

Teaching Philosophy – Christopher Paul Steiner

When I was the instructor of record for Principles of Microeconomics in Summer 2014, I knew I needed to motivate a lecture of around eighty students to learn. Economics taught well can engage students as a highly-structured, relevant, often mathematical story. From teaching both within the economics department in large lectures and as a writing TA in small classes, I knew that having full, engaging stories – and not just “real-world” examples – was key to keeping students’ attention.

Additionally, I made sure to break up the lecture with group work¹. Group work is an active learning strategy; a meta-analysis of active learning finds it improves exam scores in STEM fields by almost half of a standard deviation and reduces failure rates compared to a traditional lecture². Given the diverse abilities and perspectives of students enrolled in principles courses, it also allowed students to work with a group of their peers in other majors and in other colleges with whom they may not otherwise interact. Furthermore, the students were able to mesh their comparative advantages in studying during the group sessions. Lastly, it allowed students some time to get up and move around in a three-hour summer lecture – this was an important feature of the group work which I found helpful given the challenge of having a non-traditional class period.

Here at Penn State, I will have the privilege of teaching four senior-level courses. In the fall, I am teaching both Economics of Law and Regulation and Economics of Growth and Development. In contrast to the principles course, most students here will have a knowledge – and hopefully appreciation – of economics. Still, I hope that continuing group work will help students meet other majors and contribute to learning in these fields.

Prior to coming to Penn State, for the previous seven years, I worked as a teaching assistant both in the economics department and in the Culture, Art, and Technology (CAT) Writing Program. In economics, I was a teaching assistant for a wide variety of courses – ranging from principles and intermediate micro to international economics and environmental economics.

As a former teaching assistant in a writing program, I have interdisciplinary experience as well. CAT gave me a different perspective of teaching – smaller classes led to more per-capita time with students. I frequently met with TA colleagues in other departments across campus, and I was able to bring in economics and statistics into the interdisciplinary classroom. For instance, what is the law of large numbers and why is it important when thinking about temperature averages when discussing climate change? Being closer to the students also provided perspective on how they felt about their classes – I was able to actually ask them how much they spent studying for other coursework, such as economics. I had many engaging discussions with other colleagues across campus in CAT 500 workshops about educational pedagogy.

This pedagogical foundation of my teaching began as a teaching assistant, but in Winter 2014, I enrolled in UC San Diego’s “The College Classroom” course as a prerequisite to my Summer Graduate Teaching Scholars (SGTS) award. We discussed how to create an environment conducive to learning, particularly with peer instruction and educational technology, including iClickers. We looked at how to use Bloom’s taxonomy to ask questions and enable students to engage meta-cognitively with material.

In this course, I thought about how I would integrate group work into the classroom. Usually, I take a 10- to 30-minute break every few lectures (every lecture in the Summer) and have a worksheet problem similar to one found on the exam. Groups are randomly assigned at the beginning of the course. At UC San Diego, mathematics was ubiquitous even at the introductory level – potentially creating a barrier to entry into the economics profession. By linking together math-phobic students and economics-phobic students to others in the group, students were empowered to teach each other. I try to be as empathetic and helpful as possible in my class, but sometimes having a peer to ask a question is still less intimidating!

To keep students interested in my micro course, I made sure to watch the news for engaging, complete stories that I could use in my course. In the syllabus, I assigned pre-reading articles which focused on economics in the news. I expected students to garner the gist of the reading (not read it intensely), and I would discuss this in class. During the lesson on perfect competition, for instance, we discussed the excellent

¹There is much research on group work, but there are only a few papers on group work in the context of a university economics course. One paper looks at group composition: Moore, R. L. (2011). The effect of group composition on individual student performance in an introductory economics course. *The Journal of Economic Education*, 42(2), 120-35.

²Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okorafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, 111(23), 8410-15.

2014 U.S. corn crop, and we watched 15 minutes of the U.S. Farm Report. I brought in a Google Map Street View of my hometown grain elevator and showed the students that farmers don't have much negotiation room – the price of a bushel of corn was on a board much like a gas station. During monopoly, I brought in a book excerpt on Barry Goldwater's opposition to the breakup of AT&T in the 1980's. I also brought in a recording of a BBC piece I heard on the way back from the AAEA conference in August. This BBC report was on Barry Goldwater, Jr., using solar power to change monopoly power regulations in Arizona. What was the difference between the AT&T breakup and the situation in Arizona – or was Barry Goldwater, Jr., different from his father in this regard?

Lastly, I am interested in the university as an institution, and I find joy and concern in the interaction between the university and the student. Students are now leaving university equipped with knowledge and strapped with debt. Large bureaucracies funnel students into journeys they least expect to traverse. Do students actually major what they want to major in? What roadblocks come in their way? My research paper with Melissa Famulari and Richard Carson looks at how students face different incentives to major in particular fields. Students majoring in economics at UC San Diego, for instance, may earn a higher salary than those in the humanities – but they also face larger class sizes. How do these challenges lead to different experiences on campus? Anecdotally, in CAT, I often observed students who were debating over several majors, and while purists who pursue a Ph.D. may believe this is a life-altering decision – students in the moment often look at incentives in the environment they have. In the economics department, we must try hard to create these good experiences for students so that our profession can attract the best and the brightest. After all, economics is the best – that is why we spent a decade or so as students ourselves!