

# Effects of Instructor Immediacy and Online Course Design in Student Satisfaction and Successful Course Completion



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## Introduction

The withdrawal and failure rates for online classes and student satisfaction of online courses at a technical college in Wisconsin are identified as problems for which a solution needs to be found. This Doctor of Nursing Practice Capstone Project addressed the issue of student success and satisfaction in online courses in an effort to develop ways to improve student outcomes. The effects of course design and instructor presence on students' success in online courses is currently being researched by educators. Further research that is specific to each institution is also needed. This capstone was an effort to bring evidence based practice to a technical college in Wisconsin.

## Goals

The goal of the capstone project was to implement an easy to navigate online course and provide prompt instructor feedback (within 24 hours) to students in an online course to increase student success and satisfaction.

## Objectives

Project objectives were to compare student satisfaction and the rate of successful course completion (with a grade of C- or better) for the fall 2011 online Medical Terminology course to the fall 2010 online Medical Terminology and all other fall 2011 online courses offered at a technical college in Wisconsin using the current student satisfaction survey tool.

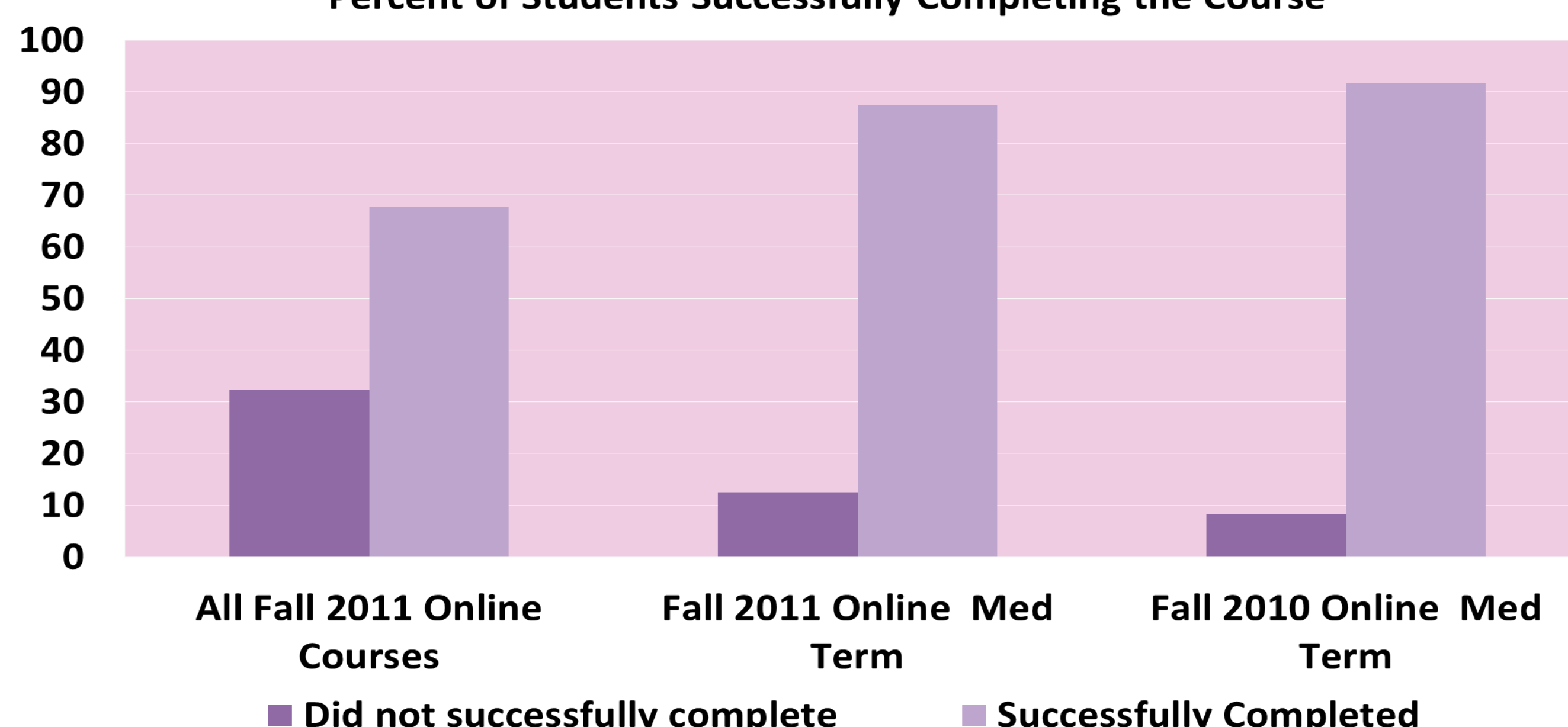
## Methods

- Literature review supported further investigation
- IRB approval was obtained
- Instruction in the online course management system completed
- Fall 2011 Medical Terminology course was redesigned with all course materials for each week in one folder
- Project was implemented
- Student course completion was calculated by a simple count of those students that enrolled in the course and those that completed the course with a C- or better
- Chi-square tests were run to determine statistically significant differences
- Student satisfaction was evaluated utilizing the college's current survey tool sent via email to all students in fall online 2011 courses
- Previous survey data from fall 2010 Medical Terminology course was obtained
- Surveys were completed and data tallied through IBM SPSS Statistics online software.
- Only the relative five point Likert scale (1=Strongly Agree 2=Agree 3= Disagree Somewhat 4=Strongly Disagree 5= Not Applicable) questions were reported in the reports
- Survey answers were combined to form separate scales
- Cronbach's alphas were run to measure reliability of survey scales
- One-way ANOVAs, and t-tests were run on each scale and p-value was evaluated using a Bonferroni adjustment

## Outcomes and Results

- No noted statistically significant difference in successful rate course completion (with a grade of C- or better) between the 2011 fall online Medical Terminology course and the fall 2010 online Medical Terminology course ( $\chi^2 = .223$ ,  $df = 1$ ,  $p = .637$ ; Fisher's Exact Test  $p = 1.00$ )
- The chi-square test comparing the 2011 Online Med Term to all 2011 online courses was statistically significant ( $\chi^2 = 4.190$ ,  $df = 1$ ,  $p = .041$ ; Fisher's Exact Test  $p = .044$ )
- Statistically significant differences were noted in the rates of successful course completion in both of the Medical Terminology courses and all fall 2011 Online courses at the college
- The course design differed in the two Medical Terminology online courses therefore the increased rates of successful course completion cannot be solely attributed to the capstone interventions

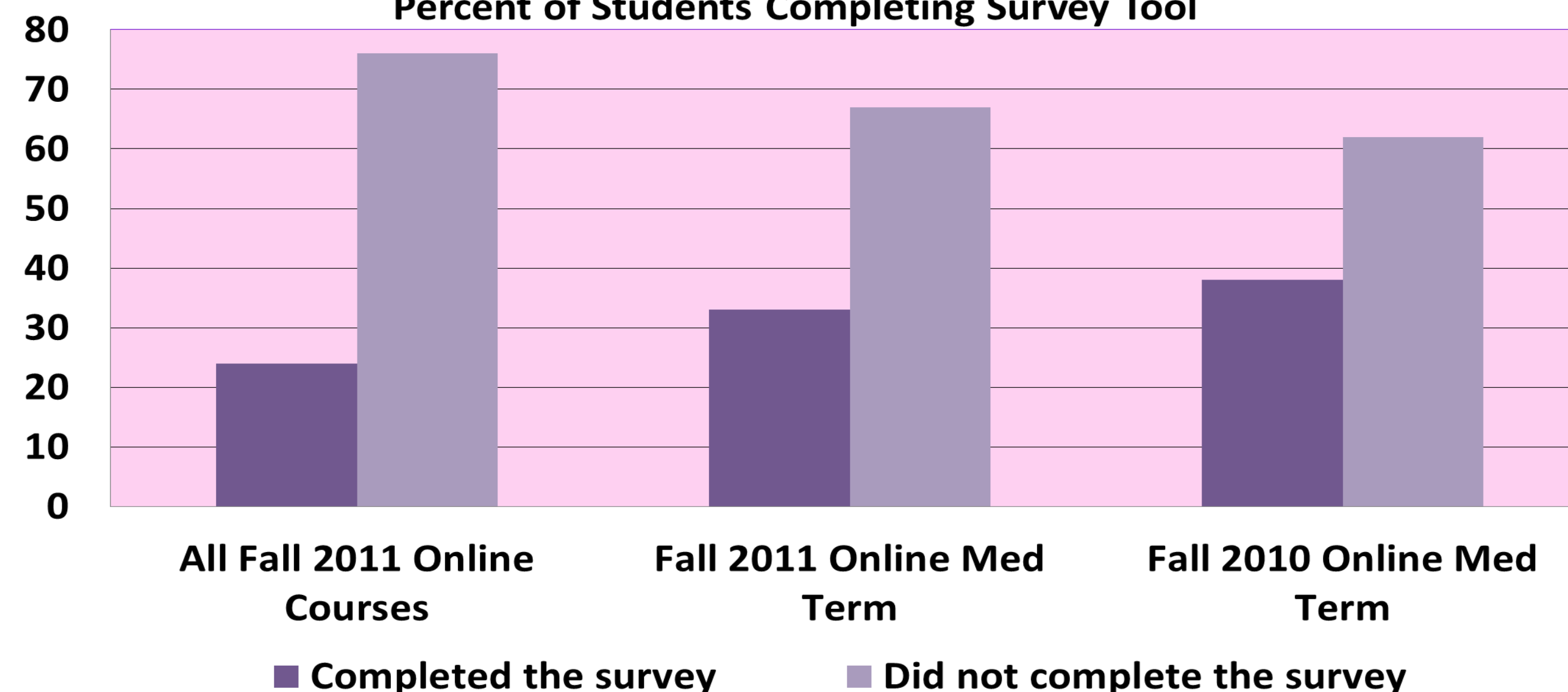
Table 1  
Percent of Students Successfully Completing the Course



Number of student satisfaction surveys sent:

- 685 students in all fall 2011 online courses
- 24 students in the fall 2011 online Medical Terminology course
- 24 students in the fall 2010 online Medical Terminology course (previously done in 2010)

Table 2  
Percent of Students Completing Survey Tool



- Analysis of the survey results found no statistical significance
- Lack of statistical significance is likely related to the very small sample sizes for the two online Medical Terminology groups (8 responses-2011 group, 9 responses-2010 group)

Table 3  
Survey Descriptive Statistics by Course

Survey Scales	All Fall 2011 Online courses	All Fall 2011 Online courses	Fall 2011 Online Medical Terminology	Fall 2011 Online Medical Terminology	Fall 2010 Online Medical Terminology	Fall 2010 Online Medical Terminology
	Mean	SD	Mean	SD	Mean	SD
Overall Satisfaction	3.55	.75	3.25	1.17	3.67	.50
Syllabus	4.85	0.42	4.750	0.71	4.78	0.44
Learning Environment 1	4.60	0.71	4.31	1.22	4.64	0.53
Learning Environment 2	4.60	0.65	4.48	1.01	4.58	0.43
Course Assessments	4.57	0.70	4.50	0.99	4.63	0.39
Interaction	4.65	0.60	4.20	1.52	4.22	0.72
Student Involvement	4.64	0.61	4.40	1.12	4.63	0.56
Web Students	4.67	0.58	4.54	0.89	4.59	0.49

## Conclusion

The literature search identified some components of successful online courses are sites that are easy to navigate and instructors that provide feedback in a timely fashion. Although the capstone project was based on the results of the literature search, the small sample sizes for the Medical Terminology courses were a limiting factor in the capstone project. The power was too low to detect any statistically significant differences in the survey results. Statistically significant differences were noted in the rates of successful course completion in the Medical Terminology courses and all online courses at the college. The course design differed in the two Medical Terminology online courses therefore the increased rates can not be attributed to the capstone interventions.

## Recommendations

- Course design and instructor feedback may have a significant impact on student success and satisfaction in online courses warranting further studies
- The results of further studies may improve student outcomes benefitting not only the students but the college as well

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