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Tuesday, February 15, 4:10 pm

Speaking up in STEM: Investigating the self-advocacy and classroom experiences of undergraduates with ADHD and specific learning disorders



Research has shown that several systematic barriers contribute to the underrepresentation of students with disabilities in STEM. One important barrier is the drastic change in how students access accommodations when they start college. In high school, accommodations are driven by educational laws that require schools to identify and accommodate students. In college, accommodations are driven by civil rights laws that shift the onus of responsibility for accommodations onto the student. This means that many students learn how to access and use accommodations for the first time as they begin their STEM major. Accessing and using accommodations requires self-advocacy. Although self-advocacy is considered an essential skill for college students with disabilities, little is known about how students practice self-advocacy in their daily lives. My research investigates students' self-advocacy experiences in STEM. Specifically, my research addresses: (a) What does self-advocacy look like for STEM undergraduates with learning disabilities? (b) What factors influence self-advocacy in STEM? and (c) How does active learning in STEM courses affect students' perceptions of learning and self-advocacy? I conducted an interview study with 25 STEM majors with learning disabilities to address these questions. Data were analyzed using standard qualitative approaches by a research team familiar with our participants' experiences. Based on our results, we developed a model of self-advocacy tailored to STEM undergraduates with learning disabilities, characterized factors that affect STEM undergraduates as they practice self-advocacy, and identified how active learning practices could be enhanced to support STEM undergraduates with learning disabilities. This talk will summarize these findings and share implications for STEM instructors.

Recent publications:

- Pfeifer, M. A., Reiter, E. M., Cordero, J. J., & Stanton, J. D. (2021). Inside and out: Factors that support and hinder the self-advocacy of undergraduates with ADHD and/or specific learning disabilities in STEM. *CBE—Life Sciences Education*, 20(2), ar17. <https://doi.org/10.1187/cbe.20-06-0107>
- Pfeifer, M. A., Reiter, E. M., Hendrickson, M., & Stanton, J. D. (2020). Speaking up: A model of self-advocacy for STEM undergraduates with ADHD and/or specific learning disabilities. *International Journal of STEM Education*, 7(1), 33. <https://doi.org/10.1186/s40594-020-00233-4>
- Watson, R. M., Willford, J. D., & Pfeifer, M. A. (2018). A cultured learning environment: Implementing a problem-and service-based microbiology capstone course to assess process and skill-based learning objectives. *Interdisciplinary Journal of Problem-Based Learning*, 12(1), 8. <https://doi.org/10.7771/1541-5015.1694>

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