Southern Regional Hub-funded project

How to create an identity safe environment

Professor Philippa A. Martin
Dr Anne K. Soutter
Associate Professor Erik Brogt

Ako
AOTEAROA

UC
UNIVERSITY OF CANTERBURY

This resource has been developed as part of the "Assisting the Formation of Inclusive Engineering Cohorts" project by Philippa A. Martin, Anne K. Soutter, and Erik Brogt, University of Canterbury, with project co-funding from Ako Aotearoa.

Download all five project resources free from: https://ako.ac.nz/knowledge-centre/assisting-the-formation-of-inclusive-engineering-cohorts/

How to create an identity-safe environment

There are many approaches that can be taken to address stereotype threat and create an identity-safe environment (Spencer, Logel, & Davies, 2016). It is important to do them with a stealth approach as detailed below (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014). Teaching staff play an important role in encouraging or discouraging students (Simmons & Lord, 2019). Again, staff have a role model function; the type of behaviours and language they exhibit or tolerate become the norm for the classroom ("the standard you walk past is the standard you accept"). Here are a range of ideas which could be employed to tackle stereotype threat and create an identity-safe environment:

- An early intervention which allows students to write about their values, individual qualities or connect with why they want to study the discipline can help combat stereotype threat, restore self-integrity, recoup grades (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014) (Spencer, Logel, & Davies, 2016).

- Subtly encourage students to reconstrue their social identity, which is being threatened. For example, link their social identity to its stereotypical positive abilities (Spencer, Logel, & Davies, 2016). Alternatively, their social identity could be extended to include characteristics they share with the non-threatened group (Spencer, Logel, & Davies, 2016).

- Another approach is to teach students about stereotype threat and that it is illegitimate, then encourage them to attribute any anxiety to the stereotype (Spencer, Logel, & Davies, 2016).

- Teacher criticism can be perceived as being due to stereotypes. One way to address this, is through "wise feedback" built on trust to let students know of their high standards and a belief that the student has the ability to reach these high standards (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014) (Spencer, Logel, & Davies, 2016). This needs to be combined with providing resources to help them succeed, such as detailed rubrics for assessment.

- Reinforce a growth mindset, that successful engineers and other professionals develop competency through effort (by taking on challenges, working hard, and by confronting, then correcting deficiencies) not from innate ability (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014) (Dweck, 2010). It is important to encourage students to see their intelligence as malleable (Spencer, Logel, & Davies, 2016).

A growth mindset can be encouraged by
- o Praising a student's progress based on their effort, strategies, concentration, choices or persistence, rather than on their intelligence (Dweck, 2010).
- o Asking students to write advice to the year below them and then get the year below to read the advice. This encourages vertical integration.
- o Linking poor performance to malleable factors like study skills rather than their ability or other stable factors (Herrmann, Adelman, Bodford, Okun, & Kwan, 2016).

- Reassure students that worrying about belonging is normal and reduces over time (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014) (Herrmann, Adelman, Bodford, Okun, & Kwan, 2016). This is part of helping students learn that difficulties are normal and temporary (Herrmann, Adelman, Bodford, Okun, & Kwan, 2016). Ideally have the previous intake of students communicate this to the incoming class (could be done using videos), again enhancing vertical integration. Also reassure students that anxiety about taking tests is normal, but does not necessarily harm performance in the test (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014).

- Carefully design exams to be fair and to test learning not innate ability or memorisation (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014). Communicate this to students through specific learning objectives and a clear marking rubric (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014). Things to consider include, do examples all involve men and will the context be familiar to all students (economic background, cultural background, gender etc).

- Ensure there are positive role models for students, in the form of staff, students (current and recent graduates) and external speakers (Spencer, Logel, & Davies, 2016). Invite a diverse range of role models including different cultures and ethnicities (Tomoana, 2012). Make sure that role models share that they have faced and overcome challenges, which may include initial poor performance, in addition to emphasising the importance of the degree (Herrmann, Adelman, Bodford, Okun, & Kwan, 2016).

- Think about the invigilators you hire and whether there is a possibility to hire positive role models (must also have expert knowledge in the field) (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014).

- Think about the physical space, for example look at whether there are any posters or other visual cues that may trigger stereotype threat (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014).

- It is important for the department to communicate that diversity is important and valued by the staff, including in classrooms (Eschenbach, Virnoche, Cashman, Lord, & Camacho, 2014). The department needs to communicate that students from all backgrounds are welcome, valued and will be supported (Spencer, Logel, & Davies, 2016).

- Mindfulness training can also help students cope with stereotype threat, by reducing the working memory load caused by the stereotype threat (Spencer, Logel, & Davies, 2016).

- In some cases, allowing stereotyped groups to work in teams together has resulted in better performance (Spencer, Logel, & Davies, 2016). However, it is also important to consider intersectionality and the impact of multiple identities on student experience. It is also important not to assume or assign a social identity to others.

- Check admission and hiring practices for bias due to the importance of having a diverse community of students and staff (Spencer, Logel, & Davies, 2016).

References

Dweck, C. S. (2010). Boosting achievement with messages that motivate. Education Canada, 47(2), 6-10. Retrieved from www.cea-ace.ca

Eschenbach, E. A., Virnoche, M., Cashman, E. M., Lord, S. M., & Camacho, M. M. (2014). Proven practices that can reduce stereotype threat in engineering education: a literature review. Frontiers in Education Conference. Madrid, Spain.

Herrmann, S. D., Adelman, R. M., Bodford, J. E., Okun, M. A., & Kwan, V. S. (2016). The effects of a female role model on academic performances and persistence of women in STEM courses. Basic and Applied Social Psychology, 38(5), 258-268.

Simmons, D. R., & Lord, S. M. (2019, Spring). Removing invisible barriers and changing mindsets to improve and diversify pathways in engineering. Advances in Engineering Education, 1-22.

Spencer, S. J., Logel, C., & Davies, P. G. (2016). Stereotype Threat. Annual Review of Psychology, 415-437.

Tomoana, R. (2012). Sharing successful teaching and learning strategies for Māori, Pacific and youth learners: The Whitireia Way 2012. Ako Aotearoa.