3) cases including suggestions for how educators may incorporate them into specific CM courses. This poster will present graphical representations of the topical analysis performed on the forty-seven case studies and pinpoint three of these case studies. These three case studies will be presented in full text and along with an in-depth analysis of each. Authors suggest utilizing these cases as instructional resources and examples in Estimating, Scheduling, Project Management, and Safety courses. This study sets an example of supplying and utilizing case studies for CM and other professional programs with needs of current, real world data in the classroom. Future research will include the creation of a case study database for use by construction management educators.

Keywords: Construction Management, Case Studies, Education, Curriculum