Welcome to the UNM Student Experience Project

Instructor: ███████████
Office: ████████; Office hours: by appointment
Office Phone: (████████ E-mail: ██████████████

Please read carefully, print out and KEEP a copy. You are responsible for the contents.

IT'S IN THE SYLLABUS

This message brought to you by every instructor that ever lived.
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Electronic Communications

The University provides all ████ students with an "official" email account with the address ████████████████." As a result of federal laws protecting educational information and other data, **this is the sole email account you should use to communicate with your instructor or other University officials.** I will check my email on daily base (not including weekends or holidays). During the week, I will try to respond to emails within 48 hours, it will take longer during the weekends and holidays.

Please do not leave message to my office phone, contact the Department of History and Philosophy ████████████ for emergency.

# What do you take away from the data on the UNM Student Experience?

This Fall Student Experience Project Study compared the experience of students at UNM with that of students at five peer institutions.

Go to link in the chat and examine some of the data in your breakout group.

What do you take away from the data?

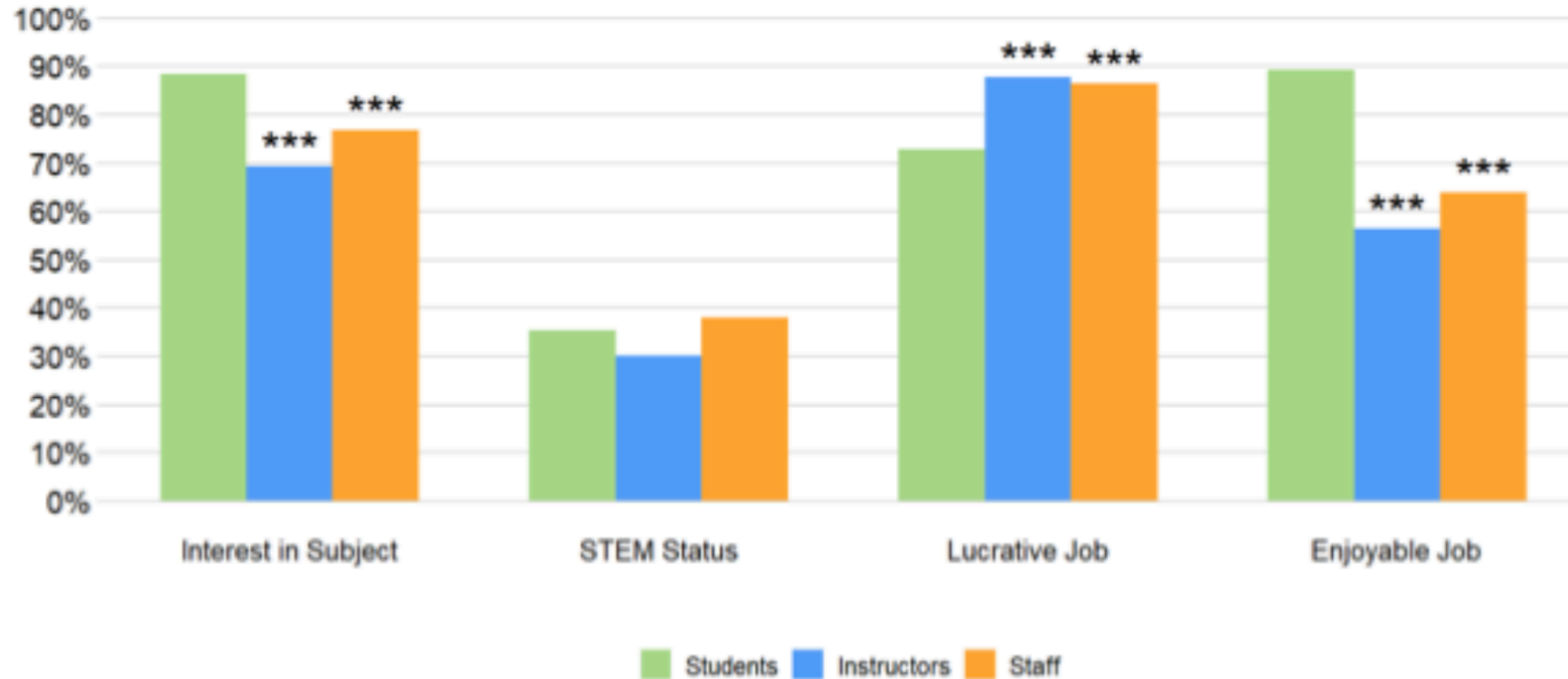https://docs.google.com/document/d/14_Hiczv5Q7GWGPJroD6BhPNOWwYUmYQgZizK2nspxuc/edit?usp=sharing

Figure 13. Overall DFW Rate In Gateway STEM Courses At UNM, By Demographic Group
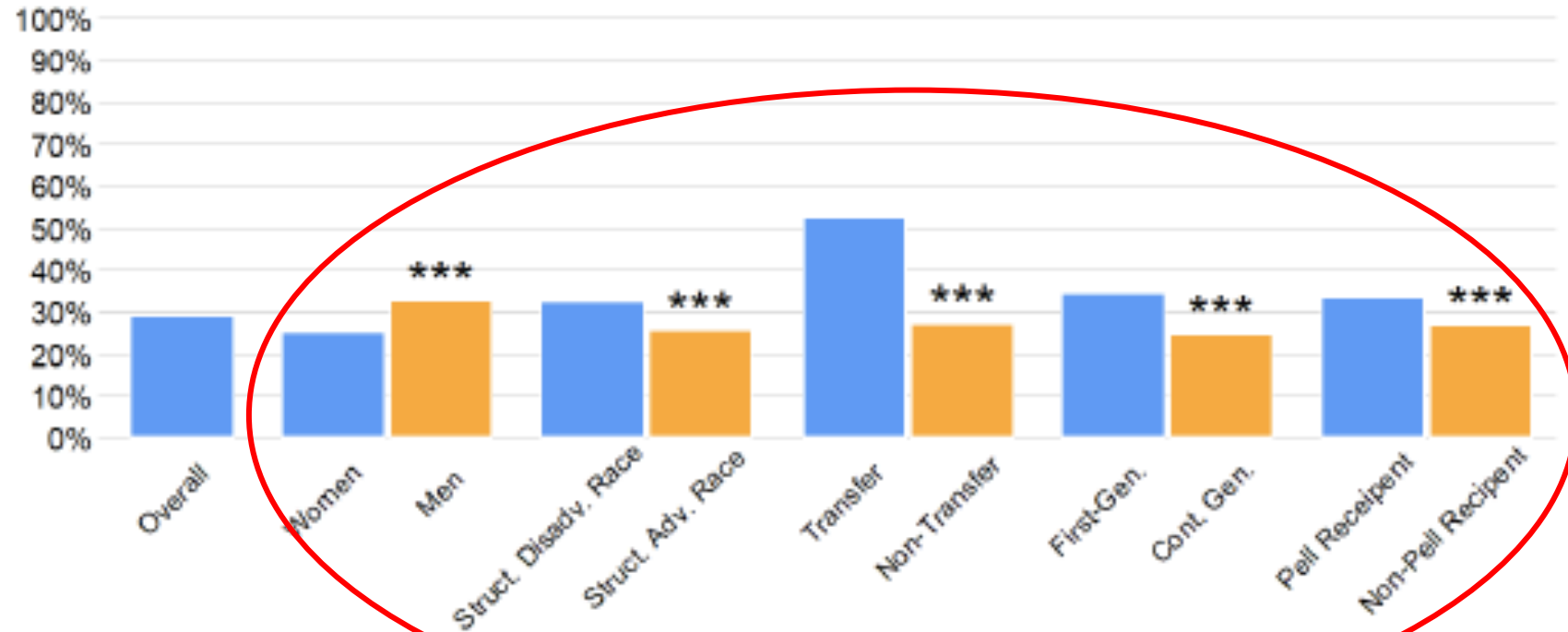
(*p < .05; **p < .01; ***p < .001)

Figure 15. Individual Factors Impacting STEM Interest

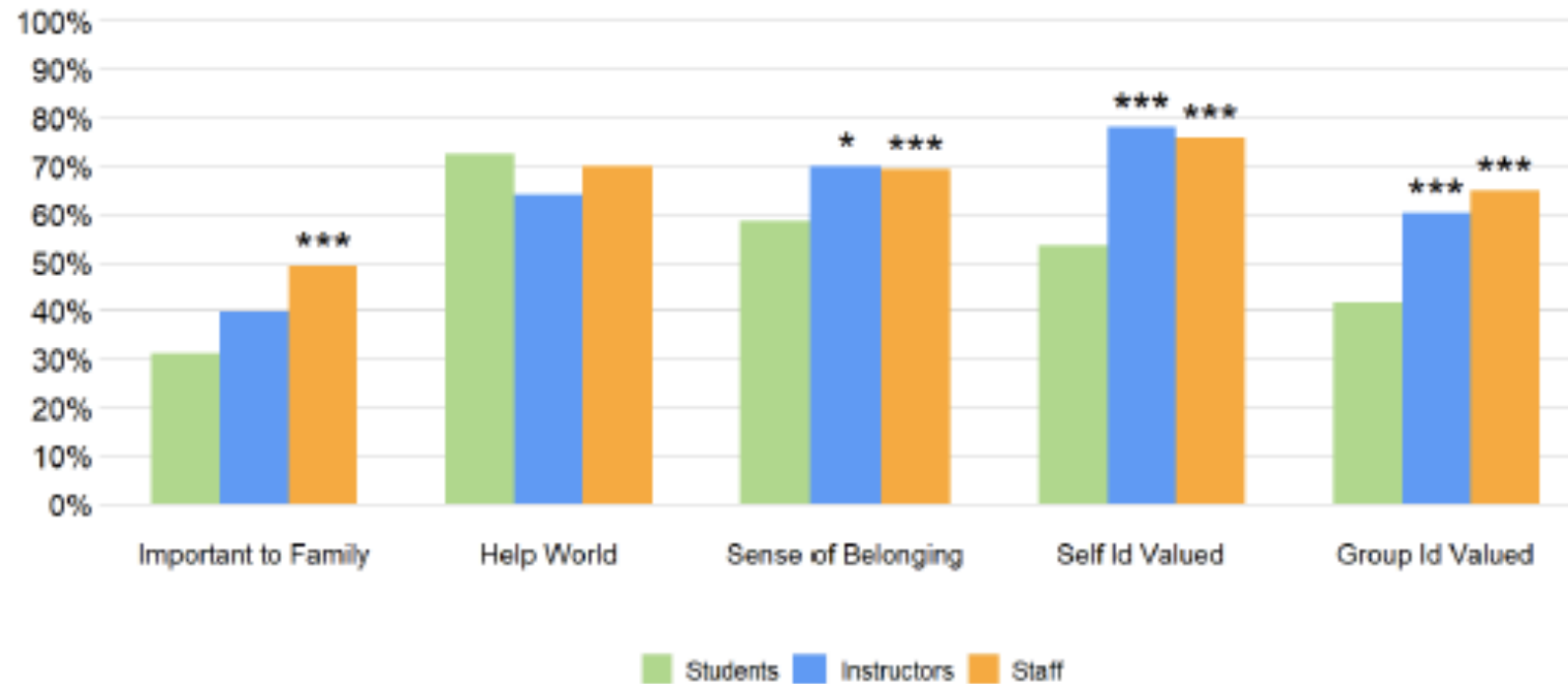Average n: Students = 1086, Instructors = 137, Staff = 569

(*p < .05; **p < .01; ***p < .001)

Mismatch between faculty/staff and students: Underestimating intrinsic factors (subject interest, enjoyable job) and overestimating extrinsic factors (lucrativeness) motivating students' interest in STEM

Figure 16. Communal Factors Impacting STEM Persistence
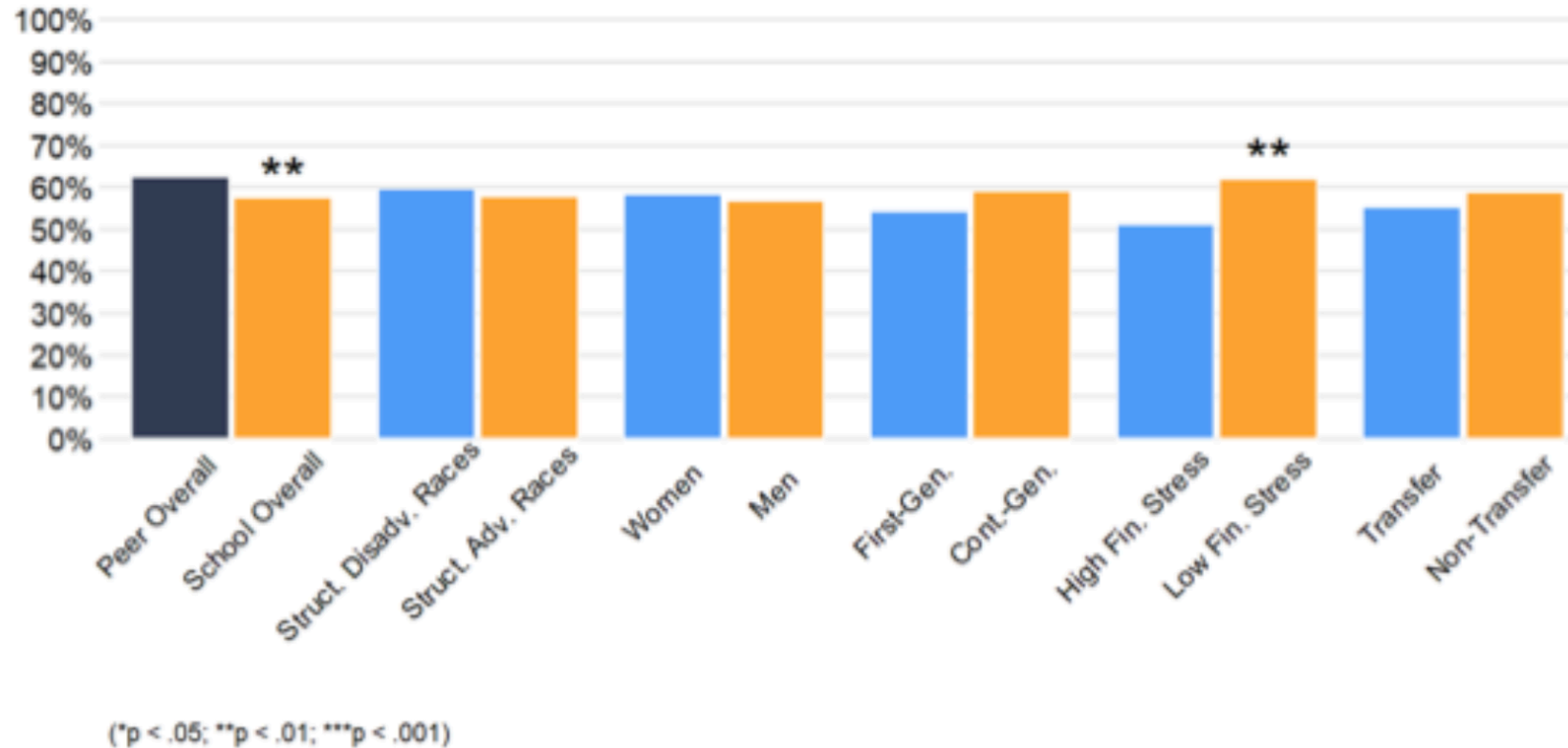
Average n: Students = 427, Instructors = 128, Staff = 497

Mismatch between faculty/staff and students: Overestimating communal factors motivating students' persistence in STEM (possible stereotyping)

Figure 20. Student Overall Sense Of Belonging At UNM

School Overall n = 790

(*p < .05; **p < .01; ***p < .001)

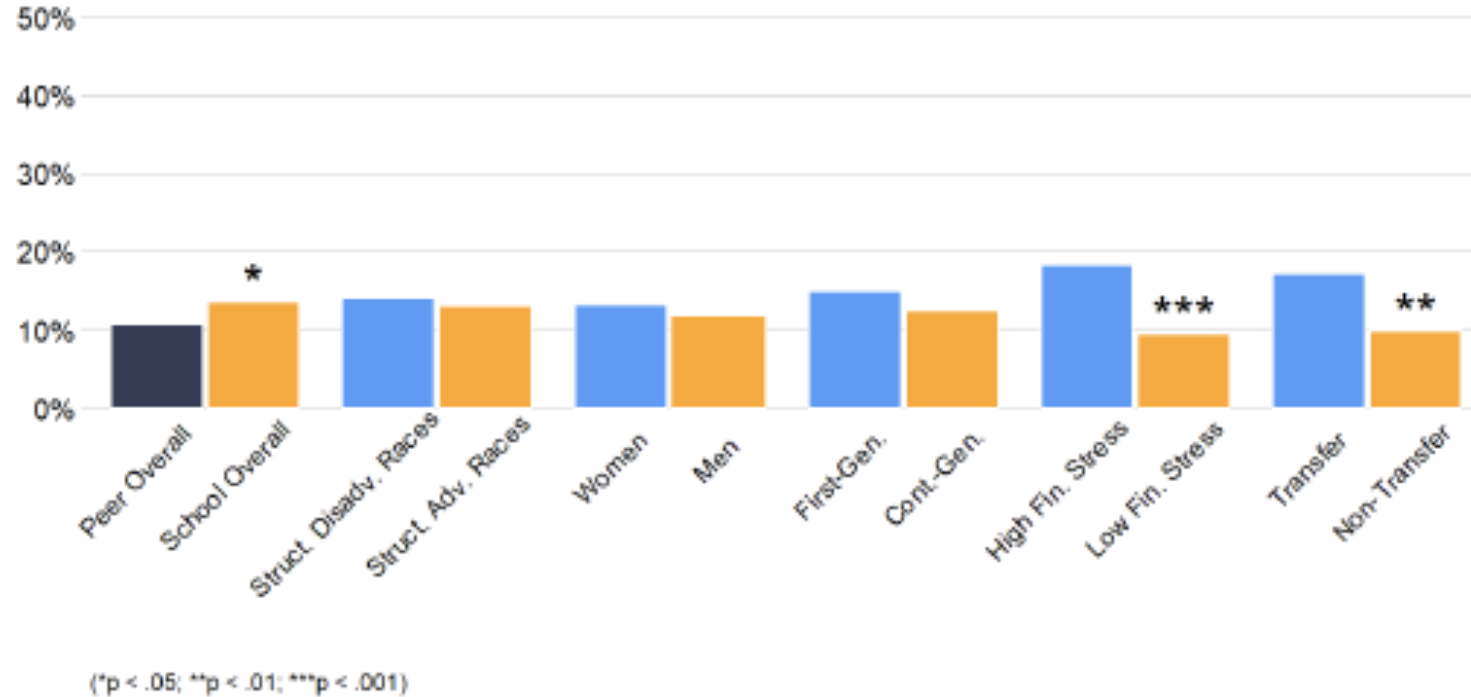*Lower sense of belonging at UNM (vs. cohort schools); particularly among those with high financial stress (and first-gen and transfer students)*

Figure 24. Student Perceptions Of Instructor Fixed Mindset

School Overall n = 779

*Students perceive greater fixed mindset beliefs among faculty at UNM (vs. cohort);
particularly true among students contending with high financial stress and transfer students.*

SEP **The Vision of the Student Experience Project:**

Create equitable learning environments that support the success, retention and degree attainment of the least well served students (e.g. low-income, first generation, students of color) by
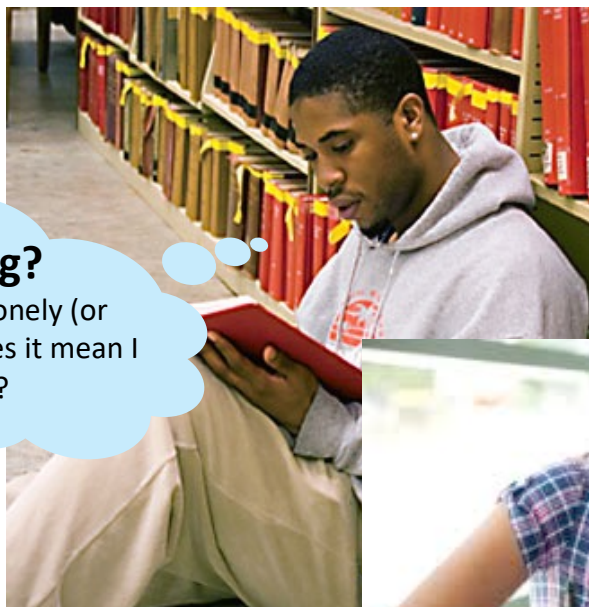
- Applying social psychological research to develop new approaches, tools and resources that can be applied at scale

College students are asking key questions

Do I belong?
When I feel lonely (or disrespected, etc.), does it mean I don't belong?

Can I do it?
When it's hard, does it mean I can't do it?

- Their answers can determine how they face challenges that arise, whether they reach out for support, and ultimately affect their retention and academic achievement
- The answers are especially important for students from structurally disadvantaged groups

How Learning Mindsets Affect Students
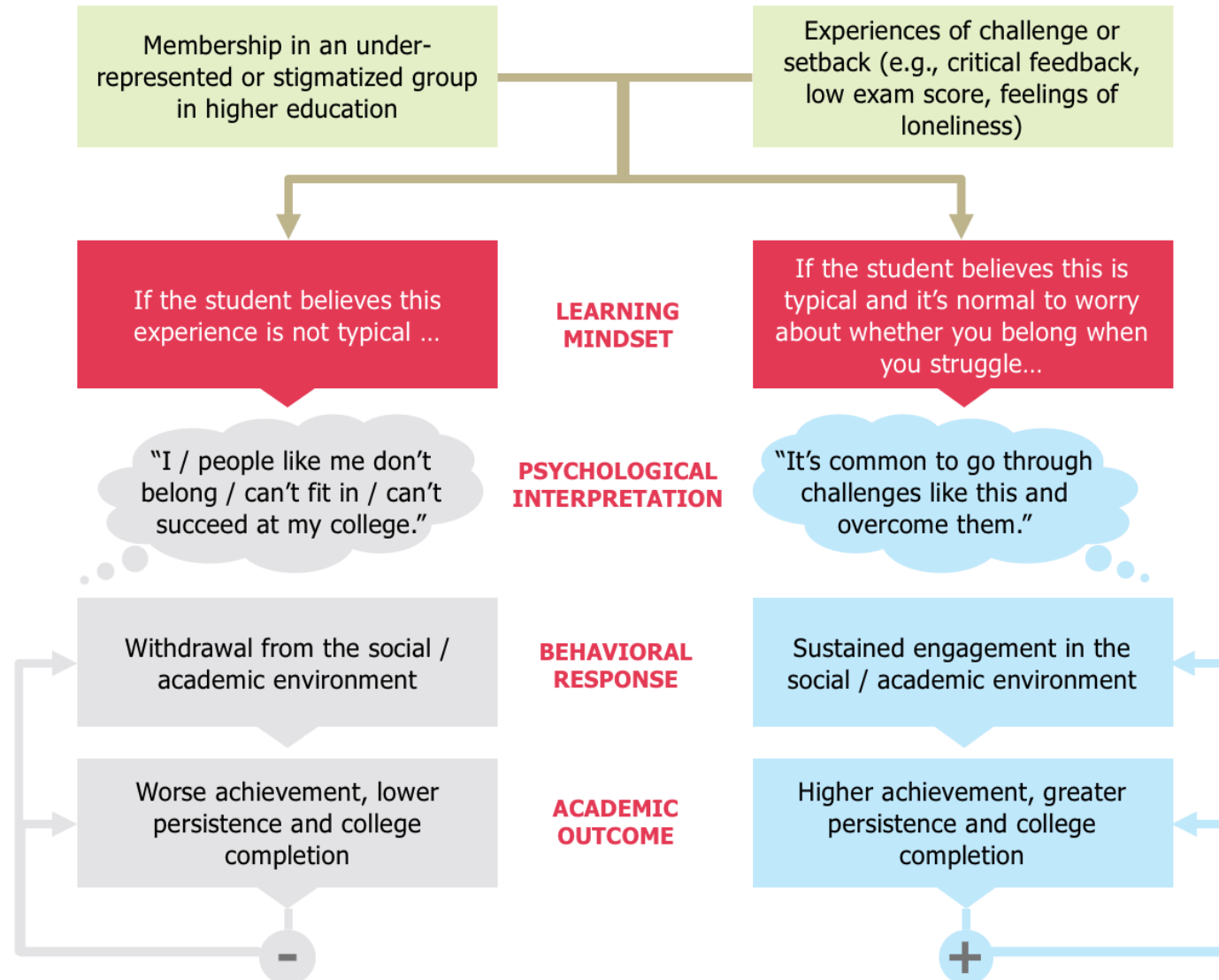
Adapted from diagram designed by Mindset Scholars Network

SEP Students Who Have a Growth Mindset in College

- Believe that academic ability is malleable, and not the result of innate qualities
- Believe that they can improve their academic ability over time with effort, feedback, and using effective strategies for learning

Instructors Who Communicate a Growth Mindset

- Convey that academic ability is malleable, and not the result of innate qualities

- Convey that students can improve their academic ability over time with effort, feedback, and using effective strategies for learning

Instructors Who Communicate a Fixed Mindset

- Convey that academic ability is fixed and students can't do much to change it

- Convey that some students have what it takes to succeed, and some students don't

- Have a disproportionately negative effect on students from structurally disadvantaged groups

When Instructors Have Fixed Mindsets, Structurally Disadvantaged Students Are Especially Affected

Self-reported STEM Instructor Mindset Beliefs

Racial academic outcome disparity is more than twice as large in classes taught by fixed-mindset instructors
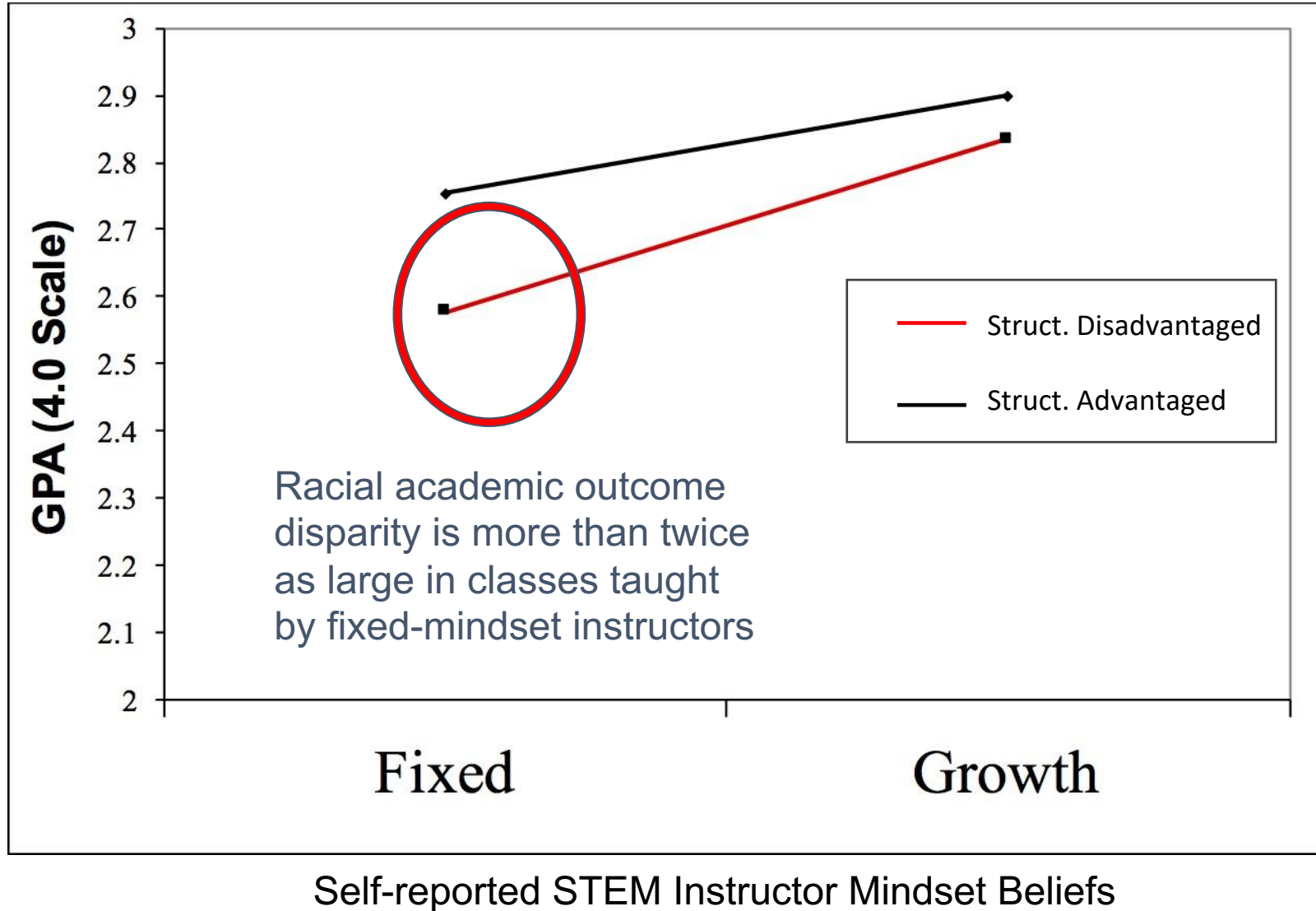
150 STEM instructors

602 courses

7 semesters

15,214 students

Canning, Muenks, Green, & Murphy (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.*

SEP Common Misconceptions About Growth Mindset

- Every student is equally prepared for a given course or every student can grow their ability enough in a single term to succeed

- Successful completion of the class is merely a matter of *effort*

- It's about being nice or lowering standards

Students Who Have a Sense of Belonging in College

- Feel socially connected, supported, and respected

- Feel that they fit in in the college community

- Trust the people at the institution

- Are not worried about being treated as a stereotype

SEP Students Who Have Belonging Uncertainty in College

- Feel that they might belong… but might not

- Watch for signs or cues about their belonging

- Feel like they belong when things go well; feel like they do not belong when things go badly

- Research finds when structurally disadvantaged students have belonging uncertainty, they can withdraw academically (e.g., ask fewer questions in class, be reluctant to visit office hours) and socially (e.g. less extracurricular involvement and studying with friends) and even have lower grades and credits earned

- Convey that their classroom is a place where all students belong

- Convey that almost everyone faces challenges (e.g. lower grades; feeling intimidated by course material)

- Convey that such challenges are not a sign that a student does not belong there

- Convey that by giving it time, and taking agentic steps, most students do come to feel a sense of belonging

Common Misconceptions About Fostering Belonging

- Blaming students for having belonging uncertainty

- Gaslighting their belonging concerns

- Unrealistically positive

- Needlessly negative

Improving Student Belonging Improves Academic Outcomes
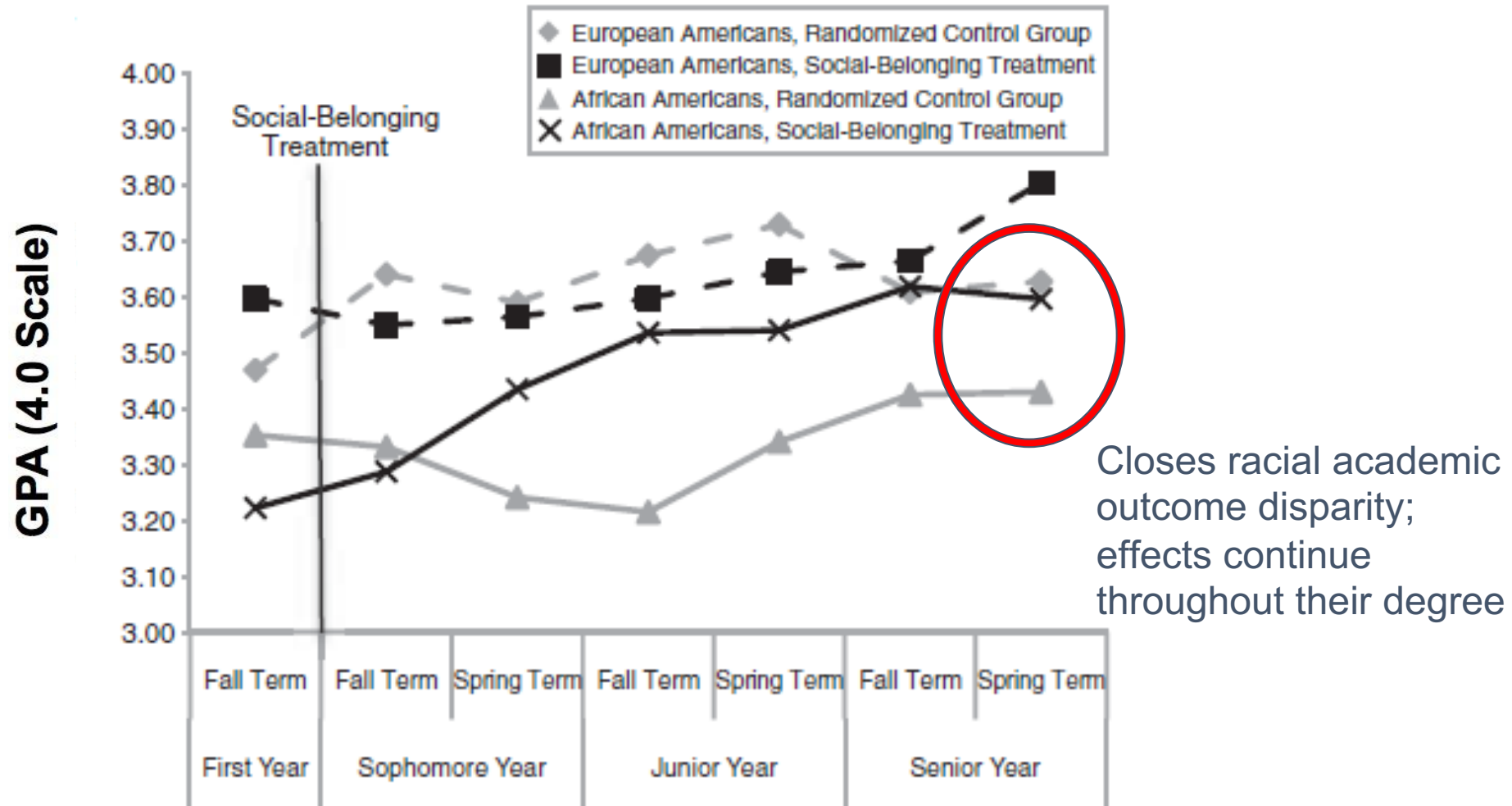
African American and European American students

Social-belonging treatment vs control

Closes racial academic outcome disparity; effects continue throughout their degree

Walton, G. M. & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science, 331,* 1447-1451.

Categories of Interventions:

1 — Setting the Classroom Climate

* Revise syllabus language to convey messages of growth mindset & belonging.
* Develop welcome messaging.
* Ice-breakers.
* Rebrand office hours as drop-in availability or help/review sessions.

2 — Inclusive Assessment & Grading Practices

* Commit to giving, grading and returning the first major piece of graded course work by the end of week 4
* Frame feedback after the first major assignment using WISE feedback strategies, & growth mindset language.
* Use the Faculty Early Alerts Student Referral system.

3 — Growth Mindset & Learning to Learn

* Use exam wrappers to help students reflect on their performance.
* Implement resources in course to support student to become better learners.

4 — Virtual Environments

* Use diverse images of people in presentation slides, course materials and in Blackboard LEARN.
* Inventory physical & virtual environments to assess for negative messaging, & incorporate growth mindset & belonging cues in these areas.
* Incorporate best practices for remote courses taught at the UNM Center for Digital Learning

For More Information

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For More Information

1. A syllabus reflecting growth mindset

- shows that you care for the students success
- that you believe all of them can grow and strengthen their skills
- gives them resources to help them succeed
- helps them build good study skills
- tells them what their responsibilities are

In summary:

- puts in writing what you may tell them on Day 1
- humanizes the syllabus, in your own genuine way

My sample: https://math.unm.edu/~nitsche/courses/316/aupf20.html

Math 316 Fall 2020 - Applied Ordinary Differential Equations - All sections

Description: Math 316 is an introductory course on ordinary differential equations. The topics for this class include elementary theory of ordinary differential equations, analytical methods to solve linear first and second order equations, numerical methods, phase-plane analysis, and introduction to Laplace transformations.

Differential equations model many natural phenomena as well as applications in engineering and physical sciences. The goal of this course is threefold: 1) to give you the tools and skills you will need in your upcoming classes in engineering and natural sciences. 2) build your deductive reasoning and presentation skills. As a scientist of engineer you will have to explain your results to others. One focus here is on the presentation of your results, which must always be clear so that others who don't know the result can follow it. 3) Build your sense of how differential equations are used to model applications

Prerequisite: Math 163.

We will use the differentiation and integration methods you learned in Math 162 and Math 163. A sample of review problems is posted on the web so you can review before the semester starts and be well prepared. The goal of math courses at UNM is to build your skills and strengthen them as you go semester after semester. That is, yes, review as needed, but don't worry if you dont feel 100% confident to start with. We will review as we go and hopefully you will gain confidence throughout.

Tutoring Center: The math department has recently opened up a spacious, friendly Tutoring Center for calculus and several 300+ level math courses. Unfortunately this Fall semester this will be a **virtual** spacious, friendly Tutoring Center. Our 316 TAs, David and Martha, and your instructors will have scheduled open hours at the center for you. Sometimes it helps you to see a slightly different explanation, or you can point out something that we did not explain sufficiently clearly in class. Please visit the center, we want to hear from you.

Study Tools:
1) Working in groups can be helpful. You can compare your results to others to get confidence that you got it right. You can learn details that you missed or see different approaches to a problem. You can explain to others. You develop a much deeper understanding when you try to clearly explain something to others.
2) Ask questions!! You learn the most when you figure out what questions you have, formulate them, and finding the answers to them. This is not the same as saying "how do you do this problem". Instead "I tried this and got stuck, I don't see alternatives, can you help?" or, in class, "I dont see how that follows, can you explain?"
Note: You are most encouraged to work on the homework assignments in groups but you do need to write up **your own solutions in your own words**

Grading: The course grade will be determined from short daily contributions (50 pts) weekly homework submitted in Learn (100 pts), four midterm exams (100 pts each), and a cumulative final exam (200 pts).

Homework is assigned daily in class. One simple problem will be due each class day to make sure you are keeping up with the material and are not falling behind. The remaining problems are due weekly. Please make sure to work on these problems on a daily basis, each day on the problems that were covered that day in class. Then you will not be overburdened the night before the due date, you will follow class more easily, and you will have opportunities to ask questions!

One of the main goals of the course is to develop your mathematical writing skills, clearly showing all steps taken using correct algebra and notation. Therefore, your homework will be graded on the clarity and correctness of your mathematical presentation. Please take care to submit in a neat, legible assignment, with problems listed in order. Solutions that are hard to find or read will receive zero credit. Same standards will be applied to exams.

Academic Integrity: Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. **Academic dishonesty includes, but is not limited to, claiming credit for work not done or done by others (plagiarism)**; dishonesty on quizzes, tests or assignments; and hindering the academic work of other students.

Academic Integrity: You are taking this course because you want to be a skilled and competent professional in your field. It may be tempting to look up solutions on the many venues available online. My goal is to support you so you come out of this class with a clear understanding and vision of the tools mathematics gives you. However to get there, you need to do your part. You learn mathematics, just as you do the violin, or soccer, by practice, practice, practice. No one can play the scales or do the drills for you. You will hit roadblocks, that is part of the process. But when you do come to your results after possibly a few detours, then you have really understood. If instead you simply go online and copy answers you are shooting yourself in the foot. So please, please know that struggling is ok. But do not bang your head against the wall! It is perfectly ok to try, think about something for a bit, and then get more insight by asking questions.

2. Wise feedback to communicate that students belong and can succeed

- Instructors need to give critical feedback for students to grow

- Students (especially those from stigmatized groups) need to know feedback does not reflect the professor's belief that they are not capable

- Evidence shows that this can be addressed by explaining that there are high standards, but the instructor is confident that the student can meet them

"Wise feedback:"
I'm giving you this feedback because, although this is a challenging course and subject, I believe you can succeed.

7 edits

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define hero

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freedom to fight from what

⑦ turn away

I say more about the

good — use this earlier w/ courage maybe

Finally Dr. King is my hero because when he was tested he did not complain instead he over came the worst. Dr. King had many good reasons to quit what he was doing and curse everyone. but he didn't. In the worst of times Dr. King kept his chin up. When King's home was bombed all he said was "We must learn to meet hate with love" Dr. King was a great man and he helped change our world as we know it. say more about the change

In conclusion Dr. Martian Luther King JR is my hero because he had courage. He is a testimony to me and to others. Also he over came his troubles when he was tested.

"I have a dream that little black boys and little black girls will be able to join hands with little white boys and little white girls and walk together as sisters and brothers."

use this in the essay.

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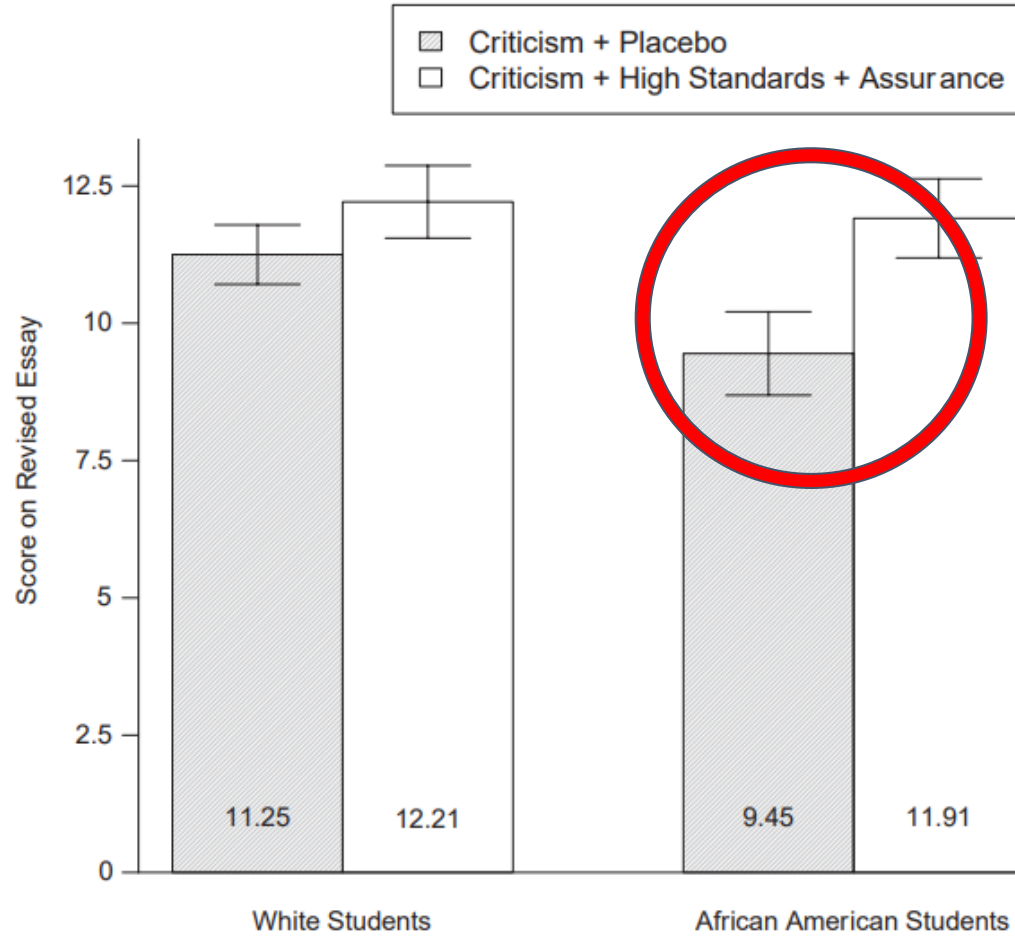
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Closing Gaps through Wise Feedback

African American and European American students

Closes racial academic outcome disparity

Control vs Wise Feedback

Yeager, D.S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., Hessert, W.T., Williams, M.E. & Cohen, G.L. (2014). Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. Journal of Experimental Psychology: General, 143, 804-824.

3. Evidence for representation of diverse identities

- Seeing "walls of fame" that show only white men:
  - Reduced belonging among women and students of color
  - Impaired performance on an academic test
  - Reduced interest and motivation to pursue the academic discipline

Cundiff, Mastick, & Vescio, 2011; Lewis & Sekaquaptewa, in prep

Lack of representation decreases belonging and reduces academic engagement and performance

- Showed STEM students one of two videos, ostensibly of a summer conference

- Gender balanced video or gender unbalanced video

- Women watching the unbalanced video showed:
  - Decreased sense of belonging in the STEM conference
  - Decreased desire to participate in the STEM conference

- Gender balanced Video (1:1)

- Gender unbalanced Video (3:1)
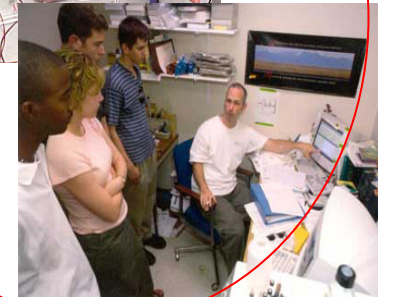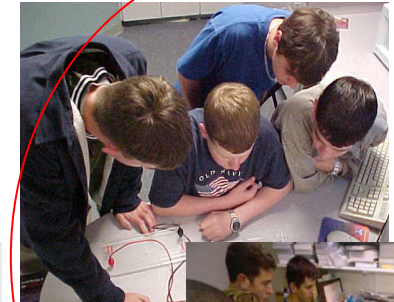
Murphy M. C., Steele, C. M. & Gross, J. J. (2007). Signaling threat: How situational cues affect women in math, science, and engineering settings. *Psychological Science, 18,* 879-885.

How to increase diverse representation?

- include images of underrepresented groups in your course material

- use non-normative names in assignments, vary genders

- make reference to a broad range of participants in your field as you see fit

- One possible way to implement: add "former student profiles" to your Learn site

- Be mindful of tokenism

And all of this in a Covid year!

- Challenges: helping the students connect, keeping their focus

- Opportunities: we are becoming aware of new teaching tools

- The material presented will be more concise, less nuanced

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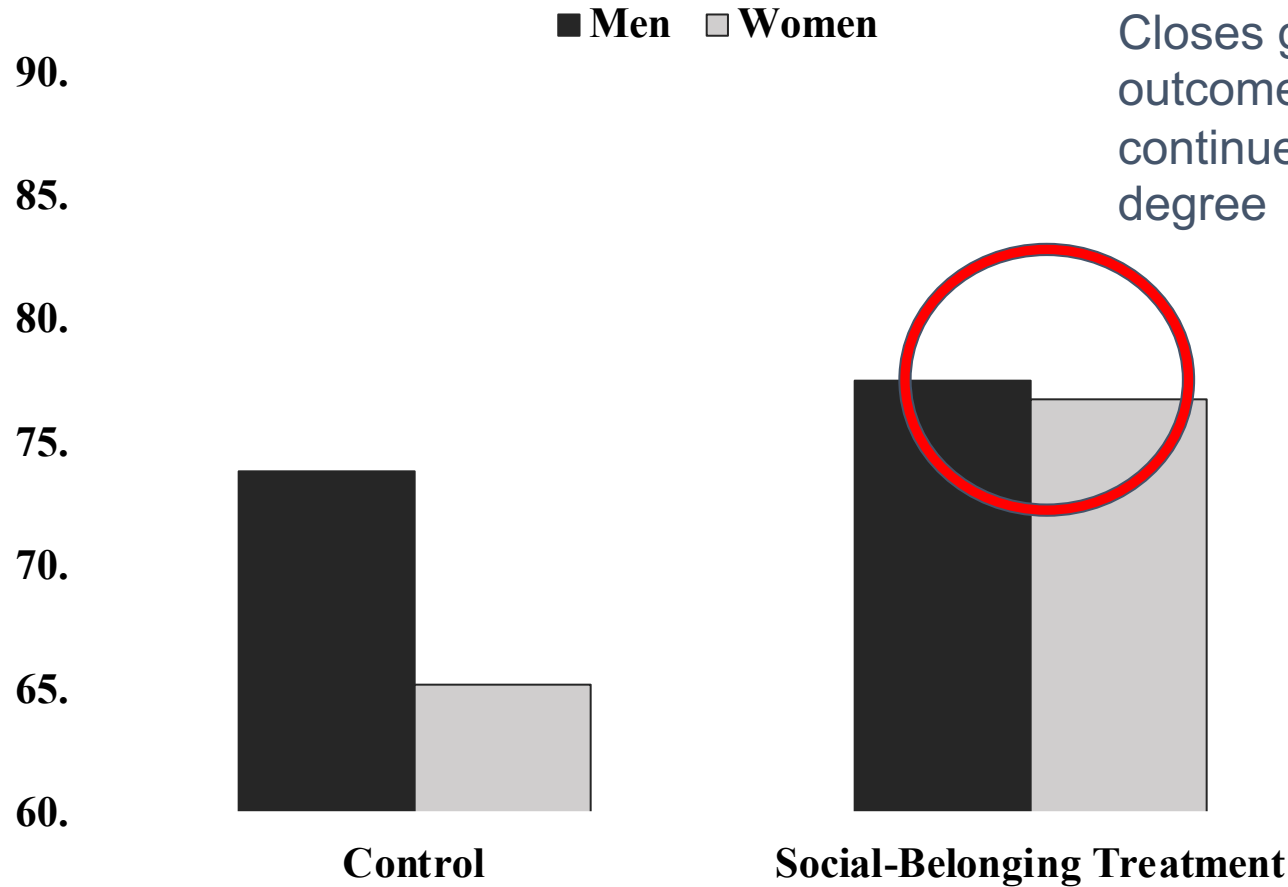
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Students in male-dominated engineering programs at highly selective program

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Walton, G. M., Logel, C., Peach, J. M., Spencer, S., & Zanna, M. P. (2015). Two interventions to boost women's achievement in engineering: Social-belonging and self-affirmation-training. Journal of Educational Psychology, 107: 468-485. .