Request #: 651 - TEAL - Dissertation

THE EFFECT OF A FRAMING INTERVENTION ON NURSING STUDENTS' MATHEMATICS TRANSFER AND PERCEPTIONS OF MATHEMATICS RELEVANCE AND UTILITY

Kimberly Beck [A01498583] - Doc Student (w/Dr. Jessica Shumway)

February 21, 2023

Background

This dissertation research is in its early stages. At this point I am working to create a proposal and I need assistance determine the best way to measure constructs and interpret data.

The first purpose of this research is to examine how a framing intervention affects nursing students' perception of relevance and utility value of mathematics. A second purpose is to investigate whether a framing intervention affects nursing students' transfer of mathematics learning to nursing scenarios. A third, overarching goal is to explore the ways that intercontextuality created through Expansive Framing functions as the driver of perceptions of utility value and relevance, and transfer.

Sample

I plan to use three data sources (two of which are quantitative):

First, I will use an existing instrument to measure perceptions of value. The Value Beliefs Instrument is a Likert-scale survey that students will complete after participating in the intervention. I anticipate around 100 students will complete this survey.

Second, I will create an assessment that measures how students apply what they have learned during a mathematics class to contextual nursing-based scenarios. Again, I anticipate around 100 students will complete this assessment.

Third, I will interview a select group of selects (n about 5). This data will be analyzed qualitatively.

Hypothesis

Research Questions: 1. How does expansive versus bounded framing of mathematics affect how nursing students perceive relevance and utility value? 2. How does expansive versus bounded framing of mathematics affect how nursing students transfer school-based mathematics content to nursing scenarios? 3. In what ways is intercontextuality the driver of perceptions of utility value and relevance, and transfer?

Variables: DV1 = Perception of utility value of mathematics DV2 = Transfer IV = Expansive vs. bounded condition

Test-able hypothesis: Expansive Framing will promote relevance and utility value perception and it will improve performance on contextual nursing scenario assessment.

Progress

I have completed an exploratory activity in TEAL 7556 with Dr. Moyer-Packenham that used the Value Beliefs Instrument

Request

Determining appropriate statistical tests and designing methodology for the project proposal

Timeline

I hope to have my proposal completed by March 6, but if possible I would like to have my initial meeting before spring break.