Request #: 647 - ITLS - Dissertation

Impact of FACs on achievement and attitudes

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Background

The purpose of this study is to ascertain the change in student attitudes toward statistics over a semester of large-enrollment introductory statistics courses in which assessments have been transformed.

Sample

The participants are students enrolled in the Introduction to Statistics with Elements of Algebra (Stat 1045) general education, quantitative literacy course. This course is taken mostly by non-STEM majors to fulfill the university's quantitative literacy general education requirement. The course emphasizes "conceptual understanding and statistical reasoning. Foundational algebra, types of studies, summarizing data, probability, [and] hypothesis testing" are concepts covered (http://catalog.usu.edu/).

Hypothesis

1. After controlling for person-to-person variability (random intercepts for nesting), which student attitude components (dependent variables, DV) improve after a semester (repeated measure, time) of Introductory Statistics?
2. Does improvement vary by section or TA (random effects for section and TA)?
3. Also, which factors impact attitude (main effects of covariates) and/or moderated (covariate x time interaction) this improvement?

DV = SATS-36 Attitude Components (pre and post) IV = TA,

Progress

Partial data was analyzed for a MLM course project, but complete data is not available.

Request

Data wrangle, model, and polish

Timeline

Must graduate this semester