

Faculty Showcase '06

Sponsored by Academic Technology at Simmons College



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An Embedded Approach to Program-Based Technology Fluency

Project Overview

As part of a degree program redesign, the undergraduate Management Program has adopted an embedded approach to computer competency and technology fluency. In order to define technology competency, as a department, we need to augment our personal assessment of the types and levels of technology competency we expect with an understanding of employer and alumnae expectations relative to technology skills. In addition, as a department we want to gauge how Simmons is performing relative to best practices in other academic programs. Therefore, a prime objective of this research project is to determine how the market and other academic institutions define and assess technology competency.

Two courses of action were part of the research protocol: a series of surveys and a content analysis of job postings.

First, we developed a set of surveys designed to gather information from employers, alumnae, and other academic institutions. The surveys vary somewhat by sample group, but all focus on how these groups define technology competency relative to the Microsoft Office suite. For the employer survey, questions also include whether and how technology competency is assessed. For the alumnae survey, questions included what respondents learned while at Simmons and what they wished they had learned. For academic institutions, questions also include how technology competency is assessed.



Second, we conducted a content analysis of newspaper and online job postings. The objective was to gather information about which technology skills, beyond the Microsoft Office suite, are requested by employers for entry level management positions.

Applications Beyond

This research provides insight into the needs of employers and has been helpful in aligning the course work within the Undergraduate Management Program with those needs. More broadly, the project supports the College's goals relative to technology fluency. The research provides us with a more clear understanding of the market demands for technology skills. In this way, the project helps fulfill the College's mission of preparing women for careers.

Employer Technology Survey

1 For what types of jobs do you consider newly graduated candidates with undergraduate degrees in management? (list all job titles that apply)

2 Please use the following scale to rate the importance of each type of software or technology in a typical position offered to new undergraduates.

1	2	3	4	5	Not familiar with this technology
Not at all	Slightly Important	Moderately Important	Very Important	Extremely Important	
1	2	3	4	5	
Spreadsheet software (e.g., Microsoft Excel, Lotus 123)					
1	2	3	4	5	
Word processing software (e.g., Microsoft Word, WordPerfect)					
1	2	3	4	5	

Project Findings

The most significant finding is that 87% of employers and 83% of alumnae reported that facility with Excel is essential in attaining employment and succeeding in the workplace. This finding was consistent across a wide variety of functional areas and industries.

Secondly, employers and employees overwhelmingly reported that the level of expertise for entry level employees was the ability to develop Excel worksheet models from scratch. This was not a surprising result in and of itself, but the result does not reflect the focus of many textbooks, training courses, or classes where teaching focuses on individual skills and features rather than overall model development.

Finally, employers and employees reported that Excel skills are not often formally assessed as part of the hiring process. This suggests that students could create an edge for themselves if they describe specific examples of Excel work during interviews or provide work samples that demonstrate Excel skills.

Goals

- To understand the type and level of technology competency expected by employers of undergraduate management graduates
- To assess the degree to which the undergraduate management program meets the technology competency needs of our students as future employees
- To investigate best practices of regional institutions in regards to technology training