

Research in Progress Abstract - Construction Education (Pedagogical Content)

## Teaching Today's Master Builder: A Collaborative Studio in Architecture and Construction Management

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A growing consensus exists that the multiple professions that make up the Architecture, Engineering, and Construction (AEC) industries are too disparate to effectively solve the increasingly complex design and construction problems of the 21st century. In industry as well as the academy, many leaders believe that an integrated approach—whether it is called design-build, Integrated Project Delivery (IPD), a modern master builder (to use Dr. Barbara Jackson's term), or some other designation—is the best way to deliver sustainable and safe high performance buildings on time and on schedule. This paper explores the Spring 2013 combined architecture-construction management studio at Mississippi State University (MSU). This studio, a precursor to a fully-integrated studio initiated in Fall 2013, was initially intended to have only minimal levels of collaboration. However, the three architecture faculty members and the one construction management faculty member agreed that a moderate level of collaboration was achievable. This decision was made in early January, just before the start of the semester, which limited the ability of the faculty to design in-depth research instruments. Time limitations aside, however, the faculty did design a set of surveys, two of which were given to the architecture students and one of which was given to the CM students. These surveys, together with the student class evaluations, form the basis of the authors' evaluation of the semester. Approximately half of the architecture students surveyed expressed concerns with their CM partners' teamwork, dependability, or skill level. Whether this came from an actual lack of performance on the part of the construction students, as noted in many architecture student comments, or from a cultural bias on the part of the architecture students, is hard to discern and would be a good point for further exploration. (The authors note that the Spring 2013 CM students were the last class who did not have CM studio their freshman year; thus, as sophomores, they were in their second CM studio while the architecture students, as juniors, were in their sixth design studio.) Comments from the construction students were less verbose than those of the architecture students and generally showed few reservations concerning teamwork, their partners' dependability, and overall work quality. One issue that did arise from the construction students' comments was that many of the architecture students dismissed the construction students and their feedback. Future Architecture-CM studios at MSU should be designed to incorporate methodical research. Additionally, attitudes of incoming and graduating students should be tracked to determine the effect of the collaborative studios on each discipline's attitude toward the other. Assuming the Architecture-CM studios develop as planned, the integrated studios at MSU may be of interest to other universities that have architecture and construction management programs and wish to address the critical issues surrounding today's fragmented design and construction practice.

**Key Words:** Collaboration, Studio, Design build, Integrated Project Delivery, Integrated practice