Teaching Philosophy Statement
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"If I have seen further it is by standing on the shoulders of giants."
—*Sir Isaac Newton*

When philosophy meets practice

I believe that as a teacher, one should spend time constructing and innovating new types of learning experiences. I believe as developing teachers we have a responsibility to our students to surround ourselves with the best possible mentors, and inherit their lessons. The most extraordinary teacher in my 17 years of schooling came my very last year, as a senior, in the senior capstone design class of the Mechanical Engineering Department at MIT. His name is Professor Wallace— David, to be exact— and when I later found out of his many awards in teaching innovation, I could understand why. One year later I commenced my graduate studies and was lucky to have him as an advisor. And so my learning from him began, and my mental note-taking of every tidbit of philosophy I could gather whenever we conversed. My teaching philosophy for in and out of the classroom learning greatly builds on the philosophies I've learned from his mentorship, having experienced them as a student, and having implemented them myself in classrooms in Colombia, India, and the U.S.. Below I extract a few of these lessons and their implications for my teaching recipes.

My job as a teacher is to motivate and inspire the student, not to disseminate any specific body of knowledge. This means that, as a teacher, it is most important that the student leaves the classroom with the desire to learn that extends beyond any topics they might learn in any one class. Students should leave hooked, curious, and yearning for more. This means that exercises in the class should be catered around painting a picture of the field and the eternal possibilities within it, instead of memorizing the colors in the landscape.

Students are great liars, and it is our job, as teachers, to know they are often overeager to please. Traditional classroom learning has taught them that it is not good to not know, so they've become accustomed to lying and over-reporting what they know. This means that as a teacher, I must task myself to create environments with easily accessible support material (appendices for lab and homework handouts, for example), and make additional space for catching up the students at lower levels (by offering open tutorials on specific, supporting subjects, for example). Perhaps most memorable to the student, I must never act surprised or startled when a student confesses to not know a prior body of knowledge. Instead, taking the time to simply walk the student through that lesson's material will almost always set a tone of openness and honesty.

Teaching has to be relevant to the student, or else they will not be engaged in the material, no matter how great it is. Too often, teachers become sages on stage and leave it to the students to make connections between what the material has to offer them and their own interests. It is the responsibility of the teacher to make this explicit, and then the student will naturally have much greater interest in their material. One strategy that works well here is making the student feel they are practicing skills that they will soon apply in the real-world. Project-based learning works well here, especially when given you can frame the activity as realistic as possible, with industry mentors to teams, real spending budgets, and a final project presentation to an audience of relevant users and consumers similar to Apple new product launch.

Students fear me, as a teacher, and so I cannot wait for the student to approach the student, but rather have to make the proactive effort of reaching out to them. This is a result of years of conditioning where the teacher is not approachable and thus students become too intimidated to ask for the personal attention of the professor. This means that I am responsible for creating a safe environment where the student really wants to engage with me and ask of my opinions. One cannot expect to wait around for students to show up for Office Hours, for example, but should instead make efforts to have fun, useful tutorials with the students that give them something

to learn from, and in-class activities that build a natural, free-flowing relationship casting the professor in a light that is very moldable and approachable.

Students yearn for feedback, not grades. Grades are one method of assessment with a very small bandwidth to relay information on a student's performance, and they come at a time when it is already too late for the student to have incorporated that into their evaluation. As David says, "one hour of mentoring is worth many hours grading." The teacher should find creative feedback methods that provide a higher bandwidth of information related back to the student. For example, feedback forms that differentiate between content and presentation of that content do well in avoiding mixed messages and derailing the students understanding of the material. A useful structure I've seen used is the one where multiple evaluators (that rotate for each activity so as to almost never critique the same student twice) are asked to comment on what the student should "Do more of...", "Do less of...", and "Keep the same...".

You cannot expect for students to put in more work than you do. From team projects to any relationship, including the student-teacher one, no student should be asked to take the class more seriously or be more enthusiastic than the teacher. This can be relevant to preparations for class as well as to investment in the quality of a final project. This is most telling for traditional philosophies that the first year of teaching is the hardest when realistically, a teacher should continuously focus on and improve their teaching.

Teaching is storytelling, really. And the best connections will come from a student building an emotional connection to the subject matter and its potential for impact. This means, that when designing the learning experience, the teacher should recognize that a course should be more than a collection of topics just fitted together, but rather should have the key elements of a narrative that tell a story: *the setup* that defines context and introduces the problem, *the journey* that catalyzes the transformational process, and *the resolution* bringing a cohesive end to all topics covered.