

# Bring Your Own Device to the Construction Management Laboratory?

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Mobile technologies are becoming increasingly common on U.S. construction sites as companies become aware of how they can simplify and automate the capturing of information in the field, and communicate that information back to company management systems. Field personnel are now being equipped with smart phones or tablets to check email, look at blueprints, take progress photos, or create punchlists, all with one device. These technologies are being used to make work efforts more efficient, raise productivity, reduce costs, and positively impact project profitability. As the U.S. construction industry moves to mobile technologies, university construction management programs should begin moving to mobile education and learning applications to intensify student awareness of how mobile technologies can impact their academic productivity and performance, and to ensure that students are prepared for a mobile construction industry. This study evaluates an iPad mobile device requirement in a freshman level construction management “hands-on” materials and methods laboratory. In previous semesters, iPad mobile devices were provided to the students free of charge in several construction management courses at Boise State University for the duration of the semester. Students are now required to provide their own devices, which have been incorporated into seven different courses. The devices are incorporated into the freshman level construction management “hands-on” materials and methods laboratory course in four ways: (1) for plan reading; (2) for RFI documentation, including the development of the RFI, highlighting of plans, and attachment of photos; (3) for presentation and documentation of “Tool Box” safety meetings; and (4) for documenting Daily Reports. The students are asked for their feedback as part of their course evaluations. This study asks students a number of key questions including: (1) Did the use of your mobile device in this class improve the effectiveness of classroom activities and assignments, when compared to more traditional teaching methods? (2) In what ways did you find the mobile device improved your learning experience? (3) In what ways did you find mobile devices a hindrance to your learning? (4) What recommendations would you make to improve the use of mobile devices for class activities and assignments? (5) What recommendations would you make to improve or increase the use of mobile devices for group projects and collaborating? Additionally, the study also looks at the faculty perspective by including challenges incurred because of the mobile device requirement and lessons learned. It is expected that students will express a mix of positive and negative feedback from the mobile device requirement in this “hands-on” laboratory space. Overall comfort with the devices seems to be improving, but the fact that students must own the devices now will impact their opinions.

**Key Words:** Construction Management, Mobile Technologies, Education, BYOD