

The Art of Teaching Economics

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Teaching is important; it's what we're paid for. Because I think teaching is important, and because I have an economics textbook, I attend numerous teaching conferences, and follow carefully developments in the teaching philosophy, which often are structured around one of the latest fads of teaching—active learning, the new paradigm of teaching, cooperative learning--which to varying degrees relate to a general post-modern approach to learning. While I agree with much of what's said in these conferences, I cannot help but come away from them with a word of caution.

That word of caution is to remind those of us concerned with teaching not to fall into what might be called the “education school dilemma.” *Ultimately content, not delivery, determines whether one is or is not a good teacher.* No matter how well you deliver it, if you don't have something to say, you aren't going to be a good teacher. In thinking about this issue I remember a quotation that Joseph Lowman included in his essay, “What Constitutes Masterful Teaching” It was “What all the great teachers appear to have in common is love of their subject, an obvious satisfaction in arousing this love in their students, and an ability to convince them that what they are being taught is deadly serious.” (Lowman 1984) When I think back to teachers with great delivery and lousy content and those with great content and lousy delivery, it is the ones with content that I remember—the ones who convinced me that what they were doing was important. John Rawls, William Vickrey, and Edmund Phelps all had horrendous delivery, but had great content, and changed my life.

Where I think the educational system has gone off the deep end with delivery is in high school teacher education. There, until the recent backlash, the educational focus was so strongly on technology and delivery that it lost contact with content. In some education schools, you didn't need to major in math to teach math, but you had to study a whole variety of teaching methods courses. And in the U.S. you don't need to have taken economics in college to teach economics, even supposedly college level AP economics, although you do need to have taken a combination of teaching methods courses.

We haven't, as of yet, fallen into that problem in college teaching, but I think it is important to keep in mind that it is a slippery slope. So I reiterate: in my view the content of what we teach is absolutely central to what we are doing, and we shouldn't lose sight of that as we think about the technology of teaching. I'm a pretty good teacher not because I have good delivery; I don't, but because I have a love of economics, and a strong belief that students will be much better off studying economics, and learning the lessons economics provides, than they will be studying a wide variety of other subjects.

I'm a consumer, not a producer, of the literature on educational technology and delivery, which encompasses much of the research on teaching methods. My main area of research in economics is on how we translate the latest advancements in economic

thinking into digestible discussions and models that students can understand. Thus, I spend much of my time thinking about what I call “content” issues of teaching—Does the AD curve say what we want it to say? Is our treatment of sunk costs and fixed costs consistent? How do we relate the models we teach to policy issues? What’s the appropriate degree of uncertainty about policy to convey to students in the models we teach? In short, for me, the key teaching issues are “What is the content of what we are teaching; what role does that content serve, and should the content be changed?”

The New Paradigm in Teaching

To give you an idea of what I mean by an over-focus on delivery, consider the “new paradigm” of teaching that was presented in a recent article in a teaching journal. In it the authors summarized the contrast between what they call the “old paradigm” with what they call the “new paradigm” with the following table. (Smith and Waller, 1997)

	Old Paradigm	New Paradigm
Knowledge	Transferred from Faculty to Students	Jointly constructed by students and faculty
Students	Passive Vessel to be Filled by Faculty’s Knowledge	Active Constructor, Discoverer Transformer of Knowledge
Mode of Learning	Memorizing	Relating
Faculty Purpose	Classify and Sort Students	Develop Students’ Competencies and Talents
Student Goals	Students strive to complete requirements, achieve certification within a discipline	Students Strive to focus on continual Lifelong Learning within a Broader System
Relationships	Impersonal Relationship Among Students and between faculty and students	Personal transactions among students and between faculty and students
Context	Competitive/individualist	Cooperative learning in classroom and cooperative teams among faculty

(Adapted by Karl Smith and Alisha Waller in “Afterward: New Paradigms for College Teaching” from David Johnson, Roger Johnson and Karl Smith, *Active Learning: Cooperation in the College Classroom*

While there are a number of variations of this new paradigm the version they present is consistent with the ones I usually take away with me as the lessons being advocated at teaching conferences. My problem with this new paradigm is primarily one of emphasis. My view is that as long as the new approaches are seen as spice, they're nice, but when the spice becomes the main course you've got problems; the main course in issues of teaching has to be content. Thus, in my view, while much of what is there in that chart is nonobjectionable, there are some objectionable hidden, and not so hidden, post modern agendas that show up in the discussion and application of the "new paradigm" that undermine the content issue.

To highlight my objections, let me add a third comparison—what I call the "common sense" approach--that attempts to combine content and delivery issues, and then briefly discuss the differences in approach.

	Old Paradigm	Common Sense Approach	New Paradigm
Knowledge	Transferred from Faculty to Students	Faculty leads student into a previous constructed knowledge while pointing out that it is not necessarily truth; emphasizes critical thinking	Jointly constructed by students and faculty
Students	Passive Vessel to be Filled by Faculty's Knowledge	Active vessel to be filled by Faculty's knowledge, but still a vessel to be filled	Active Constructor, Discoverer Transformer of Knowledge
Mode of Learning	Memorizing	A combination of learning terminology and relating	Relating
Faculty Purpose	Classify and Sort Students	Develop student's competencies and talents; inspire, force, connive ways to get them to learn.	Develop Students' Competencies and Talents
Student Goals	Students strive to complete requirements, achieve certification within a discipline	Students strive to complete requirements and achieve certification and maybe become interested in broader learning	Students Strive to focus on continual Lifelong Learning within a Broader System
Relationships	Impersonal Relationship Among Students and between faculty and students	Personal relationship among students and between faculty and students	Personal transactions among students and between faculty and students
Context	Competitive/ Individualist	Combination of cooperation and competition	Cooperative learning in classroom and cooperative teams among faculty

Knowledge and Students

These first and second rows are what I consider the primary “anti-content” component of the “new paradigm.” If the professor has some content that is being taught, then knowledge is not being jointly constructed. A good teacher indoctrinates a student; the student and teacher are not on a joint voyage of discovery.

Where I think the new paradigm makes some sense in teaching economics is in how much truth we suggest the models we teach have. I think we need to emphasize more than we do to the students that the central models that we teach in economics are simply models—what I call “calisthenics of the mind.” These models are useful in some instances, and not useful in others.

An example of where I believe economists go wrong in teaching the content of macro is in not discussing enough how potential income is an immeasurable concept, and how all models that use potential income as a knowable concept makes the macro policy look more certain than it actually is. An example in micro is the way we focus on diminishing marginal returns and upward sloping cost curves in our discussions of applications. That presentation goes way beyond what is believable and students need to be told that. They need to be shown how the reasoning process carries over into real world situations where there are multiple margins, and diminishing returns are not central to the decision at hand.

Mode of Learning

The new paradigm is strong on relating—“I feel your pain; I’m with you.” I’m not, as you can tell by the tone of my paper, much into that type of relating with students. And, quite frankly, I don’t think many 18-20 year olds are much into that type of relating with a middle-age economist such as myself. I think we’ve got to face the reality that much of the problem of teaching economics has to do with getting our students to exercise their mind, which, for most students, needs enormous calisthenics, just like my body does. No pain, no gain, so get to it if you want to learn this. Some things just need to be memorized.

For example, when Ptolemy I, the king of Egypt, wanted to learn geometry, Euclid told him that it would take long hours of study and memorization. When the king demanded a shortcut Euclid responded “there’s no royal road to geometry.” To that I would add, there’s no “relating road” to learning economics. Now that doesn’t mean that I don’t believe that a professor shouldn’t relate to the students as much as he or she can. Professors aren’t up there, and students down below. Students are people, and one can talk to them. In my principles book, (Colander 2004) I emphasize a conversational tone because it puts students at ease and helps them relate to economics, but I try to be careful to not replace learning with relating.

Now this doesn’t mean that I want to teach a lot of facts—that’s not what we’re doing. We’re teaching some facts, and we’re teaching some general reasoning, writing, and computer skills, but in economics we are not teaching specific skills. This is explicit in a liberal arts college, such as the one where I teach, where we pride ourselves in

teaching nothing of practical use for students—no way you can get a marketing course through the curriculum committee. But to say that we should not be teaching facts or specific skills does not mean that we don't need to get students *to learn* specific skills and facts. I think that any discussion of teaching must take into account that most learning does not take place in class, or in reading. The key to getting students to learn is to get them to discuss economic issues together in bull sessions, to get them reading about the economy on their own. Much of my teaching strategy is designed to accomplish that.

For example, I assign *The Wall Street Journal* and give them a 5-minute quiz on the main ideas in the articles relevant to the course I'm teaching each week. These quizzes count for 10% of their grade. Thus, when I teach macro I have them following what's going on in Argentina, with the Fed, in Japan, with EU fiscal policy, or whatever relevant events are occurring that fit what we're talking about. Initially, they often don't know what is going on and what these institutions are in the articles they read, but by the end of the semester, almost by osmosis, they've picked up enormous amounts of terminology and institutional knowledge, without my teaching it at all. Now the discussions in the newspaper often don't fit the textbook models. But that's because the textbook models make far too many assumptions about what is remaining constant. Students need to recognize that and get familiar with analyzing issues with everything changing.

I'm a lousy lecturer (My 11 year old son attended one of my major lectures and asked me—Dad, do you have to put so many ah's in your lectures, and could you please finish all your sentences. It was devastating.) But despite this I'm a pretty good teacher, who succeeds because I get my students to learn—to teach themselves. The average workload in my course is over 10 hours per week outside of class, and attendance, because of the quizzes, is high. And, despite my lousy delivery, the students usually give me high evaluations because I convey to them that the content—the reasoning process--of what I am teaching them is important, even if it is not directly applicable.

Faculty Purpose and Goals

Here I'm closer to the new paradigm, but I don't know many professors who aren't. None of us like classifying and sorting students. That said, I think there are many types of students, and how one teaches has to fit the student body one has. We need to judge our teaching success by that value we have added to the goal of the college experience, not by how much the student knows when we finish. The new paradigm often makes an assumption that the student is self-motivated—that he or she wants to learn. When you have students like that it's wonderful. But that's not most students, even at top schools. The reality is that most students are in college not because they are deeply interested in gaining knowledge, but because they are interested in getting a sheet of paper that will allow them to do other things. And in many ways the students are right; having the college degree credential is more important to their success than what they know, and if holding that on top of them can motivate them to work harder, I say fine.

I think the mistake comes in the self-selection bias that comes in who decides to become a teacher, and who focuses their research on teaching. "Good students" (and by that I mean those few self-motivated students who want to learn for learning's sake) are

the ones most likely to decide to become teachers. Most students don't become teachers, and wouldn't want to. I know because I was a lousy student. What's a lousy student? One who is not out to learn, but is out to get a minimum set of grades. Because I set my grade floor high, I got good grades, but I didn't learn anywhere near what I should have, and there's no way any teacher was going to get me to change. I gamed everything so that I could do the minimum amount of work to achieve the grade goal that I had set for myself.

How did a lousy student like me become a teacher? The Vietnam War led me to graduate school (it kept me out of it) and the fact that I had a rather high minimum grade requirement allowed me to follow that option. But I was still not a good student in the sense that I wanted to learn for learning's sake. It was only in graduate school after I had completed my coursework, and then won a three year fully-funded fellowship, which, (because it was tax free back then, and allowed paid part-time teaching) paid more than finishing a dissertation and taking a job would have paid, that I became interested in learning for the sake of learning. With that fellowship, which would end when I finished my dissertation, my incentive to finish the dissertation quickly decreased enormously, and for the first time I fell in love with learning for the sake of learning. Given that history, I don't relate to students as many faculty relate, which shows up in my principles book. I wrote it for students like me—I'm talking to them, telling them, "Yeah, I know what you're thinking—you're bored. Well I'm bored too, but some things you gotta learn. Life is not a bowl of cherries.

Much of the success in teaching involves motivation—motivating students to learn. The first thing I say when I go into my class is that I am not going to teach you anything; but I'm going to do everything I can to get you to learn. And I structure my course to do that. To get students to read the chapter before the class, I have 5-minute quizzes in which I see if they have read the chapter. I allow questions first, and often in those questions, most of the issues I would have raised in my class come up. But the issues come up as a dialog with students, not with me up there lecturing.

To get students to focus on the discussion, I don't let students take notes. I tell them to put down the pen—that what I say is too important for them to be not focusing on it entirely, and when something is being covered that will be on the test, I tell them—now it's time to pick up the pen and put this down as a short note marked: important—going to be on the exam. Notes, when you're teaching from a textbook, are redundant. Read the executive summary at the end of the chapter, or the margin notes. The lecture has been already summarized for you. When you're not teaching from the text, notes are much more important, but in principles of economics, most of the teaching is from the text.

Relationships

Here, as should be obvious, I agree 100% with the new paradigm, but where I teach, that's just assumed that that is the case. It's when people are at universities, and are teaching because they have to, not because they want to, that there is a problem. But that does not describe professors who attend sessions on teaching at economics conferences, or who read journals devoted to the teaching of economics.

Context

The new paradigm pushes cooperative learning, and I'm all for it, but I'm also an economist and one of the lessons I've learned from economics is that cooperation can only take you so far—that institutions develop that put individuals in competition with others. Now I think standard economics often pushes competition too far—greed is not good. Adam Smith was very clear about that; that's why he wrote the *Theory of Moral Sentiments* before he wrote the *Wealth of Nations*, and the lessons in the *Wealth of Nations* can only be understood in the context of the *Theory of Moral Sentiments*. The new work on evolutionary game theory is finally getting that into the core of economics. The reality is that good economic institutions, and good educational approaches, find the right mix of cooperation and competition.

Let me give an example of where my approach to teaching differs from the new paradigm approach—in the grading of exams. The new paradigm finds grading by a curve the wrong approach, because it puts students in competition with other students, rather than bringing out cooperation. I grade with a curve—not a precise one, but a loose one, where numbers don't mean anything. My students don't need a 95% on a test to get an A. Often 50% can be an A. I'd go further than that and argue that we are doing our students a disservice when we don't grade on a curve, because, by using a 95% standard, we instill in them a belief that in order to know a subject they have to know much more than is possible to know. Economists know only a small amount of what there is to know about the economy. To require students to get 95% of what we ask them right, is far more than what we as economists deliver. We're lucky if we beat the averages. In economics we are not teaching a well-defined set of knowledge, and our grading procedures should acknowledge that. We are teaching an approach to looking at issues. Unfortunately, the content of the models we teach often conveys to students that issues are more clear-cut than they are.

Where I think there is a major problem with the content of economics is in the overall story that the high theory focuses on. That high theory focuses on decision making in a rich information environment—where 95% knowledge—or even 100% knowledge is necessary. That's not the way the world works, and is what makes my biggest complaint with the content of what we teach—which is why I am focusing much of my recent writing on complexity and the teaching of economics. (Colander, 200)My argument is that the model of policy that we teach students—the economics of control model—is the wrong one, what we should be teaching students is an economics of muddling through model. (See Brock and Colander, forthcoming)

We, as economists, only understand about 20% about the economy. Business people often only understand 10% of a problem before they make a decision. I want students to come out of my class feeling comfortable making decisions with far less than perfect knowledge, to be comfortable with understanding only a small part of a complex issue, and recognizing that success generally depends not on fully understanding an issue, but on understanding it better than the next person. What's I'm teaching is what Marshall saw economics as—not as a body of concrete truth, but an engine for the discovery of concrete truth.

Conclusion

Let me conclude this paper with a metaphorical summary of what I see liberal arts economics professors doing. I see us as part of the educational system producing what I call “general information processors” students who, when the graduate will be able to process general information and come to reasonable conclusions. To do that we’ve developed a set of exercises and concepts that society has found it useful for these general information processors to have, and we provide it. I think the content of the economics that we teach errors in fulfilling that role. It provides students with too little practice in operating in an information poor environment, because the content of what we teach concentrates too much on teaching about decision makers in information rich environments, and the testing of knowledge concentrates too much on having full information about a specific set of issues, and not enough on the use of economic reasoning as an engine for discovery.

Whenever possible in my text, in my teaching, and in my teaching methods, I attempt to switch the focus to practice on information poor environments. The new teaching techniques, such as service learning, can be useful in doing that. Service learning puts students out in an information poor environment and forces them to operate and integrate economic principles into that environment. But in doing so, it is important not to forget the underlying content of economics that is being provided.

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