

Enhancing equity in the first-year chemistry laboratory through a targeted pre-term laboratory foundations event (LFE)

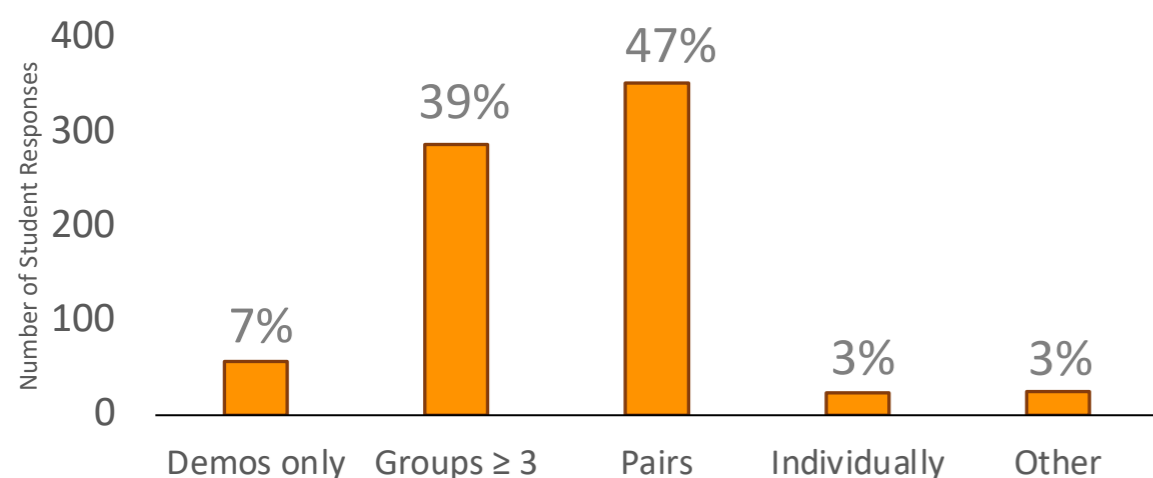


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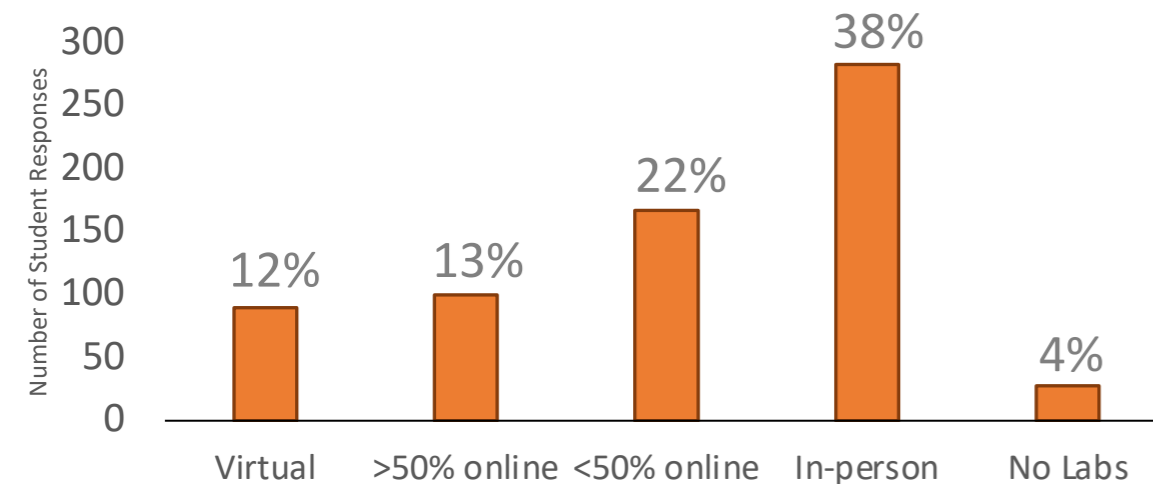
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THE CHALLENGE:

High school lab exposure varies

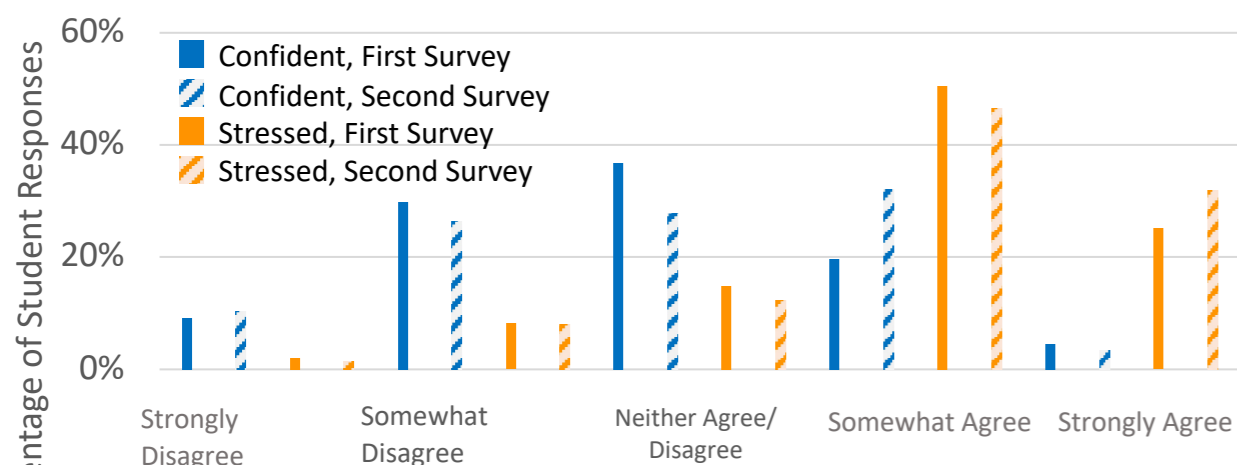


Mode of high school lab is variable



Inconsistencies between high school laboratory experience impact student stress in the lab

Students with minimal or no prior laboratory exposure generally feel stressed in the CHEM 121/111 lab



There was little difference in student confidence and stress throughout the semester

OUR SOLUTION: LFE for students with minimal or no prior lab exposure



Pre-semester introduction



Unassessed, less time pressure



Intro to lab techniques, fun experiment



UTA and GTA mentors with EDI training

PROJECT GOALS

Enhance equity and inclusion for students with minimal lab experience

Decrease student stress and increase accessibility in the lab

Develop LFE and determine its efficacy

Ultimately, increase diversity and accessibility in the field of chemistry

EVALUATING OUR SOLUTION

1. Pre-semester Survey
Determine LFE participants
2. Mid-Semester Survey
Defining student stress and anxiety
3. End of Semester Survey
Mapping continuity and change

Year 1: Consult/ Design

Year 2: Pilot/Evaluate

Year 3: Refine/Document

Focus Group interviews and Laboratory Observations are conducted each year to informally map student experience

77% of survey respondents indicated an ungraded experience with lab equipment would be helpful

73% of respondents indicated a pre-semester introduction to the chemistry lab would be valuable

WHAT'S NEXT?

2024 will mark the launch of the LFE pilot. The same three surveys will be collected to compare student experiences with and without the LFE. Prior to the LFE a training session will be held for all UTA and GTA mentors assisting in the pilot.