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1-1-2010

Web-based Microsimulations (Final Report)

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Recommended Citation
Winstead, Kathy; Stix, Allen; and Monaco (student collaborator), Vinnie, "Web-based Microsimulations (Final Report)" (2010). *Cornerstone 3 Reports : Interdisciplinary Informatics.* Paper 47.
http://digitalcommons.pace.edu/cornerstone3/47

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Pace University Thinkfinity Grant – 2010

Final Report - December 2010

Web-based Microsimulations
Cornerstone III

Kathy Winsted (Lubin)
Allen Stix (Seidenberg).
Vinnie Monaco (Seidenberg student)

A) Please outline your original goals.
- To program seven microsimulations to be used interactively in an electronic classroom
- To update and modify the supporting cases, programs, and Excel spreadsheets
- To create a knowledge asset with instructions and other supporting information
- To put all the microsimulations on the web and create a login security procedure

B) What progress have you made towards your original goals on your project to date? and

C) What activities have been completed to contribute to meeting/progressing toward these goals?
- Web space was obtained from Pace University for putting the microsimulations on the Web.
- A home page for the microsimulations was created to put up the cases, the Excel sheets and the simulations. This game has the ability to upload course lists from Blackboard and to create different classes. It can be used by anyone from Pace or elsewhere with approval.
- A login security procedure was put in place to allow users with assigned passwords to log in and access the games. Separate pages were created for instructors and for students.
- Eight microsimulations were programmed in PHP and put up on the Web using the Pace server (one more than the original goal of seven). Two additional games are partially programmed.
- All cases and Excel sheets were updated and modified to reflect changing prices and improvements were made based on Dr. Winsted's experiences teaching these games using the old programs.
- The eight microsimulations were tested in Dr. Winsted's BUS 150 class in Fall 2010. Modifications were made on an ongoing basis as a result of that testing.

D) What activities have not been completed? Please indicate why they have not been completed.
- Cases and Excel sheets have all be updated and made available, but the instructions have not yet been written. Many, many modifications and improvements were made to the games as they were being tested, delaying work on the instructions until all the glitches are ironed out. Also, the updated cases and Excel sheets have

been put up on Blackboard, but still need to be added to the Web homepage for the games.

E) Please outline the outcomes you have received as a result.

- The simulations were very popular in the BUS 150 class. Students loved the interactivity. Students also gave much constructive feedback that has helped in modifying and improving the simulations.
- On an anonymous course evaluation conducted by Dr. Winsted using Qualtrics, 100% of students in the class agreed or strongly agreed with the statement on "the simulations were helpful in learning business concepts" and all but 1 student in the class stated said that they preferred using the simulations to learning in a traditional classroom setting.

F) Has your project impacted students? If so, how many?

- Twenty-one students took the BUS 150 class taught by Dr. Winsted using these simulations. We used one of the microsimulations every week.

G) Has your project impacted other faculty members? If so, how many?

- These games have not yet impacted other faculty members, but the intent is to have other faculty members use them to teach BUS 150 as soon as the last two games are completed and the instructions are added to the website.

H) Were there any unintended outcomes achieved?

- One unintended outcome is that Dr. Winsted has connected with the student client services group in New York City and Seidenberg students who work for this group will be helping her modify a few of the games and program the last two that need to be added.
- Another unintended outcome is that Vinnie succeeded in teaching himself PHP to program that simulations, and he is now very well-versed in business concepts since he had to learn all the business concepts to program the games effectively.

I) Did you present at a conference?

- No, we have not yet presented this work at a conference, though Dr. Winsted did submit a paper to a journal about the project. That paper was not accepted, but another one is now in the works.

J) Do your outcomes reflect the change or benefit you were hoping to receive?

- Yes, we are very happy with the outcomes of this project. We were able to get more games fully functioning than we had originally proposed, and we were very happy with student response to the microsimulations.

K) How has your project furthered the Thinkfinity Cornerstone you selected?

- The project furthered "**interdisciplinary informatics**" by integrating computing and technology tools into the teaching and learning of business "ultimately to improve the preparation for and practice of associated professions". As noted above, students in the class where the microsimulations were used overwhelmingly felt that the simulations helped them to better learn business concepts.

L) Describe your future plans for sustaining the program or project.

- Dr. Winsted will be teaching the BUS 150 course again in Spring 2011 and will again be using the microsimulations and reprogramming the last two with the help of the NYC student consulting group in Seidenberg.
- By Fall 2011, Dr. Winsted hopes to be able to get a few other business professors to introduce the microsimulations, with the ultimate goal of having all BUS 150 classes at Pace University use these microsimlations, ultimately allowing all Pace University business students to benefit from this project.