INNOVATING FOR QUALITY IN THE TEACHING OF ECONOMICS

James Laurenceson*

ABSTRACT

This paper reports on a teaching intervention that was designed, implemented and evaluated as part of the author’s Graduate Certificate in Education (GCEd). It begins with an observation from Australia and abroad that students of economics typically rate the quality of instruction received as being poor relative to other fields of study. There is evidence to suggest that student dissatisfaction is at least partly the result of pedagogical choices made by academic economists that produce surface approaches to learning. In a bid to address this deficiency, a search of the education literature led to two teaching innovations being introduced in the tutorial program of a postgraduate microeconomics course - a collaborative, problem-based learning curriculum and peer assessment. At the end of the tutorial program, a survey was administered and a majority of students completing the survey perceived themselves to have achieved desired learning outcomes. Open-ended comments made in relation to the teaching innovations were also generally positive. The paper concludes by reflecting on the author’s experience of undertaking a GCEd and on what can be done to increase the pace of innovation and improve the quality of teaching in economics.

Keywords: problem-based learning, peer assessment, teaching quality.

JEL Classification: A20.

* School of Economics, The University of Queensland, Brisbane Qld 4072, Australia; Phone: + 61 7 3365 6085; Fax: + 61 7 3365 7299; E-mail: j.laurenceson@uq.edu.au. While retaining responsibility, the author would like to acknowledge valuable feedback received from Alan Duhs, Gloria Dall’Alba, Jennifer Vadeboncoeur and the anonymous referees.
1. INTRODUCTION

Graduates from Australian universities each year are sent a survey that seeks to gain feedback regarding their course experiences. Responses to certain questions in this Course Experience Questionnaire (CEQ) combine to produce a Good Teaching Score (GTS). For most fields of study, the GTS reveals a perception that there has been a steady improvement in teaching quality over recent years. In contrast, the GTS for economics programs specifically has fluctuated and consistently ranked below the average of other fields of study (Table 1). Furthermore, at the same time as students express concerns over the quality of teaching in economics programs, a recent survey of 29 heads of economics departments in Australian universities reported the widespread perception that the quality of work submitted by students had also fallen in the past decade (ESA, 2004). Few disciplines, it appears, are more in need of scholarship in the area of teaching and learning than economics.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>GOOD TEACHING SCORE AT AUSTRALIAN UNIVERSITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Broad Agreement that teaching standards are good - in Economics and other fields of study, 1998 – 2002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Economics</th>
<th>Other fields of study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Broad Agreement</td>
<td>Broad Disagreement</td>
</tr>
<tr>
<td>1998</td>
<td>34.5</td>
<td>28.8</td>
</tr>
<tr>
<td>1999</td>
<td>37.2</td>
<td>26.9</td>
</tr>
<tr>
<td>2000</td>
<td>36.3</td>
<td>28.0</td>
</tr>
<tr>
<td>2001</td>
<td>35.8</td>
<td>28.6</td>
</tr>
<tr>
<td>2002</td>
<td>38.8</td>
<td>24.7</td>
</tr>
</tbody>
</table>

Note: Using a five point Likert scale, broad agreement is defined as either agreement or strong agreement with survey statements that comprised the GTS. Broad disagreement indicates responses of disagreement or strong disagreement.

Source:

Seeking to shed further light on the poor GTS scores associated with economics, Guest and Duhs (2002) conducted a more detailed survey of economics graduates from the University of Queensland (UQ) and Griffith University. The graduates surveyed were critical of economics programs because they contained “too many topics and in too little depth” and “too much theory and too little application”. An inverse relationship was also
observed between the retention and perceived usefulness of key economic concepts and the time elapsed since graduation. Taken together, these findings led Guest and Duhs (2002, p.152) to conclude that -

“The suggestion is that pedagogical approaches in these topic areas produce surface learning rather than deep learning.”

The distinction between a surface and deep approach to learning has been discussed at length in the education literature (Ramsden, 1992). With a deep approach, the intention of learning is to understand the course material; whereas with a surface approach, the intention is narrowly focused on doing what is necessary to complete the task requirements. A deep approach to learning is characterised by meaning-building and questioning, with an attempt to relate the ideas encountered in one context to another and apply conceptual notions to a real world context. A surface approach on the other hand is distinguished by the short-term memorisation of facts and concepts but without a thoughtful appreciation for how they are linked and might be applied. The education literature emphasises that the pedagogical choices of teachers play an important role in influencing the approach to learning that students will adopt (Ramsden, 1992). Curriculum and assessment choices that require little more than short-term memorisation and regurgitation are unlikely to promote a deep approach to learning. Evidence that economics students often engage in surface learning approaches and that these approaches are at least in part the result of the pedagogical practices of academic economists extend beyond the survey undertaken by Guest and Duhs (2002). A survey analysis by Johnston (2001) found that commerce and economics students at the University of Melbourne began a slide into surface learning during their first year of tertiary study. Becker (1997) and Becker and Watts (2001) found that academic economists in the U.S. were reluctant to innovate in their teaching methods, with “chalk and talk” approaches remaining dominant and this had the effect of reducing the likelihood that students would deeply engage with the course material. A lack of innovation also appears to extend to course content. Becker (2004) laments that the bulk of current economics textbooks ignore the exciting empirical discoveries for which most of the recently bestowed Nobel prizes in economics have been awarded. Colander (2004) describes the textbook publication review process that contributes to this outcome by limiting the extent to which new offerings can deviate from the market standard.

In 2003, the author, a Lecturer in the School of Economics at UQ, enrolled in a Graduate Certificate in Education (Higher Education) (GCEd) in the School of Education at the same university. The GCEd is a program that requires one year of part-time study. The financial cost of undertaking the program was borne in part by UQ from central funding allocations and in part by the author’s own School. The GCEd is designed specifically for
university staff currently involved in teaching activities. In semester one, participants cover six modules including a framework for conducting research into teaching, theories of teaching and learning and curriculum and assessment choices. Participants are also required to design a teaching intervention to be implemented and evaluated in their own teaching context. Semester two primarily involves implementing and evaluating the intervention and writing up the research experience in report form. Faced with the background described above, the GCEd provided an ideal opportunity for the author to explore innovative teaching practices that an academic economist might use in a bid to promote a deep approach to learning amongst students. The innovations that were introduced included a collaborative, problem-based learning (PBL) curriculum and peer assessment. The teaching intervention was implemented in the tutorial program of a postgraduate microeconomics course that had a management focus. Section 2 of this paper describes the benefits of the teaching innovations in terms of promoting a deep approach to learning and also raises some of the problems that can be associated with their use. Section 3 presents and discusses the responses to a survey that was administered to gain feedback in relation to the student’s perceptions of having achieved desired learning outcomes and their experiences with the innovations. Section 4 reflects on the author’s experience of completing a GCEd and on what can be done to increase the pace of innovation and improve the quality of teaching in economics.

2. TEACHING INNOVATIONS THAT PROMOTE DEEP LEARNING

Ramsden (1992) summarises the characteristics of learning contexts that are associated with the promotion of deep versus surface learning. Foremost amongst these is teaching and assessment methods that foster active engagement with learning tasks. A problem-based learning (PBL) curriculum is one such example. Boud and Feletti (1991, p.21) define a problem-based learning curriculum as -

“...an approach to structuring the curriculum which involves confronting students with problems from practice which provide a stimulus for learning”.

Ellis and Glenn (1977, p.108) summarise the advantages of a PBL curriculum over more traditional ways of structuring teaching and learning -

“(1) students who are presented with a problem to solve find the experience more relevant and stimulating than they would if they were simply asked to memorize information and explanations; (2) students who
learn through problem-solving experiences apply and therefore retain the information longer than other students; and (3) students involved in problem-solving use knowledge and skills that transcend the artificial boundaries of a single discipline”.

Studies reporting the benefits of using a PBL curriculum to teach economics date back to the 1970s (Ault and Rutman, 1975; Ellis and Glenn, 1977). One might even say that a PBL curriculum lends itself to the teaching and learning of economics since fundamentally the discipline is a “way of thinking” about the problems that students will encounter in their public and private lives (VanSickle, 1992). In a more recent study that described the introduction and evaluation of a PBL curriculum in second-year macroeconomics tutorials at the University of Melbourne, Johnston et al. (2000) reported mixed results. Survey responses revealed a statistically significant difference between a control group and a PBL group in terms of the perceived improvement in their ability to solve economics problems. This perception however did not translate into superior performance on assessment tasks that required these skills be demonstrated. The latter finding need not necessarily mean that the PBL approach was ineffective in promoting a deep approach to learning. For example, Becker (1982) provides a model of student choice which raises the possibility that a utility-maximising student may respond to a more efficient pedagogy in one course by allocating more time to studying other courses or enjoying more leisure time.

With a PBL curriculum, students can also be required to tackle problems collaboratively, with further benefits expected in terms of promoting a deep approach to learning. Qin et al. (1995, p.139) undertook a meta-analysis of the relationship between cooperative and competitive approaches to problem solving and found that cooperative approaches generally resulted in superior outcomes. The authors reasoned that -

“Possible reasons why cooperation may increase problem-solving success include the exchange of information and insights among cooperators, the generation of a variety of strategies to solve the problem, increased ability to translate the problem statement into equations, and the development of a shared cognitive representation of the problem.”

In designing a teaching intervention that seeks to promote deep learning, it is important to also recognise the fundamental role played by assessment. Boud et al. (1999) contend that assessment is the single most powerful influence on student learning in formal courses. The problem with traditional approaches to assessment is that they often - although not always or necessarily - push students to adopt a surface approach to learning by rewarding memorisation and regurgitation over application and understanding (Race, 1999). Gibbs (1999) provides several case studies of innovative assessment practices that have been used by academics to
strategically and positively influence the way in which their students approached learning. One assessment practice that has been rated highly is peer assessment - where the student (or group of students) being assessed is graded in whole or in part by their peers (Falchikov, 1986; Williams, 1992). In critically reflecting upon the work of their peers, students gain a better appreciation of how their own work might be enhanced. In a case study of the introduction of peer assessment, Brindley and Scoffield (1998) also reported that by participating in the assessment process, student boredom was alleviated and concentration and motivation were increased.

While the above discussion has highlighted the potential benefits of a collaborative PBL curriculum that is coupled with peer assessment, it is also important to recognise that such innovative teaching practices can give rise to potential problems. Some students may perceive a PBL curriculum to be an inefficient and frustrating way to acquire knowledge, particularly if they have not been required to function as an active learner in the past or are not required to do so in their other courses. Group work also brings the free-rider problem in which a student who contributes relatively little to the group’s effort may receive a disproportionate share of credit for any group success. The extent to which the teacher should seek to eliminate the free-rider possibility is not clear-cut as it could be argued that it is through dealing with such behaviour that a student gains valuable life skills. Nevertheless, given that levels of achievement in universities are awarded to individuals and not groups, and recognising that results in assessment can have serious implications for an individual student's future, the problem of free-riders cannot be ignored. While it is not possible to discuss the numerous methods that have been proposed to manage the free-rider problem here (see Freeman, 1995), anonymous intra-group peer assessment is one commonly used approach. The most commonly raised concern regarding peer assessment is that students may not be technically able, or socially willing, to accurately grade the work of their peers. Critical commentary does require that this concern be qualified. Brew (2000, p.161) makes the important point that the apparent obsession regarding whether peer and teacher marks equate is -

“...perhaps surprising given the ease with which it is frequently assumed that two teachers would come up with the same mark”.

Fleming (2000) lists a host of biases that can plague assessment marked by teachers. In a meta-analysis that compared teacher marks with those assigned by peers, Falchikov and Goldfinch (2000) found that in most circumstances the marks awarded were similar. The study by Goldfinch and Falchikov (2000) is a useful resource for teachers considering adopting peer assessment as the analysis leads to the specification of a list of variables which the authors found to influence the extent of agreement between teacher and peer marks. Case studies of the
introduction of peer assessment also show that many teachers seek to mitigate concerns regarding its accuracy by using a combination of teacher and peer-assigned grades to make up the student’s final result (Brindley and Scoffield, 1998; Gatfield, 1999).

In order to evaluate any teaching intervention, it is necessary to reflect in context on the learning outcomes that are desired and those that would be consistent with a deep approach to learning being adopted. As was noted in the Introduction, the teaching intervention was implemented in the tutorial program of a postgraduate microeconomics course that had a management focus. In this context, the desired learning outcomes were that having participated in the tutorial program, the student should be able to

a. recognise that the problems managers experience are types of microeconomic problems, and
b. apply microeconomic principles to help manage such problems.

In terms of procedural matters, at the beginning of the semester students were given a tutorial book that contained one problem to be discussed in each tutorial class.1

The decision to have only one assigned problem each week was for the purposes of focusing student attention around key concepts. Ramsden (1992) makes the important point that a teacher ‘covering the ground’ cannot be taken to imply that the student will also have done so. And as graduates in the survey conducted by Guest and Duhs (2002) objected, economics courses are often perceived to cover too many topics and in too little depth. In the first tutorial class, students were asked to form groups of three students and each group was then assigned the responsibility for researching one week’s tutorial problem and presenting their findings to the class. This tutorial assessment was worth 15% of the student’s final grade for the course. The size of the group was chosen based on research that such a number represented a useful balance between seeking to attain the benefits of diversity and team-work while not aggravating the potential for a free-rider problem to occur. Students were permitted to choose their own groups. Other methods of allocating students to groups are to do so randomly or to engineer groups according to personal characteristics such as personality, past achievements (e.g. grade point average), gender and the like. According to Huxham and Land (2000), no single method has emerged as being dominant amongst group work practitioners and there are strengths and weaknesses associated with each. Following the group’s presentation, their peers and the teacher graded the presentation. Both did so according to specified marking criteria that related to the quality of the

---

1 A copy of the problems assigned to the students participating in this intervention is available from the author upon request.
content of the group’s presentation and the quality of the delivery. Marks for each criterion were awarded on a 1 (poor quality) to 5 (high quality) basis and were summated to attain an aggregate result. The teacher’s mark counted for fifty percent of the group’s final mark and the average mark from their peers made up the other fifty percent. Members of the presenting group were also asked to complete an intra-group peer assessment sheet that was to be viewed exclusively by the teacher and used to redistribute marks only when there was clear evidence of free-riding. No such instances were reported.

In the last tutorial of the semester, students were asked to complete a survey seeking their perceptions on the extent to which the tutorial program contributed to achieving the desired learning outcomes and to provide feedback on their experience with group work and peer assessment. Survey responses were received from 18 students, or 38% of the total enrolled cohort. Of the 18 responses received, 17 stated that they had attended “more than half” of the tutorials. It is believed that the low attendance in the last tutorial was in part because students faced assessment pressures in other courses at this time and also because after having presented, the incentive to continue attending tutorials was reduced. The possibility of a self-selection bias in the survey responses needs to be recognised, i.e. students who felt they were benefiting from tutorials were those who regularly attended and completed the survey. Since the surveys were returned anonymously it was also not possible to determine definitively whether the characteristics (gender, etc) of the respondents were representative of the total cohort. These weaknesses in the survey’s administration mean that claims made in relation to the effectiveness of the intervention need to be carefully qualified.

3. SURVEY FINDINGS

Table 2 and Table 3 present student responses to the survey questions that sought feedback regarding the usefulness of the tutorial program for attaining the desired learning outcomes (using a five point Likert scale: 1 = strongly disagree, 5 = strongly agree). In the case of the first question, only one student expressed disagreement that the tutorial program was useful for showing that the problems managers face are microeconomic problems. Around two-thirds of students expressed broad agreement with the statement. The pattern of responses was similar for the statement that sort to gauge the confidence that students were perceived to have acquired in applying microeconomic principles to help manage the problems that managers experience.
TABLE 2

“THE TUTORIAL PROGRAM HELPED ME TO SEE THAT PROBLEMS MANAGERS EXPERIENCE ARE MICROECONOMIC PROBLEMS”

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses (% total in parentheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Strongly disagree)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>2</td>
<td>1 (5.5%)</td>
</tr>
<tr>
<td>3</td>
<td>5 (27.8%)</td>
</tr>
<tr>
<td>4</td>
<td>9 (50.0%)</td>
</tr>
<tr>
<td>5 (Strongly agree)</td>
<td>3 (16.7%)</td>
</tr>
</tbody>
</table>

TABLE 3

“THROUGH THE TUTORIAL PROGRAM I HAVE BECOME MORE CONFIDENT IN APPLYING MICROECONOMIC PRINCIPLES TO HELP MANAGE THE PROBLEMS THAT MANAGERS EXPERIENCE”

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses (% total in parentheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Strongly disagree)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>2</td>
<td>1 (5.5%)</td>
</tr>
<tr>
<td>3</td>
<td>6 (33.3%)</td>
</tr>
<tr>
<td>4</td>
<td>11 (61.1%)</td>
</tr>
<tr>
<td>5 (Strongly agree)</td>
<td>0 (0.0%)</td>
</tr>
</tbody>
</table>

Feedback was also sought on the teaching innovations that were used in an attempt to achieve the desired learning outcomes. Table 4 presents responses relating to the learning experience provided by group work. The responses were extremely positive with nearly 80% in broad agreement that it was a good learning experience.

TABLE 4

“WORKING TOGETHER IN A GROUP TO PRESENT A TUTORIAL PROBLEM WAS…”

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses (% total in parentheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (a poor learning experience)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>2</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>3</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>4</td>
<td>7 (38.9%)</td>
</tr>
<tr>
<td>5 (a good learning experience)</td>
<td>7 (38.9%)</td>
</tr>
</tbody>
</table>
Students were also provided with the opportunity to provide open-ended feedback regarding their group-work experience. These responses are presented by way of a thematic analysis in Table 5. The comments received suggest that group work was found to be a positive learning experience for most students on the basis that it exposed them to new ideas, allowed them to clarify and reflect upon their own ideas and to develop communication skills. Negative comments relating to group work were to the effect that it was an uncomfortable, inauthentic and/or time inefficient form of learning.

**TABLE 5**

THEMATIC ANALYSIS OF THE GROUP WORK EXPERIENCE

<table>
<thead>
<tr>
<th>Themes</th>
<th>Illustrative comment (sic)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive</strong></td>
<td></td>
</tr>
<tr>
<td>Be exposed to new ideas</td>
<td>• Working in a group is a good way to exchange ideas and to enrich knowledge so that we can view a problem in different ways.</td>
</tr>
<tr>
<td></td>
<td>• Group work provides a chance for share of workload and knowledge</td>
</tr>
<tr>
<td>Clarify and reflect upon own ideas</td>
<td>• Because we were able to share our knowledge and ideas, working in group also helped to clarify things about which we were not clear.</td>
</tr>
<tr>
<td>Develop communication skills</td>
<td>• Dealing with difficult people and how to make the best of it¹</td>
</tr>
<tr>
<td><strong>Negative</strong></td>
<td></td>
</tr>
<tr>
<td>The free-rider problem</td>
<td>• Groups work well if members participate evenly, otherwise some members have to carry other members</td>
</tr>
<tr>
<td>An uncomfortable, inauthentic and/or inefficient form of learning</td>
<td>• Actually don’t like the idea of going up in front because I feel nervous and shy and that’s where I make lots of mistakes</td>
</tr>
<tr>
<td></td>
<td>• It wasn’t a learning experience, only as an academic exercise. I have lots of commercial experience giving presentations both individually and in small teams so the fact that it was a group exercise was unimportant, learning the material was.</td>
</tr>
<tr>
<td></td>
<td>• It’s a good way of learning from peers, but sometimes too time-consuming as group discussion proceeds</td>
</tr>
</tbody>
</table>

Note: ¹. This comment was listed as a positive because the student strongly agreed that group work was a good learning experience.
The next section of the survey attempted to gauge the student’s previous experience with peer assessment and whether the student had concerns over its validity. Half of the respondents indicated that it was the first time they had encountered peer assessment. More than half (11) responded that they had concerns with its validity. Concerns were no more apparent in those experiencing peer assessment for the first time. As was the case with group work, students were provided with the opportunity to give open-ended comments relating to the problems and benefits they perceived as being associated with peer assessment. These responses are presented in Table 6. Themes relating to the benefits of peer assessment included that it helped students to reflect upon their own ideas, it represented a more democratic approach to assessment and that it increased attentiveness during the tutorial. Negative themes related to concerns over whether peers had the technical prerequisite skills necessary to grade accurately and / or the professionalism to do so.

**TABLE 6**

**THEMATIC ANALYSIS OF THE PEER ASSESSMENT EXPERIENCE**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Illustrative comments (sic)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
</tr>
<tr>
<td>Helps to reflect on your own ideas</td>
<td>• Peer assessment is a good way to self-evaluate</td>
</tr>
<tr>
<td></td>
<td>• Peer assessment could give me some suggestion about how to improve my knowledge and presentation skill</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>More democratic approach to assessment</td>
<td>• Allows participants some input into how beneficial the tutorial was</td>
</tr>
<tr>
<td></td>
<td>• It is a fair assessment based on many people’s judgements not just one.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Increases attention</td>
<td>• Gives the people in the class a reason to listen</td>
</tr>
<tr>
<td></td>
<td>• Helps students to be participative in the class; because if student does not participate and pay attention can not assess.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Problems</strong></td>
<td></td>
</tr>
<tr>
<td>Peers lack technical prerequisites to accurately assess</td>
<td>• Peers may not have the knowledge or depth of understanding to see through to the fundamental quality of the presentation.</td>
</tr>
<tr>
<td>Peers lack professionalism needed to accurately assess</td>
<td>• Can be biassed if for example someone wants to help a friend.</td>
</tr>
</tbody>
</table>


Over the course of the semester, there was little difference in the average mark awarded by the teacher (80.6%) and that given by peers (85.2%). One concern however was that the series of teacher-assigned marks displayed a standard deviation that was more than twice that of the peer series. The correlation coefficient between the teacher and peer series was 0.51. In comparison, the meta-analysis of 56 peer assessment studies undertaken by Falchikov and Goldfinch (2000) reported an average correlation coefficient of 0.69. While the difference in standard deviations would not deter the author from using peer assessment again in the future, prudent use would require that the conclusions of Falchikov and Goldfinch (2000) be better taken into account in subsequent iterations. For example, the low standard deviation in peer assigned marks may be indicative of peers being less confident than teachers in discriminating between presentations of differing quality. If this were the case, a more thorough explanation of the specified marking criteria at the start of the semester and / or perhaps the inclusion of a “practice run” might be in order.

The experience of designing, implementing and evaluating a teaching innovation was a valuable starting point for the author in terms of attempting scholarship in the area of teaching. However, as is the case with any new endeavour, at the intervention’s end it was possible to identify numerous parts that could have been done better. Indeed, the act of critical reflection was emphasised by the instructors of the GCEd as being one of the most important parts of teaching scholarship. One of the major weaknesses of the intervention’s design was clearly that it did not allow for the impact of the teaching innovations to be evaluated as accurately or as comprehensively as one might like. The possibility of a self-selection bias entering the survey findings has already been noted. It was also not possible for convincing conclusions to be drawn on whether student perceptions relating to the attainment of key learning outcomes were greater with the innovations than they would have been without them. For this, a baseline would have been required either in the form of a control group during the year of the intervention’s implementation, or from a previous year’s cohort. In practice, these are not simple issues to deal with. The use of a control group clearly raises ethical issues and may not even be possible if enrollment numbers are not sufficiently large. Changes in the staff and student mix from year to year raise validity concerns over using earlier cohorts as a proxy control. Finally, it was not possible to draw firm conclusions on the extent to which student perceptions relating to the attainment of desired learning outcomes translated into a demonstrated improvement of understanding. For this purpose, a problem that required the demonstration of understanding, pre and post intervention, would be necessary.
4. WHY DO FEW ACADEMIC ECONOMISTS INNOVATE IN THEIR TEACHING?

For all the limitations of the intervention described above, the education literature, including that dedicated to the teaching of economics, is replete with case studies featuring teaching innovations that have proven to be effective in promoting a deep approach to learning. Yet, as has been noted, academic economists in general show a reluctance to innovate in their teaching methods, assessment tools and in the content they include in their courses and textbooks. In light of less than flattering assessments of teaching quality in economics courses, this reluctance is vexing. As part of the author’s final report for the GCEd some reflection was therefore in order regarding how this lack of innovation might be explained and perhaps corrected.

There are two broad theoretical perspectives that purport to explain why the quality of university teaching, in economics and in other disciplines, is not as good as it might be. The staff development literature points to the fact that academics are generally not formally trained educators. According to this perspective, while useful teaching innovations may exist, many academics are either not aware of them or do not conceptualise their teaching in such a way as to make them seem relevant. Popular education texts, such as Ramsden (1992), are representative examples of the staff development literature. They advance the claim that many academics conceptualise their teaching in terms of the transmission of information they provide during a lecture. If however the ultimate goal of teaching is to best promote student learning as staff developers suggest it should be, this conceptualisation of teaching is woefully inadequate. Academics need to be aware that much teaching actually occurs outside the classroom and is reflected in the choices they make in areas such as curriculum and assessment design. To be in a position to make strategic choices in these areas, academics need to study their students’ experiences of learning: to become familiar with, for example, the notion of surface versus deep learning and the strategies that can be employed to promote the latter. The policy implication of this perspective is that teaching quality can be and should be improved by academics participating in staff development courses run by expert educators.

In terms of the policies adopted by Australian universities in attempts to improve teaching quality, the influence of the staff development perspective is clearly observable. Nearly all universities allocate considerable resources to educational development units within their organisational structures.²

² A listing of these institutes can be viewed on the Australian University Teaching Committee’s website at http://www.autc.gov.au/links.htm
It is the norm to require that new academic staff participate in mandatory orientation programs that deal with teaching and learning matters in varying degrees of depth. The drive for academic staff to hold a formal teaching qualification such as a GCEd has also become more pronounced with some faculties, such as the Faculty of Engineering, Physical Sciences and Architecture (EPSA) at UQ, writing into new staff contracts that a teaching qualification must be attained within a specified period of time. This practice is now institution-wide at Monash University, although it is notable that the requirement to attain a teaching qualification does not extend to appointments at the Associate Professor level or above.

The economics literature meanwhile points to a different root cause of poor teaching quality and one that implies a different policy response. It emphasises that academics often face an incentive structure that provides them with little rational reason to innovate in their teaching. Building on Adam Smith’s writings in the 18th century, economists such as Becker (1975) note the basic resource allocation problem facing academics, namely that they must produce multiple outputs, such as teaching and research, with limited resources, in particular their time. The conclusion of these models is that if research is relatively better rewarded than teaching (through tenure, promotions, direct pecuniary returns, etc), it is to be expected that academics will allocate more of their discretionary time to producing research, with consequent negative implications for teaching quality. While it is true that scholarship in the area of teaching offers a means through which the outputs of teaching and research may be regarded less as substitutes (Johnston et al., 2001), given that most staff can be expected to retain research interests apart from their teaching, the conflict between the different academic outputs remains. Fox and Milbourne (1999) present evidence that suggests the size of the tradeoff could be substantial. Their survey of 150 academic economists in Australia, which was designed to identify the factors that determine research output, reported that a 10 percent increase in the number of teaching hours is associated with a reduction in research output of 20 percent. Thus, according to the economic perspective, academics do not necessarily lack the knowledge or technique to improve their teaching performance, or the ability to acquire it; but they do lack the reason to do so. The policy implication is that improved teaching quality requires accurate output measurement systems be in place for both research and teaching and that the relative incentive structure must shift towards teaching (Becker 1979). That faculty time allocations are sensitive to relative incentive structures has been empirically demonstrated by Singell et al.(1996) and Harter et al.(2004). Brickley and Zimmerman (2001) also report case study evidence from a leading U.S. business school that found changes to the incentive structure in favour of teaching were associated with an increase in time
devoted to teaching, an improvement in teaching quality (as rated by
students) and a reduction in research output. The importance of accurate
quality appraisal systems being in place is self-evident. Quiggin (2004)
comments on earlier findings by Brickley and Zimmerman and notes that
where rewards have been tied almost exclusively to student evaluations,
teachers have expectedly employed low-cost strategies aimed at improving
their popularity in preference to adopting high-cost strategies aimed at
improving the quality of their teaching.

Compared with the staff development position, the policy influence of
the economics perspective is less evident. Survey evidence through the
1990s finds that Australian academics continued to perceive the incentive
structure they faced to be biased in favour of research (Ramsden et al,
1995). Laurenceson and Duhs (2004) have pointed out that there also exist
incentive structures that perversely impact on teaching quality, which are
institutionalised in the Commonwealth government’s funding of
universities and the practices universities themselves then adopt to allocate
these funds to constituent faculties and schools. At least at the level of the
individual academic, there are practices beginning to emerge that constitute
meaningful change in the incentive structure towards teaching. At James
Cook University, for example, promotion to Associate Professor level is
now contingent on demonstrated excellence in teaching and excellence in
two out of four other categories, one of which is research. Excellence in
teaching is the sole non-negotiable criterion.

There has been considerable acrimony between the two strands of
literature in the past, with both sides accusing the other of much slack
thinking. This debate need not be revisited here (see Laurenceson and
Duhs, 2004). What is important to note is that the staff development
perspective and the economics perspective are more complementary than
competing positions. The two can readily be integrated by observing that
staff developers focus on identifying the characteristics and skill sets that
excellent teachers embody - most fundamentally, how excellent teachers
conceptualise their own teaching - and economists point to what can be
done to give teachers the reason to acquire these skills and to apply them as
an ongoing part of their teaching practice. There is good reason to
conclude that a policy approach that draws from only one of these positions
will be less effective than one that draws upon both. For example, Becker
(2004, p.7) in reflecting on his earlier survey findings and the growing
participation in teaching sessions at the annual conference of the American
Economic Association, poignantly states that -

“Economists apparently have finally learned that their teaching is one
of the few policy levers they control, but this does not necessarily imply
that they know what is required for good teaching, or what should be
taught”.
A corollary on a personal level is that prior to undertaking a GCEd the author had never even heard of publications such as the *Journal of Economic Education*. At the same time, completing a GCEd has convinced the author that while such formal programs of study have the potential to bring about teaching quality improvements, innovating in teaching and conducting scholarship into teaching does come at an opportunity cost - not to mention the opportunity cost of attaining the qualification in the first place. This cost is worsened when simplistic measures are used to determine teaching quality such as the ubiquitous student evaluation alone, since what might be regarded as a desirable teaching innovation from a pedagogical viewpoint may not be rated by the average student as such. For these reasons, without addressing issues relating to resource constraints, output measurement and the incentives on offer, policies such as making it compulsory for academics to attain a formal teaching qualification are unlikely to effect the quality improvement that staff developers hope for. Economists are also likely to observe that if outputs were better measured and incentives were changed, a more efficient scenario would emerge from individual academics deciding for themselves how best to improve their teaching. This may or may not be in the form of a teaching qualification.
REFERENCES


