

UD COE Inclusive Teaching Workshop Series: **Inclusivity 101: Transcript**

Introduction

Welcome to the second of six modules in the Inclusive Teaching Series. This series was developed by a Faculty Learning Community within the College of Engineering at the University of Delaware and funded by the University of Delaware Center for Teaching and Assessment of Learning. This module – Inclusivity 101 – is meant as a crash course to quickly get you up to speed with general concepts and terminology related to diversity and inclusion in educational settings. You may want to refer back to this lesson as you work through further workshop modules or continue to explore these issues on your own.

Case Study: Gender Diversity in STEM Professions

We'll start our crash course in inclusivity by looking at gender disparities in our own profession - engineering. Take a few seconds to digest the figure on the screen, which shows the 50 year history of the representation of women in engineering and biological sciences. These data are for bachelor's level graduates, and all engineering disciplines are clustered together. What is striking about these data are the divergent trends between the two professions. Both majors saw a marked increase in female representation in the 1970's and 1980's as a result of more women entering college in general. However, engineering has stalled at approximately 20% female graduates for the past 30 years while biological sciences has continued to recruit female talent to the point at which women are actually slightly over-represented in the field.

This begs the question of why. Why are some STEM disciplines, like biological sciences, inherently more gender diverse than others, like engineering? Put me on pause and take a moment to jot down your thoughts. Be honest with yourself. Why do you think that this disparity exists?

Interestingly, there has been some very thorough research work done on this very issue. Studies have shown that in contemporary society, it is primarily classroom and workplace culture that drives women away from careers in engineering. While less early exposure, fewer role models, and female attraction to more "human-focused" professions have all been suggested as causes for low female participation in engineering, these are not the root causes. This is not to say that our classroom and workplace culture has not progressed. 50 years ago, women in engineering faced overt discriminatory policies, hostile working conditions, and discriminatory hiring and promotion practices. Fortunately, we have made progress; but in today's engineering classrooms and workforce, women and also people of color today are encountering far more subtle cultural barriers that are preventing them from succeeding or even entering the profession in the first place.



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Know the Lingo

Let's now introduce some terminology that will help us unpack the ways in which women and people of color experience the professional culture of engineering differently than their white male peers.

The first concept is Stereotype Threat. This is a well-established psychosocial phenomenon in which an individuals' behavior or performance tends to conform with societal views of the group to which they belong. Stereotype Threat is most concerning when those societal views are negative. For instance, as you probably can tell from my voice, I am a woman. There are generally held societal beliefs that women are less proficient in math than men. If you were to purposefully remind me of my gender before I took a math exam, I would be "placed under stereotype threat" and would have a higher likelihood of underperforming on the exam. This effect has been shown in many large scale studies considering both race and gender.

The second concept that we'd like to introduce is Imposter Syndrome. Imposter Syndrome is another psychosocial phenomenon in which a person feels inadequate or unqualified as a minority in their chosen profession despite ample evidence to the contrary. Imposter Syndrome can negatively affect a person's ability to advocate for themselves in situations where this is rightfully called for. For example, because of Imposter Syndrome, a student of color who performed well in your class may be less likely to apply for a teaching assistantship with you the following year despite being equally well or more qualified for the position than your other applicants.

The third concept that relates to cultural barriers is Implicit Bias. We will dedicate an entire module in this workshop series to Implicit Bias, so I will be brief here. Implicit Bias is an unconscious form of discrimination that we all engage in because we live in a broader society that holds particular views and stereotypes about different groups of people. Unless we consciously address these innate biases, we are at risk of propagating them in our classrooms and workplaces, particularly when we are forced to make subjective or "judgement call" decisions.

Pop Quiz!

Pretend that you have overheard the following comments directed by an instructor to their college-aged students. Match the quote to the cultural barrier that we just discussed. Take a minute and put me on pause as you quiz yourself on what we just learned.

Our first quote "I'll know good work when I see it..." is a recipe for introducing Implicit Bias into student evaluations. As we will discuss later in our Implicit Bias workshop, you should use



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rubrics and blind grading policies to mitigate biases – both positive and negative – in grading student work.

The second quote places women students in the class under Stereotype Threat by calling attention to a commonly held societal belief that women are less strong with spatial visualization. Unless there is a clear reason to call attention to specific groups – which there rarely is – it is best not to do so to minimize risk of Stereotype Threat.

Lastly, our third quote can be tied to Imposter Syndrome. The instructor is making a unnecessary reference to prior knowledge that may only be held by a subset of his students. In this case, that would skew towards majority males from assumedly affluent backgrounds who had access to computer science classes in middle school. Others may feel like they are already behind and are “Imposters” by not having had this experience.

How You Can Help

Now let's address how you can help combat these cultural barriers through your words and actions in the classroom.

First, as I mentioned before, it is rarely if ever necessary to call attention to a student's gender or race in a classroom or advising setting. It is also not advised to use humor or lighthearted comments related to topics of gender or race. Not only is it ripe for misinterpretation, it may harm some of your students by putting them under Stereotype Threat.

Second, you should incorporate diversity in your models of student success. The gender and racial make-up of your teaching assistants inherently conveys a lot about whom you expect to succeed in the course. If you use unblinded exemplar reports or prototype demonstrations, consider the gender and racial make-up of the student authors and ensure that you have diverse representation. Same applies for invited speakers, photos of prominent alumni, etc.

Third, you can be proactive in combatting Imposter Syndrome, which you can reasonably expect affects the majority of your women and students of color. Stress a growth mindset in your courses – that is, students can meet your expectations through focused effort, rather than inherent brilliance. This is a topic we will cover in detail in a later workshop. You should also be conscious of student “experts” dominating classroom conversations to show off their prior knowledge or exceptionalism. While it feels good to you as the instructor to dialogue with a student who “gets it”, this person may be making others feel like “Imposters”. Lastly, if you feel comfortable, you can directly address Imposter Syndrome by sharing your own experiences as a student overcoming failure and self-doubt. This can be related to a particularly difficult concept in your course or more broadly about your experiences as a student or in your career. Sharing



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this information often goes a long way to allay student concerns about their own “imposter” feelings.

Take-Away

In concluding this second workshop, it is important to remember that women and students of color in your classroom experience a very different culture than your majority students. Specifically, there are intrinsic and extrinsic cultural barriers – like Stereotype Threat, Imposter Syndrome, and Unconscious Bias – that make it more difficult for them to succeed as engineering students. Now that you are aware of these issues, consider using the simple strategies that we shared with you to ensure a more inclusive environment for your students.

References

These references provide further information.

