Is SNHU Preparing its Elementary Education Majors to Teach Math Adequately in Schools? A Review of the Elementary Education Major's Math Program

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Abstract

The purpose of this research project is to analyze the elementary education math program at Southern New Hampshire University and its ability to prepare students to teach math as future teachers.

Introduction

In 2014, Virginia Barry, the NH Commissioner of Education prioritized the math preparation of Elementary Education majors, stating that the state does not have enough qualified math teachers to "up" the state requirements for secondary mathematics in the state. She stated she needed to ensure elementary teachers prepared their students to be confident and capable of taking higher levels of mathematics.

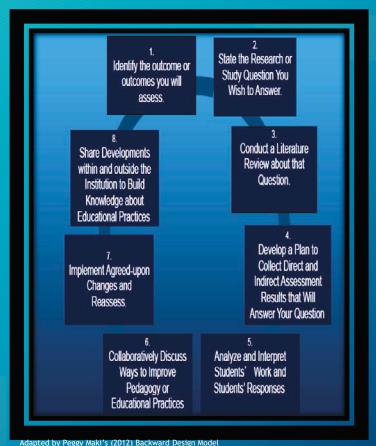
In 2015, NH Governor Maggie Hassan's STEM task-force called for the State of New Hampshire to improve the STEM education of our state's children. To this end, we wanted to explore how SNHU prepared its elementary teachers.

Selected Reference

Blake, B., Couch, B., Craig, J., D'Agostino, S., Gittell, R., Hallowell, R., . . . Vasudevan, P. (2015, January 1). Governers Task Force on K-12 STEM Education. Retrieved April 4, 2015, from

http://www.governor.nh.gov/commissions-taskforces/stem/documents/stem-01-2015-final-report.pdf

Methodology: An Inquiry-Based Approach



dapted by Peggy Maki's (2012) backward Design Model

Selected Initial Results

Praxis I Mathematics (0730) Test company: ETS Score Range: 150-190	Group	Number taking Assessment	Number Passing Assessment	Institutional Pass Rate	Institutional Average Scaled Score	Assessment Cut Score
	All enrolled students who have completed all non clinical courses, 2013-2014	45	44	98%	179	172
	Other enrolled students, 2013-2014	63	61	97%	177	172
	All program completers, 2013-2014	109	109	100%	179	172
	All program completers, 2012-2013	82	82	100%	178	172
	All program completers, 2011-2012	40	39	98%	178	172

Completed all non clinical courses: enrolled in TCP, completed all coursework, has not student taugh Other enrolled students: enrolled in TCP, has not completed all coursework All program completers: completed student teaching and graduated

Discussion

- Teachers tend to have anxiety about teaching mathematics. We need to better prepare our teachers so teachers will be less anxious and be able to teach higher level math for all four years of high school.
- SNHU currently prepares its teachers with 2 content courses and 1 pedagogy class
- The Praxis Exams ensure future teachers are knowledgeable and know the content behind what they teach
- Spending more time in elementary classrooms in a pedagogy class may help future teachers feel better prepared for teaching math to students.