

As a cognitive psychologist aware of the impact of good mentorship, I am constantly striving to improve my mentoring skills and emulate my own mentors, who all shared similar qualities: they promoted the advancement of **women and underrepresented students within STEM**, created **inclusive environments** in their labs and classrooms, and pushed students to **develop professional skills** by investing the necessary effort and time into achieving their **long-term goals**.

Within my research program at Duke and Rutgers-Newark, I have mentored several students through **project-based inquiry**, setting ambitious but reasonable goals for each semester, developing novel questions that need sustained inquiry and enable student agency, and encouraging students to reflect on their own learning. For the first semester within lab, students usually read approximately five to ten relevant review and empirical articles, run participants on a joint research project, and attend lab meeting. This allows students to feel out the lab culture and become familiar with discipline-specific jargon while being attached to a project that they can consider when reading the articles. Together, we will often discuss the readings and any lingering questions, which helps students gain confidence in their ability to decipher academic research. After the first semester, we develop individual-specific semester goals scaffolded based on the student's long-term goals.

My RA, Ziwei, grew intrigued by subliminal cueing and proposed a research project as part of her Independent Study. We subsequently fleshed out her proposal into a Preregistered Direct Replication at [Psychological Science](#). Because she was interested in attending graduate school, we ensured that she could develop her presentation skills at conferences, such as [NC Cognition](#) and [Cognitive Neuroscience Society](#), and network with professors with whom she would like to study. Moreover, Ziwei as well as my RA, Sophie, who was unsure of her long-term goals, and Vin, who is a dual neuroscience and computer science major, developed their coding skills by programming research projects in [PsychoPy](#). All three were specifically interested in gaining these skills, which are becoming more essential to attending graduate school and following other data- and science-oriented career paths. In particular, Ziwei further developed coding skills crucial to pursuing her cognitive neuroscience PhD during the [Summer Neuroscience Program](#), when she independently analyzed fMRI data as part of her honors thesis.

Typically, students also **present at least once a semester in lab meeting and are included on any manuscripts** to which they significantly contributed, normalizing their inclusion in lab practices and fostering their oral and written science communication skills. Seeing the manuscript revision and peer review process unfold helps to demystify science. Likewise, to encourage student self-reflection and

rapport building, I take students out to lunch as an end-of-semester celebration of their successes and frustrations as part of the research process. These general policies have led to students satisfying their curiosity by asking questions during and outside of lab meeting as well as seeking general advice on classes and successfully applying for relevant awards to achieve their long-term goals.

Informal mentoring within the lab and department has bolstered my teaching. In my second year at Duke, I co-hosted a workshop on programming in JavaScript and running experiments on Amazon Mechanical Turk (MTurk). In subsequent years, my colleague and I have informally answered questions from other members of the Department about MTurk and JavaScript. As part of my [Bass Digital Education Fellowship](#), I am now developing our workshop materials into an online repository of tutorials, meant to help junior researchers develop their programming skills for crowdsourced social science experiments. Regardless of whether I am leading students through workshops, project-based inquiry, or independent coursework, I am also open about my career trajectory. I hope to lead by example, normalizing both struggle and successes and encouraging students to chat more with me if they are interested in pursuing psychology and neuroscience research or professional development opportunities.

Finally, my **Scholarship of Teaching and Learning research** on intelligence mindset has informed my teaching and mentorship in at least two ways. First, as a mentor and teacher, I promote the tenets of a growth mindset, emphasizing that students have the potential to develop their skills and intelligence through effort and praising the learning process that students undergo, such as the struggles that inevitably result when coding or solving statistical problems. Second, as researchers, my colleague and I have asked students to describe whether and why they consider themselves to be intelligent. One emergent theme was that students devalued their own effort in school and that comparison to their peers led some students to believe that they were not smart. Thus, [my colleague and I curated an art show](#) of these responses in the library, showing Duke students that they are not alone in their feelings and that imposter syndrome is real and pervasive, but ultimately, an inaccurate representation of their abilities and potential.

My other mentorship efforts have been directed towards **the advancement of women within STEM**. Most social programs are aimed at combating institutional and societal inequalities, but few address how to encourage feelings of belonging among the community. My first year at Duke, I developed a mentoring program for the [Women in Science and Engineering](#) group, coordinating across STEM departments to match interested graduate and undergraduate students whose goals

and time commitments aligned. Programs that facilitate the exposure to female-identified experts and peers can inoculate women's self-concept against stereotypes, build resilience, and increase social belonging (cf. Dasgupta and Stout, 2014; Dasgupta, 2011). To build on these efforts within my own department and promote the participation and retention of women in the sciences, I successfully applied for a [Professional Development Grant with Dr. Beth Marsh](#), forming the Women's Support Network for Psychology and Neuroscience. The primary aims of the Women's Support Network were 1) to facilitate a supportive network that grows feelings of belonging and self-efficacy through exposure to peer and expert role models and direct mentorship and 2) to promote the work of senior women in the field as well as the diverse career paths that they may take. We hosted a meet-and-great panel on "How to Advocate for Yourself," fulfilling our goal of establishing community and belonging and providing mentorship and professional development to junior scientists. We also hosted two external speakers within and outside of academia for further professional development and [formed a biweekly writing group to promote community-building and encourage productivity across a number of writing goals](#).

Growing as a mentor is **fundamental to my professional development**. To this end, I have been a community leader and mentor ever since I was a residential advisor at Pomona College. Looking forward, I am eager to implement what I have learned from various outreach and mentorship opportunities. For instance, I would like to have my students write about the traits of successful scientists (see ["Engaging Undergraduates in Publishable Research: Best Practices"](#)), pushing students to develop a scientific identity. Moreover, they would note the traits or actions that they would like me to mention in future recommendation letters, pushing me to notice these behaviors both in the moment and over our time together. Fostering my mentorship skills will only improve my skills as a researcher and teacher.