The Art of Teaching Economics

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Abstract

This paper considers the teaching of economics and argues that content, not form is what is central to economics teaching. It considers the "new paradigm of teaching" and suggests that while there is much good in that new paradigm, it is dominated by a "common sense approach" to teaching that combines content and delivery issues, and is midway between the old paradigm of teaching and the new paradigm.

Introduction

Most academic economists are simultaneously teachers and researchers, although they often consider themselves one or the other first. Those who consider themselves researchers first tend to think of teaching as a necessary annoyance, and research on economics education as not real economics research. I strongly disagree with that view and in my work on the profession (Colander and Klamer, 1990; Colander, 1991; Colander and Brenner, 1992) I have chided those who consider themselves primarily researchers, arguing that they should take teaching more seriously. This paper is directed towards a different group of economists – those economists who consider themselves teachers first, but who maintain a research agenda by doing research related to economics education, and those economists who read and contribute to economics education journals.

The paper is based on my observations at, and discussions with attendees of, numerous teaching conferences, which, because I have an economics textbook and a strong interest in teaching economics, I attend regularly. At these conferences much of the research presented is on delivery rather than content, and various 'new approaches' to teaching, such as active learning, the new paradigm of teaching and cooperative learning, are put forward and discussed. While I agree with much of what is said in these conferences, I cannot help but come away from them with a word of caution, and the purpose of this article is to explain the reasoning behind it.

The 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 do not have something to say, you are not going to be a good teacher. In thinking about this issue, I remember a quotation of Joseph Epstein's that Joseph Lowman included at the beginning of 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, p.1). When I think back to those teachers with great delivery and lousy content and those with great content and lousy delivery, it is the ones with content whom 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 they had great content, and changed my life.

Where I think the US educational system has gone off the deep end with delivery is in high school teacher education. There, until a recent backlash, the educational focus was so strongly focused on technology and delivery that it lost contact with content. In some education schools, you did not need to major in math to teach math, but you had to study a whole variety of teaching methods courses. And in the United States you do not 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 have not, as of yet, fallen into that problem in college teaching, but the focus on teaching methods rather than on content is pushing us in that direction and makes it easier for other economists to dismiss research on economics education, and not see it as an integral part of general economics research. So I reiterate: in my view the content of what we teach is absolutely central to what we are doing, and we should not lose sight of that as we do research on economics education, and think about the technology of teaching. I am a reasonably good teacher not because I have good delivery – I do not – 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 am 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 economics 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 (Colander, 1995) Is our treatment of sunk costs and fixed costs consistent (Colander, 2004) How do we relate the models we teach to policy issues (Colander, 2000a) What is the appropriate degree of uncertainty about policy to convey to students in the models we teach (Colander, 2000b, 2003a) 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, let me consider Table 1, which is adapted from an article on the 'new paradigm of teaching' (Smith and Waller, 1997). The first, second and fourth columns are from their table, which was a contrast between what they call the new and old paradigms of teaching. While there are a number of variations of this new paradigm, the version they present is consistent with the views 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 Smith and Waller present as a new paradigm of teaching is unobjectionable, there are some objectionable hidden, and not so hidden, agendas that show up in the discussion and application of the 'new paradigm', which undermine the content issue.

To highlight my objections, in column 3 of the table I add a third comparison – what I call the 'common sense' approach – which attempts to combine content and delivery issues, and then briefly discuss the differences in approach.

Knowledge and students

These first and second rows are what I consider two 'anti-content' components 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 emphasise 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 what I mean

Table 1 A common sense approach to teaching

	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; emphasises 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	Memorising	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	Respect by student for faculty; personal relationship among students and between faculty and students within confines of the class	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

Table 1 (continued) A common sense approach to teaching

	Old paradigm	Common sense approach	New paradigm
Climate	Conformity/cultural uniformity	Sufficient conformity to make the class work	Diversity and personal esteem/ cultural diversity and commonality
Power	Faculty holds and exercises power, authority and control	Faculty has the authority and power, but uses it with restraint and understanding	Students are empowered; power is shared among students and between students and faculty
Assessment	Norm-referenced (i.e. graded 'on the curve') Typically multiple-choice items; students' rating of instruction at end of course	Norm-referenced grades, with clearly defined requirements; teaching environment determines the type of exam used	Criterion-referenced; typically performances and portfolios; continual assessment of instructions
Ways of knowing	Logico-scientific	Uses the logico-scientific narrative, with acknowledgement of its limitations	Narrative
Epistemology	Reductionist; facts and memorisation	Abductive, combination of inductive and deductive	Constructivist; inquiry and intervention
Technology use	Drill and practice; textbook substitute; chalk and talk substitute	Class size and available technology determine the use of technology	Problem solving, communication, collaboration, information access, expression
Teaching assumption	Any expert can teach	Content comes first; teaching comes second. An expert who cares can convey that to students	Teaching is complex and requires considerable training

Sources: The second and fourth columns are from Smith and Waller (1997). The middle column is my synthesis.

by calisthenics of the mind is the monopoly maximisation model. This model only loosely relates to reality and the decisions firms make. But learning it requires the student to use mental energy, and working through problems and exercises with it gives her or him a better grasp of the meaning and application of constrained maximisation.

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 make 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 sees faculty relating to students on a one-to-one personal level. I do not relate to many students on that level. Quite frankly, I do not think many 18–20-year-olds are much into that type of relating with a nerdy middle-age economist such as myself. Good teaching has more to do with motivating than it does with relating. 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. Some things just need to be done over and over again to learn, and others need to be memorised.

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 memorisation. 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. That does not mean that I do not believe that a professor should not relate to the students as much as he or she can. Professors are not up there, and students down below. Students are people, and one can talk to them. In my principles book (Colander, 2004) I emphasise a conversational tone because it puts students at ease and helps them relate to economics, but I try to be careful not to replace teaching, in which the faculty is conveying to students a set of knowledge, with relating, in which both are exploring their feelings as they jointly construct knowledge.

I am not advocating teaching a lot of facts. We are teaching some facts, and we are 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 (it would be impossible to 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 do not 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 my students a 5-minute quiz on the main ideas in the articles relevant to the course I am teaching each week. These quizzes count for 10% of their grade. Thus, when I teach macro I have them following what is going on in Argentina, with the Fed, in Japan, with EU fiscal policy, or whatever relevant events are occurring that fit what we are talking about. Initially, they often do not know what is going on, and what the institutions are, in the articles they read, but by the end of the semester, almost by osmosis, they have picked up enormous amounts of terminology and institutional knowledge, without my teaching it at all. Generally, the discussions in the newspaper do not fit the textbook models. But that is because the textbook models make far too many assumptions about what is remaining constant. Students need to recognise that and get familiar with analysing issues with everything changing. But they also need to learn the specifics of the model because, without that, there are just too many things changing to even start to understand the issues.

I am not an especially good lecturer.[1] But despite this I am a reasonably good teacher, who succeeds because I get my students to learn – to teach themselves. The average workload in my principles 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 student goals

On these points I am closer to the new paradigm, but I do not know many professors who are not. None of us likes 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 the value we have added, not by how much the student knows at the end of the course.

Smith and Waller's discussion of the new paradigm seems to make the assumption

that the student is self-motivated – that he or she wants to learn – an assumption that seems to be shared by many attendees of teaching conferences with whom I speak. When you have students like that it's wonderful. But, that's not most students, even at top schools. My perception, based on 30 years of teaching and discussions with both students and faculty, 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 do not become teachers, and would not want to.

Much of the success in teaching involves motivation – motivating students to learn. The first thing I say when I go into my class is: I am not going to teach you anything, but I am 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. Before I give the quiz I allow questions, 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 dialogue with students, not with me up there lecturing.

To get students to focus on the discussion, I do not 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 that 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 are 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 summarised for you. When you are not teaching from the text, notes are much more important, but in principles of economics, most of the teaching is from the text.

Relationships

While I do not believe that faculty should concentrate on having 'personal transactions with students', I do believe that teaching works better when a bond connecting the student and faculty is created – where the student also thinks that the faculty is someone he or she can respect. It works even better when the student

feels able to question the professor's arguments, and discuss them with him or her. Where I teach, it is just assumed that this is the case. It is when people are at universities, and are teaching because they have to, not because they want to, that there is a problem with faculty availability and interaction with students. 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, climate and power

The new paradigm pushes cooperative learning, and I am all for it, but I am also an economist and one of the lessons I have 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 that the standard economics presented in the texts often pushes the benefits of competition too far – greed is not good. Adam Smith was very clear about that; that is why he wrote the *Theory of Moral Sentiments* (1759) before he wrote the *Wealth of Nations* (1776), and the lessons in the *Wealth of Nations* can only be understood in the context of the *Theory of Moral Sentiments*.[2] 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. Ultimately, the teacher is not a student's buddy; he or she is their teacher. Student self-esteem comes from the student learning what the teacher has to convey to them, and showing the teacher that he or she can jump the hurdles the teacher has set up, not because the teacher has empowered the student.

Assessment

Assessment is something that depends on the structure of the course. Where I teach, with small classes, we do not give multiple-choice tests, but when one has three or four classes of 70 students each, multiple-choice tests can be a necessity; portfolios, and even short essay tests, are out of the question.

Grading is another key element of the new paradigm; 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 do not mean anything. My students do not need 95% on a test to get an A. Often 50% can be an A. I would go further than that and argue that we are doing our students a disservice when we do not grade on a curve because, by using a 95% standard, we instil in them a belief that in order to know a subject they have to know much more than it 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 that what we as economists deliver. Economists are 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.[3]

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 is 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, 2000a). 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 Colander, 2003a; 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 as comfortable as possible with understanding only a small part of a complex issue, and recognising that success generally depends not on fully understanding an issue, but on understanding it better than the next person. What I am teaching is what Marshall saw economics as – not as a body of concrete truth, but as an engine for the discovery of concrete truth.

Ways of knowing and epistemology

For me, Smith and Waller present a false dichotomy in their discussion of ways of knowing and epistemology. In my view what they call 'logico-scientific' is not something that can be contrasted with narrative; it is simply the narrative upon which economics is built. Research in economics is designed to improve that narrative. I agree that there are problems with our narrative, and my research on the profession has been meant to highlight the problems I see with the narrative we teach.

All knowledge is integrated into a rhetoric, and what we teach is not the truth, but simply the approach we use (McCloskey, 1985, 1994). In our classes we are teaching this approach to students as something that has been useful to others in the past. They can accept or reject it. I agree that in our rhetoric, statistical significance is

often misused, and various sources of gathering knowledge are not given appropriate weight in economic analysis (McCloskey and Ziliak, 1996). We should pass that information on to students, but in doing so we should not lose sight that we are teaching them that 'logico-scientific' narrative.

I have a very pragmatic view of what we, as economics professors, are supposed to be doing. In my view the economics major is designed to produce 'general information processors' – students who, when they graduate, will be able to process general information and come to reasonable conclusions. This requires students learning to organise issues into more and less relevant categories, and to integrate quantitative and qualitative analysis into a decision.

To do that we teach a set of exercises and concepts that society has found it useful for these general information processors to have worked through. In my view those exercises are not perfect for achieving the desired end, but they do instil in our majors an approach to processing information that is not instilled by other majors. Our outputs – our graduates – are viewed favourably by businesses and organisations that hire our students, and thus, despite my critical view of what we are teaching, I caution care in changing it.[4]

Technology use

The teaching of economics is evolving on many fronts, in terms of both content and delivery technology. All teachers face severe constrained optimisation problems: which front should they keep up with? For me, keeping up with the changing content in economics is more than a full-time job. The approach I use is to try to keep up with changing content, and to wait until the information technology department has simplified the technology so much that I can use it with little effort. What the appropriate trade-off is depends on the size of one's class, one's technology quotient and the effectiveness of the college or university's information technology department. But, in my view, the error in the uncertain optimisation should be made on the side of content, not technology. If one is not keeping up with the changing content, one will quickly stop being an effective teacher of economics, regardless of one's knowledge of changing technology.

Once a delivery system has been developed so that it can be used with little effort, then one can adapt it. Teachers who do not use technology to make assignments and basic information easily available to students on the web, or in class folders on the college server, and who do not use e-mail to communicate with students, are not taking advantage of delivery systems that have progressed to where they are user friendly. Whether their web content is Flash compatible or includes multimedia is less of a concern.

Teaching assumption

Smith and Waller's contrast between the old paradigm, 'any expert can teach', and the new paradigm, 'teaching is complex and requires considerable training', is too sharp for my tastes. Teaching is complex, but it is an art and, like most arts, it is in many ways too complex to teach. Some discussions of teaching are important, as is conveying to faculty the need to have a concern about his or her teaching. But beyond that, I suspect that there are highly diminishing returns to studying teaching and teaching methods. Obviously, teaching is complex and not any expert can do it; however, the position I hold is that students are very forgiving. With some concern about his or her students, a good economist can survive in the classroom, and convey the excitement of economics to the students. The opposite is not true; an economist without good content will not be a good teacher; they might get good teaching evaluations, but they will not be good teachers. To be a good teacher one must have something to teach, which is why I believe content comes first.

Conclusion

Let me conclude with a brief summary of my major points. The primary point is that content is important, and that journals of economics education, and economists interested in research in economics education, should spend more time researching how we can translate down the latest developments in economics – evolutionary game theory, complexity theory, non-linear dynamics and psychological foundations of economics –into teachable concepts, than on the delivery of teaching and teaching technology. I would rather see the majority of teachers of economics spend their time keeping up with the changing content of economics rather than keeping up with the changing technology in the delivery of knowledge to individuals.[5]

My second point is that stark contrasts between new and old paradigms inevitably portray one or the other side as more strident in its views than supporters of that approach actually are. There is a common sense approach to teaching that is a middle ground between the old and the new paradigm, and which most professors would be comfortable with as an ideal, even though in practice it may not be achievable. This middle ground is consistent with an active learning approach, but does not make a fetish of it. It sees the professor as the authority, not a joint constructor of knowledge, but it sees him or her using that authority with restraint and understanding, and conveying the limits of our knowledge as well as its strengths. It teaches the 'logico-scientific' method as narrative, not as truth. It uses the user-friendly technology that is available, rather than trying to be on the leading edge of technology. It accepts that competition is part of the system, and uses teaching methods that combine competition with cooperation to motivate students.

I would not push my points in this paper too far. Any 'common sense' synthesis is probably consistent with what the holders of both sides of the synthesis felt they were really saying and with the idea that they were being misinterpreted. The problem is that the holders of the different views often do not interact, and that lack of interaction fosters such misinterpretation. It is my hope that this paper will help in reducing those misinterpretations and misunderstandings, and move the debate in economics education journals more towards content.

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Notes

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1 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.

2 In Colander (2003a) I discuss how the texts fail to convey this message to students and discuss my way of integrating these broader issues into the texts.

3 For a curve to work, it must have a wide spread, and the students must know how it was constructed and that it was not arbitrary. The spread of grades in my classes is large. In the principles course I most recently taught, the grades normed to a 100-point scale ranged from 27 to 78 with the grades spread over that range. A grade above 72 was an A, and any grade over 40 was passing.

4 My critique (Colander, 2000a) is that the current content of economics provides students with too little practice in operating in an information-poor environment, because (1) it concentrates too much on teaching about decision-makers in information-rich environments, and (2) 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 practise on information-poor environments. But to say that is not to say that the exercises we teach are not highly valuable, and more than justify the principles course.

5 In Colander et al (2004) we discuss the changing content of economics.

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