

I have been surrounded by teaching my whole life, and for about that long my ideas about teaching - what works best, what makes it rewarding, why it is challenging- have been dynamically changing. My mother was an elementary school teacher when I was growing up. I helped grade tests, listened to stories about difficult students, was a guinea pig for lessons, and learned along with my mom the content she had to teach each year. Now, I also hear stories of students getting in touch to tell her how much they appreciated her as a teacher, and how much they learned because of her tough discipline and homework. Because of this formative exposure, teaching as a profession has always lingered in my mind as an option, but it was not until I came to graduate school that I seriously considered it. With some distance to reflect on what was influential for me in college, and now, witnessing first-hand undergraduate teaching and learning, I have started formulating my own perspective on the critical components to higher education learning.

I have found that many students do not think of themselves as class participants, but rather as audience members. Simply replacing lectures with more in-class discussions is not enough to draw students out of their passive audience role. Embracing my role as a resource, collaborator and facilitator of learning changes the students' perspective and expectations of the class. This starts with clear learning objectives. When students can clearly see where we are headed together, there is less of a reliance on the teacher as the ultimate knowledge source. This allows the students to feel more comfortable taking risks in their own learning, along the path to the same learning outcomes. Ultimately students drive the pace and energy of a course. Once students realize that they are allowed to and encouraged to think outside of the strict content parameters, their energy propels the learning.

These clear learning objectives are especially critical in a discipline like agroecology which can be taught anywhere along a gradient from a very theoretical perspective to a very applied one. I think this is one of its great strengths, as the content can be presented to a range of audiences with different backgrounds. Successful agroecology students need to be confident interacting over a range of other disciplines. Additionally, while general theories apply across agroecology, many of our conclusions and understanding is context specific, depending on geography, scale, economics, among others. In this way, learning the content in an agroecology course is really only one overarching learning objective. A second learning objective is for students to be able to identify the limitations of our knowledge from a specific context, and be able to develop conclusions that can be applied more broadly. The future of this field has the potential to substantially shift our current understanding and ultimately change management recommendations. Students must be prepared to integrate new information and make reasoned decisions. Ultimately, I must be a model for this evaluation and assessment of new material and integration into applied management recommendations.

In order for all of my students to make sense of these complex connections across agriculture and the food system, I must provide them with the proper tools and opportunities. For a number of students, especially younger ones, farms are mysterious places. They have of course heard about them,

probably read detailed descriptions, but every student constructs different images of what a farm actually looks like as well as how farms work (ecologically, socially, and economically). Though I can't show them every farm, I'm continually impressed by the impact that a few select farm field trips have on student opinions and understanding. I once had a student remark, "I have always read that that could be done that way, but I never thought it could actually work until I saw it at X farm". It isn't so much a seeing-is-believing approach, but rather, we can't expect students to fully understand complex ecological processes coupled with human management simply by reading or discussing it. Even seeing a few examples helps students to contextualize some of these novel and disparate ideas. Specifically, farm field trips in the beginning of a course provide a common ground for all students. Within this common framework, together as a class we can put ideas and concepts we learn, and discuss how they might play out in the real world.

A broad discipline draws students from diverse fields and backgrounds. Carefully constructed and intentional experiences such as farm visits along with collaborative in-class activities can shift this from a potential liability to an asset for the class. With contrasting knowledge bases, students find themselves in a learning environment where they are the teachers and must articulate an idea to someone without the same background as themselves, reinforcing their own learning. In real life we must do this regularly, in a professional context through interdisciplinary collaboration, or at a social event explaining your job, or just what you might know about a certain subject that someone else is unfamiliar with. For many students they may not continue in this field exactly, but I want them to be able to make connections back to agriculture and the associated ecological and social processes in whatever field or profession they may find themselves in.

I am always working to develop appropriate assessment methods to accompany these classroom techniques. A good assessment tool helps me assess if and what students are learning, and to simultaneously reinforce learning at the same time. I tend to focus more on formative than summative assessment as it is difficult to progress with the content without a solid grasp of what came before. In this way, I emphasize pre-class preparation, such as online questionnaires about the readings, to ensure students are able to fully engage in class discussions and activities. These questionnaires, which I can read before class, allow me to directly and individually assess a student's understanding of the concepts and main points of a reading. I can then address those points of confusion promptly at the beginning of class. These questionnaires are graded to ensure that students complete them and the readings, but serve as a low-stakes way to express confusion and communicate directly with me. By assessing class participation using a structured rubric, I am both emphasizing the importance of constructive discussion and providing feedback to students as to how they can improve. Well-developed discussion skills will be important well beyond any one class, and are applicable to all students regardless of their future plans. In this vein of realistic skills and assessment, I favor cumulative projects that have a real-life application or parallel such as development of a grant proposal. In addition to building technical writing skills, I am able to evaluate more synthetic thinking and the ability of students to integrate their new learning from this class with their existing knowledge as well as relevant and pressing research questions.

In my experience, our field does not generally prioritize diversity. As I described above, an embrace of diverse backgrounds of disciplines can be a positive force for learning. I think the broader

paucity of attention to the many facets of diversity is a disservice for our students. As we are still lacking a robust conversation about diversity in society, the college classroom may be the last place students can be exposed to some illuminating ideas and open discussion about identity and social structure. Sensitive to the fact that many students will not have either privately or publicly addressed some of these concerns, I would use the identity of authors that we read as a starting point for discussion. This doesn't draw attention to the students themselves which might make them uncomfortable, but can highlight existing privilege structures. Pulling from another context in our field, we can discuss demographic changes of farmers in the United States, and the associated historical forces behind those trends, as well as how that is reflected throughout society. The debate about organic food prices, and "foodie" culture provides a ripe opportunity to delve into components of privilege. With the building of trust developed during the course, we can begin to discuss our own class dynamics, such as who gets to speak, and how identity influences those dynamics. Though less associated with the larger societal debates about diversity, I think that student learning styles and methods can be appropriately included in some of these discussions. The way students learn is part of their identity, and can be deepened through exchange with others about their own ways of successfully learning materials or managing time. In this way students can see that there is not just one way of getting the work done and getting the top grade, but rather that it is self-driven. Active self-reflection and group exchange can help them hone strategies and approaches that work best for them.

Developing my skills to productively address diversity is a priority for my professional development. It is an area where I feel like I have a lot of room to grow, and where I can see a direct benefit to my students. Creating a community of teachers with similar goals and motivation is also a key component of my professional development. These peers can serve as resources to build my teaching repertoire and challenge me to push myself. I would also look to this community for feedback and in-class observation, allowing me to make effective and targeted changes to my teaching practice. As we are often pulled in many directions, it is very grounding to have a group of people to help me maintain focus on my teaching for the long-term.

In such a broad and flexible field, establishing learning outcomes for each course, and developing appropriate assignments and assessments to promote those outcomes is critical to providing an effective learning space for students. With clear structure students can engage as active participants with the material rather than as audience members. Through this structure I can introduce challenging ideas and experiences, and in my role as facilitator of learning, help students to both learn material and connect it to the larger content.