ATEC2010 The Australasian Teaching Economics Conference

Frontiers in Economics Teaching

28-29 June, 2010 -- Hamilton, New Zealand

http://www.management.waikato.ac.nz/atec2010

PROGRAMME

Day One (Monday 28 June)		**Venue**
9:00 – 10:00	Registration, Tea and Coffee	MSB1 foyer
10:00 – 11:00	Welcome and Plenary Peter Kennedy, Simon Fraser University "*Common mistakes made in classroom research*"	MSB1.01
11:00 – 12:00	Contributed Paper Session 1	
	Pedagogy I	MSB1.01
	E-Learning I	MSB1.05
12:00 – 13:00	Lunch	MSB1 foyer
13:00 – 14:30	Contributed Paper Session 2	
	Pedagogy II	MSB1.01
	New Student Attributes	MSB1.05
14:30 – 15:00	Afternoon Tea	MSB1 foyer
15:00 – 16:00	Contributed Paper Session 3	
	Other	MSB1.01
	Tutoring	MSB1.05
16:00 – 17:00	Special Session: "*Facilitating transitions of students to tertiary-level economics*"	MSB1.01
19:00 – late	Conference Dinner	Café Centrale, Alma Street (near both the Ibis Tainui and Novotel Tainui hotels)

Day Two (Tuesday 29 June)		**Venue**
9:00 – 10:30	Contributed Paper Session 4	
	Assessment	MSB1.01
	High School/Polytech	MSB1.05
10:30 – 11:00	Morning Tea	MSB1 foyer
11:00 – 12:00	Contributed Paper Session 5	
	E-Learning II	MSB1.01
	Graduate Attributes	MSB1.05
12:00 – 12:30	Conference Closing	MSB1.01
12:30 – 13:30	Lunch	MSB1 foyer
13:30 – 16:30	NZAE First-year lecturers forum (all welcome)	MSB1.01

Contributed Paper Session One

Pedagogy I (MSB1.01, Monday 28 June 11:00-12:00)

Chair: Mary Hedges

Tommy Tang, Queensland University of Technology
Threshold Concepts and Academic Performance in Economics

In this study introductory and intermediate level economics students were asked to analyse two everyday life economic scenarios. The tasks focused on two threshold concepts – opportunity cost and market mechanism. The main objectives of the study were to investigate economics students‟ conceptualisations of these two threshold concepts and their propensity to apply them in the real life context, and whether this propensity related to their academic performance. If we accept that mastery of threshold concepts is a necessary condition for higher order thinking in a discipline, and if we also assess students‟ high order cognitive ability (viz. ability of critical thinking, evaluation and application of economic concepts) in examinations, then we would expect a strong association between students‟ demonstrated understanding of the threshold concepts and their academic performance. The findings raised the issue of whether opportunity cost and market mechanism are indeed threshold concepts.

Rod O'Donnell, University of Technology Sydney
Textbook Inadequacies in the Teaching of Opportunity Cost

This paper explores various inadequacies in widely used economics texts as regards the teaching of opportunity cost. Many of these texts are written by highly prominent economists and experienced educators, including Mankiw, Taylor, Parkin, Samuelson and Varian. The inadequacies vary across texts, but a common set of inadequacies now informs the 'standard model' of teaching this concept in nearly all texts and countries. The issues embrace (i) definitional matters, (ii) confusion of opportunity costs with trade-offs, (iii) the 'law' of opportunity cost, (iv) the applicability of opportunity cost (v) the knowability of opportunity cost, and (vi) the calculability of opportunity cost. Unfortunately, once these inadequacies are built into students' foundational understandings, they are perpetuated at intermediate and advanced levels of the subject so that it is little wonder that graduates find opportunity cost a troublesome concept. The paper concludes with recommendations to improve the teaching of opportunity cost.

E-Learning I (MSB1.05, Monday 28 June 11:00-12:00)

Chair: Wayne Geerling

Chee Kian Leong, SIM University (Singapore)

Using Blogs in E-learning for Undergraduate Economics: A Tutor's Perspective

Blogging is conventionally regarded as a personal activity in which a blogger publishes a series of chronological posts on various topics. This paper explores the potentials of using blogging as a form of e-learning for undergraduate economics. We assume the perspective of the tutor, for whom the affordance of the blog as a dynamic medium, as opposed to the static and closed model of producing learning objects in e-learning, results in both time savings and a more differentiated approach to content delivery. Contrary to the popular belief that students must be assessed or graded to ensure participation in e-learning, the results from this exploratory study also suggest that students can participate actively and voluntarily in e-learning if the content posted on the blogs meet their learning needs.

Michael Cameron, University of Waikato

'Economics with Training Wheels': Using Weblogs in Teaching and Assessing Introductory Economics

Weblogs (blogs) provide a dynamic interactive medium for online discussion. This paper explores the use of blogs in the teaching and assessment of a small (50-60 students) introductory economics paper. The role of blogs as a teaching and learning tool, and the challenges and opportunities of using them as an assessment tool, are discussed. Using qualitative and quantitative data collected across three semesters, the paper discusses students' and the lecturer's experiences in using blogs within the introductory economics paper. We show that students who actively engage in the weblog generally report positive experiences and, after controlling for the extent of participation in other aspects of the paper, those students perform better in the paper as a whole. Students who do not actively engage in the weblog perform comparatively poorly overall. A key challenge, therefore, is encouraging effective participation in the weblog among students who initially lack confidence in economic expression.

Contributed Paper Session Two

Pedagogy II (MSB1.01, Monday 28 June 13:00-14:30)

Chair: Tommy Tang

Carl Sherwood, University of Queensland

Using interactive online scenarios (SBLi) and pictorial icons to create authentic learning environments and to help understanding in introductory statistics

This study investigated the benefits of instruction using visual analogies and of using scenario-based pedagogy for assisting student learning in an introductory statistics course. Simple pictorial icons were used to teach complex mathematical concepts and formulae in tutorial sessions. In addition, a set of four software-based interactive scenarios were designed to support students‟ use of key theoretical concepts. An important distinguishing feature of the scenarios was a set of embedded screen-casts that used the pictorial icons to teach the relevant statistical concepts. The scenarios were created to help in the understanding and application of concepts relating to the normal distribution, sampling distributions, confidence intervals, and hypothesis testing. Preliminary results have indicated that the pictorial icons and their meanings are readily adopted by students. While tutorial instruction using the pictorial icons in isolation improved exam performance, the advantage was not statistically significant. Furthermore, the pictorial icons alone did not produce any significant improvement in the responses to a real world scenario test given at the beginning and at the end of semester. On the other hand, when these same pictorial icons were incorporated into various SBLi scenarios, beneficial outcomes were observed in students‟ exam performance and in their test results for questions pertaining to how statistics is applied to real world problems. The results suggest that a combination of pictorial icons, embedded within SBLi scenarios, can enhance both student motivation and student problem solving abilities; in particular, for those students who struggle. These results relate to the literature debating the relative importance of guided instruction and of experiential learning in courses containing difficult concepts.

Maria Estela Varua, University of Western Sydney

Multiple Methods: How to Help students succeed in Econometrics

Helping students succeed in a quantitative analysis courses is often difficult especially when students have little or no prior mathematical training. This paper looks at the links between the multiple learning activities adapted in Economic Modelling (EM) at the University of Western Sydney to the students' academic performance and their attitude towards the unit. Without denying the significance of traditional lectures and tutorials in undergraduate education, the Economic Modelling (EM) team implemented four learning activities to engaged students in leaning: practical sessions, access to vUWS, informal small-group learning and applied research project. EM students responded positively, reporting significantly less anxiety and greater self-efficacy regarding econometrics topics at the end of the semester compared to the beginning.

Keith Rankin, Unitec (Auckland)
Macroeconomic Concepts and Applications: paying attention to basic relationships through circular flow analysis

In teaching macroeconomic principles at levels 5 and 6, I am struck by the lack of pedagogical attention we give to a number of basic concepts and relationships that have real world significance.

Examples include: the distinction between actual wealth and claims on wealth; the absence of historical claims and household borrowing as explicit sources of expenditure in our circular flow diagrams; the absence of attention to public property rights; supply-side effects of changes to interest rates; the balance of payments implications of exogenous financial flows.

As a result, students often retain an uncritical mercantilist outlook when evaluating real world economic problems: exporting is good, importing is bad; surpluses are desirable, deficits are to be avoided; success is to sell more and buy less; saving is good, borrowing is bad; employment is simultaneously a cost to be minimised and a performance objective to be maximised. New applications of circular flow analysis can assist students to address many of these conceptual difficulties.

New Student Attributes (MSB1.05, Monday 28 June 13:00-14:30)

Chair: Steven Lim

Girijasankar Mallik, University of Western Sydney
The effect of High School Mathematics on student performance in University: A quantile regression approach

This paper investigates the relative importance of a wide range of variables that may impact on student performance in different Colleges in the University. Using multi-year data set covering 14528 students, we have found that, higher level of Mathematics and English (e. g. extension one and extension two) subjects are significantly positively correlated with the University Admission Index (UAI) in HSC. In contrast General Mathematics and Standard English are significantly negatively affecting the UAI. Using OLS and quantile regression we found that Mathematics (former two unit mathematics) plays a positive and significant role in achieving higher Grade Point Average (GPA) in the Arts, Business and Health Science subjects in the University.

Michael Cameron, University of Waikato
Recognising and Building on Freshman Students' Prior Knowledge of Economics

The results of three surveys of freshman economics students (2008-2010) at the Waikato Management School, New Zealand, suggest that incoming students have significant levels of prior economics knowledge. The students have obtained this knowledge from a variety of sources, including current issues in newspapers and television, and daily life experiences. Given this head start in knowledge, we have expanded our freshman lecture material with much more advanced content. This paper examines the sources of incoming students‟ prior economics knowledge and discusses some of the changes made to the learning material. The changes principally relate to the links we make between students‟ basic, prior economics knowledge and the more advanced learning content that demonstrates how formal economics training can add considerable value in thinking more deeply about current affairs, business issues and daily life experiences.

Girijasankar Mallik, University of Western Sydney
Prior Mathematical and Economics Knowledge and Student Outcome in Introductory Economics at University: A Quantile Regression Approach

This paper investigates the relative importance of a wide range of variables on student performance in a first year introductory economics (IE) subject. The multi-year data set used provides detailed demographic and performance characteristics of 2186 students enrolled in a major multi-campus university. We find that higher levels of mathematics and economics taken prior to university are significantly associated with improved student performance using ordinary least square and quantile regression method. Students who had studied another quantitative subject in the university prior to taking introductory economics also performed significantly better

Contributed Paper Session Three

Other (MSB1.01, Monday 28 June 15:00-16:00)

Chair: Keith Rankin

Malcolm Abbott, Swinburne University of Technology (Melbourne)
What happens after graduation? The market for economists

In undertaking reviews and studies of the manner in which economics is taught at the higher education level it is important to understand the destinations of graduate economists. The paper examines the labour market for economists in New Zealand over the longer term. In particular it makes use of data from the New Zealand Department of Labour, the Census and Ministry of Education to make inferences about the level of demand and supply of economists. The paper also makes comparisons to the state of the labour market in Australia and research that has been undertaken to date on this issue. In doing so the paper acknowledges that in the market for economists in New Zealand there are two distinctly different sub-categories (academic and professional) that exhibit quite different characteristics.

Joe Hirschberg, University of Melbourne
The Matching of Quality of Teaching Indicators and the Course Evaluation Questionnaire

The Australian government surveys all graduates of all nationally funded tertiary institutions using a common survey instrument. The Course Evaluation Questionnaire (CEQ) is designed to gather information on a number of aspects of student's experiences during their course of study at the institution. Currently, parts of the results of these surveys have been used to determine the funding of special grants for institutions that score well. In addition to these end-of-course surveys, most institutions in Australia conduct end-of-semester surveys or Quality of Teaching Indicators (QTI) within each subject taught. In this analysis we survey students in a number of institutions to establish the relationship between the QTI responses on the locally administered survey and the responses on the CEQ survey in order to establish the degree to which the indications of good teaching as defined in the CEQ coincide with the positive responses elicited from the QTI.

Tutoring (MSB1.05, Monday 28 June 15:00-16:00)

Chair: Chee Kian Leong

Maria Estela Varua, University of Western Sydney
Using Tutorials in Developing Postgraduate Overseas Students' Thinking Skills in Economics

While there is a range of innovative practices in economics teaching, such as the use of case studies, simulation and group work, the focus on class-room instruction which ignores teaching skills prevails. This paper attempts to present the framework used in teaching postgraduate overseas students "critical thinking skills" in the context of Economics. The lessons and findings of the study are not new and appear in various forms in other literature in education and in Economics. However, the use of tutorial-based education in teaching these skills has been underestimated in the literature.

Michael Gangemi, RMIT University
Underperforming Economics and Finance Students in Singapore: Why are they At-Risk?

The purpose of this study is to examine the reasons Singaporean-born economics and finance students, studying at the Singapore campus of an Australian-based University, give to explain their poor academic performance. This poor performance is such that the students placed at-risk face exclusion from the University. Many of the students cite educational issues as the reasons for their poor academic performance, including inability to understand course materials and examination stress. Analysis of the results may assist universities implementing programs to assist poorly performing students and help students achieve articulation rather than attrition.

Special Session on "Facilitating transitions of students to tertiary-level economics"

(MSB1.01, Monday 28 June 16:00-17:00)

Chair: Mary Hedges

Speakers:
Christina Gera and Janet Harris, Student Learning, University of Waikato
Stephen Graham, Tauranga Boys' College
Michael Cameron, University of Waikato
Steven Agnew, University of Canterbury

Contributed Paper Session Four

Assessment (MSB1.01, Tuesday 29 June 9:00-10:30)

Chair: Steven Lim

Gillis Maclean, Lincoln University

Testing the Effectiveness of Formative and Summative In-Semester Assessment in Econ 101

We compare the performance of in-semester assessment against the final examination in Econ 101 over 2001-9 in the context of four different assessment regimes as a commentary on our assessment policies. We consider four forms of in-semester assessment: (1) take-home assignments, (2) on-line quizzes, and invigilated tests with (3) multiple-choice only and with (4) multiple-choice plus written answers. Feedback is critical for both teacher and student for successful learning outcomes. If the pieces of assessment are consistent then performance in one provides good student feedback for the next. Passing comprehensive summative tests is a good indicator of later exam success, and failing easier formative assessment (assignments or quizzes) is a good indicator of exam failure, which is relevant for identifying where intervention may be needed.

Paul McKeown, Lincoln University

Modelling student learning behaviour and marks in on-line quizzes in Econ 101

With on-line learning we can observe not only learning outcomes (marks), but aspects of the learning behaviour producing a given mark, e.g. time spent, number of attempts. We analyse on-line student learning behaviour and investigate the effect of incentives (assessment weightings) on measures of this behaviour. We examine differences between semesters where quiz marks contributed zero and 10% to final grades respectively. Student cohorts are broken into representative segments across semesters. We show that responses to this change in incentive differ across segments of the class.

We observe two kinds of study behaviour when students submit on-line quizzes. First grade-point gathering, where the student‟s objective is to directly increase their final grade by maximising (or satisficing) their quiz marks. Second, preparation for assessment, where the student‟s objective is to indirectly increase their final grade by using the quiz to practise for other graded assessment

Andrew Nadolny, University of Newcastle (Australia)
How effective are peer-assessed presentations as a learning tool for Economics?

Over the past decade there has been a general decline across Australian Universities of students undertaking Bachelor of Economics degrees, or specialising in Economics majors. Meanwhile, there have been increasing numbers of students enrolled in Business, Accounting and Commerce degrees who are required to complete a compulsory first year Economics program, but with no intention of further study in Economics. This presents challenges for Economics educators in making first year courses stimulating, relevant and challenging for students, given that many students enrolled in generic Business degrees lack sufficient mathematical background for more rigorous learning of Economics. One technique to address these andragogical challenges is to integrate student presentations as a requirement of assessment. This paper reviews a pilot study from the University of Newcastle (Australia) in using peer-assessed group presentations as an assessment tool in a large first year Microeconomics course. Based on student feedback, the advantages and disadvantages of this approach are discussed. The paper also reports statistical analysis comparing peers‟ marks with those of the lecturer for several other Economics and business courses taught at Newcastle Graduate Business School. There is generally little statistical variation between results, suggesting that peers‟ assessment of presentations is a reliable measure of performance when combined with the marks awarded by the lecturer. The paper concludes by arguing that peer-assessed presentations can be a useful assessment tool for engaging students who are studying Economics at a general level as a requirement for a Business degree.

High School/Polytech (MSB1.05, Tuesday 29 June 9:00-10:30)

Chair: Bridget Daldy

Steve Agnew, University of Canterbury
What Impact has NCEA had on Participation in Economics?

Since NCEA was fully introduced in 2004 there has been a large percentage increase in the number of students entering for unit standards in economics. There has also been a corresponding movement away from economics achievement standards entries. Overall, there has been a reduction in the number of economics standards being entered from 2004 to 2008. Data from 2001 was compared to 2008 data to establish if the change in assessment regime has had an effect on variables that influence economics participation. In both years, high decile schools have on average 60% greater participation in economics than low decile schools.

Michael Cameron, University of Waikato

Economic Literacy: A Comparison of Entry-Level University and Polytechnic Economics Students

Previous studies of entry-level economics students have demonstrated that even students with no prior formal economics training have developed significant economic literacy through their daily experience. In this paper we compare the economic literacy of entry-level economics students in a university bachelor's degree with entry-level economics students in a polytechnic business diploma (that eventually leads to degree-level study for some students). We find that, controlling for student-specific variables, there are no significant differences between entry-level university and polytech students' level of economic literacy at the beginning of their first economics paper. This finding provides evidence that course offerings of an agreed equivalence or the same course taught across institutions should make equivalent learning demands on all groups of students. While the character and form of the learning demands may differ between institutions because of various external and internal constraints, the equivalency of learning demands for such courses should be apparent.

Steve Agnew, University of Canterbury

What is Happening to Girls Studying Economics in Low Decile Schools?

This research attempts to show that comparing gender academic performance or socioeconomic group academic performance across subjects or cohorts hides what can be illuminating data. Ordinary least squares regression is used to show there is an interaction between gender and school decile in NCEA externally assessed economics standards. On average, girls in low decile schools receive higher rates of not achieved grades in economics compared to boys in low decile schools. When this same comparison is done for girls and boys in higher decile schools, there is a statistically significant improvement in the rates of not achieved grades received by girls relative to boys. This effect is the strongest and most consistent for Europeans on average. Two possible explanations are that girls do not perform as well as boys in low decile schools in the subject of economics, or boys in low decile schools are better at choosing subjects to take.

Contributed Paper Session Five

E-Learning II (MSB1.01, Tuesday 29 June 11:00-12:00)

Chair: Catherine Nash

Muni Perumal, University of Canberra

An Interdisciplinary Approach to Teaching Economics Using Online Learning Communities

This paper present the results of a research project on an innovative interdisciplinary approach to teaching introductory economics using online learning communities undertaken at the University of Canberra in Semester 2 2007 and Semester 2 2008. The bulletin board/discussion forum in WebCT was used to build a learning community among a group of First Year students enrolled simultaneously in Introductory Economics and Marketing. The study showed that sharing of knowledge between marketing and economics in the course of doing an economics assignment among a sample of students provided them with a coherent interdisciplinary experience that prompted a deeper type of learning of the economic concepts compared to the traditional system of lectures and tutorials. A richer type of learning occurred within the context of the virtual learning community, and students on the whole performed better and revealed a greater understanding of the economic concepts.

Wayne Geerling, LaTrobe University (Australia)

Dismal Science? Using Popular Culture to make Economics engaging

This paper will challenge the view that Economics is a boring, outdated and inaccurate science. Of the students taking introductory level Economics in any given year at La Trobe University, half will never take Economics again. Less than 2% of these students will end up doing an Honours year in Economics. Therefore, one of the biggest challenges facing lecturers is to engage the vast majority of students who view Economics as a service subject.

One of the ways lecturers can stimulate interest in Economics – and help change students' perceptions of the "dismal science" – is by using references to popular culture in the teaching of Economics. This paper uses the mediums of popular culture – advertising, movies, music, and the internet – to show how Economics can be taught in a more contemporary, relevant and interesting manner, and achieve better learning outcomes for students.

Graduate Attributes (MSB1.05, Tuesday 29 June 11:00-12:00)

Chair: John Tressler

Stephen Hickson, University of Canterbury

Predicting student achievement in intermediate university economics from principles assessments

This study investigates how first year Principles of Economics courses assessment items predict achievement in post principles economics courses. Of particular interest is how achievement in different assessment forms (assignments, multiple choice questions, and constructed response questions) predicts future performance. I use assessment data compiled from principles and post principles economics classes at the University of Canterbury from 2002-2008. I also control for performance in first year mathematics, statistics, accountancy and management. I find that constructed response questions particularly in the end of semester final exam generally contain more predictive power than multiple choice questions or the term test constructed response items.

Peter Harkness, Swinburne University of Technology (Melbourne)

Are the renewed curriculum frameworks, graduate attributes, and revamped Business degrees new enough?

The frontiers in teaching economics, plus the setting, have been changing for many years, and will continue to. Many Commerce and Economics Faculties and degrees have been displaced by more vocationally minded Business Faculties. But market pressure is persuading the Business Faculties to revamp their degrees in order to make their graduates still more "job ready". Consequently, new "curriculum frameworks" are being introduced, ambitious claims are being made as to the "attributes" graduates will have from each university, and university marketing departments become increasingly inventive (and sometimes misleading) in selling the new Business and economics degrees. The restructuring of the Business degree at Swinburne University in Melbourne is analysed as a case study. Is this where we want to go? Is this the best way to teach undergraduate business and economics courses? This paper expresses reservations, and argues universities have a responsibility to provide an education that is more than vocationalism.

NZAE First-year lecturers forum (MSB1.01, Tuesday 29 June 13:30-16:30)

This is a forum for co-ordinators and lecturers of first-year tertiary economics papers, but all ATEC conference attendees are welcome to attend the forum. An agenda for the forum will be available at the conference registration desk.