Teaching statement Benjamin Silver

How do you get someone to care about something?

My commitment to teaching comes from the same place as my interest in psychology: a fascination with how we create internal representations of the external world. How does one translate a sensory experience into an abstract concept that gains meaning from nothing but neuronal firing? My research has taught me that individual motivations impact every aspect of this process – the internal representations we form are a direct reflection of what we care about. When it comes to teaching, we can't reach inside our students' heads and tinker with their synapses, so it might be accurate to boldly proclaim that no one has ever taught anyone anything. Rather, the role of an instructor is to create circumstances in which students are able and motivated to teach themselves, to build their own internal representations.

My goals as a teacher – and the primary ways I try to motivate students – can be summarized by the following three maxims: **Draw external connections; Build confidence; Be a person.** I've come to form these goals through my many and varied experiences as an instructor: I developed and taught an original undergraduate seminar during my final year of graduate school; I am currently teaching a revamped version of a research methods/data science course in my department; I have TAed for six courses, three of which required me to lead weekly lab sections; I have mentored seven undergraduate research assistants, two of whom completed senior honors theses, and another two of whom participated in a summer research program that I helped create; and I have spent countless hours doing science outreach for students of all ages, including three years as an instructor and curriculum developer for a high school neuroscience program. Each time I taught, I gained a better understanding from my students of what they need to feel connected, confident, and cared-for.

Draw external connections

One of the best ways to motivate students is to make coursework relevant to their lives outside the classroom. The course that I designed and taught in my final year of graduate school was entitled "Psychology and the Internet;" its focus was human behavior in online spaces, a topic that nearly every student is able to relate to. Of all of my teaching experiences, this course stood out for the depth of student engagement and the richness of in-class discussions. Quite simply, I could *feel*, every week, how excited students were to talk about a topic that had such pertinent applications to their daily lives (and I myself learned quite a bit from them about the nefariousness of the TikTok algorithm). I encouraged students' excitement by designing assignments to be flexible enough that they could complete them through the lens of their own interests. For example, I instructed students to make connections between the readings and their own personal experiences when filling out a weekly reading log. (Asking students to bring in personal experiences has the added benefit of encouraging authenticity and discouraging copying and pasting from AI.) Similarly, their midterm and final assignments provided basic structure – design a coding tutorial and write an op-ed, respectively – but the topic of focus could be filled in with the data sources and real-world phenomena that students found the most compelling.

Drawing external connections isn't just about leaving room open for students' interests; it's also about making their work useful for further learning once the class is completed. This goal is especially important for coding skills, which students often find daunting but are an increasingly essential component of any PhD program. I introduced R programming lessons into the research methods classes I TAed for, and Python programming lessons into the high school neuroscience program I taught. In both of these cases, the idea was to give students practice with a skill that could be readily applied to research completed outside the classroom. On a similar note, for the midterm assignment for Psychology and the Internet, I asked students to create a coding tutorial – using coding teaching tools such as R Markdown or Jupyter Notebooks – about how to work with one software package that can be used to access digital

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data (Reddit posts, news articles, Wikipedia pages, etc.). These tutorials were saved on our class website, meaning that students have a ready-made resource to help them conduct research with online data, should they wish to do so in the future.

This strategy extends beyond coding: For my course's final assignment, students were asked to write an op-ed arguing for a new internet regulation or policy, informed by psychology research. The assignment was structured so that students could actually try to get their pieces published: as part of the assignment, they needed to write a pitch email, and the op-ed had to be written according to the style of a specific publication of their choosing. After the course ended, I had multiple students let me know they were going to try to actually pitch their op-ed. In all of these examples, the intention was to open up the walls of the classroom, to encourage students to see that what they were learning was applicable and useful in other contexts. By directly linking classwork to the real world, I provide further motivation for a student's own learning process.

Build confidence

Another way to motivate students is to make them feel confident in their abilities. Confidence is built by providing students with a baseline understanding of material from which they can "hang" additional content, and allowing them to collaborate with others to explore that additional content. This strategy has proven especially important in the three research methods classes I've TAed for, where there is often a lot of material that students have never encountered before. For example, in a lesson about how to operationalize variables, I first provide students with a guiding framework: every psychological variable exists as both an abstract construct and a concrete measurement. Self-esteem is a construct, while the Rosenberg Self-Esteem scale is a measurement. Popularity is a construct, while number of reported friends is a measurement. And so on. I enhance these examples with PowerPoint schematics to demonstrate the relationship between ideas and measurements.

Once I've provided students with this base, I next give them the opportunity to explore further with others. In small groups, they fill out a "collaborative Google document" – a pandemic-era teaching strategy that has proven useful back in the classroom – with a series of research questions listed. For each question, they are expected to extract an X and Y variable, come up with two ways of operationalizing each one, and reflect on whether and why these operationalizations would elicit different results. The benefits of this activity are manifold: It's an opportunity to practice a skill they'll be implicitly expected to do for the class's final independent research project; they are exposed to the ideas of other students, who may think differently from them; and they gain experience critiquing the scientific process and witnessing the complexities of research design. I have found that this approach – a rigid base followed by more free-form collaboration – is a highly effective way to cover a lot of material quickly without sacrificing meaningful engagement. Most importantly, this approach *motivates* students: it provides them with a semantic map to guide their learning, and a flexible playing field to build up their own internal representations in collaboration with others.

Be a person

I've spent this teaching statement talking about what I do *as a teacher*. But at the end of the day, I'm also me, Ben. When I teach, I bring my whole self into the class, warts and all. I recognize that this goal is not feasible or even desirable for everyone, but it works for me. I'm excitable, and anxious, and sometimes (I hope) a little bit funny. By bringing my whole self into the classroom, I'm signaling to other students that they can do so too, if they wish. Being myself also allows me to demonstrate empathy and honesty towards my students. When I introduce a topic, such as programming, that I can sense

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students are apprehensive about, I bring in my own difficulties learning these topics to demonstrate that they're not alone, that it's normal to struggle or be confused.

Real people treat others with warmth and compassion. When I'm a real person in the classroom, and not just an instructor, I treat my students with warmth and compassion as well. In one research methods lab, there was a serious interpersonal conflict amongst members of a project group. Two of the group members, who felt they were being bullied by the third, felt comfortable coming to me and asking for help. Together, we worked through the conflict, and all three students were able to succeed in the course. Treating my students with compassion also allows me to form deeper connections with them, which allows them to expand their academic network. I've written numerous recommendation letters for my students, in addition to the ones I've written for research assistants whom I've mentored.

Real people also treat others with respect. In terms of deadlines and attendance, I emphasize clear communication with me ahead of time, rather than adhering to hard and fast rules that fail to consider students' personal lives. The added benefit of being a real person who treats others with respect is that you can demand their respect in return. While teaching Psychology and the Internet, I had two separate instances where I was pretty sure I had caught a student using ChatGPT to complete their reading log. When I met with each of them, I clearly explained why I had a hunch that they had used ChatGPT, why I found it disrespectful that they did so, and the negative impact that their using it had on their classmates. I then gave them an opportunity to defend themselves and refute my accusation. In both cases, they immediately confessed, apologized, and accepted the 0 on that assignment. We then talked about how to communicate with me if they felt the need to use ChatGPT to complete their reading logs in the future. Both of these students' reading logs dramatically improved after these meetings; they became more authentic, less generic, and more interesting. These examples demonstrate that real people owe things to each other. When students are made to feel comfortable and welcome by their instructor, it frees up their mind to focus on learning. When students feel that our classroom is an inclusive environment, they are more motivated to be a part of it.

As an instructor, I can't force anyone to understand anything. All I can do is foster an environment where students are motivated to learn, where students are interested in building new representations, where students are excited to quite literally expand their minds. When students feel that their hard work intersects with their interests and can benefit them after the class is over, they will be motivated to set themselves up for success. When students are given the opportunity to build on a firm conceptual base with their peers, they will be motivated to try out different perspectives and ways of learning. When students feel like they're being taught by someone who is a real person, with a real identity and emotions, they will be motivated to be a part of our classroom. I can't *make* my students learn anything; all I can do is make them want to try.