

Equitable and Inclusive Teaching Workshop

March 17, 2023

Part I. Case study: No Good Deed Goes Unpunished

(from Ambrose, Susan A. *How Learning Works Seven Research-Based Principles for Smart Teaching*. 1st ed. San Francisco: Jossey-Bass, 2010.)

There's been a lot of discussion in my department about how to get more female students into Electrical Engineering. This is something I believe is very important, so I've gone out of my way to support and encourage the women in my classes. I know engineering can be an intimidating environment for women, so I always try to provide extra help and guidance to female students when they're working on problem sets in small groups. I've also avoided calling on women in class, because I don't want to put them on the spot. So you can imagine my frustration when a student reported to me a few weeks ago that one of my teaching assistants had made a blatantly derogatory comment during recitation about women in engineering. I've had a lot of problems with this TA, who has very strong opinions and a tendency to belittle people he doesn't agree with, but I was particularly unhappy about this latest news. I chastised the TA, of course, and gave him a stern warning about future misconduct, but unfortunately the damage was already done: one female student in that recitation (who seemed particularly promising) has dropped the course and others have stopped speaking up in class. I braced myself for complaints on the early course evaluations I collected last week, and some students did complain about the sexist TA, but what really baffled me was that they complained about me too! One student wrote that I "patronized" female students while another wrote that the class was "unfair to us guys" since I "demanded more from the men in the course." I have no idea what to make of this and am beginning to think there's simply no way to keep everyone happy.

-Professor Felix Guttman

With your tablemates:

- *identify* the issues involved;
- determine some strategies you could use to *address* these scenarios; and
- determine some strategies you could use to *prevent* these scenarios.

Part II. Inclusive teaching strategies

(Adapted from Tanner KD. "Structure Matters: Twenty-One Teaching Strategies to Promote Student Engagement and Cultivate Classroom Equity." *CBE Life Sci Educ.* 2013 Fall; 12(3): 322–331 and Ambrose SA. *How Learning Works: Seven Research-Based Principles for Smart Teaching.* 1st ed. San Francisco: Jossey-Bass, 2010.)

Giving students opportunities to think and talk about the course material

1. **Wait time.** Lengthen your "wait time" after posing a question to your class to increase time for student thinking and to expand the number of students participating verbally. One trick is to silently count to 10 in your head after asking a question, or to tell the students in advance that you won't call on anyone until you see 5 hands raised. (Asking for 5 hands to be raised before you call on anyone can also allow you to call on students who tend to participate less frequently.)
2. **Allow students time to write.** After asking your students a question, give your students a minute to write their thoughts down before asking anyone to respond. Explicitly require them all to write out at least one or two ideas that capture their initial thinking in response to the question posed. This act of writing itself may even lead students to discover points of confusion or key insights.
3. **Think-pair-share.** After asking your students a question, give your students a minute or so to individually think (or write) to collect their thoughts in response to a question. Then ask students to turn and talk with a neighboring student, compare ideas, and identify points of agreement and misalignment. These pair discussions may or may not be followed by a whole-group conversation in which individual students are asked to share the results of their pair discussion aloud with the whole class.
4. **Do not try to do too much.** To prevent yourself from going too quickly in class, reduce the amount of material addressed during class time by prompting students to learn more material outside class time. One strategy for prioritizing how to spend precious class time is to decide on which concepts in a course are most meaningful or difficult to learn, are rooted in common misconceptions, and/or represent fundamental principles.

Building an inclusive and fair classroom community for all students

5. **Learn or have access to students' names.** To cultivate a welcoming, inclusive, and equitable classroom environment, one of the simplest strategies you can use is to structure ways to get to know and call students by their names. In addition to trying to memorize their names from photo lists, you can also distribute (and continually use) nametags or name placards so that both you and other students can see them.
6. **Integrate culturally diverse and relevant examples / Ensure that course content does not marginalize students.** Make the discipline less abstract and more concrete by noting diverse perspectives, cultures, and people relevant to what the students are learning about. Judiciously choosing stories from both history and present-day discoveries conveys that diverse populations of people can and do make key contributions. This simple strategy can help students feel connected to the content, help them feel that they belong in the course or field, and reinforce their developing

sense of competence and purpose. Consider whether certain perspectives are typically unrepresented in your course materials. Neglecting some issues can imply a value judgment, which can alienate certain groups of students, thus hindering their developing sense of identity.

7. **Work in stations or small groups.** Assign tasks that require students to work in small groups in order to allow students to practice thinking and talking about course material without the stress of having to speak in front of the entire class. “Jigsaws” are a type of activity in which students start off in one small group, checking their expertise with other students who are all studying the same topic before rearranging into new small groups in which expertise from different topics is shared.
8. **Use a variety of active-learning strategies.** To engage the broadest population of students, use a variety of active-learning strategies from class session to class session. For each strategy, some students will be out of their comfort zones, and others will be in their comfort zones. For example, try including anonymous polling, group problem solving, brainstorm, concept map, statement corrections, sequence reconstructions, compare and contrast concepts using Venn diagrams, etc.
9. **Be explicit about promoting access and equity / Model inclusive language, behavior, and attitudes.** Perhaps the most powerful teaching strategy in building an inclusive and equitable learning environment is to be explicit that accessibility, fairness, and equity are among your key goals. Making explicit statements about the importance of engaging critical and diverse perspectives can make issues of fairness and equity explicit rather than implicit.

Monitoring (your own and students’) behavior to cultivate divergent thinking

10. **Ask open-ended questions / Resist a single right answer.** To cultivate creative and critical thinking in your classroom, you may want to use open-ended questions, which are questions that cannot be answered with a simple “yes”/“no”, or even a single word or phrase. Open-ended questions by definition have multiple possible responses, so inviting answers from a large group can yield more than an expected set of responses. Ask students to generate multiple approaches to a problem or debate a devil’s advocate position. Ask them to articulate their perspective before you volunteer yours so as not to bias them. When appropriate, use assignments with multiple correct solutions.
11. **Use praise with caution.** By enthusiastically heaping praise on a verbally participating student, you may inadvertently convey to students who are not verbally participating that a response was so wonderful that it is impossible to build on, exceed, or question. Instructor praise can also elevate the status of some students, or select forms of participation, which can destabilize classroom culture.
12. **Establish classroom community norms.** It is critical that you have a set of community norms, ideally developed in collaboration with students, to establish usual and acceptable behaviors in the classroom. Common group norms include: *Everyone here has something to learn. Everyone here is expected to support their colleagues in identifying and clarifying their confusions about course material. Ideas shared during class will be treated respectfully. Listen actively and attentively. Do not interrupt one another. Critique ideas, not people. Challenge one another, but do so respectfully. Do*

not offer opinions without supporting evidence. Build on one another's comments, work towards a shared understanding.

- 13. Collect assessment evidence from every student frequently (every class).** To maximize the flow of information between you and your students, frequently collect assessment evidence – about what your students are learning successfully and what concepts/skills they are struggling with – to understand the learners you are trying to teach. You can start with an online “More About You” survey as homework on the first day of a course and can continue to get to know your students by collecting input and feedback throughout the semester.
- 14. Teach your students from the moment they arrive.** Consider what students are learning, not just about the subject matter, but also about the culture of the classroom from the moment they enter the room. Reflect on what you wish to do on the first day of a course, which sends a strong message to students about the goals of the course, the role of the instructor, and the role of the students. You may want to do a “reciprocal interview” in which you can ask questions of the students and students can ask questions of you to get to know each other.

Help your students develop a growth mindset

- 15. Destigmatize mistakes and challenges.** Normalize mistakes as part of the learning process. Describe mistakes you've made as a student, scholar, and/or as a professional. Give your students permission to make mistakes now (in class, during office hours, or homework) so that they don't make them later (on exams and real life). Help your students prioritize process over results.
- 16. Be as clear as possible when providing feedback and teach your students how to receive feedback and how you'd like them to make use of it.** Make your expectations for student behaviors crystal clear. Tell the students that your goal is their success and that when you provide feedback, it is so that they will learn from it and perform better the next time. Give students targeted feedback about their process so they know what to do next time and they understand how to improve. State these expectations early and often, and provide early opportunities for students to gain confidence on each new skill or topic.
- 17. Challenge the notion that learning does not require struggle, even for very capable people.** Normalize the idea that most worthwhile learning involves struggling. Tell students about your own struggles and/or the struggles of famous scholars and scientists in school and in their research. Promote challenge-seeking behaviors: encourage your students to be willing to try addressing difficult questions. Make uncertainty safe: the role of an expert is not simply to know all the answers, but to be able to think of the best questions in their field. Explicitly let students know that part of critical thinking is to embrace complexity rather than oversimplifying matters.
- 18. Communicate that abilities can grow.** Explain to students how expertise develops with time, effort, feedback, and mentoring/coaching. People are not born innately as experts in a field; people need to work hard and learn from their mistakes to achieve their expertise. Ask your students to “Think of a subject/task/activity that you have become very good at. What did you do to become skilled at it?”

Be a role model for your students

19. **Examine your assumptions about students / Be mindful of low-ability cues.** It is common for instructors to assume that students share our background and frames of reference (for example, historical or literary references). It is equally common to make assumptions about students' ability (for example, tentative language indicates intellectual weakness). These assumptions can result in behaviors that are unintentionally alienating and can affect climate and students' developing sense of identity. Set a high bar for your students, empower your students to achieve your high standards, and avoid letting them feel that they should be happy with mediocre performance.
20. **Do not ask individuals to speak for an entire group.** Minority students often report either feeling invisible in class or sticking out like a sore thumb as the token minority. This experience is heightened when they are asked to serve as spokespeople for their whole group. Asking an individual to speak as a representative of a group they may (or may not) identify with can both belittle the diversity of opinions within that group and trivialize the individual by implying only one part of their identity matters.
21. **Model inclusive language, behavior, and attitudes.** Just as instructors operate under a set of assumptions that may or may not be true, so do students. Addressing these assumptions (for example, that we all share a common heritage, set of experiences, or goals) by modeling inclusiveness can provide a powerful learning experience for all students. For instance, try avoiding using masculine pronouns for both males and females or, when you use American idioms, explain them for the benefit of non-native English speakers. These types of behaviors can "catch on" in a classroom and create a climate that is welcoming to all rather than demotivating to some who do not feel represented or validated.
22. **Anticipate and prepare for potentially sensitive issues.** We usually know from our own or our colleagues' past experiences what issues seem to be "hot topics" for some of our students. Preparing students to learn from these opportunities requires careful framing (for instance, an acknowledgment that the topic can have personal significance for many students and also an articulation of the expectations for the tone of the discussion), an explanation for why the course is dealing with the issue (for instance, the necessity to hear all sides of the debate to arrive at a multifaceted understanding), and ground rules / community norms (see above) that assure a civil discussion.

Part III. Belonging

How can you help your students feel like they belong in our class?

Part IV.

Write a short letter to an incoming faculty member describing one strategy that they should consider implementing in their class to support their students inclusively, and why.