

Leveraging Mindset Research and Collaborative Communities of Practice to Create Equitable Learning Conditions

Why Do Students' Experiences Matter for College Completion? How Do Learning Environments Shape These Experiences?

Despite enormous investments by institutions of higher education to provide academic and financial supports for their students, four out of ten new four-year college students do not graduate within six years. Completion rates are even lower for students of color, first-generation college goers, and students from low-income backgrounds. Over a decade of research shows that students' psychological experience of college can critically affect their academic outcomes. Although all students can wonder about their potential to belong and succeed in college, this burden is not equally felt. For structurally disadvantaged students in higher education, already wondering, *"Am I respected and valued here? Can people like me belong and succeed in this environment?"*, discouraging or ambiguous events (e.g., *"Why did my professor give me critical feedback?"*) make it easy and reasonable to infer *"I don't belong"* or *"I can't do this."* These inferences can then discourage students from asking for help, from attending office hours, from joining study groups, and from making friends—depriving students of key social and academic supports and ultimately contributing to persistent inequality in higher education.

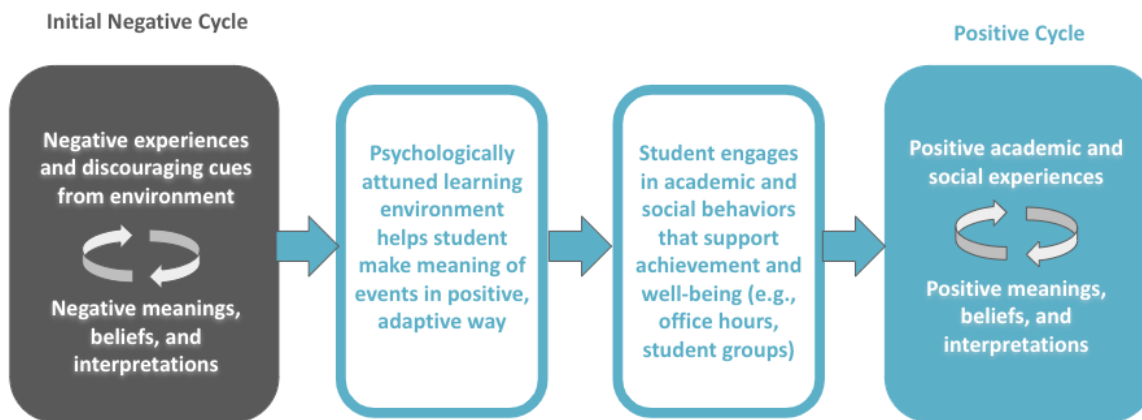
A focus on students' psychological experience does not mean putting the onus on students themselves to foster a sense of belonging or a growth mindset to improve their own outcomes. Some educational environments are structured so that students have limited opportunities to improve with effort, little guidance in strategies they might apply, and are discouraged when they seek help. By creating learning environments that help students feel competent, valued, and connected to others, colleges and universities can help more students persist through the inevitable challenges of higher education.

Research on learning mindsets tells us that instructors create and communicate the mindset culture of their courses, and therefore play an important role in building equitable learning environments and fostering a sense of belonging for students in their classes. Canning et al. (2019) examined how STEM instructors' beliefs about students' abilities influence their students' performance in those instructors' classes. This institution-wide study—with 150 STEM faculty and over 15,000 students—revealed that classes taught by instructors who self-reported more of a fixed mindset had twice as large of a gap in final grades between Black and Latinx students and others compared to classes of instructors who self-reported a growth mindset (Canning et al., 2019).

How Can We Change Institutions to Better Support Students in Pivotal Moments Throughout College?

Schools send students messages every day, both explicitly in communications and implicitly in the design of policies, programs, and practices. These messages include representations of the school community as a whole—e.g., who belongs, what kinds of students are typical and valued—and of specific challenges—e.g., early struggles in gateway STEM classes, or of academic probationations. These messages are powerful shapers of students' experience—and powerful opportunities to shape learning environments in ways that bolster learning and growth, and help students make sense of common challenges in positive, adaptive ways—thus interrupting the negative cycle of worry that contributes to inequality (See Figure 1 below).

Figure 1: Psychologically attuned learning environments can interrupt and reverse negative recursive cycles of student experience



Source: Adapted from Walton & Wilson (2018). *Wise Interventions*; Yeager et al (2016). *Teaching a lay theory before college narrows achievement gaps at scale*.

Institutional leaders can create “growth mindset institutions” and faculty can create “growth mindset classrooms,” places in which students are provided the space and tools to grow their abilities, and in which students know that their instructors and campus leaders believe that anyone can grow their abilities. They can incorporate psychologically attuned approaches that increase the likelihood that students make use of the opportunities and supports available to them, and which complement broader efforts including improvements in pedagogy, financial aid, and academic resources.



The Student Experience Project (SEP) [Practices Library](#) is a collection of evidence-based, field-tested resource guides outlining practical steps that instructors can take in their courses to: promote engagement, increase equity in students’ experiences of their learning environments, and support academic success. The Practices Library was developed by the College Transition Collaborative, through the Student Experience Project.

The [Student Experience Project](#) is a national network of university leaders, faculty, researchers, and national education and improvement organizations collaborating to test and scale research-supported practices to improve equity in students’ classroom experiences and achievement. The project draws on the research base in the fields of social psychology, educational psychology, and brain science, along with feedback from students, and on the ground expertise from instructors, staff and administrators to develop practical approaches that instructors can use in their courses to bolster student engagement and increase equity in academic outcomes. In the first two terms of implementation, more than 100 participating faculty across the six SEP partner schools used SEP tools and practices to narrow students experience gaps between groups who have been historically excluded from or underserved in higher education and their traditionally well served peers, with largest gains for Black, Latina, and Native women. These improvements in student experience were associated with better academic outcomes. As students’ experiences improved over the term,

students' likelihood of receiving an A or B in the course increased, and the likelihood of receiving a D, F, or withdrawing from the course decreased.



The [College Transition Collaborative](#) (CTC) was founded in 2014 to help create higher education learning environments that foster equitable student outcomes by bridging research and practice. CTC's work helps schools better understand how their students experience moments of transition or difficulty and how psychologically attuned practices—messages, policies, behaviors, and programs—can convey to all students they are valued, respected, and can excel. CTC has helped to create the empirical base to know “what works” to address some of the equity gaps that plague many college settings and is using that knowledge to transform classrooms and institutions by building tools, services, and strategies to help colleges cultivate belonging and growth among their students.



The [University of Toledo](#) (UToledo) is a public research university offering one of the most comprehensive menus of academic programs in the country and proud to serve as the city of Toledo's university. As part of work as a campus partner with SEP, UToledo has created a community of practice called the [Equity Champions](#). Open to all who teach gateway courses (graduate student instructors, part time and non-tenure track instructors, and tenure-track faculty), Equity Champions provides a semester-long experience that empowers faculty through real-time engagement with SEP evidence-based tools in their actual classroom work coupled with a supportive community in which they can grapple together with the complex and challenging nature of work to improve equity of student outcomes. The goal of Equity Champions is to foster transformational change at UToledo that advances our institutional goals for student success and equity.

Key Links & Citations

SEP [Research Summary Page](#): An overview of key research informing the SEP

Recent Publication on SEP impact and implementation: Boucher, K.L., Murphy, M.C., Bartell, D., Smail, J., Logel, C., & Danek, J. (2021) [Centering the Student Experience: What Faculty and Institutions Can Do to Advance Equity](#). *Change: The Magazine of Higher Learning*, 53:6, 42-50.

Canning, E.A., Muenks, K., Green, D.J., & Murphy, M.C. (2019). [STEM faculty who believe ability is fixed have larger racial achievement gaps and inspire less student motivation in their classes](#). *Science Advances*, 5(2).

Walton, G. M., & Wilson, T. D. (2018). [Wise interventions: Psychological remedies for social and personal problems](#). *Psychological Review*, 125(5), 617–655.

Yeager, D. S., Walton, G. M., Brady, S. T., Akcinar, E. N., Paunesku, D., Keane, L., Kamentz, D., Ritter, G., Duckworth, A. L., Urstein, R., Gomez E., Markus, H. R. Cohen, G. L., & Dweck, C. S. (2016). [Teaching a lay theory before college narrows achievement gaps at scale](#). *Proceedings of the National Academy of Sciences of the United States of America*, 113, E3341-E3348.