



Community Spotlight

Each Community Spotlight features an outstanding group, partner, resource, or member of our community.

Tamara Basham, PhD, Collin County Community College

Tamara Basham is a Professor of Environmental Science at Collin County Community College District in Plano, Texas. She first realized her passion for teaching and interactive learning opportunities while she was working with agriculture extension agents in-training at The Gambia College in The Gambia, West Africa. There she discovered that what was mystifying to her students on the chalkboard became fascinating and comprehensible when experienced hands-on. Since then, she has worked with students in the Freshman Research Initiative (FRI) program at University of Texas at Austin and several community colleges. Each step of the way she has tried to incorporate data and authentic research into her courses.



Tamara works with students from many different backgrounds and abilities in her classes at Collin, and she strives to promote a welcoming, respectful learning community in her classroom. This desire to make all feel welcome in the sciences led her to join her first QUBES Faculty Mentoring Network (FMN), ESA Data Access - Inclusive Pedagogy, last Spring 2020. She found the interactions with like-minded faculty from across the country inspiring and applied for the Summer/Fall 2020 BIOME Institute. Her work with the BIOME Social Justice Group transformed into a Spring 2021 FMN that is developing Course-based Undergraduate Research Experiences (CUREs) that focus on environmental justice, authentic experiences, and promoting activism in science classrooms.

(pictured above: Jim Njie, environmental activist and farmer, with Tamara Basham in The Gambia. [Learn more.](#))

What made you interested in STEM education reform?

I know each and every one of my students started life as a little scientist. We all do. Yet, I constantly hear adults proclaiming their inability to do science and succeed in a science classroom. Well, I'm not buying it. We, STEM Education as a whole, have not always met the challenges of reaching a diverse learning community. I think that the cost of that shortcoming is everywhere: climate change denial, vaccine hesitancy. I see STEM reform as a necessary part of larger societal reforms that must be made in order to promote justice and survival.

What change are you working towards in STEM education, and how do you go about enacting that change?

In the sciences, we have pretended that we were separate from the social and the political aspects of our world for a long time. That is not the reality. In my opinion, STEM education reform requires that we work with students to put our research skills and knowledge to work actively solving real-world problems. My current push is to restructure my course so we are no longer just learning and interpreting, but acting to address the issues we are discussing. In Environmental Science, this is relatively straightforward, but service learning and activism can be incorporated into Biology, Chemistry, Geology, and other courses, too.

What keeps you motivated and gives you hope?

My students are inspiring people! Many of them have “failed” before and are back for another go at higher education. Many of them work to support their families while attending classes. Every semester, they keep trying!! They are worth fighting for.

Tell us about your experience with [the BIOME Institute](#) and QUBES.

With everything else going on, it was a challenge to participate fully in the BIOME Institute. But I am so glad that I did make the time and put in the energy. This is a very welcoming and supportive community. I am not anyone special, but in the BIOME community, I had a seat at the table and my ideas were welcomed and valued. That is a really nice feeling. I also was able to support the efforts and ideas of others.

As for the QUBES platform, I’m excited about the access QUBES provides to high-quality Open Education Resources (OER), and enjoy using them in my classes. I’m looking forward to contributing back to the community.

I am humbled and grateful to have the opportunities to work with both the BIOME and QUBES communities.

How did you become an FMN mentor?

I happened to be in the right place at the right time, with my participation in the BIOME Institute leading to the opportunity to be a faculty mentor. I felt well-supported by my co-mentors and knew they were there to guide as a new mentor/participant in our FMN.

What do the FMNs offer that’s unique?

FMNs offer a time and venue to share ideas and provide/receive feedback from our peers. These peers are individuals who share our goals and passions. Over the course of the FMN, we are transformed into a community with roots that will support our future growth after the FMN has concluded. It is truly a transformative experience.

Are there teaching resources you’d like to point our community to?

Our [Social Justice and Community Change Group](#) has some amazing projects underway. They will be presenting some of their work at this year’s [BIOME Institute 2021](#). You should definitely check them out. There are projects that examine the environmental justice aspects of air pollution, solid waste management, climate change vulnerability in communities across the United States, literally from coast to coast!

Can you tell us more about the photo above?

This is a picture of Jim Njie, an environmental activist and farmer in The Gambia, and myself. From 1997-1999, we worked together to provide trainings for other farmers to encourage them to incorporate trees into their cropping systems. Mr. Njie is one of my heroes. He was a grassroots activist who was working to reforest The Gambia by showing his peers what was possible when we all work together. Memories of his generosity, humor, and determination inspire me to see each person I encounter as a potential part of my team and a part of the solution to our environmental crises.

How can our community connect with you?

You can contact me at [tbasham\[at\]collin.edu](mailto:tbasham[at]collin.edu) and stay tuned for our [FMN's final products here](#).

[Watch the 2020 BIOME Social Justice working group's final product presentation.](#)

[Learn more about the 2021 BIOME Institute here.](#)



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Community Spotlight: Issue 2