Teaching Statement
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Learning is an active and exploratory process. Basic memory research tells us that deep learning results from a self-regulated and goal-driven process in which learners make earnest attempts, sometimes "miss the mark," and use the resulting error signal to re-calibrate and try again. My own personal experiences as a learner, both inside and outside of the classroom, have reinforced this point. As a nontraditional and first-generation college student, I began my undergraduate education with a strong but imprecise interest in psychological science, as I lacked a clear sense of the opportunities that were available to me within this field. Without an understanding of how psychological science *really worked*, I had few clear goals, poor understanding of where to effectively allocate my effort, and no clear feedback. It wasn't until I was afforded the opportunity to engage directly in undergraduate research that I not only began to understand the larger context in which I was participating, but also began to build a deep enthusiasm that sparked my career as a psychological and cognitive scientist. These early experiences have largely shaped my teaching philosophy and guided my interaction with students both in the classroom and in the lab. One of my primary teaching goals has been to orient students towards the multitude of opportunities available within the psychological, educational, and brain sciences and beyond. Such early exposure is especially important as students enter the classroom from a diverse range of backgrounds and experiences. I believe that my background along with my breadth of research, teaching, and professional service experiences offer not only a unique perspective, but also a unique set of skills to apply within and outside of the classroom to enhance student learning.

My substantive teaching interests are in adult development and aging, language processing, memory, cognitive psychology, cognitive neuroscience, and statistics. At the University of Utah, I have taught a large (100+ enrollment) undergraduate survey course in *Cognitive Neuropsychology*. Student feedback has been strong for each semester, exceeding our already high departmental average (e.g., average instructor effectiveness rating: 5.83/6.00). I have also taught a graduate research methods course called *Cognition and Neural Science Applications to Research.* This course, a core course for CNS PhD students, serves as a high-level survey course of important methodological applications in our field (e.g., fMRI, EEG, TMS, eye tracking, computational modeling, etc.). In addition, I co-developed and served as instructor of record for a novel hands-on lab-based EEG methods course called *Advanced Cognitive Electrophysiology*. In this course, students (both graduate and undergraduate) received hands-on training in EEG experiment design, data collection, and analysis. The course combines lectures, hands-on lab assignments, and a full-semester project in which students, working in groups, conduct their own EEG study "from scratch" and present the results. Students learn to develop skills in stimulus creation and experimental design, programming, data acquisition (including learning EEG capping protocols), analysis, and dissemination of findings. To conduct such a resource-intensive course, my colleagues and I secured a large equipment grant (> $100k) from the U of U Vice President for Research (PI: Euler) to support the development of an independent cross-disciplinary teaching EEG lab that students use for this course. In the two iterations of this course taught thus far, several students have gone on to use their projects to develop theses, and at least two projects have gone on to be submitted for publication.

Finally, I believe that strong statistical and quantitative skills should be part of a well-rounded toolbox not only for every basic and applied researcher, but also for any consumer of research. As such, another important area of my teaching has focused on quantitative methods. At the University of Utah, I have re-designed and taught a course called *Introduction to Quantitative Methods* (PSY 5499/6499) for both for undergraduate and graduate students. This course is taught completely in the R program for statistical computing, giving some students their first experience with writing code and generating reproducible statistical analyses. Student final projects and course evaluations have revealed that the course has been very successful. In fact, I received a perfect instructor effectiveness rating (6/6) for this course. In addition, at the University of Illinois, I was the instructor of record for a graduate-level course on *Applied Hierarchical Linear Modeling*, a course that introduced graduate and undergraduate students to linear mixed effects models, with a focus on real-world data analysis. I have additionally designed and instructed several workshops that were attended by undergraduate students, graduate students, and faculty, on topics such as the analysis of neural time-series data.

In all areas of pedagogical focus, I aim to apply cognitive and psychological models of learning and instruction to guide my teaching approach. I have always held that our scientific knowledge of learning should invariably

inform pedagogical practice. Despite a growing body of research on cognition, education, and the brain, only few practical links currently exist between this research and educational practice. As an educator and cognitive scientist, I aim to use my training to create an inclusive, evidence-based, student-centered, and engaging learning environment both in the classroom and in the laboratory.