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Appendix A: STEBI Scores and Years of Experience

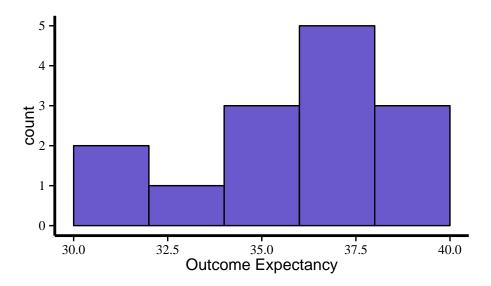
About the STEBI

Whenever we make comparisons (qualitative or quantitative) of teachers, we need to account for what factors may affect the outcomes we try to measure. When considering what factors may affect data-driven inquiry beliefs we would observe in high school chemistry teachers, outcome expectancy is one of these factors. Outcome expectancy is trait that is best described through example: If a teacher believes that no matter s/he does as a teacher, the outcome will for the most part remain unchanged, that teacher has low outcome expectancy. Conversely, if a teacher believes that what s/he does as a teacher will greatly affect the outcome measured, that teacher has high outcome expectancy.

As such, when we ask teachers how what they've done affects their students' formative assessment performance and ask what they will due in light of formative assessment results, it's important to sample based on a range of outcome expectancy. The Science Teachers Efficacy and Beliefs Instrument (STEBI) is an instrument that measures affective characteristics such as outcome expectancy of teachers. Similarly, we may expect that as a teacher gains experience in their practice, they may develop better data-driven inquiry skills, although there is not evidence to suggest a direct relationship. Regardless, we also collected the teaching experience from each participant.

Data for STEBI is incomplete for some teachers, and is therefore not represented in the following histograms

Histogram of STEBI Scores (N=14/19, Min Score = 10, Max Score = 50)



Histogram of Years of Experience (N = 17/19)

