

What is a Summer Institute on Scientific Teaching?

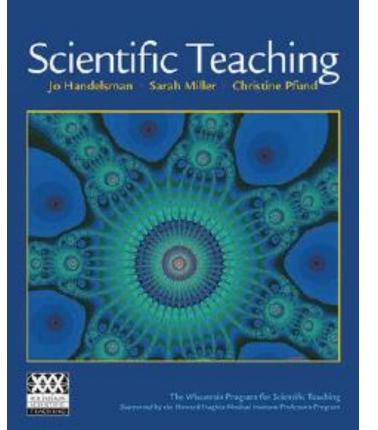


NORTHEAST REGIONAL INSTITUTE University of Connecticut

One-week intensive workshop that trains college instructors in evidencebased teaching

- Models the scientific teaching principles promoted
- Led by trained facilitators and leaders

Provides opportunities for you to learn educational theory AND immediately apply it to the development of your own teaching materials



Program Goal:

to inspire and empower participants to transform undergraduate learning and teaching through <u>evidence-based</u> <u>teaching practices.</u>

What is Scientific Teaching?

- Applies the spirit and rigor of science to teaching methods
- Is informed by evidence-based research
- Has positive, <u>measurable</u> (scientific) results in students' ability to succeed in today's classrooms



Welcome to the Scientific Teaching in Practice Webinar Series!

A Focus on Underrepresented Students: *Practical Strategies for Inclusive Teaching and Mentoring*

BECKY WAI-LING PACKARD PROFESSOR OF PSYCHOLOGY AND EDUCATION MOUNT HOLYOKE COLLEGE



Let's find out who is on the webinar

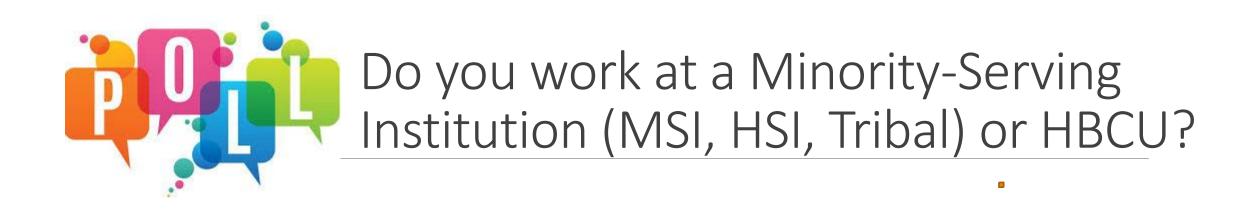






Which type of institution do you work at?

- (A) Community college or technical college
- (B) Liberal arts college
- (C) Four-year regional comprehensive institution
- (D) Four-year public research-intensive university
- (E) Four-year private university
- (F) Another type of institution



(A) Yes

(B) No

Scenario #1

It is the third week of the semester. Sasha, a first-year student, appears upset as she is leaving your class, and you stop to ask if she is okay.

Sasha says that she finds the school to be less friendly than she expected based on her admissions experience.

In class on Monday, one student referenced "low-income parents who don't care" in a way that made Sasha feel uncomfortable with both you as the professor and her classmates, as *no one* contradicted the statement. You reflect back on the moment; you remember thinking, at the time, the speaker was making a valid point.

In class today, she got back her first quiz. Sasha says: "You gave me a 6/10. My parents are working long hours. I'm the first in my family to go to college. I'm doubting my decision to come here."



Which aspect of the scenario strikes you *the most*?

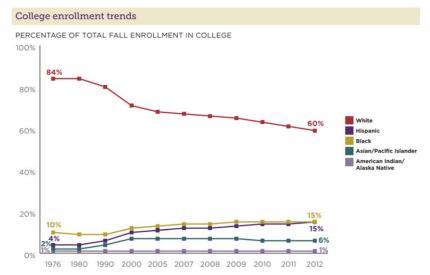
- (A) Sasha's admissions experience vs. her current reality.
- (B) Sasha's feeling of isolation among her peers.
- (C) How you and Sasha experienced Monday's class differently.
- (D) Sasha's first quiz and what went wrong.
- (E) How Sasha's parents' stressors may affect Sasha.

Changing Demographics

"New Majority" on college campuses today

 To include first-generation, low-income, community college transfer, historically underrepresented racial-minority students, among others





Source: U.S. Department of Education, National Center for Education Statistics, "Digest of Education Statistics: 2013," Table 306.10, http://nces.ed.gov/programs/digest/d13/tables/d13_306.10.asp.

See Schneider (2014): <u>https://www.aacu.org/liberaleducation/2014/fall/schneider-leap</u>





37% of college students are 25+46%: first-generation college

Hope Center for College, Community and Justice
→ national survey on food insecurity

"That's more than **one third** of all students sitting in our college classrooms."

64%

of college students work, and 40% of them work full time.

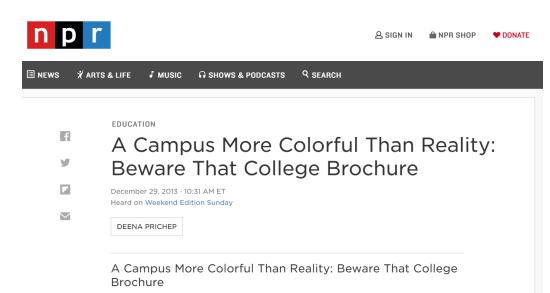
https://medium.com/@charlottelouisewest/its-time-to-stopaccepting-that-food-insecurity-is-a-normal-part-of-college-521fb7e7813f

However...institutions vary widely in demographic profile and who is centered.

Example: Low-income and first-generation college students

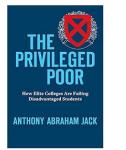






What about faculty + peer interactions?





Research in Higher Education August 2009, Volume 50, <u>Issue 5</u>, pp 437–459 | <u>Cite as</u>

Student–Faculty Interaction in Research Universities: Differences by Student Gender, Race, Social Class, and First-Generation Status

Authors Authors and affiliations

Young K. Kim, Linda J. Sax 🖂



One challenge: (In)visibility



Some underrepresented students are less visible to one another (and to fac/staff)

We do not know how to reach out if we do not want to assume someone's identity

Milem, J. F., Chang, M. J., & Antonio, A. L. (2005). *Making diversity work on campus: A research-based perspective*. AAC&U Publications. Available at: <u>https://www.aacu.org/sites/default/files/files/mei/milem_et_al.pdf</u>

Packard, B. W., Gagnon, J. L., LaBelle, O., Jeffers, K., & Lynn, E. (2011). Women's experiences in the STEM community college transfer pathway. *Journal of Women and Minorities in Science and Engineering*, *17*(2), 129–147.

What about your campus?



Do you know your campus data?

- Who is on your campus and in your classes?
- Who may be less visible to you?

What could you embed into practice?

- Syllabus statements re: campus resources
- Embed academic resources into core courses
- Invest in the training of peer mentors
- Rename office hours as "student hours" and integrate into the experiences of all students



Was any of this new to you?

- (A) I learned something new
- (B) Not new to me- but my colleagues need to learn this
- (C) My colleagues and I are using these strategies

Scenario #2

From the very first class meeting of your upper-level seminar, you notice that Mark, an African American man, is an eager participant. So eager in fact that he jumps in almost every other turn.

Several times when you tried to explain a concept in class, he actually talked over you. Subtle turning of your body toward another part of the room does not work. You notice other students in the class are growing weary.

Mark is the only African American student in the seminar.

What is going on?

Please Share!

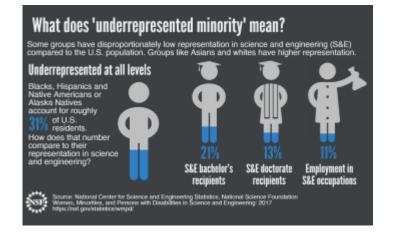
1) What is the problem, as you see it?

2) What could help Mark, this class, and professor?

Use the Question Box!



Underrepresented as Compositional (#s)



Often calculated as relative to proportion in population overall and may be conveyed using an infographic

Minoritized status (instead of minority)

"Persons are not born into a minority status nor are they minoritized in every social context (e.g., their families, racially homogeneous friendship groups, or places of worship).

Instead, they are rendered minorities in particular situations and institutional environments that sustain an overrepresentation of Whiteness" (Harper, 2012, p. 9).

Harper, S. R. (2012). Race without racism: How higher education researchers minimize racist institutional norms. *The Review of Higher Education*, *36*(1), 9-29.

See also: Benitez, Jr., M. (2010). Resituating culture center within a social justice framework: Is 97 there room for examining whiteness? In L.D. Patton (Ed.), Culture centers in higher education: Perspective on identity; theory; and practice (pp. 119-134). Sterling, VA: Stylus Publications.

Solo status and hypervisibility



Solo students may feel they are performing for their entire racial or gender group

Instructors may be more apt to notice the participation of "solo" students

May be hypervisible

Sekaquaptewa, D., Waldman, A., & Thompson, M. (2007). Solo status and self-construal: Being distinctive influences racial self-construal and performance apprehension in African American women. *Cultural Diversity and Ethnic Minority Psychology*, 13(4), 321–327.

Strategies for Mark's Class

What could have happened before this point? What could happen now?



Strategies for Mark's Class

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What could happen now?

Community commitments Explain participation norms Connect to each student (even if in small groups) Reflect on who will be "solo"



Strategies for Mark's Class

What could have happened before this point?

Community commitments Explain participation norms Connect to each student (even if in small groups) Reflect on who will be "solo"



What could happen now?

Connect with mark individually

Press "reset" – start with a new way to assign roles (spokesperson, notetaker), to reassure everyone will get to be a spokesperson

Help students to connect to each other



Which of these strategies do you currently use?

- (A) Classroom commitments to build community
- (B) Explain participation norms; have students set goals
- (C) Meet with students individually/in groups early on
- (D) Reflect on "solo" students; how I can support them

Shifting gears: Reflecting on Sasha and Mark





Students ask...

FACTORS

Capacity • Self-efficacy, Performance

QUESTIONS

"Can I do this work? Am I capable?"

InterestRelevance, Feasibility

"Do I want to do this? Is it possible?"

BelongingnessIdentity, Recognition

"Is this my community...Do I belong?"

Inclusive Pedagogy and Identity

"Even though some of us might wish to conceptualize our classrooms as culturally neutral or might choose to ignore the cultural dimensions, students cannot check their sociocultural identities at the door...Therefore, it is important that the pedagogical strategies we employ in the classroom reflect an understanding of social identity development so that we can anticipate the tensions that might occur in the classroom and be proactive about them" (Ambrose et al., 2010, p. 169-170).



Three Practical Strategies

- 1. Recognize your students' progress and their identities as assets
- 2. Navigate your spaces to map your campus assets and gaps
- 3. Talk to your colleagues

#1. Inclusive teaching and mentoring requires recognition



Carlone, H. B., & Johnson, A. (2007). Understanding the science experiences of successful women of color: Science identity as an analytic lens. *Journal of Research in Science Teaching*, 44(8), 1197–1218.

Lack of recognition

After disclosing her Section 8 housing status in order to navigate an administrative matter, her faculty advisor's attitude was unsupportive when she wanted to take on a thesis.

He said, "People in your situation, you know, I mean, do you really want to take on this work?" [I felt] as if "the advisor is like, this oppressor on campus."

Auguste, E., Packard, B. W., & Keep, A. (2018). Nontraditional students' experiences of identity recognition and marginalization during advising. *NACADA Journal, 38*(2), 45-60.

Recognition

"She encouraged me to become a TA the next semester. I couldn't believe it."

"He talked to me after class about what I had said."

"When the 4th professor stopped to ask me what I was doing next, I thought: maybe I should be doing something."

Packard, B. W., Gagnon, J. L., LaBelle, O., Jeffers, K., & Lynn, E. (2011). Women's experiences in the STEM community college transfer pathway. *Journal of Women and Minorities in Science and Engineering*, 17(2), 129–147.

Recognize larger groups

- Frequently-named Professors: more apt to embed messages in class
- Rarely-named Professors: more apt to rely on one-one meetings



→embed messages in class

rotate students through group hours

Packard, B. W., Tuladhar, C., & Lee, J. (2013). Advising in the classroom: How community college STEM faculty support transferbound students. *Journal of College Science Teaching*, 42(4), 54-60.

Prepare TAs and Peer Mentors to do the same





Pon-Barry, H., Packard, B. W., & St. John, A. (2017). Expanding capacity and promoting inclusion in introductory computer science: A focus on near-peer mentor preparation and code review. *Computer Science Education*, *27*(1), 54-77.

#2. Navigate your spaces to map your assets (and gaps)



Hurtado, S., Griffin, K. A., Arellano, L., & Cuellar, M. (2008). Assessing the value of climate assessments: Progress and future directions. *Journal of Diversity in Higher Education*, 1(4), 204–221.

Borrero, N., & Yeh, C. (2016). Using ecological asset mapping to investigate pre-service teachers' cultural assets. *International Journal of Multicultural Education*, 18(3), 114-137.

#3. Talk to your colleagues



"Let's look at our student data together. I'm troubled by what I see."

"Did you hear what Corey is doing in class? Could a few of us try some of the same things?"

Holmes, M. H. Jackson, J. K., Stoiko, R. (2016). Departmental dialogues: Facilitating positive academic climates to improve equity in STEM disciplines. *Innovative Higher Education*, *41*, 381-394.

Mullen, C. A., Bettez, S. C., & Wilson, C. M. (2011). Fostering community life and human civility in academic departments through covenant practice. *Educational Studies*, *47*, 280-305.



What might you try?

- (A) Stop a student or email to notice their progress
- (B) Share messages in class or group settings
- (C) Revisit how you prepare TAs, peer mentors, and groups
- (D) Navigate your spaces to analyze images and resources
- (E) Learn more about my campus data

Closing Note and Survey Link



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Home > Diversitydemocracy > 2018 > Valuing Strengths, Fostering Success



The Power of Mentoring within High-Impact Practices: A Focus on Low-Income Students

By: Becky Wai-Ling Packard

"As a first-generation student from a low-income family, conducting research in the field of psychology has opened doors of opportunity for me. When I first started at my community college, I never would have thought I would have the experience of coauthoring a paper with my advisor, in addition to Post-Webinar Survey Link

https://yalesurvey.ca1.qualtrics.com/jfe/form/SV_5oH Ttz2kmhmzPTf

