

How Geology and Geological Engineering (GGE) is creating a culture of inclusion and increasing accessibility

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OVERVIEW/INTRODUCTION

This year, GGE focused on two primary goals: (1) building a more inclusive and interconnected department through community events and communications, and (2) increasing access by implementing Universal Design for Learning (UDL) in one course, addressing potential barriers to entry into our department, and ensuring all our students, faculty and staff have access to information, resources and support.

Inclusion is important to GGE because:

- Without inclusion, diversity and equity can not be sustained
- It is the key to ensuring everyone feels they belong and can thrive in our department

Access is important to GGE because:

- Geology is rooted in colonialism (Pico, 2019) and ableism (Carabajal et al, 2017), both of which impede students' ability to participate.
- If we don't address access barriers, then we can't be representative of the communities we serve and we can't produce the best solutions or science.

OUR GOALS ALIGN WITH THE FOLLOWING FROM THE DI&A STRATEGIC PLAN:



DESCRIPTION OF THE WORK

Goal 1: Interconnected Community

Established regular social events for interaction across silos (degrees, subfields, labs), such as:

- Started the GE Community Coffee hour every week (GECCo)
- Annual new graduate student welcome field trip and picnic



Goal 2: Increasing Access

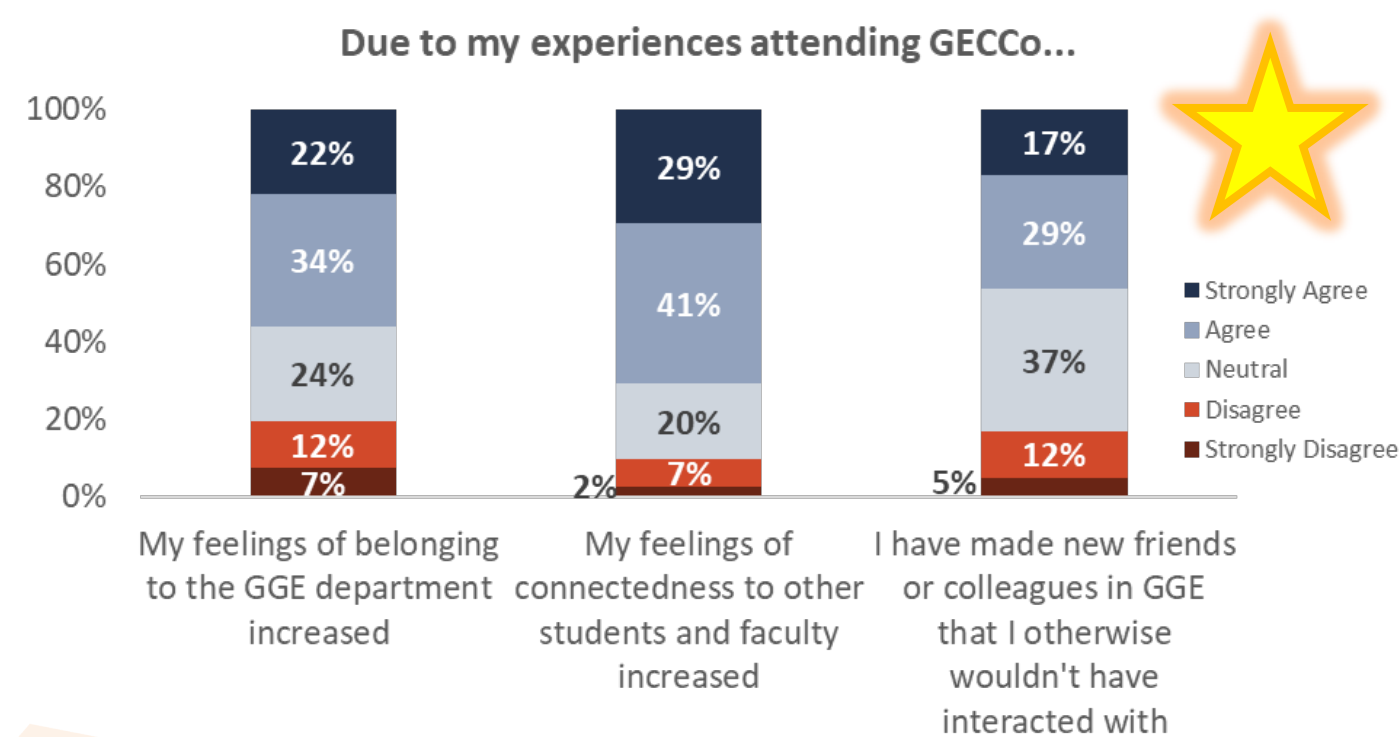
Applied best practices, increased awareness through:

- "Broadening Participation" NSF Program Officer visit on Accessibility in Geo; meet-and-greets, proposal writing meetings, and lecture with reception. Co-hosted with GGE, GP, MN and PE departments.
- Implementation of UDL practices in GEOL 102 – tactile maps, all lectures Closed Captioned and with Alt-text.
- Dropped GRE requirement – presents barrier to access for marginalized groups
- Field camp equipment drive – spearheaded by MS student to increase access of field experiences for in-need and low-income students.

OUTCOMES AND IMPACT

Goal 1: Interconnected Community

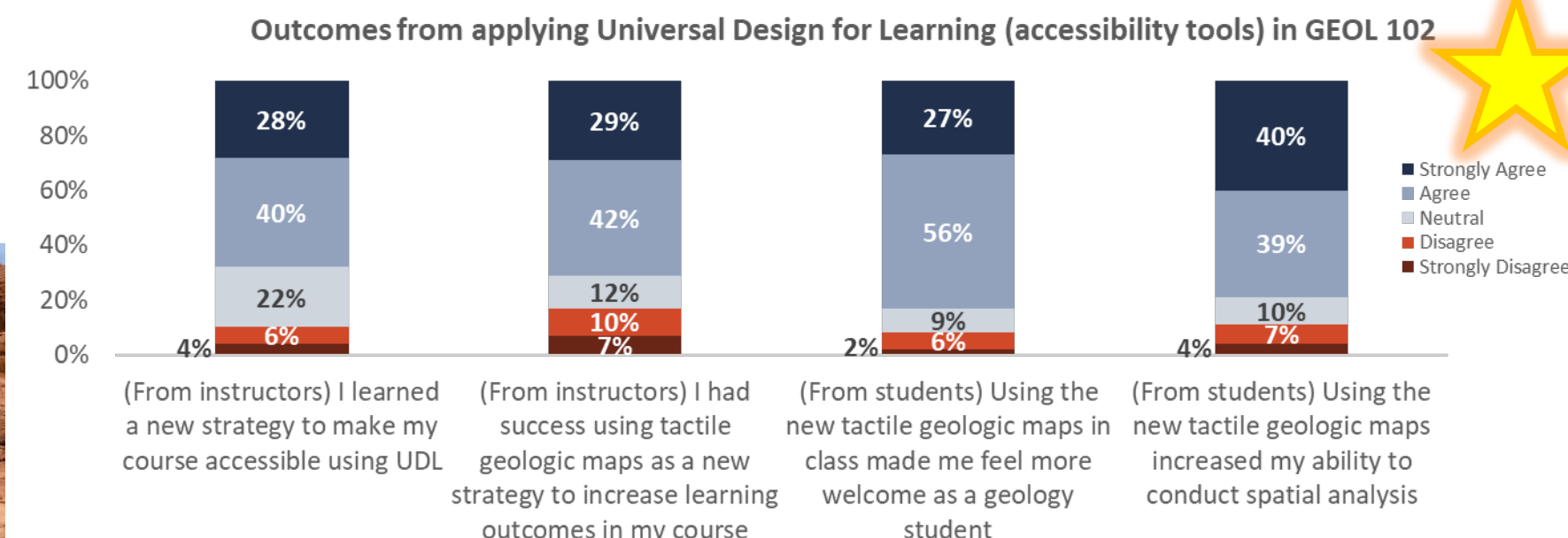
GECCo increased feelings of belonging and connectedness for most participants!



Goal 2: Increasing Access



MS student Lauren Guido led the field camp equipment drive!



Donations helped 9 students attend field camp!
Donated Items included:

- 3 sleeping bags
- 2 tents
- 4 rain jackets/pants
- 6 pairs warm socks

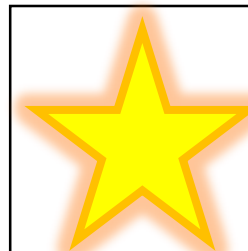
LOOKING AHEAD

Activities to expand on:

- Integrate UDL into all sections of GEOL 102
- Add DEI workshop topics into GECCo activities and expand to GP, MN and PE departments.
- Fundraising efforts for field camp equipment drive – tap into alumni
- Department temperature check on belonging and feeling welcome in GGE

What students are saying: "The new 3D maps helped me understand how the lines on the paper maps relate to altitude"
 "It was hard to meet people at first as a new student in GGE. I went to the coffee hour and now I have a study group of friends."
 "I was so grateful for the equipment donations. If I couldn't get a tent, I wouldn't have been able to go, and that would've set me back for graduation!"

References: Ivan G. Carabajal, Anita M. Marshall & Christopher L. Atchison (2017) A Synthesis of Instructional Strategies in Geoscience Education Literature That Address Barriers to Inclusion for Students With Disabilities, Journal of Geoscience Education, 65:4, 531-541, DOI: 10.5408/16-211.1; Tamara Pico (2019) The Darker Side of Johan Wesley Powell, Scientific American; <https://blogs.scientificamerican.com/voices/the-darker-side-of-john-wesley-powell/>



Important note: Any content denoted by this symbol indicates content provided by Mines DI&A to serve as a more comprehensive example of what units can consider including in their posters this year. This extra content was not originally part of GGE's activities in the past and are not based on facts.

