

# Student Anxiety in the Classroom

*"I dreaded being in an undergraduate class from the first day, but you made me feel welcome"*

*"I tried my best to avoid taking this class by substituting [other] classes but it was "no go." I even almost dropped the class on a couple of occasions but was dissuaded and encouraged [by] you to stay the course. I'm very glad that I did, because, I now realize how important this subject matter is to having a complete understanding of the issues ... and will take [more classes] in my last semester"*

Knowing that the majority of classes I teach come with a reputation for including difficult topics (neuroscience and psychopharmacology) and are replete with student anxiety about the subject matter, makes receiving student comments like these all the more meaningful. Content-related apprehension often appears as a common theme when I ask students about their expectations at the beginning of a course (e.g., the word "dread" frequently appears). I strive to address and allay fears about what will happen in our classes together and am gratified and humbled when I am successful and receive comments such as the ones above.

As a step to better understand student anxiety in my classes, I sought to document the prevalence of content-related anxiety in some of my classes. By the end of the semester, I recorded significant reductions in anxiety. Although this line of research has yet to examine the value of specific practices or interventions, I have shared the results of the research many times with students in the context of recognizing that they may feel this way about a class, sharing with them that many other students do too, and pointing out that they might not always feel this way.

From research literature in neuroscience, it is clear that stress and anxiety inhibit learning through powerful brain mechanisms. The stress response is adaptive for escaping a dangerous, unsafe or threatening situation, but it impairs new learning about subjects that are somewhat less germane to immediate survival, like balancing a chemical equation or learning a foreign language. By caring about students, and doing our best to reduce their anxiety in our classrooms, we help students utilize brain processes that contribute to learning. Among our younger students, there is growing evidence that the adolescent brain is particularly sensitive to the effects of stress. Whenever we can structure our learning environments and lessons to prevent or reduce anxiety, we do our part to improve student learning. As caring professors, what can we do to reduce anxiety in our classrooms and help our students learn and succeed?

Below are a few ideas culled from the research literature in both neuroscience and best practices in higher education.

1. **Be predictable.** Numerous studies have demonstrated the anxiety-provoking nature of unpredictable stressors. Being predictable doesn't have to mean giving up flexibility or spontaneity in a course, but it can mean making your expectations explicit (for example, specifying the format of a research paper, but not necessarily the topic). Providing a clear, detailed and explicit syllabus at the beginning of a course, with assignments described, due dates listed, policies for using technology or submitting late assignments outlined, or your philosophy and expectations included can go a long way toward reducing stressful unpredictability. This can be particularly important at the beginning of a course when student anxieties about an unpredictable course are on the rise.
2. **Provide opportunities for student control.** In neuroscience and stress research, if unpredictability is

the first ingredient for creating anxiety, lack of control is the second. Control, or even perceived control, of a situation is capable of reducing the physical and psychological reactions to stress. Giving students opportunities to control some aspects of their experience in our classes can be an effective way to reduce anxiety. This might range from flexible due dates or late assignment policies to allowing students to select their own topics for a research project, to using a class poll to determine the next topic in class, to fully student-led projects or lessons.

3. **Trust students.** In his collection of best practices, Ken Bain distills a range of qualitative information about how the most successful teachers treat their students into one theme; trust. Bain describes the story of a student with severe test anxiety who achieved a high final exam grade, and more importantly, demonstrated his understanding through a spontaneous but detailed oral exam, influenced by his professor's trust in his knowledge. Bain writes "trust and openness produced an interactive atmosphere in which students could ask questions without reproach or embarrassment" and cites a source who describes his approach as trying "to make students feel relaxed and challenged, but always comfortable enough to challenge me and each other" (p. 142). How can we demonstrate trust to create a supportive environment, minimizing anxiety? Bain suggests sharing a sense of humility with students, occasionally sharing paths in our own learning, expressing our own sense of awe and curiosity about learning, and setting an intention to share a classroom with students as fellow learners.

Each of these elements can help convey student caring. Each can be considered a characteristic of a classroom environment designed to reduce student anxiety, but a thoughtful and intentional combination of these aspects is required to be successful. With an ever-growing resource base in the scholarship of teaching and learning, new ideas about digital, hybrid and flipped classrooms, and a new generation of educators entering academia, ideas for reducing student anxiety are growing. What strategies have you used to promote student caring and reduce anxiety in your classrooms?

## References

Bain, K. (2004). *What the best college teachers do*. Harvard University Press.

Birkett, M.A., Shelton K. (2011). *Participating in an introductory neuroscience course decreases neuroscience anxiety*. *Journal of Undergraduate Neuroscience Education*, 10(1), A37-A43.

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