

## Teaching Philosophy Statement

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I have always been driven to learn by a sense of wonder, exploration, and discovery. My love of learning has segued naturally into a love of teaching. There is nothing more rewarding than seeing the light of new understanding form in students' eyes, and subsequently guiding that light toward competence and mastery. I have combined my passion with practical insights gained from my studies as a cognitive psychologist and from my various teaching experiences in order to create an enthusiastic, evolving, and effective approach to teaching.

### Understanding the Perspectives of the Students

My first priority as a teacher is to emulate the students' perspectives. Once we understand something, we easily forget what it was like before we understood. Thus I strive to assume as little as possible about students' prior knowledge. I carefully and slowly introduce new ideas and terminology, breaking down complex concepts into simpler components as needed. I am conscientious with terms that mean something different in psychology versus in everyday language (e.g., "short-term memory" or "experiment"), and with acronyms, abbreviations, and symbols. When teaching statistics I make sure to write and define unfamiliar symbols on the chalkboard so they are visible throughout the class. In my PowerPoint presentations I carefully limit the amount of information displayed at once, so as not to overload students' working memory. I ask students to think of examples in class (e.g., "What are some recent fads that might illustrate *conformity*?"), so that I can see not only how they are thinking, but also what their world is like. Another strategy I have used is to have students write to me, at the end of a lecture, one thing they think is interesting and one thing they didn't understand. By doing my best to understand students' perspectives and varying levels of comprehension, I am better able to introduce them to new ideas and also make those ideas more relatable to them.

### Encouraging Critical and Creative Scientific Thinking

In all of my teaching I emphasize psychology as a *science*, and that science is a *way of knowing* that combines empiricism and logic. I use activities and questions that challenge students to exercise *critical thinking*: What is the claim? What is the supporting evidence? What are alternative explanations? What additional evidence might we gather? For example, when teaching Introductory Psychology I gave a "psychic" demonstration in which I had one student draw a card from a deck that I brought in. I

closed my eyes while the student held the card up so everyone else could see it. I asked everyone to think vividly of the particular card, and then I “read their minds” (*claim*) and correctly stated that the card was the 7-of-diamonds (*evidence*). Students then thought up *alternative explanations* for this feat, and demanded *additional evidence*. We repeated the demonstration and the card drawn from the deck was again the 7-of-diamonds. As students came to suspect, the entire deck was in fact all the same card. Later assignments in that class asked students to apply the same process of critical thinking to claims they found in the media.

At the same time as emphasizing empiricism and logic, I also emphasize the need for *creativity* in psychological science. Astronomer Carl Sagan once said: “to find the truth we need imagination and skepticism both.” I have mentored both undergraduate and graduate students in designing and conducting research, and the approach I encourage is this: Unbounded creative curiosity first. Then, rigor. Finally, practicality. I ask students to think through questions such as: What do you want to find out? What study would you run if you had infinite resources (including time travel, access to parallel universes, etc.)? How would you perfectly control for all possible confounds? What statistical analyses would you conduct once you had the data? Finally, how can we scale all those ideas down to something that is practical and ethical?

### Promoting Active Learning

Research has repeatedly shown that actively retrieving information from memory improves learning. Toward this end, I ask students lots of questions, and I encourage them to ask lots in return. I want students to feel that I am not simply giving them definitions, but rather am exploring a landscape with them. It is thrilling when a student asks a question I had never considered, and if I don’t know the answer offhand, I express my wonder, make a note, and always follow-up later once I’ve found it out (either in the next class or via email or course website).

In addition to frequent review/quiz questions (e.g., “Which statistical test should you use with a nominal dependent variable?”), I ask broader questions aimed at inspiring students to think creatively and critically about important topics. For example: What would it be like to have a “perfect memory”? What if we could randomly assign age? Could you EVER find out the true value of the population variance? Different students work best in different situations, so when I give exercises I will sometimes have students work in small groups, and other times give them a few minutes to work silently on their own. I have found that a diverse approach to active learning is important to engage a diverse group of learners across settings.

### Inspiring Motivation and Engagement

Motivation is a requisite for learning. But it cannot be taught; rather, it must be instilled. Thus, I seek to inspire students with my own enthusiasm for the subject matter and for learning itself. When their instructor is excited, students get excited too. In every class I also seek to impart to students the belief that intelligence is not an inborn trait but rather a skill that can be perpetually improved. Furthermore, whenever possible I engage students' attention with exciting, humorous, and/or memorable examples and demonstrations, such as with the 7-of-diamonds card trick. I have also, for example: demonstrated theory-of-mind using a dinosaur puppet, illustrated the modeling theory of aggression by punching an inflatable clown, and used the correlational relationship between drinking and grades as a springboard for critical discussion about causality. By student popular demand, I have used some of my own research with wearable cameras to facilitate discussions on the nature of human memory and the methodological issues involved in testing memory outside of a laboratory.

### Versatility

I have taught small and large classes, lab sections and lectures, with young and older students. I have done one-on-one tutoring, facilitated group projects, and given presentations to diverse audiences. I have helped students to hone their *writing skills*, across multiple revisions, toward conciseness, consistency, and logical clarity. Furthermore, I am comfortable with both high-tech and low-tech teaching tools. The PowerPoint slides I crafted for teaching Introductory Psychology have been downloaded and used or adapted by many other instructors via the University of Illinois wiki for that course. In that same course I used the iClicker handheld-device response system to implement real-time review questions, demonstrations, and preference polls in a large lecture setting. At the same time, I am always quick to use chalk or pen-and-paper to flexibly build visual representations on the fly, which is especially important for statistics and research methods.

With my experience and my versatility I am confident in being prepared to teach a variety of courses to a diverse array of students, and I look forward to supervising undergraduate and/or graduate research, and instilling in others the same enthusiastic curiosity that has driven me to become a scientist and a teacher.