I grew up in Waterbury, Vermont and went to the local public schools up until college when I moved to study at Connecticut College. As a young student I was privileged to have small classes with accessible teachers that were representative of my own race, gender, class, and town. I was an engaged student and connected with almost all my teachers. I had the privilege of having a mother who taught high school math, was available to help me after school on my work, and was home during the summers. I was encouraged throughout my schooling that I was a hard worker and that is why I had been and would be successful in the future. I grew up believing that my success was attributable to my motivation and I deserved my spot in my honors classes, advanced placement classes, and ultimately my acceptance into college.

When I began college I was forced to look critically at our education system and how, just like other institutions, it benefits certain groups over others. Although this does not belittle the work I did as a young student, it does put in to question if I deserved the superior spots I was given. Barriers in other students’ lives in my school, state, and country were absent in my own and not accounted for in our system. As a result, I thrived in our mythical meritocracy.

In my first education class at Connecticut College I read Joel Spring’s *The American School* and learned the history of school as a mechanism for conditioning diverse cultures and languages out of students. The U.S. public school system values certain cultural capital over others. As an English speaker with parents at home who
were taught in the same school system, and had the time to assist me at home, I immediately had a leg up on classmates who had unique attributes not assessed by our system. Students who immigrated to my state with their native languages were reminded in class and around the playground to only speak English so they could improve their skills. In contrast, I was applauded when I decided to take a foreign language, although I never came close to fluency after years of study.

As I continued my education classes I learned how different cultural capital could be incorporated into curriculum. This would allow all students to be represented in the classroom content. In his *Critical Pedagogy Primer*, Joe Kincheloe explained that the knowledge presented in classrooms could shift power structures by validating all students’ experiences and backgrounds. It wasn’t until I learned ecology from Aboriginal elders in a non-westernized setting that I fully understood the variety of expressions and delivery of knowledge that existed.

In the spring of 2015 I studied rainforest and reef ecology in Queensland, Australia. Our course was designed to incorporate traditional knowledge from Aboriginals who had survived in the harsh climate for 60,000 years. Aboriginals had a deep connection to their environment, which allowed them to live sustainably and survive in a hot, dry, and low nutrient ecosystem. The Aboriginal elders that we met explained that an understanding of the fragility of the ecosystem was important for their prolonged existence on the continent. Because Aboriginal communities understood their dependence on the earth they valued their extensive knowledge about the life cycles, traits, and threats to the organisms they relied on.
My professors, neither of who were Aboriginal, taught the majority of our classes in the field so that we could learn about the ecosystems without becoming detached from it. We participated in long walks while stopping to talk about a certain tree alongside our path or an animal that scampered across our vision. This, my professors believed, was a more traditional form of education.

We also had the privilege of camping for a week with two Aboriginal elders and one younger Aboriginal man. My professors had fostered this relationship over a decade or two and were close friends with the elders. During the week we learned traditional skills such as boomerang and spear throwing, bracelet making from fig tree bark, and identifying bush food. In a similar fashion to our field classes, the elders would take us on walks and identify plants we passed and their traditional uses, letting us try them as we walked. Every night we sat around the campfire and listened to one elder tell the Dreamtime stories that he was allowed to share with us. These stories were told to youth in their community so they learned their values and the characteristics of the ecosystem they lived in. We learned geographic and ecological history that had been passed down for thousands of years. This experience aligned with our program’s content goals of learning about Australian ecosystems as well as Aboriginal culture.

This was a valuable experience because it fortified my understanding of these biodiverse ecosystems that I was not familiar with. However I also found a connection to my education studies I had not expected. I experienced learning orally from an elder local to the ecosystem being studied, with a wealth of knowledge from hundreds of generations. Although this is a learning style not foreign to my own
country, it is one that is not valued in our mainstream society and therefore is not
dominant in schooling. This was a pivotal point in my studies as a scientist and
educator because I was able to experience a new teaching style and was given a new
perspective of what knowledge is valuable in my field. It helped me to imagine how I
could present science content in my own classroom with techniques that valued a
variety of cultures and perspectives. Learning in this atmosphere concretely backed
up the theory I had engaged with in education classes. I was able to understand how
our system depreciates some students' background knowledge and does not allow
them an equal position in the school.

During my summer internship I worked with an organization in Roxbury,
MA, that finances solar projects in low-income communities and advocates for
policy that broadens access to solar energy. This internship was another important
milestone in my education because I was able to see concrete restrictions in policy
that limit low income communities, primarily communities of color, from using
clean energy, lowering their carbon emissions, and combating climate change. I
added this knowledge to my teaching tool belt in the hopes that I can explain this
inequitable access to students and show how social and historical influences affect
science fields too.

In the last few years I have grown more aware of my position in society and
how it is woven in to my success in academics. This is important for me as I begin
my teaching career so that I can ensure that all students are represented in my
classroom, as I was throughout my life. My recent experiences in Queensland and
Roxbury give me concrete examples to provide a unique view of ecology and clean
energy that challenge mainstream teaching. I hope that a more diverse curriculum will allow students to understand the complexity of the field and how power structures impact what content is passed on in textbooks.