A Survey of Student Attitudes toward Math in CRAFTY Inspired Classes for Business Students

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Abstract: The author is part of a multi-institution grant that is attempting to implement the recommendations of the MAA Curriculum Foundations Project CRAFTY report on mathematics for partner disciplines. The author's institution is focusing mathematics for business students. Although the CRAFTY report is nearly 15 years old there seems to be little in the literature looking at the effectiveness of implementation of the report's recommendations. This report looks at how implementation changes student's attitudes toward mathematics.

Key Words: Business Mathematics, Spreadsheets, Client Discipline Expectations

Background and Motivation

The MAA's Curriculum Foundation Project and its CRAFTY reports [MAA 2004] looked at the desires for partner disciplines desires for introductory mathematics courses. This was followed by a series of attempts to implement the recommendations in college courses, particularly focused on college algebra [MAA, 2011]. Two RUME reports [May, 2013, Mills, 2015] have looked at the desires of business faculty and confirmed the findings of the CRAFTY report. However there seems to be almost no RUME or SOTL studies on the effectiveness of any implementation or its impact on student attitudes toward mathematics. The work behind this poster is an attempt to start that examination.

Context of the Work

The work is part of a multi-institution grant, NSF-Number, with the author's institution focusing on math for business students. After the CRAFTY report, there were two serious attempts to implement the report recommendations in business calculus projects [Felkel and Richardson 2008, Thompson and Lamoureux, 2002]. All schools using either of those books have gone back to traditional books for there students. The work of [Felkel and Richardson, 2008] served as the inspiration for a online book, WEBSITE that is used at the author's institution and one other school for business calculus. Following the advice of a working group of business and math faculty at the author's institution, the author is adapting CRAFTY inspired materials from another school in the grant to develop a course in college algebra focused on business students.

Research Framework

Anecdotal evidence indicates that the changed focus of the course changes the students attitudes toward mathematics, with the added context, focus on modeling and discipline specific problems, and appropriate use of technology making mathematics more relevant. The students in treatment groups and control groups were given a survey on attitudes toward math and those are compared.

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