Getting Started in Equity-Centered Teaching: A Reflection Guide

Part 1

1. Who are you? Think about the different aspects of your social identities and list them. *Consider listing identities related to the following: race, ethnicity, disability status, socioeconomic status, nationality, religion, sexuality, gender, etc. Please check out this link for more ideas on social identities.*

2. Now think about the engineering and STEM disciplines. Throughout your educational and professional career:
    a. What messages did you receive (from professors, mentors, peers, colleagues, etc.) about what it takes to be "successful" in your discipline?
    b. What did you need to do to get to where you are today?
    c. What milestones did you need to achieve?

    For example: internships, awards, grants, publications, etc.

3. Think deeply about which aspects of your identity helped you and/or made it challenging for you to navigate college and your professional career as a scientist? *For example, think about your racial/ethnic identity, being able-bodied/disabled, socioeconomic status, gender identity, U.S. citizen/non-U.S. citizen etc.*

4. How did your experiences influence your ideas of what it means to be a scientist?

5. As an instructor, how did your experiences influence:
    a. Your teaching approach?
    b. How you structure your courses?
    c. Your expectations of your students?

Part 2

Now that you have reflected on some of your identities and experiences, please familiarize yourself with some of the terms below. These are examples of identities, experiences, or situations that some of your students might resonate with. Some of these may be **different** or **similar** to your own identities and experiences. Please note that this is a non-exhaustive list of terms just to get you started.

- First-generation
- Ethnicity
- Disabled
- Low-income
- Non-U.S. citizen (e.g., DACAmented students, international students)
- Student Parent
- Religious Minority
- Veteran

Think about the following scenarios and consider how they might be challenging for students who identify with one or more of the above (feel free to consider additional identities/experiences that are not on the list). Check out our Teaching Tools and Strategies for ideas on what you could do to make the situations more equitable.

Scenario	**How might it be challenging for students?**	**What could you do to make the scenario more equitable for students?**
Strict Attendance Policies *(for example, mandatory attendance or requiring a doctor's note for an absence to be excused)*	*Ex. Students w/out access to health insurance; student parents w/childcare challenges, students with chronic pain, etc.*	
Design Teams and Group Work Assignments	*Ex. Non-traditional students with different scheduling needs and responsibilities*	
Using One Teaching Modality *(for example, in-person powerpoint lectures with no active learning activities)*	*Ex. Students with disabilities*	

Understanding the Deficit Model

The deficit-model perpetuates a “blame-the victim” mindset that suggests that people, in particular people from marginalized and minoritized communities, are responsible for their predicaments while failing to acknowledge systemic inequities.

An example of the deficit model within the context of STEM education, is through broadening participation and diversity initiatives which reinforce the notion that individuals from marginalized and minoritized communities lack the skills, knowledge, and networks to successfully pursue and navigate STEM majors and careers. As such, many of these initiatives seek to **assimilate** minoritized and marginalized individuals into academia and the STEM culture by providing them with social capital (e.g. access to mentors, advisors, and networks) and cultural capital (e.g. making them aware of the cultural norms, values, and practices). While these programs have many benefits, it is important to recognize that they reinforce the deficit-model by:

- Failing to acknowledge the systemic inequities that inhibit the participation of those individuals in STEM.
- Asking individuals to assimilate to the “dominant” culture (e.g. academia and STEM) implies that the dominant culture is best.
- Does not acknowledge the strengths, knowledge and skills that students bring with them to the academic and scientific spaces.

Sources:

An Effective Model for Enhancing Underrepresented Minority Participation and Success in Geoscience Undergraduate Research

Identifying and Disrupting Deficit Thinking

To Achieve Equity, STEM Needs Systems Change

The Case for Summer Bridge:Building Social and Cultural Capital for Talented Black STEM Students

Race and Racism in the Geosciences

An Asset-Based Approach to Teaching

An **asset-based (also known as anti-deficit) approach to teaching** focuses on:

- Student strengths; individuals are valued for what they bring to the classroom and the spaces they engage in.
- Allows educators to acknowledge, respect, and integrate the knowledge that students bring with them into the classroom.
- Focuses on educational success and providing access to students; suggests that SYSTEMS need to change rather than people.

An asset-based approach to teaching is a tool to combat the systemic inequities perpetuated in STEM.

Sources:

An Anti-Deficit Achievement Framework for Research on Students of Color in STEM

An Asset-Based Approach to Education: What It Is and Why It Matters

Supporting STEM Identity Development through Asset-Based Positioning