Inclusive, liberatory, and strengths-based pedagogy to support equity

CEE INCLUDE presentation 6.15.22



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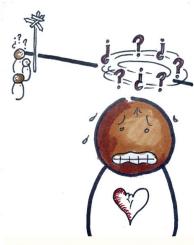
What do you know?
What do you kind of know?
What do you want to learn?

Objectives

- to assess the relationship between strengths-based, liberatory, and inclusive approaches to teaching and course design
- to employ reflection and metacognition as a basis for equitable design
- to reflect on the complexity of defining the problem
- to apply social learning frameworks to STEM pedagogy
- to share foundational mindsets and practices for inclusive teaching

Agenda

- 1. Activity: draw a metaphor for equity
- 2. Discuss: how do inclusive pedagogy and strengths-based approaches mesh?
- 3. Activity: visualizing complexity in an engineering class
- 4. Discuss: intersecting identities in the classroom
- 5. What should we do as teachers?



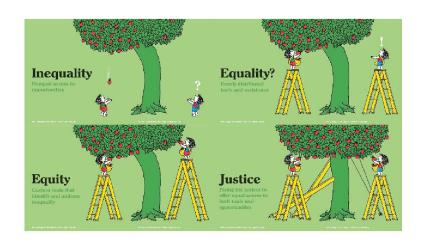
Work with Our Fear and Discomfort

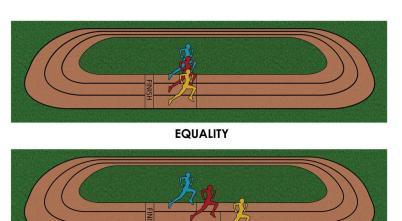
Fear and discomfort are an anticipated parts of this work. This includes feelings related to the situation, as well as what it brings up for you as a designer given who you are. Identifying sources of the fear and discomfort allows us to advance our design work if good or address it if harmful.



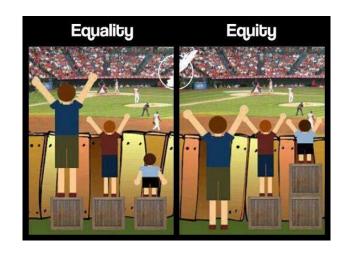
Exercise Your Creative Courage

Every human has the capacity to be creative. Before there is confidence, there is the courage required to navigate self-doubt and creative fragility. Trust your inherent creativity muscles and flex them with courage.





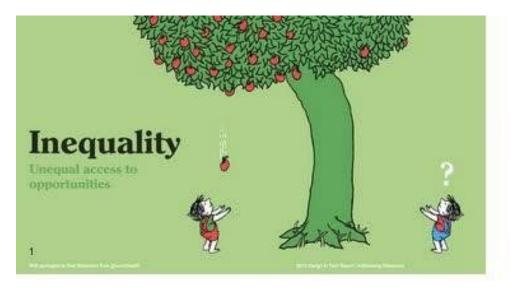
EQUITY

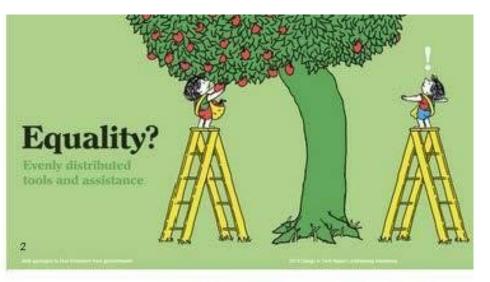


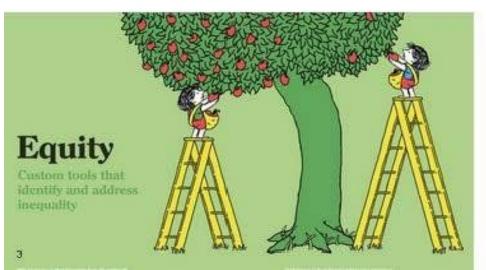
"The mental shorthand we use to understand 'equity' will affect how we go about fighting for it."

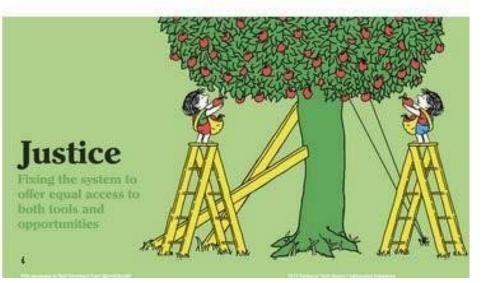
Paul Kuttner

https://docs.google.com/presentation/d/1G3FpZUEBuSuseY8 yDUofzmR0oPOrw0J3qSrpk04t0sk/edit?usp=sharing

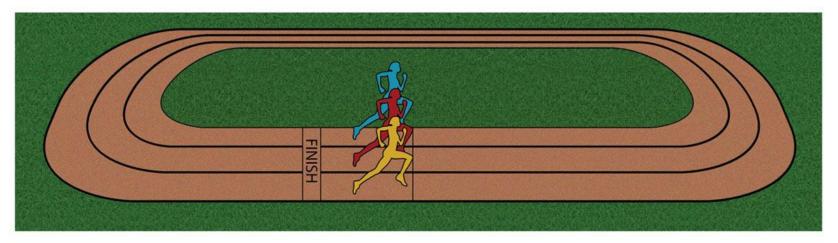




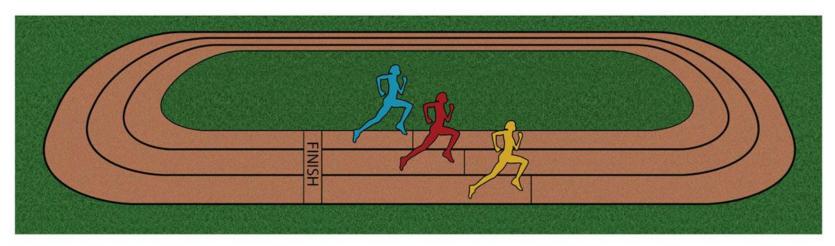




Your notes:

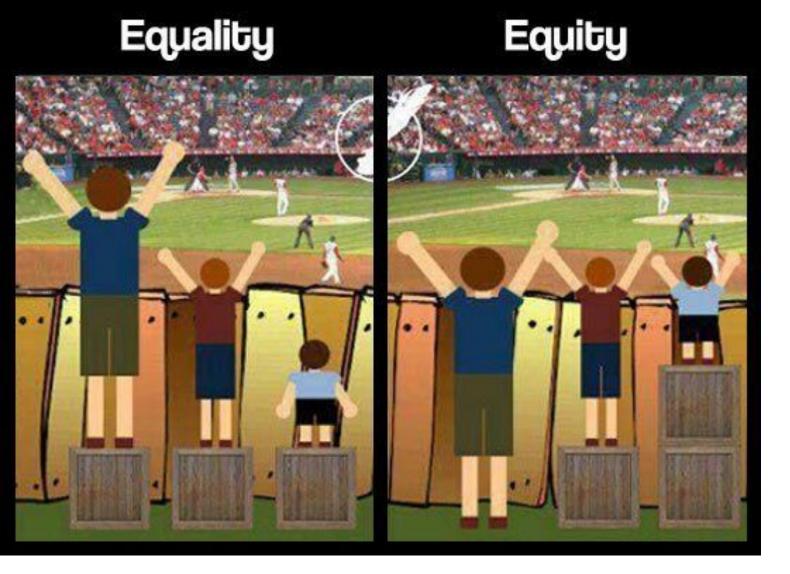


EQUALITY



EQUITY

Your notes:



Your notes:

What does "strengths-based" mean to you?

With your partner, come up with a metaphor to illustrate the value of strengths-based approaches. Use the markers and paper to

draw your metaphor.



I-Course Standards Framework

Course instructor undertakes a design process that:

- Centers students as stakeholders in the educational experience
- Provides scaffolding and/or other supports for student learning
- Follows principles of Universal Design to make the course accessible to all types of learners.

Course instructor builds a culture of inclusion by:

- Communicating their commitment to inclusion via a written or verbal statement to students
- Learning more about cognitive and other forms of diversity through workshops, readings, or other professional development opportunities
- Connecting with their students and/or otherwise encouraging a sense of belonging

Course instructor carefully considers ways to encourage student motivation and engagement by:

- Providing opportunities for active learning
- Building in some elements of flexibility or choice that allow students to personalize their education to meet their learning needs and preferences
- Providing multiple modes of feedback and communication to students about their learning

https://neurodiversity.engr.uconn.edu/education/

Inclusive Pedagogy 2.0 (Tuitt, 2016; 2018)

Grounded in the work of Paulo Freire

Humanizing pedagogy

Teachers who see students as whole people

Teachers who prepare students to understand and be agents in their world

Designing for use of lived experiences, in learning

Recognition that race matters

Teaching with students' souls in mind

How would you map the I-Course framework onto this framework for inclusive pedagogy?

Complexity in engineering classes Wicked problems Student level Power & of Social privilege Preparation Identity Community Student Strengths Critical STEM identity Thinking

How would you arrange these circles to model how inclusive pedagogy works?

Persistence of inequity

Adults from URM* groups = 35% of US population, but

24% of STEM bachelor's degrees

23% of Master's

15% of Doctoral degrees

URM students are more likely than non-URM students to exit STEM majors.

[*this term obscures complexity!]

Kuchynka, S., Gates, A., & Rivera, L. (2020). Identity Development during STEM Integration for Underrepresented Minority Students (Elements in Applied Social Psychology). Cambridge: Cambridge University Press. doi:10.1017/9781108882071

Learner-centered pedagogy can only be effective insomuch as there is a clear understanding of the learner.

Brian Dewsbury

...and...

We dissociate broader social structure and the social dynamics of the classroom **at our peril**.

Dewsbury, 2019

CBE-LSE Guide

equity commitment TRY **EMPATHIZE PROTOTYPE** DEFINE Design and try potential solutions INQUIRE IMAGINE Better understand the complexity of this challenge ENGAGE

How can we define the problem better, so that we can see the system better?



Identify your

Core beliefs in liberatory design

- Racism and inequity have been designed into systems and thus can be redesigned;
- Designing for equity requires the meaningful participation of those impacted by inequity; and
- Equity-driven designs require equity and complexity-informed processes.

Social Identity

Social identity theory sheds a more direct light on the social aspects outside the student that not only affect, but interfere with the broad range of career options that might be incorporated as possibilities for students who have been historically excluded from STEM.

-- Ellis-Robinson et al

- Stereotype threat
- Racial battle fatigue
- Intersectionality
- Advantage/privilege

Do's and Don'ts

Help students develop a STEM identity Engage in culturally-relevant teaching Design authentic learning Explore contemporary societal problems Consider communal goals (a.k.a., high-context learning) More dialogue, less lecture Recognize your own history and story Design opportunities for students to reflect on personalized learning process

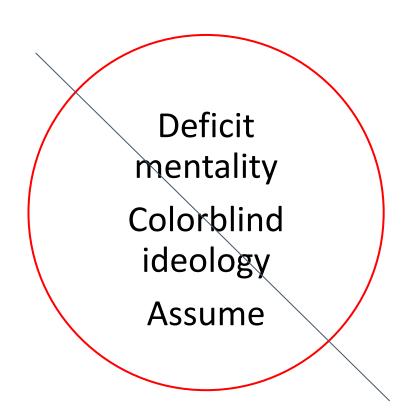


TABLE 1. INCLUSIVE AND IMPACTFUL TEACHING PRACTICES

| Categories of practice | Examples of instructor's practice |
|---|--|
| Integrate culturally inclusive and relevant content into a course | Include content-based literature from diverse populations and invite students to contribute their unique cultural experiences to the classroom discussion (Lee & Fradd, 1998). Reflect on the degree to which their own teaching practices are inclusive and appropriate for their multicultural classrooms, as well as students' future work settings (Quaye & Harper, 2007). |
| Decrease the potential intimidation students feel around instructors | Create more opportunities for student-faculty and student-teaching assistant (TA) interactions in and beyond the classroom (Anaya & Cole, 2001). Hold out-of-class meetings with first-generation students, individually or collectively, to discuss collegiate success (Longwell-Grice & Longwell-Grice, 2008). |
| Engage students with supplemental instruction | Create a peer collaborative learning space. Create open study spaces where students can receive help from TAs, instructors, and other classmates (Harding, Engelbrecht, & Verwey, 2011) Connect students with existing campus resources, like learning centers and tutoring programs (Chung & Hsu, 2006). |
| Be intentional about how student groups and project teams are formed | Conduct teamwork training with graduate students and undergraduate peer mentors before group projects; conduct mentoring meetings with each group during the project (Frank, Lavy, & Elata, 2003). Allow each study group or peer-mentoring group to determine goals and rules, and to create an agenda for each meeting at the beginning to allow for greater participation (Stanger-Hall, Lang, & Maas, 2010). |
| Work with TAs and other instructors in the class | Include a section in TA trainings on how to improve retention of first and second year students (especially in the sciences) by presenting data on institutional and national retention figures and case studies on why students leave the discipline (O'Neal, Wright, Cook, Perorazio, & Purkiss, 2007). Train TAs how to implement active learning and cooperative learning in their discussion groups and labs (Penwell, Elsawa & Pitzer, 2004). |
| Use inclusive teaching practices | Make sure the classroom, textbooks, handouts, and all other course materials reflect an inclusive environment in both their content and images (Billings, 2008). Emphasize the human purpose of what is being learned and its relationship to the students' experience (Wlodkowski & Ginsberg, 1995). |

Reddick, Lois, Jacobson, Wayne, Linse, Angela, and Yong, Darryl 2016 https://www.tandfonline.com/doi/pdf/10.1080/00091383.2016.1227672?needAccess=true

Q&A

Thank you!