

DIVISION OF ECONOMICS

DISCUSSION PAPERS

IN

APPLIED ECONOMICS AND POLICY

No. 2004/2 ISSN 1478-9396

ISSUE-BASED TEACHING IN ECONOMICS

Dean Garratt and Rebecca Taylor

April 2004

DISCUSSION PAPERS IN APPLIED ECONOMICS AND POLICY

The research undertaken in the Division of Economics covers various fields of economics. This work is grouped into two categories, *Applied Economics and Policy* and *Political Economy*. For purposes of dissemination and to allow for comments and feedback, each has its own Discussion Paper series. These replace the previous *Occasional Papers in Economics*.

This paper is part of the series, *Discussion Papers in Applied Economics and Policy*, which focuses on policy-relevant, applied areas of economics.

Enquiries concerning this or any of our other Discussion Papers should be addressed to the Editor, Dr Dean Garratt at:

Division of Economics The Nottingham Trent University Burton Street Nottingham NG1 4BU UNITED KINGDOM

Telephone: +44 (0)115 848 5530 Fax: +44 (0)115 848 6829 Email: dean.garratt@ntu.ac.uk

For further information about the research activities of the Division of Economics please visit http://www.ess.ntu.ac.uk/economics/research.htm

Issue-based Teaching in Economics⁺

Dean Garratt* and Rebecca Taylor

Senior Lecturers in Economics

Division of Economics, The Nottingham Trent University, NG1 4U

*Main contact: dean.garratt@ntu.ac.uk

Abstract

Economics has evolved into a highly technical academic discipline. Considerable weight is placed on the ability of academic economists to be familiar and skilled in the use of mathematical and statistical techniques. This is how academic economists tend to be judged by their peers. As a consequence, academic economists in demonstrating their ability to use such techniques often apply their work to abstract problems or confine themselves to conceptual discussions. But, when adopted by economic instructors there is a real danger that students become disengaged and de-motivated which is of particular significance at a time of increasing concerns about recruitment and retention rates. This paper addresses how the adoption of issue-based teaching to level 1 economics undergraduates would help in motivating students to engage with economics. It argues that issue-based teaching can enable students to achieve higher levels of learning with students recognising that they can apply economic concepts and tools across a series of real and relevant issues. Although the paper is directed towards the teaching of economics it is, nonetheless, of relevance to all instructors of level 1 students.

JEL Classifications: A20, A22

Key words: Issues-based teaching, engagement, motivation, learning theory

⁺ This paper was presented at the 6th Annual Teaching and Learning Conference, *Access, Application and Achievement*, 22nd April 2004. The authors are grateful for the feedback received at the conference.

Introduction

The changes seen in the university system have led to a larger proportion of students in higher education. Consequently, the range of abilities in classes is now considerable. Students are more diverse in their age, experience, cultural background and in their motivation. Biggs (1999) argues that an increasing proportion of students will not be at university because of their love for a subject but in order to obtain a qualification for a job. This presents teachers with several challenges, including encouraging student engagement and devising stimulating learning related activities. The aim is to promote a level of student engagement consistent with deep rather than surface learning.

As a subject for study economics has faced increasing competition in recent years from the growth in business and management studies. Figures from the Joint Council for General Qualifications show that the number of UK students in 2001 completing A-level business studies was 36,834 more than double the 16,101 who completed economics. Interestingly, economics finds it more difficult to attract female students. The male-female mix underpinning these numbers is 55-45 in business studies and 67-33 in economics. Nonetheless, despite the growth in business and management studies the number of applications to study on economics undergraduate programmes at UK universities has grown by 16% between 1999 and 2003. This compares with an increase of 4% across all courses. The figures in Table 1 suggest that there still remains work to be done in converting this rate of increase in applications into actual acceptances with 9% more students studying economics in 2003 than 1999 compared with an increase in the student population of 12%.

	Econ	omics	All courses			
	Applications	Acceptances	Applications	Acceptances		
1999	33,889	5,057	1,974,747	334,594		
2000	33,998	5,221	1,943,181	339,747		
2001	33,822	5,274	1,959,879	358,041		
2002	36,237	5,503	1,978,659	368,115		
2003	39,186	5,525	2,046,131	374,307		

Table 1: Applications and Acceptances, 1999-2003

Source: UCAS

UCAS statistics detail the make-up of economics undergraduate students in the UK. Table 2 shows that between 1996 and 2003 the number of students on economics programmes grew by 17½%, although the percentage of economists amongst the student population remained close to 1½%. This growth has predominantly come from UK-based males (17.3%), with only a small increase in UK-based females (2.0%). Between 1996 and 2003, the number of non-EU overseas students on UK economics undergraduate programmes increased by 122% compared with 105% across all undergraduate programmes. Table 2 highlights that the significant gender imbalance found at A-level is also found on economics undergraduate programmes with a 70-30 male student majority in both 1996 and 2003.

	Home		EU		Other Overseas		Total	
	Men	Women	Men	Women	Men	Women	Men	Women
1996								
Economics								
acceptances	2,593	1,037	385	185	327	214	3,305	1,436
% of economics								
acceptances	54.7	21.9	8.1	3.9	6.9	4.5	69.7	30.3
% of all								
acceptances	2.0	0.8	5.3	2.7	4.1	3.8	2.3	1.0
2003								
Economics								
acceptances	3,042	1,058	168	60	633	564	3,843	1,682
% of economics								
acceptances	55.1	19.1	3.0	1.1	11.5	10.2	69.6	30.4
% of all								
acceptances	2.0	0.6	2.7	0.9	4.1	4.5	2.2	0.8

Table 2: Accepted University Applicants, 1996 and 2003

Source: UCAS

The 17¹/₂% increase between 1996 and 2003 in the number of economics undergraduates in the United Kingdom provides economic instructors with significant challenges. To simply see the increase as a vindication of past teaching practice carries with it real dangers. Fortunately, the recent evidence points to an increasing amount of work looking at the practice of economic instructors, but disappointingly surveys of teaching practice suggest that actual practice has changed little.¹ The focus of this paper is geared towards the teaching of concepts and theories in modules at level 1 on

¹ See Becker and Watts (2001) for a detailed account of the slow pace of change in the classroom despite the increasing interest in the teaching of economics.

an undergraduate economics degree, but has relevance for other level 1 modules. It considers the benefits of contextualising or embedding economic concepts within real world issues and using what the current authors like to refer to as issue-based teaching. Loomis and Cox (2003), in the context of teaching economic forecasting, refer to the advantages of a 'real world approach' which involves making a 'concerted effort to relate each topic covered to how it might be practically used'.

Boring, Boring Economics?

The idea behind issues-based teaching is straightforward: to engage students and motivate their learning by appealing to real world relevance and, as far as possible, to their own experiences. Many economic instructors would find themselves able to agree with Armento (1987) when she comments that all too often 'students view economics as a boring, difficult and irrelevant subject'. Yet the practice of economic instructors appears slow to change. Becker (1997) in a US context speaks about the dangers of traditional economists being stuck in a rut and 'doing to undergraduates what their instructors did to them'. He refers to the reluctance within the economics profession to embrace new approaches to teaching and to think about ways in which to engage students. When Becker and Watts (2001) compared teaching methods across US colleges and Universities their evidence suggested that there had been little change between those in 2000 and those in 1995; the emphasis remained one of 'chalk and talk'. In the context of the current paper it is significant that Becker and Watts (2001) find that where problems, case studies or puzzles are used as part of teaching they were 'unlikely' to be based on current, real world data.

The reluctance of economic instructors to embrace issues-based teaching or to take a 'real world approach' reflects the character of much of the research output produced by economic scholars in universities. This contrasts sharply with the applied work done by professional economists outside of academia which is very different not only in purpose but in approach too. Perhaps, it is for this reason that Peter Kennedy (1992) is able to identify several macroeconomic concepts that whilst frequently appearing in

the media are given little attention in textbooks. Similarly, Becker (2000) observes that while 'media headlines scream the need to understand macroeconomics' economic instructors are reluctant to use these headlines to help set their teaching activities in a meaningful context. Becker (2000) goes on to argue that the problems in macroeconomics go much deeper than which topics to emphasise. For while the practice of macroeconomic policymaking has undergone substantial change, the analytical frameworks have not changed in a way which allows them to demonstrate current thinking amongst policy-makers. Consequently, the output of academic economists runs the risk of been divorced from the needs and practice of practitioners in the 'field'.

Becker (2000) draws similar pessimistic conclusions for microeconomics. He argues that textbook discussions of markets are often hypothetical and unconnected with observed phenomena. Hence, textbooks describe 'fairytale situations' rather than situations which students can observe. Across both micro and macro economics Becker calls for the use of more headline-grabbing material and for it to be in prominent places.

Learning Theory and 1st year Economics

When describing what it means to be an economist an academic is likely to refer just as much to methods as to the subject. Ask a professional economist or a noneconomist and they are more likely to attempt a definition based around the subject matter of economics. This causes a divergence between what students expect from economics and instructors expect to deliver. The divergence goes someway to explain why students often view economics as 'boring' and why there are concerns about retention rates. Hence, how, as Armento (1987) so aptly puts it, can educators 'narrow the gap between the dream and the reality'?

Armento (1987) reminds us that there is 'no one theoretical explanation to account for the various types of human learning'. The two principal schools are behavioural and cognitive. Lefrancois (1988) argues that behaviourists use two principal classes of

explanations for learning. Firstly, there is contiguity where learning is seen to be demonstrated by the simultaneity of stimulus and response events. Secondly, there are explanations based on the effects of conditioning behaviour such as reinforcement and punishment. Cognitive learning theories seek to explain how the brain processes and stores new information and how individuals attempt to make sense of the world. Cognitive theorists pay particular attention to the processes of perception, attention and memory.

So how can behavioural and cognitive theories of learning help instructors of economics? It is has already been suggested that students' understanding or perceptions of economics are likely to differ from that of their instructors. Students come with questions they expect to be answered. Consequently, a dissonance in perception can induce students to adopt a surface approach to learning. Prosser et al (2003) argue that economic instructors need to appreciate that students' understanding of key concepts does not occur merely from the accumulation of more and more information, 'but by helping students to see that information in relation to their own experiences'.

Armento (1987) argues that instructors have a role to play in conditioning student behaviour and building more positive emotional associations with economics. One way in which she suggests that this can be done is by designing 'interesting and relevant instruction so that students will associate the study of economics with its application to their everyday life'. From a cognitive perspective the significance of a negative perception is that it can encourage individuals to screen-out incoming stimuli. Alternatively, it can encourage individuals to store information in isolated pieces in long-term memory which is not conducive to retrieval or activation (See Anderson, 1976).

In aiming to create an environment where a student's network of related knowledge is better organised Armento (1987) advises the economic instructor to help students to construct mental images of new ideas. This can be done by using examples familiar to students. In teaching concepts Armento reminds the instructor that 'the more concrete and specific the concept, the easier it will be to learn, and the more general, abstract and superordinate, the more difficult it will be' (1987, p. 180).

Christofferson (2002) neatly describes the dangers of traditional approaches to teaching when she argues that 'abstractness compromises students' motivation and ability to comprehend the material'. Similarly, Saunders (1998) declares that 'a perceived usefulness of the material or, even better, an ability to use it, stimulates student interest and intent to learn'. Woods and Ziemnowicz (1997) remind us that students have different learning styles. This means that students perceive economic ideas in different ways and learn about concepts differently. But, in addressing this diversity they recommend that instructors provide a context to facilitate the understanding of economic theory. Specifically, they argue that 'students find it helpful to have economic concepts depicted in real settings'. Interestingly, they also believe that economics is best understood when linked with other disciplines because it serves 'to expand student's knowledge and application of economic ideas across a wider array of subjects'.

A brief overview of learning theory points to real world relevance being important to both a student's motivation and their ability to learn. An overly abstract level 1 economics programme is likely to lead to low levels of student engagement, surface learning, poor attendance and low retention rates. But how should a level 1 module leader respond?

In contextualising their concepts instructors should carefully consider the number of concepts covered. There is a need to strike the right balance between the coverage of concepts and motivating students to tackle those concepts the instructor chooses to include in a manner consistent with deep learning. It is generally accepted that a crowded curriculum will encourage surface learning.

The decision by level 1 economics instructors as to the choice of issues within which to embed their concepts is best done, so far as possible, in conjunction with other level 1 economics instructors at the beginning of each academic year. The advantage is that economics students will become familiar with the particular focus or interest of the different branches of economics. Rather than seeing these branches as distinct and unconnected, an issues-based approach to teaching can help students to appreciate how they complement one another.

The instructor's task is to embed their concepts within real world examples. The teaching of concepts and model frameworks is contextualised. For example, instructors could use the frequent headlines about the rate of growth of UK house prices as a way of motivating their teaching of a variety of concepts. In a microeconomics module this issue can be used to embed the concepts of demand and supply, while in macroeconomics it can embed the concepts of business cycles and the determination of household sector consumption. In an accompanying statistics module students can use real time series data available from websites, perhaps working with GDP, consumption and house price data.

There are of course numerous issues that could contextualise and motivate student learning. Individual instructors can choose them as they see fit, perhaps tailoring them towards local examples. The key is that the issues used to contextualise are relevant to the experiences of the largest possible number of level 1 students. Without the contextualising and embedding of concepts, instructors run the risk of de-motivating a large number of students because of the abstract nature of the material. For a more positive view of their economics studies students need from the very outset to see its relevance and application to their everyday lives.

Conclusions

The paper is motivated by a perception of economics amongst students on economics programmes as 'boring' and 'lacking relevance to the real world'. This should concern all economists given the range of real life issues relevant to economic analysis. For instance, economists have something to say about the provision and access to work, housing, education and health, all of which shape everyday lives. However, instructors of economics at level 1 all too often revert to the abstract.

It is hypothesised here that too much introductory economics is a reflection of the nature of academic research output and is increasingly unsuited to today's student population. Rather than engaging students the teaching of concepts in isolation of real world relevance de-motivates, induces surface learning and helps contribute to poor retention rates. Although the paper's message is motivated by the practice of economics instructors, the underlying message is relevant to the instructors of other subjects. Motivation and deeper learning are encouraged when students can relate more to the material being taught. There is a greater chance of stimulating interest and an intent to learn when the material being addressed has a 'perceived usefulness' (Saunders, 1998). This message has relevance for all disciplines, but it seems that economics has a particularly long way to go in addressing the need to embed the teaching of its concepts and tools within real world examples.

References

Anderson, J. R. (1976). *Language, Memory and Thought*. Hillsdale, NJ: Lawrence Eribaum.

Armento, B. J. (1987). Ideas for teaching economics derived from learning theory. *Theory into Practice*, 26 (3), 176-182.

Becker, W. E. (1997). Teaching economics to undergraduates. *Journal of Economic Literature*, 35, 1347-1373.

Becker, W. E. (2000). Teaching economics in the 21st century. *Journal of Economic Perspectives*, 14(1), 109-119.

Becker, W. E. (2001). Teaching methods in U.S. undergraduate economics courses. *Journal of Economic Education*, Summer, 269-279.

Biggs, J. (1999). *Teaching for quality and learning at university*. Buckingham: Open University Press.

Christoffersen, S. (2002). An active learning tool for the principles of economics: the allocation exercise. *The American Economist*, 46(2), 65-68.

Kennedy, P. (1992). On journalists' use of macroeconomic concepts. *Economic Inquiry*, 30(1), 194-201.

Lefrancois, G. (1988). *Psychology for Teaching: A Bear Always, Usually, Sometimes, Rarely, Never, Always faces the Front.* 6th edition. Belmont, CA: Wadsworth.

Loomis, D. and Cox, J. (2003). Principles for teaching economic forecasting. *International Review of Economics Education*, 2.

Prosser, M., Trigwell, K. and Martin, E. (2003). Dissonance in experience of teaching and its relation to the quality of student learning. *Studies in Higher Education*, 28(1), 37-48.

Saunders, P. (1998). 'Learning theory and instructional objectives', in W.B. Walstad and P. Saunders (eds), *Teaching Undergraduate Economics*, New York: McGraw Hill.

Woods, J. and Ziemnowicz, C. (1997) *Increasing the Relevancy of Economics through Active Learning Programs*. Paper presented at the 8th Annual Conference, 'Teaching Economics: Instruction and Classroom Based Research.

DISCUSSION PAPERS IN POLTICAL ECONOMY

- 2004/1 David Harvie, Value-Production and Struggle in the Classroom, or, Educators Within, Against and Beyond Capital
- 2003/3 Bruce Philp, Gary Slater and David Harvie, *Preferences, Power and the* Determination of Working Hours
- 2003/2 David Harvie, All Labour is Productive and Unproductive
- 2003/1 Chris Forde and Gary Slater, Continuing Cause for Concern? The Evolving Character and Regulation of Temporary Work in the UK

DISCUSSION PAPERS IN APPLIED ECONOMICS AND POLICY

- 2004/2 Dean Garratt and Rebecca Taylor, Issue-based Teaching in Economics
- 2004/1 Michael McCann, Motives for Acquisitions in the UK
- 2003/6 Chris Forde and Gary Slater, *The Nature and Experience of Agency Working in* Britain
- 2003/5 Eugen Mihaita, Generating Hypothetical Rates of Return for the Romanian Fully Funded Pension Funds
- 2003/4 Eugen Mihaita, The Romanian Pension Reform
- 2003/3 Joshy Easaw and Dean Garratt, Impact of the UK General Election on Total Government Expenditure Cycles: Theory and Evidence
- 2003/2 Dean Garratt, Rates of Return to Owner-Occupation in the UK Housing Market
- 2003/1 Barry Harrison and David Paton, *The Evolution of Stock Market Efficiency in a Transition Economy: Evidence from Romania*
- 2002/3 Joshy Easaw and Dean Garratt, *The Impact of Election Cycles on Government Consumption Elasticities*
- 2002/2 Etem Karakya and Andrew Cooke, *Economic Integration: An Overview of the Theoretical and Empirical Literature*
- 2002/1 Chongcheul Cheong, Tesfa Mehari, Charalambos A Pattichis and Leighton Vaughan Williams, Exchange Rate Volatility and UK Exports: Implications for EMU Membership