

Approaches to teaching that influence, motivate and inspire students to learn

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Citation: *For developing and implementing online and in-classroom technologies that motivate, inspire and engage students to take the next step beyond the classroom.*

Synopsis: *Simon Angus is a passionate educator in the Faculty of Business and Economics who has sought to transfer his passion for learning to his students by embracing new technologies inside and outside the classroom, and by increasing opportunities for students to engage with each other and the world. Simon uses technology wherever it serves to enhance the learning experience. Two examples of this include his pioneering pilot program in Tablet PC teaching in the Department of Economics, and the establishment of the EconomicsNow! website. These and other innovations have been recognised with Department, Faculty & University-wide awards, and most importantly, Simon's many enthusiastic students.*

Philosophy of Practice

"Outstanding - without doubt one of, if not the single best, lecturer[s] I have come across in my 4 years at Monash." ECC2800 student, S1 2009

"A brilliant job by an enthusiastic teacher who obviously loves his work! Thanks for the best unit I've yet taken at Uni Simon!" ECC2800 student, S1 2009

My philosophy of teaching is driven by my passion for learning on the one hand, and my acute sense of responsibility towards my students on the other.

"I found myself wanting to know more and looking forward to coming to class. His enthusiasm is infectious, even when teaching mundane topics like how to write a good academic essay, the material was presented in such a way that we were all eager to learn. Similarly, while I have had other lecturers that have taken a month to explain the Solow model, Simon explained it in such a way that the class had a real understanding in one lecture. It is clear that he puts a great deal of thought, time and energy into being a great lecturer and really cares about his students' learning." ECC2800 student, S1 2010

"Best lecturer I've had since I started University in 2006. That's a big call, but you won by a million miles!! Podcasts were fantastic resource, information was stimulating, flowed logically. I like your way of thinking ... I couldn't design, think of a better course structure myself. I can tell you have had an engineering/science background, as your sense of clarity is remarkable." ECC2800 student, S1 2010

The former is driven, on reflection, by the teachers who have inspired me in my varied learning endeavours, not least of which I would count my own father's infectious dinner table expositions. It was clear to me from a very young age that learning that is fun, meaningful and exciting is learning that lasts. I see it as my role to teach that which fits these attributes. If the material is not something I believe to be valuable, or I do not present it in a way that reveals the paradoxes, enigmas, tensions and thrills of the intellectual chase, then I have not rendered it in its fullest sense to my students, and I have missed a great opportunity.

Which leads me to my sense of responsibility. I make it a rule to share with my students how fortunate they are to sit in the very seats that they do. This blessing is not due to my lecturing or the particular unit on offer; rather, some simple maths brings home the message that to study for a tertiary degree, in a developed country of the world, puts the student in a very select group of humanity: for every three of them sitting in the theatre, there are 97 potential students around the world who will not enjoy their opportunity. Now consider that for each lecture hall of 100 such privileged students, there is but a single lecturer. Now my sense of responsibility is easily appreciated.

In this application, I illustrate my approach to inspiring students beyond the classroom with *four examples* of innovations. Types of evidence to be used in support of these claims include:

* **Direct student quotations**

* **Summary student survey data** on units and teaching practice

* **Faculty uptake of successful innovations**

* **Invitations to present at local and international conferences**

* **Student engagement** measured by number and size of posts contributed to virtual small-groups

* **Department and Faculty grants** in support of innovations

* **Excellence in teaching awards** at Department, Faculty and University level

Innovations for Inspiration

"It felt like the lecturer actually cared about teaching. Very well equipped with technology to enhance lectures like videos and recordings, and Tablet PC etc." ECC2800 student, S1 2010

"Very passionate, well read and clear. Best lecturer I've had in my 3 years at Monash, hard to see where to improve. Particularly noteworthy is his use of his Tablet PC so that he could make diagrams and graphs easily which were displayed on the lectures at home as well." ECC2800 student, S1 2010

Innovations are what keeps us fresh as educators. Be they a new unit, teaching aid in the classroom, online technology or way of arranging the chairs, active reflection and observation of the student experience prompts many ideas for improving the learning experience. Of course, the teaching literature also provides many examples of pedagogic aids and these must be the basis of our method. However, in my experience, the real excitement for teacher and student alike comes from taking a few risks – trying a technology or way of communicating or method of feedback that is *clearly new*. With the right explanation, and trust of the students, I have found the feedback always positive, even when things didn't go as planned, or the innovation was agreed by all not to be worthwhile. Nevertheless, innovations that inspire learning, bring students to the material more often, or in new ways, or promote their own engagement with the material must be unceasingly sought out.

Example Innovation 1: A New Unit in Economics: ECC2800 Prosperity, Poverty & Sustainability

Shortly after I joined the Department in February 2008, the then Head of Department commissioned me to propose, build and teach a new second year Economics unit for semester 1, 2009. The unit's genesis was due to a feeling in the department that students did not have the space in our first and second year technical offerings to step back and consider the fundamental economic problems that had impassioned the likes of Nobel Laureates and the founders of the economic sciences. With this broad canvas, I started looking around at how economics is largely perceived in the popular media (interest rates, unemployment and house prices!) and how it has been pursued in the great contributions to economics in our time. After much reading, "*Prosperity, Poverty & Sustainability*" was born, drawing on the three key themes of the economic problems of our age: How has economics helped shape prosperity for so many of the world's peoples? Why do so many people live in such poverty, disease and desperation in the 21st century (and what can we do about it)? And how will the world tackle the largest example of market failure we have ever seen? These questions immediately grab the students' attention, and it is through their lens that economic theory, practice and thought could be introduced as relevant, timely and exciting.

After a successful introduction in semester 1, 2009, the unit is in preparation for its third edition in the coming semester.

Unit Evaluation Feedback: 97% of students Agreed or Strongly Agreed that the unit was intellectually stimulating (median 4.77), including 69% who Strongly Agreed, with 98% of students positively responding to the overall quality of the unit (median 4.72), including over 64% who Strongly Agreed.

"This unit has also been fantastic - the best unit I have done at Monash and hope to see many more as time goes on." ECC2800 student, by email, 4 June 2009

"Overall this is definitely my favourite unit of my Uni career so far! Thank you. Keep it up!" ECC2800 student, S1 2009

Example Innovation 2: A Return to Dynamic Teaching with Tablet PCs

Frustrated with the ubiquitous and deleterious impacts of PowerPoint's rigid techniques, I sought alternatives. In late 2008 I attended an e-Learning seminar at Monash and saw the new Tablet PC technology demonstrated. Here was the return to dynamism so sorely needed – the ability to draw, annotate, scribble and create in real-time, digitally, and with simple and effective tools. I wrote quickly to my Head of Department and received pilot funding to trial a Tablet PC in my classes in S1 2009. The response was overwhelming from students:

"I was really impressed with the tablet, especially for an economics class due to its ability to be able to draw diagrams and display them on the projector screen." ECC2800 student, S1 2009

"The tablet was really great - 100% must continue its use! Particularly for a subject like this which requires lots of diagrams and graphs and quotes etc. Made lecture interesting, fun and very interactive. It is good when the lecturer can actually 'participate' in the lecturing. It makes the lecture material a lot more accessible than when it is formally typed and clean, without scribbles or diagrams, as it is in other subjects." ECC2800 student, S1 2009

Online Anonymous Survey Feedback: The Tablet was introduced in my classes in week four and so this allowed for a 'natural experiment' approach to surveying students at the end of the session. Of 38 students who replied (60%) 87% Strongly Agreed or Agreed that all things equal, the classes using the Tablet PC were preferable to those without; moreover, 82% of students positively responded to the Tablets being used in other Economics units.

In response to my Tablet PC trial, the Department of Economics has rolled out the trial to a further 12 members of Faculty, many of whom attended a training session I ran early in Semester 2, 2010.

Motivating Learning Beyond the Classroom

What are we doing at university, if not equipping and motivating our students for tomorrow's problems? It has been a real joy to see students grappling with the really tough issues of our time: poverty and inequality, climate change and sustainability, the ongoing battle for economic supremacy and the ideas that drive nations. My approach has been to try and lift the material from the page to the world. In the first place, this involved the launch of the *EconomicsNow!* website, and in the second, I implemented novel online virtual small-groups to encourage and enhance student interactions, debate, engagement and learning.

Example Innovation 3: Motivating Young Minds Beyond the Classroom – Launch of *EconomicsNow!* website

“Simon Angus obviously makes a lot of effort in preparing this unit, and it definitely shows. This subject has helped to further deepen my understanding of economics and I'm very grateful for it. I have no criticisms really. It has also helped in my decision to choose economics as my major.”

ECC2810 student, S1 2008

“This class has changed my attitude towards aid and has also potentially changed my future career path. Favourite class in all 4 years at Monash.”

ECC2800 student, S1 2009

“Thanks Simon for your energy and enthusiasm - you inspire me to be a teacher!”

ECC2810 student, S1 2008

My reading of the educational literature indicated that students who engage more often with the material of a unit, be it inside or outside of formal teaching times, would have far greater retention and understanding. The idea was then to engage students through their own media – sound and video files – with ideas taken from the unit to the world at large. With the help of a Faculty grant

EconomicsNow! (<http://www.econnow.com/>) was born and has received considerable interest from students since. During semester, I would see an article or video of interest online, write a response to it based on Economics taught in ECC2800 and then post the article and a recording on the site. Students subscribed through their iPods and could listen at their leisure. I'm thankful to many economists and scientists who have so far agreed to be interviewed for the project. This has brought prominent growth theorists (e.g. Greg Clark, University of California at Davis), climate policy specialists (e.g. Michael Hanneman, Berkeley) and non-government advocates (e.g. Cobus de Swardt, MD of Transparency International) to the ears and minds of students.

“EconomicsNow! is great and I will definitely continue using it after this unit. I hope that it becomes a tool that not only Monash students but students everywhere use to get up to date information on economic issues.”

ECC2800 student, S1 2009

“I just wanted to say how much I enjoyed the subject over the semester, not just the specific content but the way you were able to redefine for me what economics is all about. It reinvigorated why I was attracted to the discipline in the first place. ... Again thanks very much and I will continue to follow EconomicsNow! and hopefully use my knowledge of economics to make the world a better place.”

ECC2800, by email, 8 June 2009

For the coming 2011 semester *EconomicsNow!* will be further updated with the support of the Faculty of Business and Economics who have provided funding for a research assistant to aid with the production of more articles and podcasts. Articles in the pipeline for 2011 include interviews with a maternal health field worker within Uganda, and the author of an academic paper that utilised night-time satellite imagery of light emitted by cities in Africa to identify corrupt governments!



Example Innovation 4: Peer Engagement through Virtual Small-Groups

"The readings and links in the blackboard are very helpful during my learning. ... the discussion log also create a way for us to help each other and gain more ideas which is very useful."

ECC2800 student, S1 2009

"The discussion board was great. It made sure you stayed on top of things and allowed for the expansion of ideas."

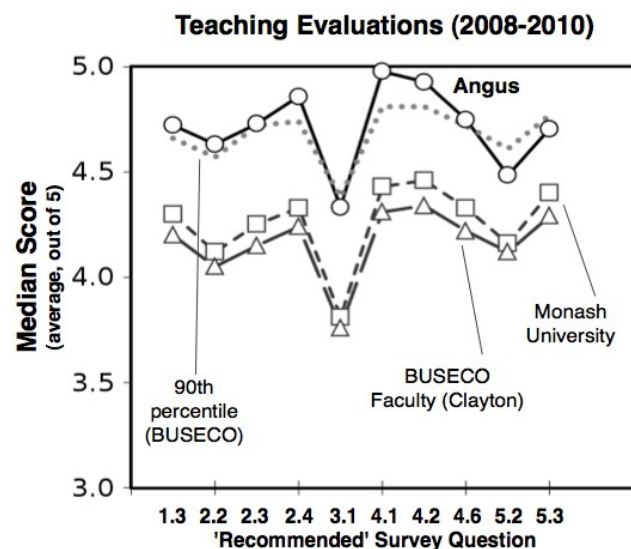
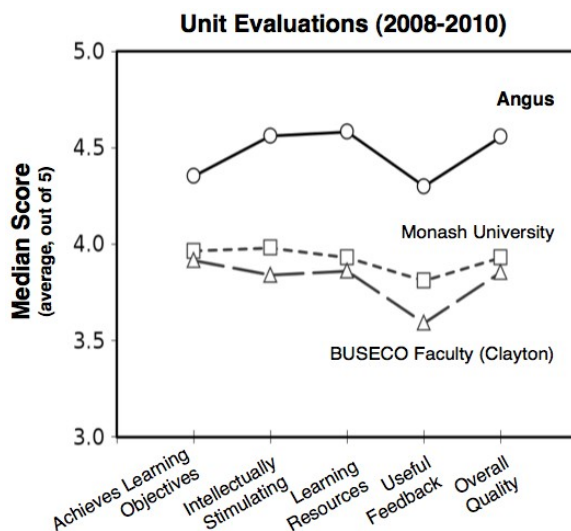
ECC2810 student, S1 2008

Finally, motivating students to motivate each other's learning is a profoundly beneficial tool, and another joy to watch develop in the classroom. With this in mind, I decided to move normal 'tutorial discussions' online, but not in one large group; rather, with each student as part of a small (2-4 person) group. This ensured the safety and space not only to get to know the other students and form strong relationships, but a sense of accountability and responsibility to keep the discussion going. I would engage with these discussions every two weeks in each group and challenge, encourage and re-direct discussions. This made for an efficient and highly effective means of interacting with student ideas and problems. I could then relate common issues to the wider group through my own public broadcast discussion, or in the lectures.

The response again was wonderful: in one class of around 70 students, over 245,000 words were posted, in over 1000 individual posts. Some students contributed an astonishing 15,000 words themselves through the session. I know of no other technique for engaging young minds with the ideas of the academy and their peers that is so effective, lively and enjoyable.

Summary of Evidence: Quantitative Surveys

Some specific quantitative evidence has been included above. I report here a summary of my weighted average median responses to the unit and teaching survey evaluations administered over three years (2008–2010) and five units (*Comparative Economic Systems* ['08], *Prosperity, Poverty & Sustainability* ['09*, '10] & *Integrated Economic Modeling* ['10*]), covering the responses of some 197 and 145 students respectively. I include the 90th percentile scores for my Faculty for comparison, in the second graph.



Summary of Evidence: Peer Recognition

I have received recognition at both the Faculty (*Dean's Excellence in Teaching Award, 2009*) and University level (*Vice-Chancellor's Citation for Outstanding Contribution to Student Learning, 2010*) for my teaching and have been invited to present several seminars on teaching innovations to University and national forums in the last few years on the topics of teaching large classes, and use of tablets and iPads. I now chair the 'Innovations and Quality in Education Group' in the Department of Economics, administering a budget of over \$70,000 for teaching and learning grants, supporting innovators and helping colleagues to improve the quality of their teaching.

* Indicates the first year of offering of a unit that I solely (*Prosperity, Poverty & Sustainability*) or jointly created and designed.