**Did Transforming Assessments in Large-Enrollment Introductory Statistics Impact Student Achievement? Surprisingly, Only for Those Who Needed It!**

Wondering how to reach those students with lesser mathematical preparedness in introductory statistics courses? Using regression discontinuity methodology, large-enrollment introductory statistics courses were compared before and after implementing Formative Assessment Cycles (Hadfield, 2023). FACs (frequent formative assessments, automatic feedback, and the opportunity for reassessment) were implemented as a curricular intervention to address the call for improving student pathways for completing their introductory statistics requirement (Peck, 2019). The results showed meaningful differences in course achievement, specifically, that FACs helped students with less mathematical preparedness successfully navigate this quantitative requirement. In this poster, participants will see how co-requisite courses can benefit from FACs and how to implement them to improve student achievement.

A diagram of multiple attempts for assessment

Description automatically generatedImplementing formative assessment in large-enrollment courses can be taxing, but the takeaway of the results of this study provides exciting developments in student achievement in introductory statistics using FACs, specifically for less mathematically prepared students. We will discuss the graphs from the analysis depicting the frog-pond effect (Hox, 2018) that may explain FACs' positive impact on this student demographic. The benefits and ways that FACs can be implemented will be provided, and my hope is that participants will be invigorated and empowered to implement co-requisite courses with formative assessments in their departments.

Figure 1 The formative assessment cycle

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