

Section 1. Disrupting the Status Quo

Disrupting the status quo in STEM courses is about creating space where everyone sees themselves as members of the disciplinary community. It is about consciously recognizing that doing things the way they have always been done does not necessarily mean that those practices are the best way to move forward. We begin the collection in this disruptive space in an effort to orient readers' thinking toward the more radical possibilities challenging the status quo can lead to. It is important to note that this work is not about being confrontational or antagonistic. Rather, the end goal is to lift the curtain to show the humanity behind the systems we consciously and subconsciously reinforce through our work. It is about recognizing what no longer works when we choose to curate educational and disciplinary spaces that include those who have historically been left out or erased.

Section 1 opens with poignant student reflections from Dhatri Badri and Riya Sharma. Badri discusses her experiences as a woman in biology and the impact of a single course on helping her carve out and own a space for herself in the field. Sharma focuses on the power of a science writing course that made challenging assumptions and identifying bias the focus of the work.

The chapters in this section then take up that theme of creating space by exploring topics such as disrupting traditional ways of thinking about science in themed first-year writing courses (Barlow and Quave), interrogating English and language supremacy in STEM writing instruction (Blomstedt), illustrating how interdisciplinary collaborations can open space for developing Critical Science Literacy (Callow and Shelton), the use of real, current data related to social justice in an introductory statistics course to highlight institutionalized bias (Callis), and developing courses that highlight the ways in which cultures from around the globe have contributed to foundational elements of STEM (Bitler and Oraby). The last chapter in this section asks students in Technical and Professional Communications (TPC) courses (which often target STEM students) to take up considerations of justice and cultural difference in their work (Burry et al.).

As noted in the Introduction, these chapters are meant to generate thinking about what is possible and practical within educators' own instructional spaces. The assignments and pedagogical strategies described offer starting places—approaches to try, test, and modify as needed.