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Teaching Statement

We never know which lives we influence, or when, or why. —Stephen King

Throughout my career I have encountered dozens of teachers, but only some of them have been mentors—inspirational figures to whom I owe my academic success. For example, I recall my high school mathematics teacher, who from the first day of school was determined to set me and my classmates on the path to success. She not only helped us to succeed on our college-entry exams, but also taught us skills that proved extremely useful in the first year of college. She and my other mentors share common features: they are stimulating, considerate, and knowledgeable. They actively engage in guiding their students towards success and shaping their lives. From my first teaching assignment during my master studies in Berlin, Germany to serving as an instructor at the University of Pittsburgh, my goal has been to emulate these virtues.

At the University of Pittsburgh, I independently taught two undergraduate summer courses: Applied Econometrics and Economic Data Analysis. Since research has shown that students perform better when taught using active learning techniques (Freeman et al., 2014), I was passionate about designing these courses in an innovative and exciting way.

“She initiated a game to enhance our understanding towards the theory.”

For example, towards the end of each class, I organized a students’ tournament, which I named the “House Cup” after the Harry Potter book series. After randomly assigning students to four teams (“houses”), I portrayed Professor McGonagall, from the imaginary Hogwarts School of Witchcraft and Wizardry, and asked students a total of twenty short questions regarding the content of the past lectures. Students were given one minute to analyze the question and exchange ideas, where the first house to provide the correct answer was given a point (for example, “One point for Gryffindor!”) This exercise helped students to remain focused until the very last minute of the class, encouraged them to jointly discuss ideas, and, foremost, provided them with an excellent opportunity to think in greater detail and link various economic concepts discussed in class.

“I enjoyed the interactive nature in which it was taught. Even though as students we were hesitant to answer, it kept us invested in what was going on should we have been called on, and helped me grasp some concepts personally that have previously gone unlearned.”

One of my other teaching objectives is that of helping the students to apply the concepts they learn and skills they acquire in class in situations beyond the classroom. Therefore, my main focus is on helping the students to develop intuition, master their problem-solving skills, and thoroughly understand the substance of the course. For instance, I explained to my students the concept of the law of large numbers with bags of M&M’s, asking them how many bags should be opened in order to obtain a good estimate of the average number of either red or yellow M&M’s per bag in the population. (We opened 20 and concluded that many more bags were needed.) On a different occasion, I illustrated the concept of a statistical permutation with the help of a rose by writing each digit of my ten-digit phone number on ten rose petals and asking the students to find out the probability of dialing my number with a single try.

“The instructor tried to lead me thinking through not just calculate or get the answer.”

Throughout my career, I have observed that asking students to provide their own examples and encouraging them to try to solve a problem on their own proves more effective than listing multiple examples on a slide or solving a problem on a blackboard. For instance, instead of providing the students with textbook examples of probability, I asked them to independently assess the chances of each of the following events: Prince Harry attends Pitt's graduation ceremony; the price of a Google share at closing is above \$1,270; the Steelers are in the Superbowl; and Foreign-language movie wins the Oscar for the best picture. In addition, I strongly believe that questions such as "Why is it true?" or "Will it still be true if this assumption does not hold?" help students to develop unconventional thinking—one of the top qualities employers are looking for among job candidates. I also put an emphasis on equipping my students with skills they can apply in other courses and/or after graduation. For example, in one of my Economic Data Analysis classes on a simple linear regression model, I introduced students to various data visualization techniques available in Excel and STATA. I believe that such early exposure will benefit them later for their job market and will also prove extremely useful at the start of their professional careers as researchers, bankers, financial analysts, tax advisers and more.

"I liked how the course was structured.

That is, the quizzes and exams were very connected to each other and to the course material."

One of the lessons I have learned throughout my career is that it is essential to correctly assess students' background knowledge and to continuously monitor their progress throughout the semester. I believe that students learn the most from courses that are neither too easy nor too difficult. Therefore, by structuring my classes to have frequent assessments, I am able to tailor my syllabus to students' needs and interests. These recurring assessments usually comprise multiple rounds of quiz questions, homework assigned at the end of each class, and three midterm exams in addition to the final exam.

"I appreciated that there were not surprises. What she taught was what was relevant to the exams, and we never received something we hadn't seen before. The concepts remained the same, even if you had to recognize them first."

While monitoring students' progress is important, my priority is that of providing them with a stress-free environment, especially during tests and exams. As a student myself, I understand the enormous pressure put on children and teenagers around the world that starts on their first day of school and continues throughout college. While I aim at preparing my students for success, I do not want to achieve this goal through stress and fear. Sadness, depression, and anxiety can harm the learning process by "locking up the brain" and, can have a negative and long-lasting effect on students' performance. Therefore, even with such small gestures like displaying an image of a doughnut with a caption "Donut stress" or attaching a note saying "Do not stress. Do your best. Forget the rest" to students' exam sheets, I try to bring smiles and positive energy to my classroom.

"Every detail was given before tests, and she never felt tired to repeat the concept we misunderstood."

As a teacher, I am very considerate of my students' limitations and outside-the-classroom responsibilities. For example, last summer, I gained an invaluable experience from working with a disabled student. As she started to fall behind and consider dropping the class, I offered to work with her individually before and after the regular class hours. During our sessions, I addressed my student's doubts, redid the exercises covered in class, and analyzed a number of additional problems with the objectives of providing her with more examples and improving her problem-solving skills. This experience taught me that with enough dedication, creativity, and encouragement, I could help every student to reach their full potential. Moreover, in order to accommodate students working or taking multiple summer classes, I always consider their other responsibilities when deciding due dates of assignments. In addition, in order to better accommodate their schedule, I am available for in-person office hours spread throughout the week, including evenings and weekends, as well as for on-line consultations with the objective of answering students' most pressing questions regarding lecture materials or impending assignments (average teaching effectiveness score of 4.6/5 for the availability to students).

To conclude, in addition to teaching Statistics and Econometrics, my broad research interests would allow me to prepare quickly and efficiently to teach undergraduate and graduate courses in

micro- and macroeconomics (such as Labor or Health Economics). Moreover, I know that my comprehensive preparation for in-person classes (average teaching effectiveness score of 4.4/5 for the class preparation) could be easily adapted to online teaching as needed. As a teacher who is passionately involved in my students' success, both in and outside the classroom, I look forward to teaching more as my career progresses. Going forward, I hope that my past teaching experiences have equipped me with the necessary skills to enrich my students' learning experiences and, foremost, to have a lasting impact on their future endeavors, since "we never know which lives we influence, or when, or why" (Stephen King).

References: Freeman, Scott, Sarah L. Eddy, Miles McDonough, Michelle K. Smith, Nnadozie Okoroafor, Hannah Jordt, and Mary Pat Wenderoth, "Active learning increases student performance in science, engineering, and mathematics," 2014, *Proceedings of the National Academy of Sciences*, 111(23), 8410–8415.