

Teaching Strategies That Structure Learning Environments and Promote Fairness
(Based on material from SEPAL: Science Education Partnership and Assessment Laboratory @ SFSU)

Read each strategy, would you consider using this strategy in your classroom? Why or why not?
Please mark the ones that you have questions about or that you want to discuss!

- after giving a chance to write
- ★ 1. **Think-Pair-Share:** providing an opportunity for students to first think quietly and then share their ideas with a partner can help students rehearse and build confidence to share with the whole class, increasing participation.
 - ★ 2. **Ask open-ended questions:** instead of asking verbal questions with only one possible answer (close-ended questions), ask questions with multiple possible answers (open ended questions)
 3. **Allow students time to write:** an opportunity to write down their ideas on paper helps many students revisit what they know, formulate questions, and rehearse what they may want to share, increasing participation.
 4. **Multiple hands, multiple voices:** after you ask a question, say that you'll wait for at least 5 students to raise their hands before you call on anyone, and then really wait for 5 hands. Promote more participation this way.
 5. **Wait time:** pause for 3 to 5 seconds (longer than you think!) after you ask a question before you call on anyone to speak or answer the question yourself. Longer wait times will allow more student thinking time.
 6. **Hand Raising:** in large group discussions, have students raise their hands. Avoid unstructured speaking situations where a subset of students can dominate. Work to call on all students who haven't yet spoken.
 - ★ 8. **Use popsicle sticks/ Index cards:** write the name of every student in your class on an individual popsicle stick/index card and put in a cup. When asking a question, pull out 2-5 sticks to randomly call on students.
 - ★ 8. **Assign Reporters for Small Groups:** assign who will speak on behalf of a small group. Randomly determine this by assigning the reporter as the person with the longest hair, darkest shirt, upcoming birthday etc.
 9. **Whip:** ask a question that has many possible answers and have every student share his/her brief answer.
 10. **Don't judge responses:** encourage students to honestly share their ideas. Avoid immediately correcting wrong answers or incorrect ideas. Student misconceptions can be addressed at a later point in time.
 11. **Use praise with Caution:** "excellent job" and "great answer" can inadvertently discourage other students from participating if they think they can't do better than the previous student's response.
 - ★ 12. **Learn students' Names:** know your students' names and use them. Only knowing some students' names can make others feel like they don't belong. Avoid calling on groups by one person's name (eg Billy's group).
 - ★ 13. **Use varied active learning strategies:** hands-on activities, think-pair-shares, jigsaw discussions group presentations and case studies provide more points of access for students than teacher-centered lectures.
 - ★ 14. **Collect assessment evidence from every student, every class:** increase the flow of information from students to instructor by collecting an index card question or an online reflection every class to gauge student learning, student confusions, and student perspectives on their experiences. Grade for participation only!
 15. **Work in stations/small groups:** to decrease effective class size and provide more opportunity for interaction and discussion, consider organizing multiple activities as stations that small groups rotate through.
 16. **Monitor Student Participation:** pay attention to which students are or are not participating. Actively encourage student participation and ask to hear from students you haven't heard from yet.
 - ★ 17. **Integrate culturally diverse and relevant examples:** connect the concepts you are teaching to real-world examples that span diverse communities and cultures. Show images of culturally diverse people in your class.
 18. **Establish classroom community and norms:** explicitly state that students should work together, help each other, share resources, support one another's learning, and be open to divergent points of view.
 19. **Don't plan too much:** Students need TIME to think, do, and talk about what they are learning.
 - ★ 20. **Be explicit about promoting access and equity for all students:** Share with students why you use the teaching strategies that you use. Let them know that you want and expect everyone to learn.

Empirically Validated Strategies to Reduce Stereotype Threat

Below is a brief list of empirically validated strategies to reduce stereotype threat. For reviews of these strategies, see:

- Cohen, G. L., Purdie-Vaughns, V., Garcia, J. (2012). An identity threat perspective on intervention. In *Stereotype threat* (Inzlicht, Schmader, Eds.). (downloadable here: <http://ed.stanford.edu/faculty/glc>)
- Garcia, J., & Cohen, G. L. (in press). A social-psychological approach to educational intervention. In *Behavioral foundations of policy* (Shafir, Ed.) (downloadable here: <http://ed.stanford.edu/faculty/glc>)
- Steele, C. M. (2010). *Whistling Vivaldi: And other clues how stereotypes affect us*. New York: Norton & Company Inc.
- Steele, D. M. (2012). Creating identity safe classrooms. In J. A. Banks (Ed.) *Encyclopedia of Diversity in Education*. Thousand Oaks, CA: Sage Publications, Inc.
- Walton, G. M., Spencer, S. J., & Erman, S. (in press). Affirmative meritocracy. *Social Issues and Policy Review*. (downloadable here: <http://www.stanford.edu/~gwalton/home/Publications.html>)
- Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research*, 81, 267-301. (downloadable here: <http://www.stanford.edu/~gwalton/home/Publications.html>)

1. Remove Cues That Trigger Worries About Stereotypes

- Reduce prejudice (Logel et al., 2009); remove physical cues that make it seem that a school setting is defined by the majority group (Cheryan et al., 2009); don't ask people to report a negatively stereotyped group identity immediately before taking a test (Steele & Aronson, 1995; Danaher & Crandall, 2008)

2. Convey That Diversity is Valued

- For instance, communicate a multicultural ideology that explicitly values diversity (Purdie-Vaughns et al., 2008)

3. Create a Critical Mass

- Increase the visibility and representation of people from minority groups in a field (Murphy et al., 2007; Purdie-Vaughns et al., 2008), among test-takers (Inzlicht & Ben-Zeev, 2000), and in positions of authority (e.g., among teachers; Carrell et al., 2010; Dee, 2004; Massey & Fischer, 2005)

4. Create Fair Tests, Present Them as Fair and as Serving a Learning Purpose

- Use gender- and race-fair tests, communicate their fairness, convey that they are being used to facilitate learning, not to measure innate ability or reify stereotypes (Good et al., 2008; Spencer et al., 1999; Steele & Aronson, 1995)

5. Value Students' Individuality

- Remind students of aspects of their individual identity (Ambady et al., 2005; Gresky et al., 2005)

Improve Cross-Group Interactions

- Foster better intergroup relations (Mendoza-Denton & Page-Gould, 2008; Steele, 1997; Walton & Carr, 2012); remind students of similarities among groups (Rosenthal & Crisp, 2006); undo stereotypical associations through cognitive retraining (Forbes & Schmader, 2010); promote cooperative classrooms (Aronson & Patnoe, 1997; Cohen, 1994)

7. Present and Recruit Positive Role Models from Diverse Groups

- Expose students to successful role models from their group who refute negative stereotypes (Marx & Goff, 2005; Marx & Roman, 2002; McIntyre et al., 2003)

8. Help Students Manage Feelings of Stress and Threat

- Teach students about stereotype threat so that they attribute anxiety to stereotype threat rather than to the risk of failure (Johns et al., 2005); teach students to reappraise arousal as a potential facilitator of strong performance rather than barrier to it (Johns et al., 2008)

9. Support Students' Sense of Belonging

- Teach students that worries about belonging in school are normal, not unique to them or their group, and are transient rather than fixed (Walton & Cohen, 2007, 2011)

10. Convey High Standards and Assure Students of Their Ability to Meet These Standards

- Frame critical feedback as reflective of high standards and one's confidence in students' ability to meet those standards (Cohen & Steele, 2002; Cohen et al., 1999); more generally, teach students to view critical feedback as reflective of feedback-givers' high standards and confidence in their ability to meet the standards (Yeager et al., 2011)

11. Promote a Growth Mindset About Intelligence

- Teach students that intelligence is like a muscle—that it is not fixed, but grows with effort (Aronson et al., 2002; Blackwell et al., 2007). Promote this conception of intelligence or ability as a norm.

12. Value-Affirmations to Reduce Stress and Threat

- Have students write about, reflect on, and perhaps discuss core personal values (Cohen et al., 2006, 2009; Martens et al., 2006; Miyake et al., 2010)

Want to learn more?

On stereotype threat: ReducingStereotypeThreat.org/
 Claude Steele: <http://steele.socialpsychology.org/>

Geoff Cohen: <http://ed.stanford.edu/faculty/glc>
 Greg Walton: <http://www.stanford.edu/~gwalton>

Compiled by Greg Walton, Geoff Cohen, and Claude Steele (May 2012).

reminder of disability is bad - eg don't worry about being - its ok you'll be fine