

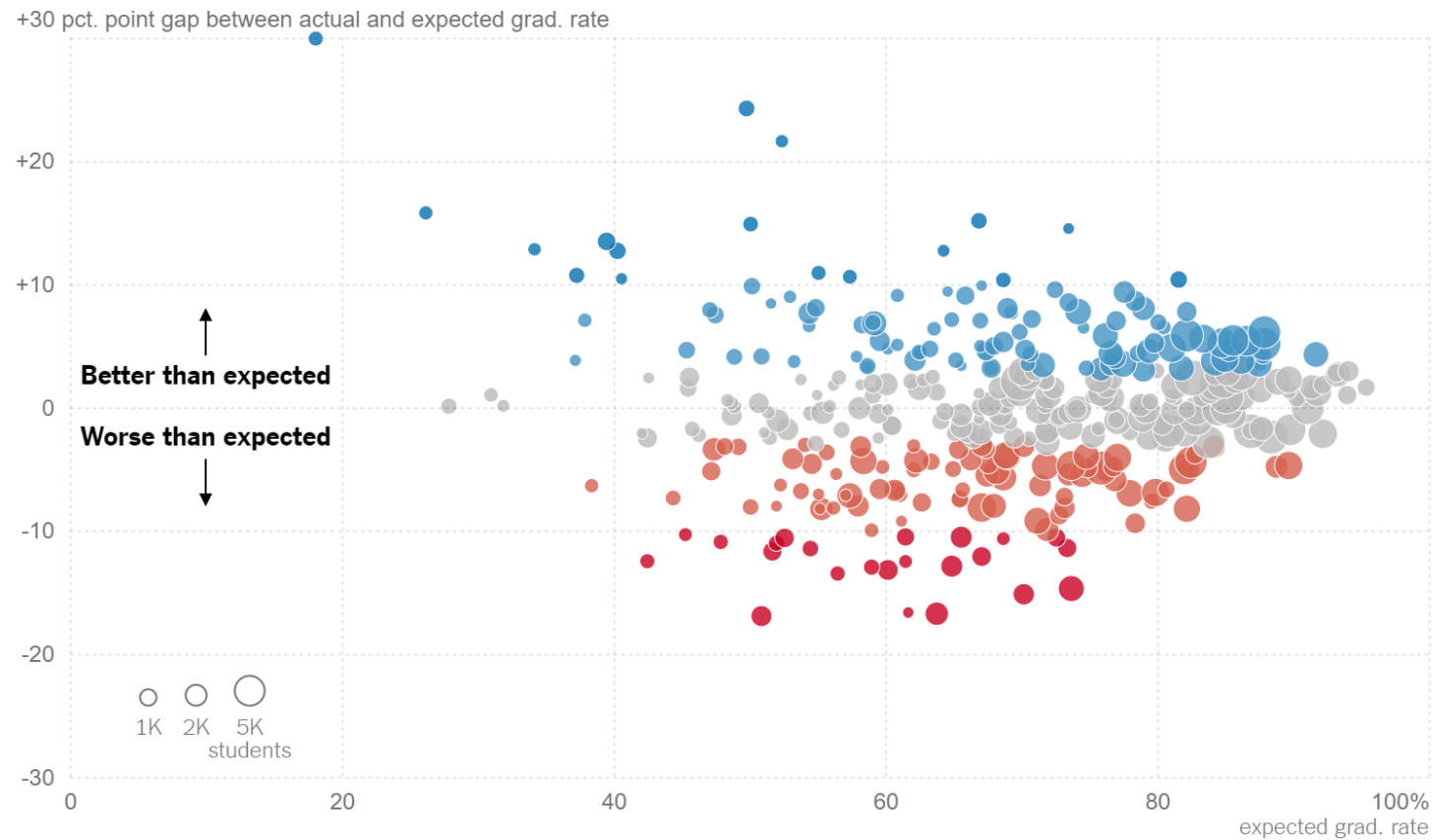


Expanding the completion conversation:

Why student experience matters to college success and what institutions can do about it

INSTITUTIONS' ACTIONS AND CHOICES AFFECT STUDENT OUTCOMES; TODAY WE'LL FOCUS ON THE STUDENT EXPERIENCE COMPONENT

Schools with similar students often have very different graduation rates



THE HEADLINES

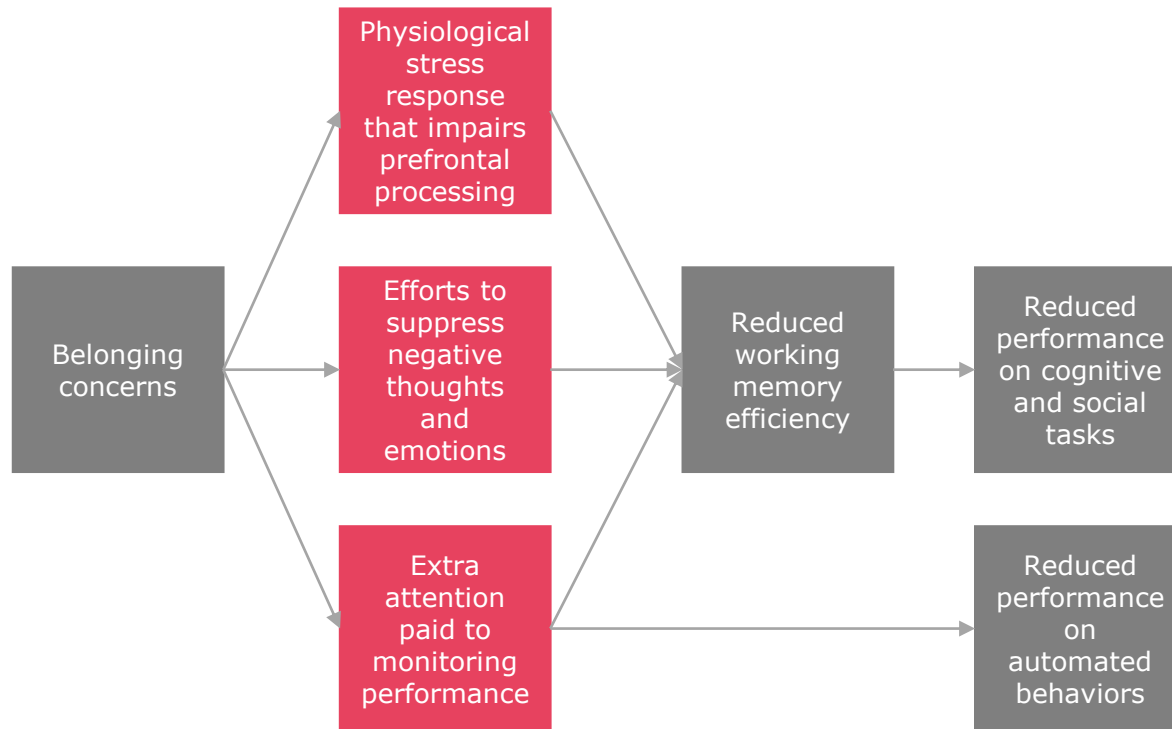
1. Numerous experimental studies show that students' experience of belonging has a causal link to college success—and negatively stereotyped and first-generation students are more likely to experience belonging concerns
2. This research also shows that institutions shape experiences of belonging and they can take discrete steps to alleviate belonging concerns in ways that improve academic behaviors and outcomes
 - Example: Changing the framing of academic probation letters substantially increased the proportion of students who promptly sought their advisors' assistance and remained enrolled 1 year later
3. There are multiple points in students' journeys through college in which institutions can intervene using research-based principles to enhance belonging and increase students' likelihood of success
4. Bottom line: Attending to students' experience related to belonging can improve student outcomes

PERCEPTIONS OF BELONGING ARE SHAPED BY THE INTERACTION OF A PERSON AND A CONTEXT: DO I BELONG HERE?

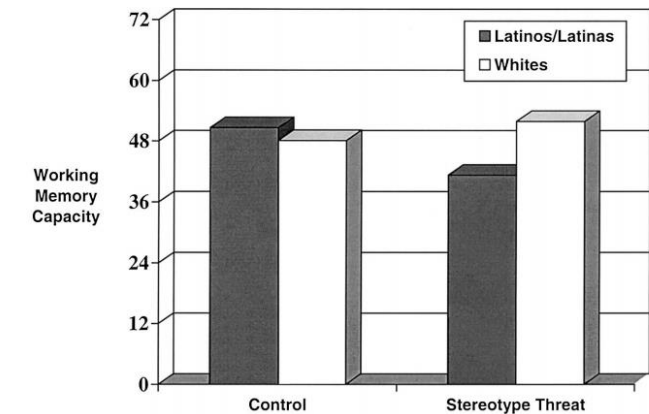
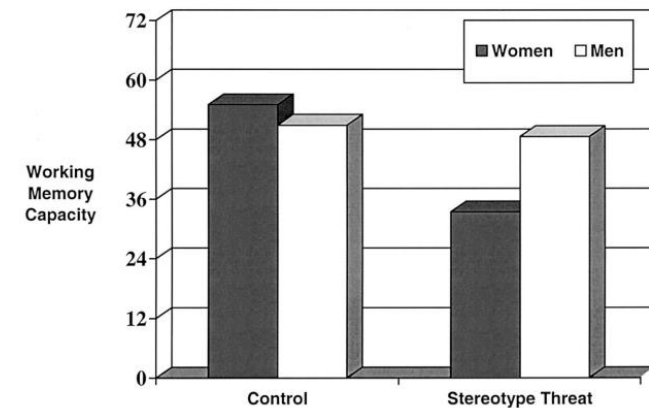
“One of the most important questions people ask themselves when they enter a new setting is “Do I belong here?” This is not a simple question. It involves two parties, “I” and “here,” and, at least implicitly, an evaluation of who I am (or can become) and what the setting allows (or can allow). Belonging is therefore not a simple summation of the number of friends one has in a space. It is a more general inference, drawn from cues, events, experiences, and relationships, about the quality of fit or potential fit between oneself and a setting. **It is experienced as a feeling of being accepted, included, respected in, and contributing to a setting, or anticipating the likelihood of developing this feeling.**”

BELONGING CONCERNS IMPEDE COGNITION AND LEARNING

Mechanisms by which belonging concerns negatively affect performance



Students' working memory availability is reduced among negatively-stereotyped groups when belonging concerns are induced (e.g., under conditions of stereotype threat)



ADDRESSING BELONGING CONCERNS IMPROVES LONG-TERM OUTCOMES IN COLLEGE

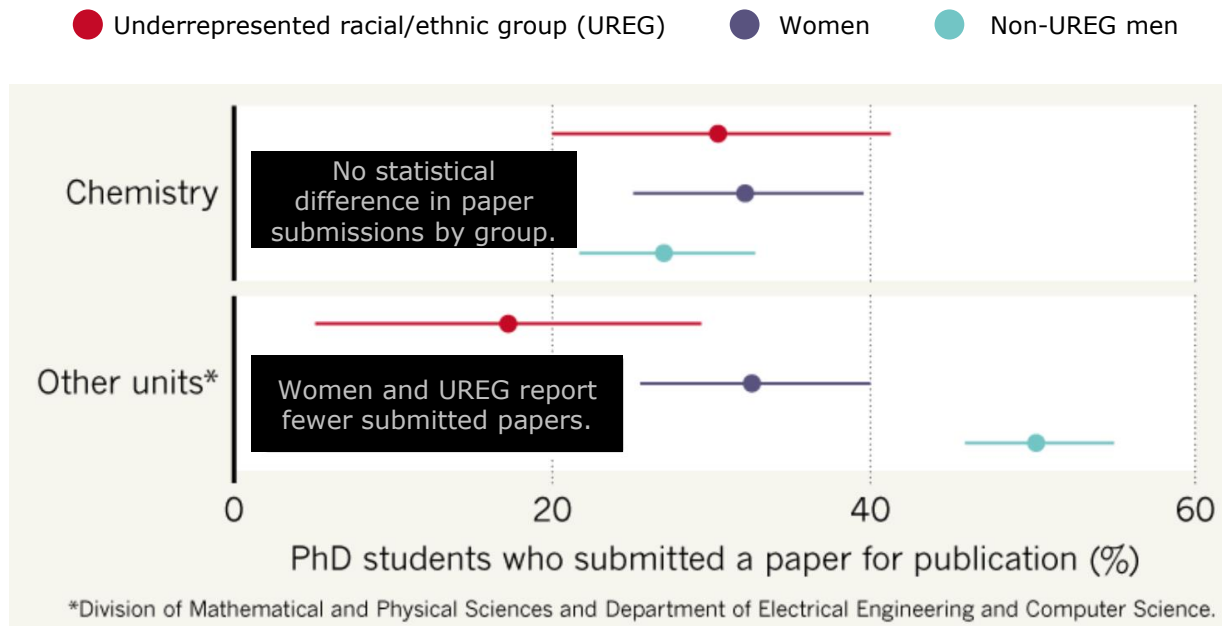
| Institutional context | Impact of psychological interventions targeting belonging concerns |
|---|--|
| Highly selective college Walton & Cohen, 2011 | <ul style="list-style-type: none"> Increased percentage of African American students in the top 25% of their graduating class from 5% to 22% and increased their cumulative GPA by 0.24 grade points over three years |
| Large public university, STEM students Walton et al., 2015 | <ul style="list-style-type: none"> Increased first-year GPA among women by 11.40 points (on 100-point scale) in male-dominated engineering fields |
| Large public, broad-access university Murphy et al., in prep | <ul style="list-style-type: none"> Increased continuous enrollment over two years among negatively stereotyped students of color and first-generation students by 9 percentage points, from 60% to 69% |
| Selective private university Yeager et al., 2016 Expt. 3 | <ul style="list-style-type: none"> Increased average first-year GPA among negatively stereotyped students of color and first-generation students from 3.33 to 3.42 |
| Large selective public university Binning et al., under review | <ul style="list-style-type: none"> Increased average course grades among women in physics from 64.7 to 72.4 (on 100-point scale), and among students of color in biology from 2.23 to 2.65 |
| Large selective public university Yeager et al., 2016 Expt. 2 | <ul style="list-style-type: none"> Increased first year, full-time completion among negatively stereotyped students of color and first-generation students by 4 percentage points, from 69% to 73% |
| 23 colleges and universities, ranging from broad access to selective Walton et al., in prep | <ul style="list-style-type: none"> Increased first year, full-time completion among negatively stereotyped students of color and first-generation students by 1.3 percentage points overall and by 2.1 percentage points at schools with more belonging-supportive contexts |

Median time spent on belonging activity:
12 minutes, 27 seconds

INSTITUTIONAL CHANGES: MAKE TACIT KNOWLEDGE EXPLICIT AND PROVIDE STRUCTURED PATHWAYS THROUGH PROGRAMS

Case study: Berkeley College of Chemistry

The College of Chemistry at the University of California, Berkeley stands out because it shows no difference in the submission rates of academic papers across groups, unlike other STEM divisions at the university.



Key ingredients

1. Build a “culture of structure”

- Advancement processes and procedures clearly defined, universally communicated, and systematically applied to all students
- Student progress overseen by multiple faculty members
- Department-wide agreement about expectations for advancement

2. Build trust and rapport, especially across lines of difference (e.g., gender, race, ethnicity)

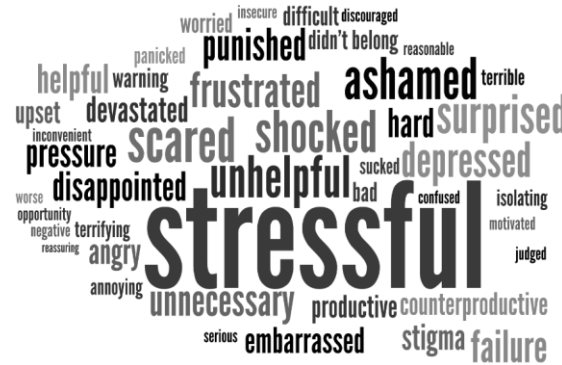
INSTITUTIONAL CHANGES: ALTER COMMUNICATIONS TO STUDENTS

Excerpt from a probation letter

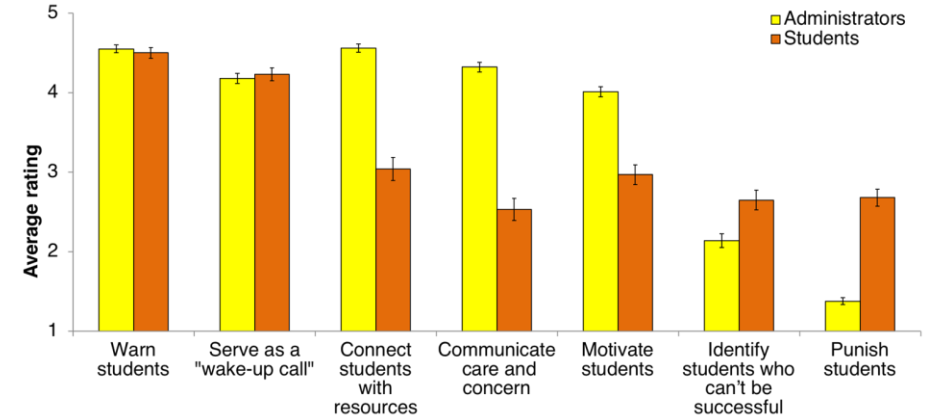
Dear Lisa,

After reviewing your academic record, I write to advise you that you have not met the minimum requirements for satisfactory academic progress set forth by the Faculty Senate. As a result, you will be placed on academic Probation effective next term... Its purpose is to alert you to academic difficulties in time to identify those areas where you may be experiencing problems and determine how best to address them...

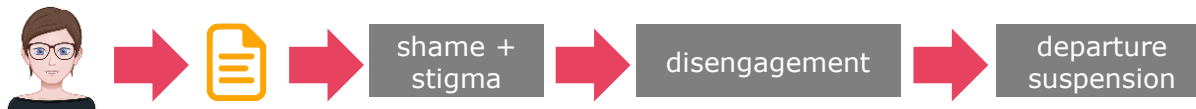
Typical probation letters provoke a high degree of shame and stigma



But this isn't what administrators intend: message intended often isn't message received



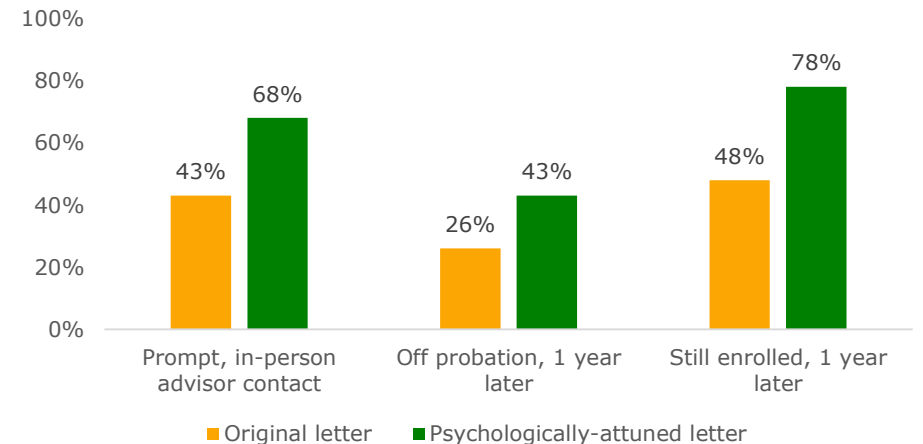
This psychological experience of probation can lead to negative outcomes...



...however, this isn't inevitable: changing the letter to emphasize probation as a process of learning (not a label), normalizing academic difficulties, acknowledging non-pejorative reasons for difficulty, and offering hope for return to good standing can lead to different outcomes



Psychologically-attuned probation letter had a positive impact on student behaviors and outcomes



INSTITUTIONAL CHANGES: CREATE CULTURAL CONTINUITIES FOR ALL STUDENTS

From Stanford's President



Welcome to Stanford University

I am delighted that you have decided to attend Stanford University. For the next few years, you will have many opportunities to explore new areas and to learn from our superb faculty and your fellow students.

As Stanford's 10th president and a faculty member for 27 years, I encourage you to make the most of your time here, and I offer you a few suggestions to get you started.

Stanford has one of the most accomplished faculties in the nation, and these teachers and researchers are here in large part because of you—the extraordinary students that Stanford attracts. From your first days on campus, I urge you to get to know our faculty. Stop by during office hours to continue a class discussion or to ask about research possibilities.

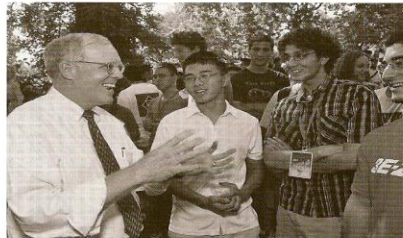
Stanford undergraduates have many opportunities not available at other institutions. The University's breadth—from the arts to the environment to athletics to the sciences—provides students with unparalleled freedom to cross departmental boundaries and discover intellectual and personal passions. You will have the chance to work with distinguished faculty members in small classes from your first days on campus. If you are interested in research, Stanford University offers undergraduates numerous avenues for pursuing student-initiated research or working on faculty projects.

Stanford is an intellectually vibrant place, and your fellow students are a critical part of the community. Some of your most valuable experiences will be shared with your peers, whether you are working together to understand a difficult concept or getting to know more about another's background or culture. I often hear alumni say that they made lifelong friends while attending Stanford.

Stanford University has a tradition of boldness, and I hope you will challenge yourself while you are here. This is your time to attempt something new—whether it is in the classroom, in a laboratory, in a theater, or on the athletic field.

Above all, I urge you to enjoy the intellectual journey and pursue it with enthusiasm.

John L. Hennessy
President



President Hennessy greets new freshmen at the President's Reception in 2003.

Examples of **independent** cultural framing, which emphasizes individuals and their goals, choices, preferences, successes, self-esteem, and responsibility:

*I am delighted that **you have decided** to attend Stanford University and that **you think** Stanford is the right place for you.*

*For the next few years **you will have many opportunities to explore new areas and to learn from our superb faculty and from your own personal exploration and individual experiences as a student.***

*A tradition of **independence**: of bold students who **assert their own** ideas, thoughts, and opinions.*

Examples of **interdependent** cultural framing, which emphasizes connections to others, privileging the needs and norms of the group, shared responsibility, deference to authority and elders, and contributing to group harmony:

*I am delighted that **you and your family** have decided that you should attend Stanford University and that Stanford is the right place for you.*

*For the next few years, **together with the Stanford community**, you will have many opportunities to explore new areas and to learn from your experiences and interactions **with your peers.***

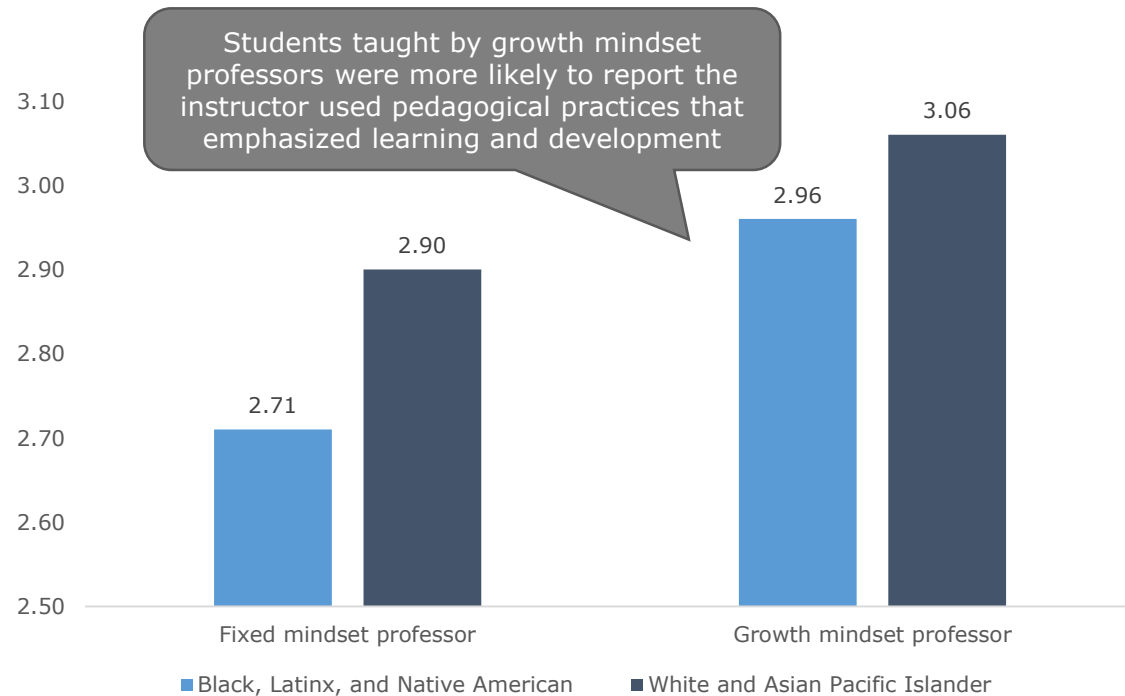
*A tradition of **learning through community**—bridging academic study with public service.*

In a lab study testing these types of modifications, **first-generation students solved significantly more anagrams in the interdependent condition**, compared with the independent condition; **continuing-generation students performed equally well in both conditions.**

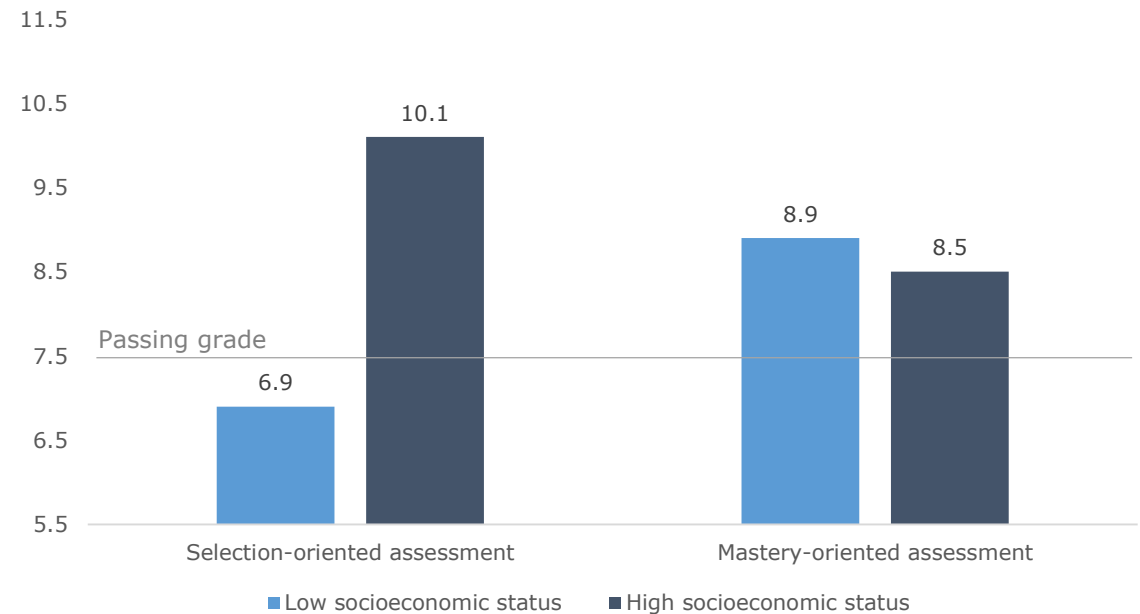
An intervention given to incoming students at a university that drew on this Stephens et al. study **significantly increased first-year GPA, from 3.33 to 3.47.**

INSTITUTIONAL CHANGES: SUPPORT FACULTY IN SHIFTING PRACTICES

All students, and especially members of underrepresented racial/ethnic groups, earned higher course grades in STEM courses taught by faculty who believe students can change their intelligence; those faculty appear to use different practices in their classrooms



College students who face economic disadvantage performed better on assessments when presented as a tool for learning than when the assessment was presented as a tool for selection; the difference between assessment conditions among students who do not face economic disadvantage was not statistically significant



INSTITUTIONS CAN TAKE MULTIPLE DISCRETE ACTION STEPS THAT CAN EACH MAKE A DIFFERENCE IN CHANGING STUDENTS' EXPERIENCE

There are multiple points in students' journey through college at which **institutions can take discrete actions** with an eye to factors that research suggests can enhance belonging, particularly among negatively stereotyped and first-generation students.

These factors include: **reducing bureaucratic hassles**; incorporating **interdependent cultural norms in communications and practices** (e.g., group work, assignments connected to community); **conveying growth—rather than fixed—messages about ability**, including linking critical feedback to high expectations and assessments to opportunities for learning, and reducing their use as tools to diagnose, evaluate, and sort; **making tacit knowledge explicit**; introducing **clear expectations and structures** that reduce ambiguity; **normalizing challenges and usage of supports**; **addressing representation** in faculty, administration, and curriculum; supporting experiences of **identity affirmation**; providing **role models and mentorship**; and utilizing **cohort models**.

Key to making changes is that form does not equal function; institutions should rely on input from students to ensure that message intended is message received.

