Mar 10th, 2:00 PM - 3:00 PM

The Role of the Instructor in the Success of Undergraduate Real-Life it Capstone Team Projects

Karen Patten  
University of South Carolina-Columbia, pattenk@mailbox.sc.edu

Lynn Keane  
University of South Carolina-Columbia, lynn.keane@mailbox.sc.edu

Follow this and additional works at: https://digitalcommons.georgiasouthern.edu/sotlcommons

Part of the Curriculum and Instruction Commons, Educational Assessment, Evaluation, and Research Commons, Educational Methods Commons, Higher Education Commons, and the Social and Philosophical Foundations of Education Commons

Recommended Citation
https://digitalcommons.georgiasouthern.edu/sotlcommons/SoTL/2011/53

This presentation (open access) is brought to you for free and open access by the Conferences & Events at Digital Commons@Georgia Southern. It has been accepted for inclusion in SoTL Commons Conference by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.
The Role of the Instructor in the Success of Undergraduate Real-life IT Capstone Team Projects

Karen Patten, Ph.D., & Lynn Keane, Ph.D.
Integrated Information Technology

Abstract

Undergraduate students on real-life IT capstone projects integrate major concepts learned in their IT program while gaining valuable experience successfully planning and completing real projects.

The success of the student capstone projects depends on students, real-life clients, and instructor(s). One issue with these student projects is that successfully completing and meeting the real-life IT project objectives is a very different function from assessing student learning outcomes.

The purpose of this study is to focus on the impact and influence of the instructor(s) in ensuring the success of the multiple projects, while also measuring the actual and perceived student learning outcomes. Three different instructor roles are critical:

1. A ‘teacher’
2. A ‘coordinator’ of the project teams as a ‘portfolio manager’
3. A ‘mentor’ to individual students.

The study describes the responsibilities for each of the different instructor roles and related tools used to assess student performance and project success and identifies issues encountered and lessons learned over the last three years. The goal of this paper presentation is to determine future research direction for recommendations for other IT capstone courses.

Introduction:

Experiential Capstone IT Projects

ACM Recommended Experiential IT Learning approaches (Blumen et al., 2005):
1. Insure students ground educational learning through
   - Hands-on instruction
   - Internships with local IT organizations and businesses
   - Real-life capstone IT projects
2. Program graduates become employees who are ‘immediately productive upon employment.

Undergraduate Capstone IT Project Course Goals (Lancere and Walters, 2004; Leding et al., 2006; Sake, 2009):
1. Students integrate major concepts learned in all their undergraduate IT coursework.
2. Students demonstrate necessary technical and soft skills.
3. Students experience real-world problems, find solutions, meet critical deadlines, and work together preparing them for real projects in their career.

Research Question

How do instructors of real-life IT capstone courses separate and balance their different roles to effectively provide structured learning opportunities, insure successful completion of the student / client projects, and mentor the students during the semester?

Research Question

Client satisfaction with IT project deliverables
- Real-life clients involvement is based on real business / organization needs
Achievement of the student learning outcomes
- Students should be challenged to exercise highest levels of proficiency while integrating technical and soft skills in project management
- Student perceptions of their frustrations and accomplishments
- Important to provide feedback to build on student experiences.
- Instructor’s assessment of the student performance
- Instructor’s workload versus student grades
- Project methods, processes versus project products, services

Course Pre-requisites:
- Structure course learning objectives
- Prepare course schedule vs. project schedule
- Assess project deliverables vs. project goals
- Provide individual and team feedback

Course Objectives:
- The number of projects vary by number of students (four to eight in different semesters)
- The projects may be unique, e.g., new Website projects, but all are individual projects with their own issues.
- Lead by example – manage issues, deal with communication problems, etc.

Course Evaluation:
- 14.7 / 20
- 2.7 / 4

Research Question

Future Study Approach

Should the capstone instructor be more or less active during the project processes?
- From a scholarly perspective, how should these issues be studied in order to contribute to:
  - Information technology theory and literature
  - Capstone course instructor best practices

References