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Centering disability and access in lab settings

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Abstract

There is a plethora of data supporting that students with disabilities are not represented in STEM degrees and careers. It has also been shown that this lack of representation increases disproportionate outcomes as students proceed from undergraduates to career scientists. It is further known that appropriate accommodations, when implemented, work to combat these outcomes (Dowaliby et al, 2000). However, even given this background, the perspectives of Students with Disabilities (SWD) are largely absent in the existing body of research in STEM education. The purpose of this pilot research is to discuss disability and accommodations with those stakeholders directly affected and affecting these experiences. In this case, the stakeholders of interest are SWD and the biology lab instructors of these SWD. In doing so, we address the following research questions in order to promote accessibility, advocacy, and inclusivity for disabled biology students: 1. Understand what SWD perceive as their greatest obstacles and access needs in postsecondary STEM education 2. Understand how instructors interpret and meet the access needs of their disabled students 3. Analyze how these perspectives are either aligned or misaligned for effectively meeting access needs for SWD in STEM spaces. 4. Use our findings to educate instructors, students, and researchers about meeting access needs. Presented here are our findings from initial interviews with students and instructors analyzed via thematic qualitative methods and a grounded theory approach. We share best practices for both accommodating students with disabilities in lab and field settings and for adapting lab environments as a whole to better serve diverse student populations. We further identify areas of misalignment between student and instructor perspectives on disability and accommodation, highlighting pitfalls in communication that can be addressed.

Keywords: disability, accommodations, STEM education

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