Framework and Motivation

Anyone can be a successful student if their learning environment provides three things: frameworks that foster motivation and intellectual curiosity, an open, equitable, and nonrivalrous learning environment, and scaffolds that emphasize critical thinking and subject exploration over memorization. I see my responsibility to my students as providing the means, methods, and tools for learning just as much as it is to reduce barriers to critical thinking and educational equity.

As a current TA, my teaching philosophy is one of student-centricity that relies on the current best practices of teaching and my own educational apprenticeship of observation from nineteen years as a student. I am as much a passionate student as I am an excited teacher, and a positive learning environment can make or break a student's outlook on education, so I constantly strive to better my own teaching skills and best serve my students. In my classroom, every educational experience is designed as an opportunity to inspire learner growth and consciously ingrain critical thinking, saliency, and equity in the learning process.

Principles and Methods of Teaching

Fostering Critical Thinking Through Practical Application

I design my courses with the hope that a positive, salient learning experience may encourage intellectual confidence and exploration and will dissuade students from only "going through the motions" of learning. I strongly believe that environmental science's interdisciplinary nature is an excellent tool for encouraging knowledge retention. Studying environmental science incorporates a seemingly endless list of individual, often disparate subjects including policy, biological sciences, economics, engineering, etc.-the list is seemingly endless. Course content is grounded in practical application to create a sense of personal saliency that intrinsically motivates students to go beyond memorization. Projects and assignments are structured to mimic authentic career tasks (e.g.: policy briefs, research proposals, mock symposia presentations, etc.) that offer students the opportunity to connect the material to their own educational interests while applying course concepts to real world scenarios and tasks. With creative assignment building, a course can offer assignments that are just as much about content application as it is about providing students with the opportunity to walk away with a deliverable that they can use in their CV, portfolio, job applications, or build transferable skills. I favor creating learning assignments that allow for learning to be demonstrated in multiple formats. For example, if the course material focused on climate and extreme heat, perhaps the sustainability studies students would deliver a proposal for creating an NGO while the earth systems science students chose to submit an experiment design. In all of these techniques, students are given the tools and scaffolds they need to start unpacking the complexities of the subject while promoting critical thinking and real world application so that they might walk away with a deeper understanding of both the subject and its cross disciplinary applications.

Modeling Active Inclusivity

Inclusive teaching is not a passive principle that stops at a syllabus equity statement, which is why I imbue inclusivity throughout the teaching process in course design, in-class communication, and the modeling of inclusive tenets. Environmental science education is impossible without discussing justice and equity; I believe this is not something to shy away from but to embrace as an opportunity for students to think critically, expand their worldview, and develop analytical skills. I deliberately design my teaching as not to remove the human aspect of environmental science from course materials, and part of that is highlighting the contributions of female, BIPOC, and LGBTQIA+ professionals to the environment environmental field. As a woman in STEM, I acknowledge the importance of students seeing their own identities mirrored in the scientists and environmental professionals they learn about and the careers they strive towards. I also prioritize practicing responsible and equitable science by encouraging diverse academic perspectives and cultivating a classroom environment of respect. My courses use papers that validate the importance of traditional ecological knowledge, use case studies that have been co-created with frontline communities and tribes, and request that students think beyond the Western scope of environmental topics in their assignments. By integrating inclusivity into all aspects of course design, I am able to model active inclusivity and can consistently challenge students to critically examine their own worldviews, biases, and the inclusivity of their work.

Bridging Engagement with Equity

Like many other educators, I have observed the phenomenon that the most engaged students tend to consistently perform well compared to those that are less present in the classroom. This is not to assign fault to struggling students, but to demonstrate the power of engagement in learning retention and its' efficacy as a tool for assisting lower-performing students. Education is not a competitive, rivalrous experience; I believe that an engaging and dynamic classroom is a powerful means of increasing equity. Diversifying material delivery can transform classrooms into a motivational and equitable spaces for the betterment of learners at all levels of aptitude and confidence. I take a co-benefits approach to equity: providing students with multiple means of learning does not only benefit disadvantaged students, but also serves to create a more active and engaging experience for all. On the micro level, techniques like breaking up lectures with collaborative review questions or starting lectures with a "think-pair-share" encourage reflection while also increasing material retention for students who thrive under collaborative learning. Techniques for discouraging subject matter memorization (e.g.: in-class discussions prompted with a simple "could you walk me through how you got to that") also help auditory learners by giving them a moment to articulate their own critical thinking. At the course level, I design assignments to allow for productive risk and safe failure as a means of building student confidence and encouraging "out of the box" thinking. Students may expect my course to include low-risk preparatory assignments (like turning in drafts) as a space for safe failure that mimic real world, multistep processes of professional environmental work and academic research-all to provide equitable learning experiences for every learner.

Summary

In my own student career, I have had teachers that ranged from inspiring to completely disinterested in teaching, and my personal philosophy takes everything I have observed (best practices and must-avoid techniques alike) and applies those tenets to my own teaching through the lens of today's best practices in education. College is a time of growth, and my philosophy of being engaged, applicable, and equitable is a powerful means of fostering student growth in the way that best suits their needs. A thoughtfully crafted learning environment can make or break a student's outlook on education, and my teaching philosophy is centered on innovation, engagement, and most of all, how to best serve my students.