POOR STUDENT EVALUATION OF TEACHING IN ECONOMICS: A CRITICAL SURVEY OF THE LITERATURE*

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ABSTRACT
Research over the last twenty years or so has found that the subject of economics and the quality of instruction in this subject have been consistently ranked among the lowest by undergraduate students in colleges and universities in the United States. In response, there has been an increased effort to understand the reasons behind negative student perceptions of economics and what might be done to improve this perception. This paper provides a survey of the literature produced from this effort. The paper identifies a number of key explanations from this literature for the persistence of poor student teaching evaluations including: a tendency for economics courses to be organized around highly formal, mathematical models; valuation by students of instructor attributes not possessed by economics instructors such as organization and clarity of treatment; heavy use of assessment instruments that limit the ability of students to show the depth of their understanding; and teaching techniques that downplay student involvement in the learning process. These factors suggest that poor student evaluation of economics courses reflects a real, underlying problem with the adequacy of university economics education and a range of measures is suggested to remedy this deficiency.

Keywords: Economic instruction, student evaluations, active learning.

JEL classifications: A20, A22.

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1. INTRODUCTION
Research over the last twenty years or so has found that the subject of economics and the quality of instruction in this subject have been consistently ranked among the lowest by undergraduate students in colleges and universities in the United States (Cashin, 1990; Becker & Watts, 2001b). In response, there has been an increased effort to understand the reasons behind negative student perceptions of economics and what might be done to improve this perception.

Several explanations have emerged from this effort. First, economics is one of the few social science disciplines that heavily utilizes statistical and mathematical models to analyze real-life problems (Hansen, 2001; Cohn, Cohn, Hult, Balch & Bradley, 1998). Students tend not to be attracted to courses that make heavy use of mathematics and statistics, and this distaste for technical apparatus may account for the poor evaluation of economics subjects. Second, in the effort to make the citizenry more economically literate, many colleges and universities require economics as a course for programs such as business management, nursing, law and culinary arts, just to mention a few (Hansen, 1982; Salemi & Siegfried, 1999). This requirement draws large numbers of students into economics courses that would not otherwise have chosen to study this subject, and such students are more likely to be critical when they encounter problems or difficulties in the learning process. Third, the lecture has been found to be the predominant mode of instruction in economics, as opposed to more progressive teaching techniques in other disciplines that more actively involve students (Merriam & Caffarella, 1999; Becker & Watts, 2001a; Quddus & Bussing-Burks, 1997). For example, a 1996 national survey of 628 economics instructors found that instructors spent an average of 83 percent of their class time lecturing (Walstad & Watts, 1985; Becker & Watts, 1998, 2001a). Since students are more likely to evaluate this approach to teaching more critically, economics courses are more likely to suffer poor ratings.

A growing body of research has also suggested ways to improve teaching in economics departments in order to address negative student perceptions of the discipline. As Becker and Watts (2001a, p.446) argue, “changing teaching methods and increasing the importance of teaching within economics departments, in response to
falling enrollments, is a plausible and endogenous response for faculty members and departments”.

The purpose of this paper is to provide a comprehensive survey of the explanations advanced for poor student perceptions of college and university economics teaching and the strategies that have been proposed to reverse these perceptions. Occasional surveys of this nature are essential for the advancement of any field of study. They bring to attention new findings that are scattered among disparate (but related) studies, they project research trends, and they provide opportunities to critique the often unquestioned assumptions of the field (Granello, 2001; Hart, 1998). This is particularly the case in the field of teaching economics. Considerable effort has been put into finding effective methods of teaching. However, despite the continued interest in searching for the best ways of teaching economics, there has been no definitive review of the literature. This survey, therefore, examines the existing literature on the potential causes of poor student evaluations in the teaching of college economics and proposed remedies in order to identify potential strategies for the improvement of teaching in this field as well as directions for future research in this area.

The remainder of the paper is structured as follows. The next section explains how the literature to be surveyed was chosen and provides an initial characterization of this literature including an articulation of its main features. Each of the next four sections then systematically outlines a set of themes which emerge from this initial characterization. The final section of the paper provides an overall discussion of the four themes and draws some conclusions.

2. SELECTING LITERATURE FOR REVIEW
To identify appropriate literature for review, an initial search of databases including ERIC, ProQuest and dissertation and abstracts databases was conducted using a combination of two descriptors: “teaching economics” and “learning in economics”. This initial search identified a total of 36 articles. Adding four more descriptors, “appropriate teaching”, “teaching techniques”, “teaching methods”, and “effective learning”, to an ERIC search yielded a total of 203 studies, of which 46 were journal articles, 18 were peer-reviewed articles, 41 were conference articles, and one was a website article.
Three criteria were then used to select relevant articles from this pool of 203 papers. First, articles had to be published no earlier than 1985, providing a time frame of 20 years from 1985 to 2005 for the review. Second, the author was interested in papers that used some form of empirical evidence to support claims made about the reasons for poor performance of economics subjects in student evaluations. This was due mainly to the fact that economists rely heavily on empirical evidence for the verification of theoretical postulating and it would, therefore, be interesting to see what conclusions could be drawn from papers which ultimately relied on this kind of evidence. To be selected, therefore, articles had to have utilized data derived from teaching at the higher education (post-high school) level. Thirdly, articles had to directly address teaching and/or learning in economics.

The articles selected using these criteria, plus a number of related conceptual papers, are shown in Table 1. Although these studies examine a wide range of issues related to current concerns in the teaching of economics, four broad themes emerged: the characteristics of economics classes that may be responsible for the current state of economics education; instructor attributes that may affect student evaluation of economics teaching; approaches to assessment; and strategies for improving economics instruction.

Table 1 classifies this literature according to the major theme addressed by each paper. Methodologically, most of the papers selected used regression analysis as their main analytical tool. Their main sources of data were student evaluations of teaching (SET), the U.S. normalized sample of objective and subjective data from the third edition of the test of understanding college economics (TUCE III), primary data, and a combination of other secondary data from school documents such as GPA records, instructor evaluation records, transcripts and SET. Nearly all of the studies chosen made use of SET data in one way or another, with 13 studies using it as their only data source. Four studies relied heavily on TUCE III as their main source of data. Half of the studies collected primary data through questionnaires, using surveys as the main technique of data collection. Only one study used a combination of other secondary data sources such as school documents (GPA records), instructor evaluation records, transcripts and SET. Overall, it is clear that these studies heavily relied on secondary data initially collected for
Table 1: Classification of Papers Identified by Treatment of Major Theme

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purposes different from the objectives of the individual studies themselves. Interestingly, even though qualitative data analysis has been found to be rich in issues of perception, none of the studies reviewed utilized exclusively descriptive research methods.

The following four sections examine each of the major themes that emerged from the literature selected for survey.

3. CHARACTERISTICS OF A TYPICAL ECONOMICS CLASS

The first theme asks the question: what is unique about the structure of economics classes, as opposed to other college-level classes, that may account for the poor student ratings consistently experienced by the former? Most of the characteristics identified by the literature in answer to this question pertain to subject content, student preparedness and teacher expectations. Despite institutional differences, class size, or even the instructor’s teaching load, economics courses are often structured around formal mathematical and/or statistical models. Colander (2000) argues that, conceptually, introductory economics may be perceived by students as boring because they are unfamiliar with mathematical discourse, find learning this discourse an uninspiring prospect, and may well have had very different expectations of what they would encounter in a social science course. This is further compounded by a student perception that to learn economics successfully, one must be capable of abstract thinking (frequently related to mathematical approaches to social explanation) and the application of this thinking to practical problems, despite not being shown how to go about this kind of application (Johnston, James, Lye & McDonald, 2000, p.13).

Economics classes may also be characterized by an expectation that students will be able to express complex abstractions logically and eloquently, again without necessarily being shown how to go about this. The problem students encounter is that development of these skills does not come easily, and students may easily feel intimidated when they are unable to meet this expectation. Consequently they end up viewing economics as a difficult course which should be left only to gifted persons and this view may be reflected in poor economics course evaluations.

A closely related characteristic of most economics courses is that they use a standard textbook as the main resource for students’ learning. Such an over-reliance on standard texts effectively places a
restriction on instructors who may want to be innovative by soliciting ideas from other sources, such as the internet, magazines, and/or movies, but feel obliged to follow the textbook contents as if it were a curriculum for the course. Reliance on standard texts may also hinder the potential for creative discourse among economics instructors. The result is that most economics professors tend to lecture instead of using other more stimulating techniques that are often used in other courses, and this too may lead to poor student evaluations of university economics teaching (Becker & Watts, 1998, 1999, 2001a; Smith, 2002).

Economics subject content adaptability is a related characteristic that has generated some interest in recent studies. Adaptability refers to the ease with which research findings or developments in economic conditions are reflected in material taught in the classroom. As a scholarly undertaking, teaching is seen as an extension of research activities where subject content should be capable of reflecting recent developments at the frontier of the discipline. As a subject dealing with real-world economic systems, the teaching of economics should be able to reflect developments that occupy the minds of policy makers and business people. For example, it has been found that popular media provide not only entertainment, but relevant information that is current, interesting and easily accessible. But how often is such material drawn upon in the teaching of university economics and how easy is it to teach economics with popular culture/media? The absence of this material from economics courses and generally low levels of course adaptability may represent still another possible factor explaining the poor evaluation of these courses by students.

This issue of economics course adaptability (or lack of it) raises an interesting set of questions: What is required if research developments and the use of media/popular culture alternatives are to be regularly and actively incorporated into the teaching of economics? Who should determine the curriculum of economics courses? More fundamentally: What should be taught? And how should it be taught? (Johnston, McDonald & Williams, 2001, p.196). Currently what is taught in economics is determined for the most part by academic departments and individual instructors. This creates a bias towards lecturing and textbook dependence. As textbooks are slow to undergo major paradigm changes, it has been suggested that the immediate
clients, the student body, need to be listened to for views on both course content and method of delivery, with the use of examples and illustrations that relate to the students’ experiences being recommended (Johnston et al., 2001). However, there has been no research to show whether these recommendations are being put into practice in economics classrooms. It would thus be instructive to see how teaching in economics would change if students participated in both curriculum development and in the selection of teaching/learning techniques.

Some may argue that the “unique” characteristics of economics courses considered above make economics genuinely different from other university courses. In this sense, negative student evaluations may simply be part of life. But these characteristics have been associated with courses in other discipline areas in the past and have been addressed in those discipline areas in ways that have had positive impacts on teaching.

A methodological issue with many of the studies surveyed above is that clear justification is not always provided for the specific characteristics identified. A detailed study of all the characteristics of an economics class with data collected from the same student/instructor population may thus yield better results than the individual characteristic studies. Another potential area for further research is to study the impact of making economics a required course for students who do not have a strong background in mathematics. Do students ultimately benefit from being pushed to study a subject that they would otherwise not be interested in, or are there ways of increasing students’ interests for courses that they would not normally choose of their own accord?

The picture that emerges from these studies is, however, one in which the nature of economics does present particular teaching challenges (for example its mathematical and formalistic nature) that may not always have been handled in the most effective way by economics instructors. Addressing these challenges in a way that maintains integrity with the subject matter is likely to be important for lifting student perceptions of teaching of the discipline.

4. INSTRUCTOR ATTRIBUTES
A second set of factors identified in the literature suggests that certain attributes or qualities of instructors themselves may play a role in
affecting student evaluation of economics courses. The typical image of a U.S. undergraduate economics teacher continues to be that of a male Caucasian PhD-holder, who has not written or edited a book within the past five years. This teacher lectures to a class of students as he writes text, equations, or graphs on the chalkboard, and assigns students readings from a standard textbook (Becker & Watts, 2001a).

A number of scholars (Boex, 2000; Finnegan & Siegfried, 1998; Saunders, 2001) have investigated this issue by attempting to identify the attributes of the most effective economics instructors. Boex (2000) uses data from students’ evaluation of instructors (SEIs) taken at Georgia State University to show that the most important attributes of effective instructors are organization and clarity of material. This was found to be increasingly important as one moves to more advanced levels of learning. Presentation skills, the ability to motivate students, and approaches to setting assignments and grading were second, third and fourth respectively in importance. Instructor disposition towards students can also be important. Adopting an overly demanding stance towards students may create in them an expectation that they are likely to fail and this may impact negatively on evaluations of the subject.

In looking at the differences between instructors and students’ perceptions of what constitutes good teaching, Bosshardt and Watts (2001) found that, although students’ and instructors’ perceptions of how well the instructor teaches are different, they are positively correlated.

A range of other instructor attributes have been discussed. Anderson & Siegfried (1997) find no significant difference between student ratings of male and female instructors in introductory economics courses, suggesting that gender is not an important factor. Women did, however, receive higher ratings than men at other course levels. Dynan & Rouse (1997) and Shu-Hui & Goh (2003) found that instructor ratings were not affected by years of teaching experience or rank. Interestingly, Finnegan & Siegfried (1998) conducted a regression analysis on the TUCE III data and found that no significant difference could be found in objective measures of learning for students in economics classes taught by PhD and masters degree holders.

A number of studies report a substantial role in student perceptions of instructors from fluency in the language of communication
(Finnegan & Siegfried, 2000; Bosshardt & Watts, 2001; Saunders, 2001). Instructors who are native English speakers are generally rated as good teachers, while instructors for whom English is a second language are assessed as good teachers only on their grading rigor, and not on their overall teaching effectiveness (Bosshardt & Watts, 2001). Instructors of classes in introductory economics for whom English is a second language received significantly lower student ratings on average than did other instructors (Finnegan & Siegfried, 2000). This effect did not appear to operate at the level of introductory classes. Data collected from one unnamed university for six years covering classes taught by 97 instructors (62 Native English speakers and 35 non-English speakers) found no significant difference between introductory economics classes taught by instructors whose native language is English, and those taught by instructors for whom English is a second language (Saunders, 2001). Further research may be necessary in this area to establish how cultural perceptions affect student/instructor interactions. This is important in view of the fact that international students represent a significant proportion of PhD holders from US graduate schools and many of them could be potentially hired to teach in economics departments (Siegfried & Stock, 1999).

These studies highlight ways in which teacher attributes may affect perceptions of economics teaching. What is less clear is whether these findings hold regardless of teaching context, the type and level of students, or the level of any course that may be considered. More research is needed to answer these questions. Furthermore, although these studies find that English language competency may be important in affecting the evaluation of individual economics courses, they generally fail to establish the overall percentage of economics instructors whose native language is a language other than English. Unless this percentage is large for the profession as a whole, lack of fluency in English would not seem to account for the generally negative perception of university economics teaching identified above.

In addition, many of the studies reviewed only evaluated the effect of individual instructor attributes on effective teaching. It has already been argued that single attribute studies inadequately explain the effectiveness or non-effectiveness in teaching. Effective teaching is a process of enculturating students into a set of social norms and ways of working, and does not depend on just a single instructor attribute
Poor Evaluation of Teaching in Economics

(Pratt et al., 2002). Similarly, Marsh (1987) advocates that teaching should be viewed as a multidimensional activity, outlining the nine dimensions of good teaching as: learning/value, enthusiasm, organization, group interaction, individual rapport, breadth of coverage, examination and grading, assignments, and workload/difficulty. Therefore any study focusing on a single instructor attribute may fail to appropriately address the full range of attributes relevant to effective teaching.

5. ASSESSMENT AND TESTING IN ECONOMICS

Assessment and testing can be powerful tools for shaping learning outcomes and the approaches students adopt towards specific learning tasks. Assessment regimes can perform three general functions: testing and grading in a summative sense to evaluate students and determine grades; provision of feedback to instructors about student learning; and provision of feedback to students about their own learning (Boex, 2000; Hansen, 2001; Johnston et al., 2001; Smith, 2002; Walstad, 2001). Effective assessment regimes are likely to be multidimensional, incorporating all of these functions and the amount and type of assessment that students are subjected to is likely to be a strong influence on their approaches to learning (Johnston et al., 2001).

Instructors can use various forms of classroom assessment techniques to obtain feedback from students to find out if they are being effective or not. This feedback, if used well, can effectively guide an instructor’s attention and energies to focus teaching practice on activities that will have the biggest impact on student learning (Smith, 2002). But Walstad (2001, p.283) argues that assessment regimes will also be selected by instructors to: reinforce text material; improve the range or depth of knowledge coverage; allow for individual students’ learning styles; make grading easier; reduce opportunities for cheating and deception; and to create opportunities for repeat assessment during the course.

Traditional standardized tests such as multiple choice and true/false tests tend to predominate in economics courses, especially at the principles level and these provide minimal direct feedback about student learning, instructors’ teaching or course design. The advantage of this type of testing is that it gives the instructor flexibility to target a large number of very specific concepts thus covering most of the
material studied in the course (Hansen, 2001; Walstad, 2001). But the disadvantages of this type of testing centre around the fact that it does not test the depth of understanding students have of concepts and ideas as much as do instruments such as essays, short answer questions or direct clinical observation assessment methods (Hansen, 2001). Multiple choice and true/false questions also tend to be set with a relatively high level of difficulty and can often be graded severely.

These practices may also be contributing to poor student evaluations of economics courses. If students are aware that the assessment regimes they encounter in a course may only be testing knowledge that is relatively superficial and are not structured to provide them with sufficiently detailed feedback on their learning processes, they are more likely to rate the course poorly. Similarly, if instructors set these assessment items at too demanding a level and grade these assessments severely this may have a negative impact on students’ motivation to learn, and discouraged students are also more likely to rate a course poorly.

This kind of analysis has led a number of academic economists to advocate new types of assessment regimes for economics courses that use alternative instruments to traditional multiple choice and true/false questions. These alternative instruments would include such things as essay style questions that allow learners to express themselves in greater detail and thus to give the instructor a much clearer impression of what the student has mastered as opposed to having learned at a more superficial level. If structured effectively, such instruments also provide more opportunities for the provision of feedback to students on their learning and this is likely to have a positive impact on student motivation and the overall quality of the learning they are able to achieve (Hansen, 2001; Walstad, 2001). While this may also improve student evaluations of economics courses there would be increased alignment of these evaluations with positive learning outcomes. The cost would, of course, be an increased allocation of faculty time to assignment grading and this may have important implications for university incentive structures (Walstad, 2001).

6. ALTERNATIVE TEACHING TECHNIQUES IN ECONOMICS

Learning styles theory has demonstrated that individuals learn differently in different environments. Gardener (1983) believes that
we have multiple intelligences, rather than a single general intelligence that underlies performance in all tasks. By using appropriate teaching technique alternatives, educators will enhance students’ learning and enjoyment of the learning experience. Of particular importance here is the impact that teaching methods can have on the depth at which students engage with material, and the degree to which they retain ideas and frameworks they study (Merriam & Brockett, 1997). Hervani & Helms (2004, p.267) have argued that alternative teaching methods based on classroom interaction can lead to more effective instruction in intermediate and upper-level economics courses.

Just as there are many learning styles, alternative teaching techniques are ways of addressing these varying learning styles and there is considerable potential to exploit the availability of these alternatives in economics education given its tendency to rely on the traditional lecture. The literature listed in the final column of Table 1 suggests that effective teaching will have to use a combination of techniques that include Marsh’s nine dimensions outlined in the previous section (cf. Bosshardt & Watts, 2001). Alternative techniques for teaching in economics identified in this literature include: collaborative problem solving, service learning, the lecture plus method, interactive role play, inverted classrooms, technology-based case studies and experiments, demonstrations and dramatizations.

In the collaborative problem solving (CPS) approach, students apply principles learned from course reading or other sources to solve problems together in groups. McGoldrick, Battle & Gallagher (2000) also outline how service learning can be seen as essentially practical, and can involve interactive experiments, demonstrations, and dramatizations (cf. Wentland, 2004). Wentland (2004) describes the lecture plus method where students are made more actively involved in the teaching/learning process through discussions and group activities. According to Becker and Watts (1996, p.699), “great orators should lecture while the rest of us should consider using a variety of teaching methods to actively engage our students and reduce lecture time”.

A number of studies also argue for increased creativity in the teaching of economics (Caropreso & Haggerty, 2000; Christoffersen, 2002; Saunders & Christopher, 2003; Smith, 2002; Walstad, 2001). Suggested ways to increase creativity include interactive and/or
cooperative learning, such as the CPS and service learning methods discussed above, the lecture plus method, or methods which make greater use of instructional support technology such as computers, interactive software, and simulation programs (Grimes & Ray, 1993). Using the internet in economics classes can also enhance learning and improve instructor-student communication (Manning & Riordan, 2000; Pereira-Ford, 1998; Risinger, 2001; Sosin, 1998; Van Daele, 1988). Other studies suggest the use of sports (somatic learning) and sports examples to improve teaching in economics (Siegfried & Sanderson, 1998, p. 161). The advantages of using sports examples to teach college economics go beyond simply increasing students’ interest. Since economics is often taught by analogies, students are more likely to gain a better understanding of a point if they can connect personal body movement experiences to the analogy. The use of literature and drama in teaching undergraduate economics courses has also been advocated (Watts, 1998). According to this approach, teaching economics can be appropriately and effectively done by structuring class discussions around short handouts or student presentations of dramatic scenes.

What is interesting is that, in spite of the attention given to alternative teaching methods in economics, there has been little or no change in the teaching of economics in college classrooms (Becker & Watts, 2001b). A comparison of surveys from 1995 and 2000 found that despite the attention given to cooperative learning methods, few professors of economics made adjustments in their teaching approach. Overall there has been little effort to use alternative techniques regardless of the type of institution or class size. It was further found that professors of economics rarely incorporate readings from significant press outlets such as the Wall Street Journal, or from leading academic journals such as the American Economic Review, the Journal of Economic Perspectives or the Journal of Economic Literature for test or other assessment questions. This is interpreted as a clear indication of lack of innovation in the teaching of economics.

A number of studies, however, have challenged the conventional educational wisdom that there are better methods of teaching than the traditional lecture and that alternative teaching techniques improve student learning. In an effort to identify methods of instruction that facilitate long-term retention of economics content, Bailey, Langdamn, Rotonda and Ryan (1997) surveyed 500 alumni of MBA
programs from the 1990, 1991, and 1992 classes of Rutgers University. Using frequency and correlation analysis, they demonstrated that teaching methods which emphasize the four factors (traditional lectures and standard texts, interactive discussions, rejuvenating interruptions such as storytelling, and use of relevant subject content) enhanced long-term retention of course material as well as the overall quality of the course. Interestingly, results from this study underscored the importance of basic methods of instruction, such as lectures and standard textbook use. Although these methods appear to have fallen somewhat out of favor among education theorists, the study found that the alumni surveyed believed in the use of such basic modes of content delivery and retention of knowledge.

Leeds, Stull and Westbrook (1998) used data from SETs, economics department employment files, and face-to-face or telephone interviews with instructors to investigate the impact of multiple teaching techniques on student learning in an introductory economics class at Temple University over the period 1990–1994. These authors found that variation in teaching technique had no direct or indirect effect on SET outcomes for this course over this period nor did the degree of active student participation in teaching techniques improve what students perceived themselves as learning or how positively they evaluated courses via SETs. This supports Baumol’s (1988) reflection that there is “no magic formula for teaching economics”.

Contrary evidence that supports what might be called the “educational perspective” is, however, provided by Loviscek & Cloutier (1997) who also attempted to evaluate the effectiveness of various teaching methods on learning outcomes using data from a supplemental teaching program in economics. They employ a probit regression model and use interview transcript data to find a significant difference between students who enrolled in a supplemental instruction program (where non-traditional methods of instruction were used) and those who did not enroll in the program. This would suggest some benefit for students from active learning methods in economics education over more traditional methods. Similarly, Johnston et al., (2000) support the use of innovation in teaching economics by evaluating a package of measures designed to introduce a CPS approach to learning in economics. They undertook a regression analysis of pre-project and post-project student attitudes to
learning in a program that employed CPS techniques and found that:
a) the initiative was received positively, and that CPS led students to
value the performance of their tutors more highly and to enjoy their
tutorials more; b) the CPS package had a mixed effect on improving
students’ learning practices; and c) although there were no remarkable
gains in examination marks for local students, significant examination
performance gains were enjoyed by international students.

Thus, while the empirical evidence is mixed, a combined theoretical
and empirical case exists for potential gains to be made in the
economics discipline of using a wider range of alternative teaching
methods to improve the quality of student learning and the way
students evaluate economics courses. The most strongly advocated
alternative methods in the literature are those that combine the four
factors of traditional, interactive, rejuvenating and relevant subject
content. However, it appears that these teaching techniques require
longer class times to be effectively implemented and this may present
a challenge to institutionally structured contexts, where timing is
strictly schemed within a teaching semester. Further research is
needed to better understand how to effectively manage time when
implementing these different teaching techniques. Given the mixed
nature of the empirical evidence, studies to investigate the
effectiveness of alternative teaching techniques in economics, and in
particular, how they compare with the traditional lecture method
would also be useful.

7. DISCUSSION
The existence of a substantial amount of literature on teaching
economics is indicative of a legitimate interest in improving teaching
and enhancing learning in this area. Based on this literature, we can
draw a number of conclusions about the state of university economics
education and possible reasons for poor student evaluation of this
education:

- Economics courses tend to be organized around highly formal,
  mathematical models in which instructors have reasonably high
  expectations of students’ abilities to engage with and express
  formal, abstract and tight logical argument. These courses draw
  heavily on standard textbooks as the main learning support for
  students and little assistance is provided in assisting students to
  learn the kind of logical argument or expression of this
  argument;
• Students value certain instructor attributes very highly in their assessment of university courses including organization and clarity of treatment. Poor student evaluation of economics courses may suggest that these attributes need to be more strongly encouraged in the classroom;

• Economics courses tend to rely on assessment instruments such as multiple choice and true/false questions which while having some advantages, tend to limit the ability of students to show the depth of their understanding of material covered and encourage more superficial types of student learning;

• The most common technique used in university economics instruction is the traditional lecture method. Since this method tends not to actively involve students in the learning process, a number of scholars have advocated a range of alternative methods that more actively engage students in core instructional processes including the lecture plus method and collaborative problem solving approaches. There is, however, mixed empirical evidence on the effectiveness of alternative approaches.

These conclusions suggest that poor student evaluation of economics courses reflects a real, underlying problem with the adequacy of university economics education and identify a range of measures that might be implemented to remedy this deficiency. Many studies have shown, for example, that teaching and learning would be more effective if a variety of teaching techniques were used in combination (Christoffersen, 2002; Hervani & Helms, 2004; McGoldrick, 1998; Saunders & Christopher, 2003; Smith, 2002; Walstad, 2001). Other studies suggest that certain personal attributes of economics instructors are the main determinant of effective teaching and learning and that the development of these attributes might need to be encouraged to improve the quality of economics teaching (Boex, 2000; Finnegan & Siegfried, 1998, 2000; Saunders, 2001; Shu-Hai & Goh, 2003).

Before concluding, however, it is worth reflecting on the extent to which these conclusions simply reflect the way in which the studies generating them were conducted. Consequently, discussion of these findings will be centered on the research designs of the studies and sources of the data used, and the reasons for the lack of innovative teaching techniques in economics.
Starting with methodology, most of the studies included in this survey used quantitative approaches to their empirical analyses. As outlined earlier, the selection criteria for literature considered in the survey included use of empirical analysis. But this criterion allowed for both quantitative and qualitative approaches to such analysis. The emphasis on quantitative analysis used in most of the studies considered could lead to a bias in interpreting the reality they aim to examine associated with difficulties in measuring the subjective nature of the forces at work in the field of education. Researchers should appreciate the fact that the outcomes of some dimensions of human behaviour are difficult to quantify and the scales often assigned to responses are not replicable in nature (Merriam, 1991). Thus using quantitative methods in relation to some educational issues may not yield accurate results. Other strategies of inquiry which recognize the ambiguity of human behaviour and the importance of context in whatever attributes one studies could also be used in this respect. Qualitative methods have a strong capability to capture reality and the everyday experiences of research subjects. Because the bulk of the issues addressed in the literature reviewed involve perceptions and attitudes, they would benefit from the use of such qualitative methods of analysis. Without such an approach, a number of the attributes of perception may not be adequately uncovered, and in some cases might well be lost. This is a concern because it has been shown that qualitative methods are more appropriate for socially constructed, complex, and ever-changing situations such as those in the teaching profession (Glesne & Peshkin, 1992). Thus more research is required that utilizes qualitative techniques to supplement and validate the quantitative research findings already reported.

A second concern with the literature surveyed in this paper is with the source and type of data used. Nearly half of the studies used secondary data (not initially meant for the current study) from SETs and from the TUCE III. Thus all of these studies are subject to the pitfalls of using secondary data. It is difficult to put data collected for a specific purpose into another use without adjustments. How these studies adjusted these data to fit their individual purposes is not clear. Moreover, the SET data that most studies relied on has its own shortcomings. In most cases, when an instructor’s effectiveness is assessed by student ratings it may reflect dimensions of the student experience not directly related to the appropriateness of the
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educational methods used by the instructor. For example, while student ratings may accurately reflect the amount of learning achieved in a class, it is likely that student perceptions of learning effectiveness are also affected by their expectations of the instructor’s effectiveness developed by information available prior to their enrolling in the class, as well as by the perceived difficulty of the course and the grading standards (Anderson & Siegfried, 1997, p.347). Thus, collecting primary data using appropriately designed methods would more helpfully address issues that affect the teaching of economics.

A final issue concerns the alternative ways of approaching the teaching of economics recommended by many of the studies considered. It is not always clear from these studies whether the recommended approaches have actually been implemented or trialed, and thus whether they are really likely to be effective. Unless such alternatives are put into use and tested for their effectiveness, it is difficult to justify their general implementation. This calls for comparative studies on a range of teaching techniques relevant to the teaching of economics. Such studies would add further insight into the relationship between the poor student perceptions of economics teaching and the techniques of instruction used in economics courses. These studies should, as suggested above, use a combination of quantitative and qualitative methodologies. Such studies will be of considerable importance precisely because the existing literature points so strongly to the adoption of alternative teaching strategies as one of the most important methods of addressing these poor student evaluations. Others include encouraging improved instructor organization and clarity in the class room, less reliance on traditional texts, and greater use of assessment methods that encourage students to show the depth of their understanding of material covered rather than to develop superficial understandings of a wide range of economic tools and issues.

There are, therefore, a number of ways in which research into economics education could be enhanced including by making greater use of qualitative data specially collected for the purpose of investigating the impact of alternative teaching techniques to the traditional lecture method. But problems with the adequacy of university economics education suggested by poor student evaluations, make this research, and potential measures to improve the quality of this education, extremely important.
REFERENCES


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