

# **Project Management Rubric: Measuring Project Management Student Outcomes**

## **Research Abstract**

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The level of project management skill sought by industry in entry-level applicants has not been met (Woratschek and Lenox 2002). Successfully teaching project management involves lecturing and some type of practice (Geist and Myers 2007). The acquisition of team skills and project management skills by students requires the opportunity for students to practice what they are exposed to in the classroom (Jones and McMaster 2004).

It is a challenge for students to convert project management lecture content to usable skills (Abernethy, Piegari et al. 2007). On live projects responsibility for project management objectives are often rotated among individuals or teams (Abernethy, Piegari et al. 2007; Tan and Jones 2008). Live projects may provide the opportunity to convert the lecture content to usable skills since projects give students the opportunity to practice team-based and project management skills (Camarero, Rodríguez et al. 2009). However, assessments of students in live projects pose challenges (Ellen and West 2003; Jones and McMaster 2004; Hogan and Thomas 2005).

Traditionally the graduate level project management course at the University has been taught as previously described, where students were responsible for both “doing the project”, as well as “managing the project”, through role rotation. However, with a focus on project management there was a need to shift emphasis towards the skills of “managing the project” and away from “doing the project”. With this goal in mind the course was redesigned so that the graduate students in the class were broken up into teams and then assigned a live service learning undergraduate project. Assessment under these conditions, where the goal is for students to practice their project management skills, is a challenge in that no rubric for measuring these skills was available.

This paper will report on the development of a rubric to assess students’ skills gained from a project management course. Rubrics may be built using different perspectives (e.g., knowledge, skills, or performance) (Hale 2000). This rubric will be performance-based and evaluate the students’ ability to

achieve specific project management outcomes. The rubric attempts to achieve a level of comprehensiveness through reconciliation with the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK) (2004), the International Project Management Association (IPMA) Competence Baseline (2006), and the Australian Institute of Project Management (AIPM) Professional Competency Standards for Project Management (PCSPM) (2008). The rubric also attempts to achieve a level of simplicity that allows its utilization in a student's first semester of project management exposure and focuses on those performance outcomes most important to an initial level of project management competency.

This paper will also report on experience utilizing this rubric in the spring of 2011 in a project management class that managed undergraduate teams responsible for delivering live projects for local businesses. There were nineteen students in the project management class with some of the students having extensive work experience and others having little work experience. Since there were five projects to be managed, the students were broken down into four teams of four students and one team of three students based on skills and experience. Technical skills and project experience were used to allocate students to teams. Approximately one-third of the class had technical skills and one-third had project experience, which was defined as having worked on projects in their jobs. The skills and experience were spread across the projects so that each project management team had at least one person with technical skill and one person with project experience. The rubric was successfully used in the course but there were challenges. Those challenges will be reported in the paper.

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