

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

*Simon Angus*

## Philosophy of Practice

*Outstanding - without doubt one of, if not the single best, lecturer I have come across in my 4 years at Monash.*

Student, ECC2800, S1 2009, anonymous survey

*A brilliant job by an enthusiastic teacher who obviously loves his work! Thanks for the best unit I've yet taken at Uni Simon!*

Student, ECC2800, S1 2009, anonymous survey

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.

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 3 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.

Out of this dual philosophy comes a desire to engage not just the minds of my students, but their hearts as well. To push them and challenge them in their thinking and person on the content on offer. Thankfully, I have been given great material to work with, whether teaching **ECC2810 Comparative Economic Systems** as I arrived at Monash last year, where Marx's critiques of capitalism were followed quickly by the excesses and tragedies of Soviet Russia, and Japan's rebuilding might contrasted heavily with the shock-therapy applied to various emerging economies; or creating, introducing, and teaching **ECC2800 Prosperity, Poverty and Sustainability**, where a longer view of the determinants of long-run Economic growth could be considered, making starkly clear the tragic failure of many sub-Saharan African economies and the challenges of climate change policy in a greatly inequitably endowed world.

In this application, I will focus on these two units, with an emphasis on the latter, showing how my philosophy of teaching has worked in practice. Commonly, this philosophy has driven me to find the best expression of teaching materials, media and technology that will engage, inspire and motivate my students. Below I will elaborate on several such tools.

## Motivating Young Minds Beyond the Classroom

*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.*

Student, ECC2810, S1 2008, anonymous survey

*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.*

Student, ECC2800, S1 2009, anonymous survey

*Thanks for such another great semester. I've really enjoyed this unit and I'm looking forward to today's lecture about how we can do more regarding these issues beyond this unit!*

Student, ECC2800, by email, 3 June 2009

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

Student, ECC2810, S1 2008, anonymous survey

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. Often I would find myself needing to teach non-linear feedbacks and associated self-reinforcing equilibria, or threshold processes. Such material is dry indeed, if we do not make it relevant. Thankfully, examples are close at hand – poverty traps, the 'big push' approach behind the Millennium Development Goals, or the positive feedbacks and thresholds of the enhanced greenhouse effect all scream 'non-linear dynamics' to the educator. It is our job to transport that cry to the student, giving them the motivation to learn the method and technical skills required to approach the world well-equipped and fired-up to apply their knowledge.

### **Innovation 1: Launch of EconomicsNow! Website**

*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.*

Student, ECC2800 S1 2009, anonymous survey

*EconomicsNow! and the General Resources section of Blackboard are really really really great! Thank you so much for these. By collecting all these resources for us (and in this entertaining form) you have made the subject so much more interesting and accessible. It was good too that we could add comments and have further discussion in EconNow.*

Student, ECC2800 S1 2009, anonymous survey

*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.*

Student, ECC2800, by email, 8 June 2009

Back in early 2008 I attended a seminar on teaching at Melbourne University and was introduced to an embryonic website project called, '*FinanceNow!*' The site was set up to engage students with contemporary issues in finance. Knowing that I would be taking the new ECC2800 unit in 2009, I set about establishing a new education resource that took off from the same concept. 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 session, 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, U. Cal at Davis), climate policy specialists (e.g. Michael Hanneman, Berkley) and non-government

advocates (e.g. Cobus de Swardt, MD of Transparency International) to the ears and minds of students.

*MonQuest Feedback:* Along with the quotes above, MonQuest ECC2800 (S1, 2009) data showed a very strong response to these efforts, on enthusiasm, and illustration to real-world examples questions 4.1, 2.4, and 2.7 received 100%, 96% and 100% response as 4 or 5 (medians 4.98, 4.93 and 4.90 respectively).<sup>1</sup>

## Investing in Critical Thinking and a Scholarly Approach

*I am very happy I took this course, I feel Simon's enthusiasm and deep knowledge on the subject has made this one of my favorite courses that I have taken so far in economics and has built upon my knowledge extensively.*

Student, ECC2810, S1 2008, anonymous survey

*Thanks for your feedback. That will really help me in future to write a better essay.*

Student, ECC2800, by email, 4 June 2009

At times, it has been asked whether the lecture is dead? My firm answer is 'no!' One of the principal aspects of the lecture is to provide a model of a person thinking. Live. Dynamically. Responsively. This requires a good deal of preparation and reading, of course, but above all, it requires the deeper work of *organising* information and ideas. We can present the student an unambiguous guide to the ideas landscape they will be traversing throughout the unit. This happens in our preparation of class materials (notes, slides etc.) but also as we explain, link and classify our ideas in the theatre. I take it, that the lecturer is this guide. After all, this has ever been the scholarly approach to the classification, organisation and orderly inquiry of Nature at large. To aid this process, I have sought out the best practice teaching tools of our era.

## Innovation 2: Lecture Preparation with LaTeX-Beamer

*This is the most well presented set of lectures I attended, the lecture material is fantastic and the lecturer has an innate ability to present information with a clear and concise manner.*

Student, ECC2800, S1 2009, anonymous survey

*Excellent structure and explanation of each lecture topic and how it linked overall to the structure of the unit. Also high level of interactive, modern software utilised efficiently and effectively.*

Student, ECC2800, S1 2009, anonymous survey

In my previous role at UNSW I extended and evaluated the large-class teaching technology known as 'LaTeX-Beamer' which allows the writing of one source document in a mark-up language (similar to HTML), and then the processing of this document through different 'engines' to create professional quality digital slides on the one hand, and a structured, indexed, and consistently type-faced lecture book on the other. The technique allows for targeted and timely revelation of information during the lecture, along with providing numerous scaffolding aids in the notes.<sup>2</sup> I applied the approach again to ECC2800 this year with great success.

*MonQuest Feedback:* Along with the quotes above, ECC2800 (S1, 2009) data showed a very strong response to these efforts: on coherence and organisation, question 1.3 and 2.2 received 96% and 92% of response as 4 or 5 respectively (medians 4.84 and 4.54 respectively)<sup>3</sup>; on response and engagement with student questions, question 4.2 and 4.4

1 4.1: The lecturer appeared enthusiastic about the task of lecturing; 2.4: The lecturer illustrated points and ideas with examples, applications or analogies; 2.7: The lecturer's visual presentations (e.g. drawings, charts, diagrams, graphics, schematics) assisted my understanding of lecture content.

2 See Angus, S.D., *The Power of Integration: Assessing a Recent Best-Practice Method for Large-class Instructional Material Generation & Presentation*, (available from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1106362](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1106362)).

3 1.3: The sequential position of each lecture contributed to the coherent and logical development of the unit overall; 2.2: Each lecture was presented in a way which helped me to see how its sections were interrelated or connected.

both received 96% of response as 4 or 5 with a remarkable 88% and 84% of students respectively responding with 5 for these questions (medians 4.93 and 4.90 respectively).<sup>4</sup>

## Innovation for Inspiration

*One of the best lecturers I have had - passionate about the topic, really willing to take questions and ask for clarity at any time and provide further out of class assistance, well structured and logically presented lectures using the wide range of technology available to assist in learning. Cheers! This is why I left Sydney Uni and came to Monash!*

Student, ECC2800, S1 2009, anonymous survey

*Just want to say thank you for another fantastic unit! I've really enjoyed it and I think EconNow is a great bonus resource to the awesome lecture slides/discussion log and the tablet.*

Student, ECC2800, by email, 4 June 2009

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 to be not 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. I will mention below several main innovations I have undertaken at Monash in the last three sessions and the feedback I have received.

### **Innovation 3: A New Unit in Economics: ECC2800 Prosperity, Poverty & Sustainability**

*This unit has also been fantastic - the best unit I have done at Monash and hope to see many more as time goes on.*

Student, ECC2800, by email, 4 June 2009

*Overall this is definitely my favourite unit of my Uni career so far! Thank you. Keep it up!*

Student, ECC2800 S1 2009, anonymous survey

Shortly after I joined the department in February 2008, the then Head of Department commissioned me to propose, build and teach a new 2<sup>nd</sup> year Economics unit for session 1, 2009. The unit's genesis was due to a feeling in the department that students did not have the space in our 1<sup>st</sup> and 2<sup>nd</sup> year technical offerings to step back and consider the fundamental Economic Problem 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 of Economics in our time. After much reading, Prosperity, Poverty and Sustainability was born, drawing on the three key themes of the Economic Problem and 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 21<sup>st</sup> 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*.

*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

4 4.2: The lecturer reacted positively to students' comments or questions during lectures; 4.4: There was an opportunity for students to clarify possible misunderstandings of lecture content, either during each lecture or at some time shortly afterwards.

students positively responding to the overall quality of the unit (median 4.72), including over 64% who Strongly Agreed.

#### **Innovation 4: A Return to Dynamic Teaching with Tablet PCs**

*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.*

Student, ECC2800 S1 2009, anonymous survey

*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.*

Student, ECC2800 S1 2009, anonymous survey

I believe that we will look back on the 'Age of PowerPoint' as a regrettable period of teaching where the lights of our ideas dimmed and our students strained in their learning as a bookish type must read by the half-light of a darkened room. Frustrated with the ubiquitous and deleterious impacts of PowerPoint's rigid techniques, I sought alternatives. My pursuit of the LaTeX-Beamer approach (above) was part of this. 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.

*Online Anonymous Survey Feedback:* The Tablet was introduced in my classes in week 4 and so this allowed for '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 this, Economics has rolled out the trial to a further 12 members of faculty, many of whom attended a training session I ran early in Session 2.

#### **Innovation 5: 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.*

Student, ECC2800, S1 2009, anonymous survey

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

Student, ECC2810, S1 2008, anonymous survey

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 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.