

Teaching Statement

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To teach economics entails teaching students the necessary tools to carry out economic analysis. Economics can be considered as an analytical subject. Participating in the economy is not the more effective way of becoming an economist; you learn about the economy by analyzing it (?). In my particular field, applied macroeconomics, you need fundamental knowledge of mathematics, statistics and economic theory to understand the workings of the macroeconomy.

Most students really want to learn these tools, particularly knowing that they will be able to explain many economic phenomena. But they generally expect help to understand the fundamental concepts covered in a class from teachers. They usually expect a mentor-apprentice relationship. As a teacher, I think one effective approach to fulfill these expectations is to get students to think rather than casting out formulas, equations, or facts in class. Teaching requires an effort from the instructor in order to lead students through a discovery and application of the concepts presented in class (?). To pursue this constructivist approach to teaching, in my experience as a Teaching Assistant for the Graduate Econometrics class I have relied on the use of technology and active learning.

New understanding is tightly connected to prior learning; therefore, I always introduce new material referring back to some previous knowledge students already have. Before discussing or introducing the new formulas we are going to use to solve some problem I talk through the problem, and ask students to relate the problem to what we have already seen in previous TA sessions or what they have already seen in class. For instance, in a TA ses-

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sion we had to find the asymptotic distribution of one statistic, but before proceeding with the formal derivations I asked them to discuss the graphical representation of the distribution for different sample sizes (see Sample TA). Without solving the problem they already had a hint what the answer might be. I may also use videos for similar purposes (see sample video).

One important step in the process of learning is being capable of applying concepts learned in class to simple problems. When I teach I usually provide students with a handout containing the main results seen in class which will be used to solve the problems at hand (see sample handout). Then, I encourage students to discuss the appropriate formulas or concepts that we should use to tackle the problem at hand. For instance, in a TA session I would distribute the solutions with many steps blanked. After some discussion, and after everyone has given a thought to the problem, I would start disclosing and discussing the solutions (see sample presentation).

In my field students need to learn using statistical packages as well as acquire programming skills. Usually, students have a different pace of learning, and lectures with inactive students looking at a sample code written on a screen are usually ineffective. I find that technology can be very useful to provide students the relevant materials to learn at their pace, but at the same time interacting with the instructor or their classmates. As an example, I've prepared an introductory tutorial to STATA, which contains the necessary material so they can explore the databases as well as the material on their own (see STATA self-tutorial).

Future steps

As a first step to improve my teaching skills I have taken the course Instructional Technology offered by the Graduate School at Duke University. Over the next three years of my studies I plan to take the other courses offered by the Graduate School to improve my teaching performance. By then I hope I

can have an answer to the following questions:

What is the best way to test and grade? Having a classroom where you expect students to go through a discovery process also needs a grading scheme that evaluates the progress of each student accordingly. In this kind of environment, students should not be graded on how well they know the definitions or formulas, but on their ability to use these definitions or formulas to solve a new problem.

How can you accommodate a class with different learning styles? I have prepared my recitations in a way that best fits my own learning style. However, a large classroom surely has a variety of learning styles, which a teacher must take into account.