

DESIGN AND CONSTRUCTION MANAGEMENT STUDENT COLLABORATIVE COST ESTIMATING EXERCISE

Rachel Pike, MS and Sean Stewart, March, and E. Scott Sumner, CCM
Wentworth Institute of Technology
Boston, Massachusetts

The Construction industry by its very nature requires interdisciplinary teams and collaboration between these teams. The designer sees the project from a perspective of function and aesthetics. The builder who must construct the project views the project through the lens of prescribed limits of schedule and budget. These different perspectives can cause conflict and the industry has instituted procedures to help resolve these situations. *Integrated Project Delivery* (IPD) or *Partnering* are examples used on today's projects to help resolve construction project conflicts. In college, students are taught that successful design and construction projects require collaboration, good communication, and understanding of the different roles the project team members play. However, they have few opportunities to experience the challenges of working together on a project. The departments of Interior Design (ID) and Construction Management (CM) decided on an innovative approach to bring the two future project participants together and better prepare them for practice. They created an exercise that was inserted into a junior level commercial studio and junior level estimating & scheduling course. Interior design students often express the desire to "design within a budget" and CM students rarely get the experience of estimating projects with the detailed specificity provided by an interior designer. This approach allowed the students to utilize their particular expertise and to interact with each other. The experience has been a great success - the design students learned the cost ramifications of their design and material decisions and the construction management students learned that design is a complicated and critical process. In our approach CM and ID students are paired one on one. The students are required to meet and document the project scope at the schematic design phase and the design development phase. The CM student produces a preliminary estimate based upon the proposed project scope. Once the design student advances their work to the Design Development level the CM student revisits the project and a refined construction estimate is prepared. The key to success in this exercise is not the correct budget or the perfect interior design but that students have worked together in solving problems, listening to each other, and responding to each other's project needs. Assessment interviews show that both groups of students enjoy the project and remark on how much more they now appreciate the work each team member contributes. This collaboration has been a success and is being expanded to include Architecture and Facilities Management students.

Key Words: assessment, Collaboration, Communication, Construction management, Cost estimating, Interior design.