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Teaching international trade law to the Google generation

Perspectives on teaching a diverse audience

Ghori, Umair

Published in:
Scholarship of Teaching and Learning at Bond

Published: 01/01/2011

Document Version:
Publisher's PDF, also known as Version of record

Link to publication in Bond University research repository.

Recommended citation(APA):
Ghori, U. (2011). Teaching international trade law to the Google generation: Perspectives on teaching a diverse audience. In K. Wood, D. Knight, & S. Kinash (Eds.), *Scholarship of Teaching and Learning at Bond: Fostering Early Career Research* (Vol. 1, pp. 193-199). Office of Learning and Teaching, Bond University. https://issuu.com/bonduniversity-qtl/docs/sotl

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Scholarship of Teaching and Learning @ Bond: Fostering Early Career Research

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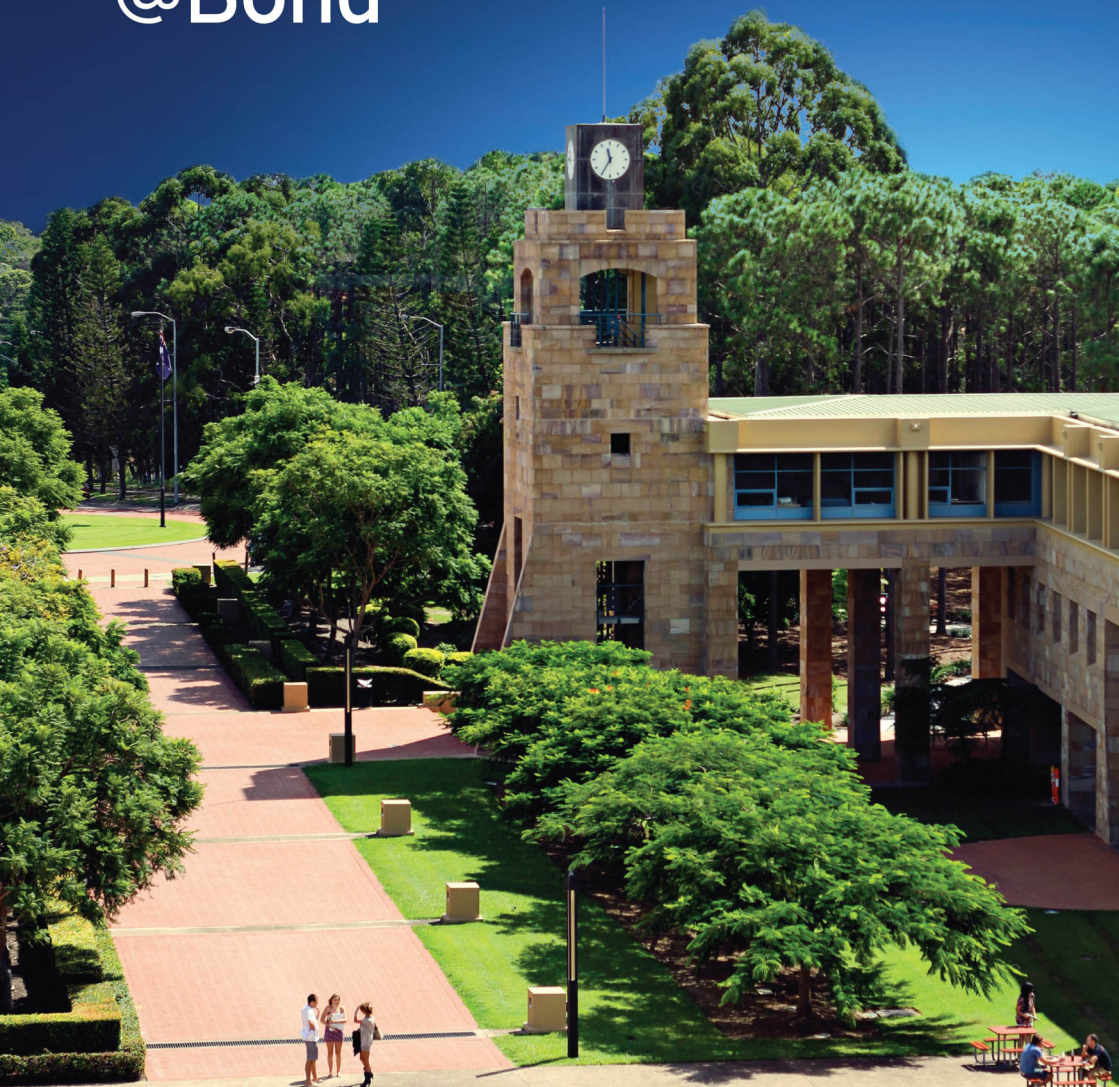
Scholarship of Teaching and Learning @Bond

BOND UNIVERSITY
OFFICE OF QUALITY, TEACHING, AND LEARNING



Scholarship of Teaching and Learning at Bond:

Fostering Early Career Research

Inaugural Volume, Bond University

Cover Photo: Simonne Kelly

Suggested Citation:

Wood, K., Knight, D. & Kinash, S. (Eds.) (2011). *Scholarship of teaching and learning at Bond: Fostering early career research*. QLD, Australia: Quality, Teaching, and Learning, Bond University.

Office of Quality, Teaching, and Learning
Bond University, Gold Coast, QLD
2011

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DIRECTOR'S INTRODUCTION

Associate Professor Shelley Kinash
Director, Quality, Teaching, and Learning

To be a university teacher is to build knowledge, construct a legacy of learning and apprentice others. When a university teacher integrates these three elements as a process, scholarship of teaching and learning (SOTL) is accomplished. SOTL means that the knowledge the university teacher builds is about teaching and learning. Examples of the research questions posed by the SOTL academic are: 'Is there evidence that student learning is enhanced through this type of teaching approach?' and 'What makes learning sustainable and transferable?' Constructing a legacy of learning for a SOTL academic means timetabled students access the teaching and also, the teaching and learning research is published in journals and books and presented at conferences. This ensures access to learning is extended and contributes to an interactive history of scholarship. SOTL also means students are considered as more than pupils or an audience. Students of learning and teaching scholars are apprentices. Their university teachers inspire them to learn and grow. Teachers mentor students to build and share knowledge and thus contribute to connected learning.

Scholarship of teaching and learning (SOTL) is often described as a teaching, learning and research nexus. What this means is that quality teaching is defined as teaching which helps students learn and that the process of teaching and the learning outcomes are the topics of research conducted by the university academic. Further, this nexus means that teaching and learning are not conceptualised as separate activities from research. When the nexus is not pursued, academics teach in their discipline (business, law, medicine, psychology) and spend their research semester on discipline-based questions. Conversely, the nexus means that teaching, learning and research are integrated and cohesive. Each informs the other. Teaching means that students are apprenticed in the research process. University teachers guide students to be open to wonder and to design appropriate teaching methods to inquire into their questions and produce authentic artefacts of their learning. Learning means that students are invited into a lifelong process, continually refining their ways of coming to know. Research means that the reflective university teacher is always interrogating teaching and learning and designing rigorous processes to build education knowledge and apply them as an ongoing active pursuit.

Educators with a SOTL perspective envision their classrooms as living laboratories. Far from exploiting students as convenient research samples, SOTL educators use a research

perspective to ubiquitously benefit their currently enrolled and future learners, within and beyond their classrooms. University teachers are encouraged to ask questions about the teaching and learning that is happening here and now within this current context. By probing their teaching effectiveness and analysing evidence of learning outcomes, university teachers can make ongoing improvements. University teachers can tweak their approach throughout the semester, thereby actively enhancing the outcomes for current students. Recording and publishing SOTL research advances the field of higher education, informing best practices for diverse students in multiple contexts.

Bond University is an ideally situated context for scholarship of teaching and learning (SOTL). The Good Universities Guide ranked Bond University as the top Australian university. Bond received more five-star ratings than any other university in the country. The five star ratings are in categories including Quality Teaching. Also in 2011, the Australian Learning and Teaching Council awarded Bond University four awards for teaching and learning excellence. Two academics won citations for outstanding contribution to student learning. Two academics won prestigious teaching excellence awards. Only 22 teaching excellence awards were awarded across Australia. Such awards and rankings provide compelling evidence that Bond University is an exemplar of higher education teaching and learning. It is therefore incumbent upon us to share the knowledge we have accumulated about teaching and learning. Universities have a societal role to play in the building, dissemination and application of knowledge. One of the important contributions Bond University can make is to design and author rigorous scholarly literature about higher education teaching and learning.

This book is a collection of scholarship of teaching and learning (SOTL) literature authored by Bond University academics in 2010 and 2011. Some of the authors are early career researchers. These are academics who have been researching for less than seven years. Perhaps they are new to Bond University and perhaps they have newly completed their PhDs. The insights early career researchers provide are fresh and original. They are open to surprise and hermeneutic "aha!" moments. Their students provide them with original experiences and novel situations. Other authors included in this volume are experienced SOTL researchers. They have been apprenticed into the language of education theory. They are refining their approaches to teaching and nurturing sustainable learning relationships with students. Many of these experienced SOTL researchers are serving as mentors to early career researchers. This book provides another authentic vehicle for mentorship. Many of the chapters included here are exemplars of SOTL and can be used as models of form, content and voice.

Two types of stimulus were used to inspire these chapters. One stimulus was the Australian Learning and Teaching Council's (ALTC) awards and citations. These book 'chapters' are the nominations. Each has been through multiple drafts and two reviews by a multi-disciplinary panel and subsequent edits. Each of these submissions were acknowledged as SOTL exemplars and put forward by the internal Bond panel to be considered for external citations and awards. Two of these submissions were award-winning in 2010

and two in 2011. The other stimulus is Foundations of University Learning and Teaching (FULT). FULT is a professional development program for new university teachers and those who want to step back, engage and re-establish a focus on their teaching and their students' learning. The content focus is on Learn to Teach and Teach to Learn. The process focus is on cross-faculty exemplars and reflective analysis. The chapters from the FULT participants are the culminating assignment. The FULT participants were encouraged to pursue a question about their teaching and their students' learning. FULT participants were supported to design a means of inquiring into this question and begin to shape answers. The ALTC and FULT submissions included in this book are examples of emerging SOTL at Bond University. We commend the authors, not only for their dedication to teaching and learning, but also for their commitment to putting their ideas and knowledge discovery into words to inspire and direct the work of others.

The reader is encouraged to journey along with Bond University teachers as they probe questions of teaching and learning. The reader will find reviews of SOTL literature, examples of methods in the education field of research and illuminating results. This book is intended to inspire enhanced attention to SOTL at Bond University and in higher education more broadly. Readers are called to produce SOTL studies of their own and encouraged to consider enrolling in SOTL stimulus initiatives such as Foundations of University Learning and Teaching and applying for citations and awards. More than anything, this book celebrates SOTL as a collaborative venture between scholars to hold up teaching and learning as the priority of higher education.

PROLOGUE

Kayleen Wood, Academic Developer
Quality, Teaching, and Learning

As Academic Developer at Bond University I am most often cast in the support role for our academics as they write applications for internal and external awards and grants. Becoming a 'reflexive mirror' (Etherington, 2004), noticing my responses to other people and events, and using that knowledge to inform communication and understanding, I help create the output of others. I facilitate the Foundations of University Learning and Teaching subject and many other professional development and research workshops and seminars. One of the exciting opportunities for me has been to pursue my own learning and knowledge into the realm of research, in part by undertaking further studies in higher education.

We encourage Bond University academics to write their philosophy of teaching. Here is mine.

> I see my role as a teacher, really as a facilitator to provide the space and environment for my students to embark on their own journey of discovery; to create their own itinerary. My skill as a practitioner and my ability to translate it into accessible digestible language, examples, tasks, and processes with meaning and reason, allow my students to come to their own conclusions when constructing their knowledge. I guide and direct my students to attain higher levels of competence and development by providing base theories and concepts in an applied way and embedding these to move from simple to complex, from different knowledge bases and contexts. The language of learning is always the same just the dialect of discipline changes. I bring my students to places of knowing by piecing together their intuitive learning and actions, and giving them a scaffold (Vygotsky, 1978) of terminology to attach it to. I do this through a Socratic Method (Mackenzie, 2008) using open questions that challenge their held ideas and positions, provoke them to articulate why, and make links to existing knowledge to synthesize (Kember, 1997) higher order learning and critical reflective thinking and practice. I do this because I live to see the light come on in their eyes when they 'get' it. As my students progress in their learning and through my subject, incorporating my learning objectives into their practice, my job is done when they no longer need me as a guide, but as a peer or mentor.

To put into context my conceptions of learning and teaching, I look to Fox and Geichman (2001) who were concerned that education must focus more on the edges of what is

understood, rather than on the centres. These boundary conditions are encountered when we go beyond what we know and reach for something more. This is Constructivism on the Edge; continuous learning by incorporating new knowledge into existing schema (e.g. Fry, Ketteridge, & Marshall, 2003; Ramsden, 2003). I aim to teach to enhance value and expectancy, self-efficacy and success. To me teaching is leadership; encouraging cognitive inclusion with others and content, so we all move forward together.

I use this piece of my own writing by way of introduction to this collection of papers submitted to, nurtured by and gathered together for this inaugural *Scholarship of Teaching and Learning at Bond* book, chronicling the journeys of the contributors, and vicariously QTL, over the course of the last year.

30 June 2011

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Acknowledgement

Special recognition goes to Diana Knight who has been responsible for the in-house publishing of *Scholarship of Teaching and Learning at Bond*. Her inclusion on the editorial team, her diligence and attention to detail has brought this book to life. Diana is a Project Officer at Quality, Teaching, and Learning (QTL). After graduating from Binghamton University in New York, she and her husband moved to Australia in 2008, where she completed her Juris Doctor at Bond University. Whilst undertaking her law studies she began working with QTL by assisting with a variety of projects, including collaborative learning environment research with Web 2.0, electronic student evaluations and electronic portfolios. Among her other contributions at QTL are *Teaching at Bond*, *Learning at Bond* and *Tutoring at Bond*.

WHAT IS SOTL?

Kayleen Wood, Academic Developer
Quality, Teaching, and Learning

What prompts the need for understanding of the Scholarship of Teaching and Learning (SOTL) is the aspiration to capture the work of education in ways that it can be improved upon. To move teaching to a collective place of intellectual work that is documented, open access and built upon, means creating a community of teachers from a collection of individuals.

We define the Scholarship of Teaching and Learning through the four practices of Huber & Hutchings (2005):

1. Framing questions
2. Gathering and exploring evidence
3. Trying and refining new insights in the classroom
4. Sharing and learning with others

What is Foundations of University Learning and Teaching (FULT)?

Foundations of University Learning and Teaching has been assessed as the equivalent of a 10-credit offering at Bond University and has been benchmarked as the equivalent of one subject toward a Graduate Certificate Higher Education. Participants complete 100 hours of instruction and achieve the following learning outcomes:

- Plan and apply best teaching practices
- Structure valuable assessment and feedback
- Design curriculum and teach to diverse learners
- Frame teaching and learning research
- Design iLearn sites grounded on pedagogical principles

The three process components of FULT are:

1. Active participation in seminars on teaching, learning and assessment
2. Teaching FULT peers and reflecting on feedback
3. Peer Observation of Teaching with an established educator in a different faculty than the FULT participant

The following pieces of assessment are submitted and graded as a pass/fail with constructive feedback provided.

- Weekly submission of reflective self-assessment in keeping with the curricular themes
- Group teaching in class applying teaching and learning principles and peer assessment
- Auto-ethnographic teaching and learning research paper

What is the Australian Learning and Teaching Council (ALTC)?

The Australian Learning and Teaching Council has been dedicated to improving the student learning experience by supporting quality teaching and practice. This role will be subsumed into DEEWR from the end of 2011. ALTC has worked with eligible higher education institutions, discipline groups and individuals as a collaborative and supportive partner in change, providing access to a network of knowledge, ideas and people. They have supported outstanding teaching and practice through a suite of award, fellowship and grant schemes (http://www.altc.edu.au/who-we-are).

Citations for Outstanding Contributions to Student Learning recognise and reward the diverse contributions made by individuals and teams to the quality of student learning. They are awarded to those who have made a significant contribution to the quality of student learning in a specific area of responsibility over a sustained period, whether they are academic staff, general staff, sessional staff or institutional associates. Citations provide an opportunity for distinctive institutional missions, values and priorities in learning and teaching to be recognised. Citations are awarded for a range of contributions to student learning, both direct and indirect (http://www.altc.edu.au/types-of-awards#citations).

Bond University has been proud to submit internally peer reviewed papers for consideration. In 2010 Amy Kenworthy and Alan Stirling were recipients of citations. In 2011 the awarded citations were Penny deByl and Phillip Fourie. Included in this book are 15 of the nominations.

What is the role of Quality, Teaching, and Learning?

The overall mission of the Teaching and Learning Unit within the Office of Quality, Teaching, and Learning (QTL) is to fully support the induction and ongoing professional development of Bond University academics, HDR students and professional staff in their pursuit of excellence in teaching and learning.

Our services include:

- Academic staff induction through Foundations of University Learning and Teaching
- Consultation and leadership in the formation and implementation of teaching and learning policy and processes

- Pedagogical application of iLearn and other emerging technologies
- Application assistance for internal and external teaching and learning awards and recognition
- Leadership and instrumental supports in teaching and learning research and subsequent publication

Why is the Scholarship of Teaching and Learning important?

QTL works to foster a culture of Scholarship of Learning and Teaching and to encourage Bond academics to be teaching and learning innovators through identifying and applying evidence-based approaches to enhancement of student learning. The nexus of research with learning and teaching means that Academics actively research in their own classrooms and recursively apply their findings to enhance their teaching and their students' learning. In other words, Bond Academics are open to questions, ideas and observations about their teaching and their students' learning. They gather empirical evidence that what they consider to be innovative in the learning experience is actually working for their students. They make changes to their teaching and research what happens. They compare and contrast multiple approaches, measure the impact and then revise their teaching accordingly.

Please enjoy your colleagues' contributions to teaching and learning scholarship at Bond. We encourage you to participate in the various QTL initiatives to make your own contribution to evidence-based higher education and we would like to see your chapter in next year's Bond collection. Consider enrolling in Foundations of University Learning and Teaching, applying for a Teaching and Learning Research Grant and/or applying for a Citation for Outstanding Contribution to student learning. Contact us for further information.

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ABSTRACTS AND AUTHOR BIOGRAPHIES

Richard Baumfield, Adjunct Tutor, Faculty of Law

Richard, an early career academic at Bond University, developed the process of moot into a pedagogy that advanced the learning of law and non-law students enrolled in the Sports Law subject. Moot is a typical pedagogy in Law subjects; students argue a hypothetical case before an academic assessor who acts as the judge. Richard transformed the Sports Law moot such that it became a student-centred, active learning pedagogy intellectually and procedurally accessible to all students.

Jeffrey Brand, Associate Professor, Faculty of Humanities and Social Sciences

Jeffrey developed the Bachelor of Computer Games at Bond University in consultation with colleagues, industry partners and students. Coupled with this introduction, he designed and implemented a distinctive learning space called the *Level-up Lab,* to inspire and motivate students. Jeff acknowledges the importance of including appropriate tools and workspaces along with providing inspirational guidance for the education, training and motivation of creative industry professionals.

Leisha Browning, Senior Teaching Fellow, Faculty of Law

Leisha is a Senior Teaching Fellow in the Faculty of Law, Bond University. Leisha believes it is a skill to teach in a way that meets the individual needs of students. She is enthusiastic as students explore a narrative by visualising the parties in a legal proceeding, picturing the facts being played out and empathising with the judges in the difficulty of determining outcomes, rather than passively receiving the facts of a case. Learning with purpose is integral to her teaching pedagogy.

Trishita Chaudhuri, Teaching Fellow, Faculty of Humanities and Social Sciences

For Trishita, the present study, exploratory and descriptive in nature, was a result of seeing what lay outside her teaching comfort zone. The main aim of the study was to investigate if she could balance the pace of delivery with completion of content. Her research was conducted in a supportive, non-judgmental environment where she was offered feedback on her teaching style. Results revealed that the balance was achieved, but uncovered other areas for investigation.

Michele Clark, Senior Teaching Fellow, Faculty of Humanities and Social Sciences

Michele explores active learning teaching strategies to encourage diverse learners to participate in class, with a focus on engaging students in deeper learning through individual and small group discussion, interaction and feedback during lectures. The results indicated the techniques used did encourage student participation and pointed to deeper engagement and learning in the subject material. This research is important as It helps identify the types of teaching practices which, through demonstrated enthusiasm, passion and experience, can encourage the same in students.

Susan Day, Liaison Librarian, Information Services

As part of the Liaison Services team in Information Services, a significant component of Susan's job is teaching students and academics how to use Library resources. Incorporating opportunities for active learning into library workshops is a greater challenge in view of the fact that these workshops are usually of a one-off nature and typically less than an hour in duration. Furthermore, the participants are invariably from different disciplines across the university, and bring with them varying degrees of competency and confidence in the use of information technology.

Penny de Byl, Associate Professor, Faculty of Humanities and Social Sciences

Penny's twenty years experience as a computer scientist allowed her to develop an extensive applied command of the field of computer games development. For the past twelve years, Penny has been developing and sharing progressive pedagogies and curriculum based on these experiences. Penny makes an outstanding contribution to student learning by exposing learners to the day-to-day issues she faces in game development projects and helps students balance theory and practice.

Phillip Fourie, Assistant Professor and Associate Dean, Faculty of Humanities and Social Sciences

Phillip implements curricular and pedagogical enhancement of undergraduate and postgraduate subjects in counselling and behavioural management. Phillip's career as a General Medical Practitioner enables him to translate and explain the significance of medical content to students. He models a "whole-person" approach to clinical services. Phillip bridged the strengths of two disciplinary traditions and engaged exemplary pedagogies to make a significant contribution to student learning.

Umair Ghori, Senior Teaching Fellow, Faculty of Law

International trade law is a specialised subject of law that straddles the realm of economics, law and policy studies. The discussion in Umair's essay on teaching experiences is presented in three scenarios: teaching law students, teaching non-law students and presenting at conferences. These three scenarios have audiences from a variety of backgrounds and views. The aim of his essay is to highlight the challenges for the educator to achieve the equilibrium between delivery of course content, fostering discussion, challenging pre-conceived notions and generally encouraging students to look at the 'other side'.

Dirk Horvorka, Associate Professor of Information Systems, Faculty of Business

Dirk models learning environments and experiences that provoke students to change the way they think. Dirk's engaging teaching approaches are demonstrated in use of Socratic questioning through a discovery frame of reference in the curriculum and pedagogy he designed for an original subject in Systems Thinking. The graduate attributes he calls forth in students allow them to think critically, support their arguments and see the systems of relationships among sets of concepts.

Danielle Ireland-Piper, Senior Teaching Fellow, Faculty of Law

One of Bond University's core subjects is 'Contemporary Issues in Law and Society' (CILS), housed in the Faculty of Law. Students enrolled in CILS come from all faculties, and are in the embryonic stages of their tertiary education or are students in secondary school. The diversity of students in CILS presents a pedagogical challenge to a legally trained academic. Danielle's paper seeks to identify appropriate ways to ensure that teaching methodologies are consistent with the needs of this diverse group.

Mark Jamison, Adjunct Tutor, Institute of Sustainable Development and Architecture

Mark participated in the Foundations of University Learning and Teaching (Semester 111) and was enthused to ask the question 'How Can Teachers Inspire their Students?' This paper reveals how teachers have responded to this question and touches briefly on the academic topic he is interested in, 'Marking by a Bell Curve'. Mark believes inspiring students of architecture is critical. His dream for the architectural students at Bond is to create unique architecture that amazes and astonishes him, his peers and the public.

Amy Kenworthy, Professor of Management, Faculty of Business

Amy has designed and embedded the entire suite of Negotiation subjects offered in the School of Business, including subjects run at the undergraduate (BBus; BCom), graduate (MBA), executive (EMBA), and blended delivery (MyBondMBA.com) program levels. Her innovative teaching practices, designed to inform, inspire and motivate students, include a semester-long service-learning consulting project, internet-based negotiations, weekly role-play simulations and a "hands-on" exercise program run through the University's Fitness Centre.

Shelley Kinash, Associate Professor, Faculty of Humanities and Social Sciences, Director Quality, Teaching, and Learning

Shelley develops and disseminates service innovations for teaching and learning research. For academics, she designed a *Foundations of University Learning and Teaching* 10-credit subject, distinctive with peer observation of teaching and a culminating empirical paper. For students, Shelley posts resource materials online, mentors other workshop facilitators, and co-authors peer-reviewed publications with undergraduate and post-graduate students. Shelley enhances scholarship of teaching and learning for staff and students.

Aileen Koh, Project Portfolio Manager, Postgraduate Fellow, Institute of Sustainable Development and Architecture

Aileen believes an educator must have a deep and rigorous relationship with the knowledge of the discipline. However, for an effective Project Management teaching and learning agenda, we need to plan, design and deliver it to address a set of crucial pedagogical parameters that take students' views and perceptions into consideration. This has arisen because students are now extremely technology 'savvy' and may have very different expectations of higher education than that which they currently receive, driving the need for change in the student-educator relationship within higher education.

Kuldeep Kumar, Professor and Head of Department (Economics and Statistics), Faculty of Business

Kuldeep observed significant challenges experienced by students attempting to learn and use statistics. He addressed these problems using spreadsheets and encouraging students to use authentic data for interpretation. Kuldeep's teaching heightened the curiosity of learners and fostered student development using case or problem-based learning wherein students applied statistics to investigate dilemmas.

Leah Lang, Adjunct Tutor, Institute of Sustainable Development and Architecture

Leah is a practicing registered architect and now a design studio tutor in the ISDA faculty at Bond University. Her teaching/learning question revolves around the concept of teaching efficacy and confidence - 'Do I know enough?' If she has enough knowledge to practice successfully for 12 years in the 'real world' within her profession of architecture – does she have enough confidence to pass this knowledge and experience on to her students without any formal teaching skills? And if so how will she know she has done so effectively?

Susan Macfarlane, Manager, Student Learning Support

Susan designed, developed and facilitated a dedicated tutorial for international students from non-English speaking backgrounds (NESB). The content parallels that taught in the regular subject tutorials. The blended learning process is designed to ameliorate cultural, comprehension and communication challenges. Evidence of success as indicated by both primary and secondary benefits will ensure sustainability and growth in pedagogical approach, and implementation in additional subjects.

Yvonne Maher, Senior Teaching Fellow, Institute of Sustainable Development and Architecture

As a participant in Bond University's Foundations of University Teaching (FULT) subject, Yvonne incorporated her newfound knowledge of Universal Design for Learning (UDL) principles into her practical lessons. Based on her teaching philosophy of equipping students with the relevant skills and knowledge to be able to perform tasks set for them by their future employers, the process enabled Yvonne to evaluate whether her explanations of various concepts were clear and easily understood by the students.

Marilyn Mitchell, Assistant Professor, Faculty of Humanities and Social Sciences

Marilyn teaches undergraduate and postgraduate students in Communication Subjects. She designs and delivers learning programs that motivate independent learning in students from diverse backgrounds, with different learning styles, experiences, expectations and academic orientations. Using real-world examples, activities and assessments, Marilyn puts communication theory into practice by developing open learning environments in which students feel comfortable and encouraged to participate.

Vivienne O'Connor, Associate Dean (Clinical Training), Faculty of Health Sciences and Medicine

Vivienne conceptualised and led the development, implementation, benchmarking and continual refinement of the Clinical Skills Theme of Bond University's Medical Program. The differentiating features of the program she designed and continues to lead are: student learning outcomes as the primary building block upon which teaching, assessment and feedback are developed, and organisation of a phase approach building to achievement of graduate outcomes.

Michael Simmonds, Post Doctoral Research Fellow, Faculty of Health Sciences and Medicine

Michael teaches Clinical Exercise Testing to Exercise and Sports Science students. Effective educators of Exercise Science should provide scientifically sound and industry-relevant content, but may find it challenging to balance educator and student expectations. One of the major questions might be, "How does an educator deliver 'science degree' content in easily-understood language, while ensuring the quality of content is preserved?" Michael asked whether limiting excessive technical language might improve student learning of advanced science-related content in undergraduate applied-science disciplines.

Allan Stirling, Assistant Professor of Anatomy, Faculty of Health Sciences and Medicine

Allan Stirling teaches clinical anatomy in all five years of the medical degree and has developed a clinically relevant teaching style and assessment practices that enable students to focus on core knowledge and independent learning practices, preparing them for their future as practising clinicians. He engages and motivates students using a variety of approaches to convey the subject's core information, adopting a learner centred approach providing a learning experience that encourages the students to analyse, synthesise and interpret the presented information.

Kevin Tang, Assistant Professor, Institute of Sustainable Development and Architecture

Kevin's first experience of teaching came in the form of sports coaching. Though seemingly unrelated, he believes that the philosophy underlying his teaching and that underlying the coaching of sports are quite similar. The comparative key elements of a

good coaching session and teaching session are: breaking the skill down into manageable and component parts, encouraging an active learning environment, constant reminders of the big picture, fixing common faults and continual encouragement.

Pam Teys, Assistant Professor, Physiotherapy Clinical Education, Faculty of Health Sciences and Medicine

Pam believes the key to achievement of learning outcomes in Physiotherapy is quality Clinical Education. As Academic Coordinator of Clinical Education within the Physiotherapy Program at Bond University, she facilitates learning through identifying and supporting the needs of both students and the Clinical Educators who host their placements. Pam optimises learning at the intersection of the three roles of Student, Clinical Educator and Academic Coordinator.

Susie Ting, Senior Teaching Fellow, Faculty of Humanities and Social Sciences

Susie integrates assessment activities and feedback into the learning experience of Advertising and Communication students. In partnership with her students, Susie closes the loop on assessment feedback, using it in a formative manner so that students are authentically building upon their learning. Susie continually challenges herself to learn more about assessment, create new assessment opportunities and engage student feedback to progress her pedagogy and curriculum.

Patrick Warnke, Professor of Surgery, Faculty of Health Sciences and Medicine

Patrick has applied Kolb's (1984) theory to design, develop and teach hands-on, experiential workshops to advance surgical clinical skills. Dr. Warnke designed and refined a new modular system of ten interconnecting workshops using tactile learning to improve discipline-specific manual dexterity and to teach simple to advanced surgical clinical skills. Students use instruments such as endoscopes, laparoscopes, ultrasound machines and bone saws. Students perceive positive contribution to their learning.

AUSTRALIAN LEARNING AND TEACHING COUNCIL CITATIONS AND NOMINATIONS 2010

University academics have three main roles. These are to teach and thereby contribute to student learning, to research and thereby contribute to knowledge, and to serve and thereby contribute to the community. The easiest to quantify, classify and rank is research. Universities count how many journal papers an academic has written and how much money an academic has brought into the university as research funding. Some critics believe that when these numbers are included in professional development reviews, they distract from and overshadow teaching and learning. In acknowledgement of the primary importance of teaching and learning at universities, the Australian government made a strong commitment to higher education by establishing the Australian Learning and Teaching Council (ALTC). ALTC, formerly known as the Carrick Institute for Learning and Teaching in Higher Education, was established by the Australian Government in 2004. In order to raise the profile of university learning and teaching, ALTC developed numerous initiatives to acknowledge, reward and enhance distinctive teaching and outstanding contribution to student learning, and to support scholarship of teaching and learning.

Here are some impressive ALTC statistics:

- 1179 awards and citations awarded to 93 percent of Australia's higher education institutions
- 349 learning and teaching resources developed, including academic reports, teaching guidelines, websites, CDs and DVDs
- 103 competitive grants projects funded

Bond University won a notable proportion of ALTC citations and awards, particularly considering our small academic staff base as compared to our domestic university counterparts. In 2010, we submitted ten nominations for ALTC citations for outstanding

contribution to student learning and two were awarded. All ten are internally award-winning in that they were peer reviewed and chosen by a panel comprised of prior recipients of teaching awards. The nomination documents are included in this *SOTL at Bond* book for two reasons – first, to celebrate the successes and contributions these academics have made to student learning and second, to inspire others to design and implement similar initiatives in their own classes. The ten nominations represent as many distinct aspects of exemplary teaching and learning. The following documents address:

- Business negotiation
- Clinically applied anatomy for medical students
- Education for future computer games industry professionals
- Teaching statistics using spreadsheets
- Workplace communication
- Clinical skills in medicine
- Clinical education learning for physiotherapy students

Dr Amy L. Kenworthy

Professor of Management, Faculty of Business

Awarded Citation

For translating a command of the field of Business Negotiation into curricula, experiential teaching approaches, resources and services that motivate and inspire students to learn.

Summary of Particular Contribution and its Specific Context

When I arrived at Bond University in September of 1999, I was charged with creating a set of subjects on Negotiation for both the undergraduate and postgraduate programs in the School of Business. In 2000, I designed and implemented the Business School's first undergraduate subject on Negotiation, completely redesigned the full-time MBA and Executive MBA (EMBA) level subjects on Negotiation. In 2001, I created a blended online video series and on-campus Negotiation subject for use in Bond University's Japan-based MyBondMBA.com program. Throughout the development of these subjects, I focused on the incorporation of innovative experiential practices, research-driven subject components, opportunities for practical application and reflection and experiences that stimulate passion and inspiration in my students. As I inform my students during the first session of every Negotiation subject I teach, my overarching goal for the subject is to *change the way they see the world*... not a small task, but an important one grounded in the belief that our charge as educators is to inspire, motivate, and influence students in ways that positively shape their innate desire and acquired skill sets for lifelong learning.

As a facilitator of learning, I design learning experiences with practical applications which in turn create student engagement. This design is conveyed explicitly to students in the subject outline and is presented in parallel with my annually revisited teaching philosophy. An excerpt from one of my 2010 subject outlines is:

> My teaching philosophy is grounded in the belief that people learn through doing – that concrete experience coupled with active reflection is one of the best approaches to learning. I believe that we learn from failure as much as success, and that the classroom experience is not restricted to the classroom environment. My overall goals are to stimulate student passion, to encourage interest and enthusiasm for life-long curiosity, application and learning, and finally to create an environment of teacher/student collaboration.

Statement Addressing the Chosen Criteria

1. Approaches to teaching that influence, motivate and inspire students to learn
2. Development of curricula, resources and services that reflect a command of the field

My intention with the curricula, resources and services I develop within my Negotiation classes is to influence, motivate and inspire students to learn. This approach stems from the belief that stimulating students' curiosity and passion is a precursor to developing their critical thinking, research ability and independent learning skills. Examples of four curricular activities and the respective resources and services I have incorporated into Negotiation subjects over the past decade are listed below.

Service-learning consulting project.

This project, unique to Bond's Negotiation subject (i.e. not incorporated into any other Negotiation subject in the world to my knowledge based on a review of the management and negotiation literature to date), engages students in consulting teams for the duration of a semester. Student teams are required to identify a non-profit organisation partner with a current need in terms of the development of a product or service that will be used by the organisation staff and clients. The primary goal of this project is for students to develop their skills in the areas of negotiation, persuasion and conflict resolution via a real-world community engaged project. Students are required to engage in intra-team and inter-organisational negotiations, to research the industry/topic area, to include elements of persuasion in the product or service they create, to engage in critical reflection and to focus their work in terms of lasting impact in the community. An example of this, drawn from the January-April 2010 Negotiation Subject, is the student-designed and student-led anti-bullying life-skills program called "One Goal, One Community: Moving beyond bullying and empowering for life" that was presented to 280 Year 10 students at Varsity College on 14 April 2010. My students secured the donation of 10,000 wristbands for this project as well as persuaded 10,500+ (the number is still increasing) people in the local community to sign commitment statements with the pledge to engage in anti-bullying and positive behaviours for life. My students and I organised a rally as part of this project on 16 April at which 2,000+ people attended in support. To date, we have received publicity on Channel 9 & Channel 7 news, and were covered in 4 newspaper articles. ABC News Radio ran the story, and we have been contacted by the Channel 7 Morning Show to run the story in the next few weeks. The negotiation project was so successful that it will be fully replicated in September 2010 at Bentley University in the USA. The curricular format for this service-learning project has been described in three published book chapters and two internationally refereed journal articles (see Resources section below).

> The group project experience and the subject as a whole have been thoroughly enriching experiences that have afforded me great knowledge and life skills that I otherwise may never have learned... Ultimately this project and the entire subject has been a tribute to the basic principle that you get out what you put in. There is no hiding from the fact that the workload is heavy, but the return on time invested is invaluable. Thank you. (L. Romano, 2007)

Weekly role-play negotiation simulations.

Every week, every student in this subject participates in a 60 minute role-play negotiation (note: full 60 minute simulations are rarely used every week in traditional negotiation classes as the workload to effectively run and debrief them is massive). The negotiation cases used are diverse in content (e.g. buyer/seller; real estate agent and client; business partners) as are the settings in which they negotiate (e.g. face-to-face; internet based) and the formats for negotiation (e.g. dyadic [one-on-one]; group [two-on-two; two-on-three]; multiparty [six-on-one]). Regarding independence of thought, critical thinking and curiosity, I intentionally assign negotiations where there are no "right" or "correct" outcomes. Every simulation has either been written or adapted by me to contextualise and tailor it to my subject's overall "learning storyline" and related students' learning goals. To facilitate a high level of learning, for each negotiation simulation students create pre-negotiation journals that are used in our class reflection sessions. For each simulation, students have the opportunity to receive written and verbal formative feedback. Verbal feedback is based on me walking around, watching, taking notes and giving them feedback on the actual interpersonal interactions taking place during the simulations.

> The role-play negotiations are amazing... Amy provides very detailed and high quality feedback, both verbal and written, about each of our negotiations. The negotiations are innovative in format, grounded in reality, very well presented, and extremely interesting. Most importantly, with every negotiation, Amy is enthusiastic and captivating and in this way enthuses her students to hunt out, experiment, and discover new information about themselves and others. (L. Exelby, MBA, 2005)

Internet-based negotiation.

In every Negotiation subject I teach (postgraduate and undergraduate), the students are assigned one negotiation to be completed over the Internet. In my undergraduate subject, this negotiation often takes place with students from another Negotiation subject running concurrently in another country (either the U.S.A. or France; it is this component, the real-world, real-time international dimension, that is unusual to see implemented in negotiation classes as it is logistically difficult to operationalise). The goal is for the students to experience negotiating with people they do not know to elicit high levels of self-insight about negotiation processes and cultural stereotypes (for example, most students assume that the other students were born and raised in the country they are studying in, yet each of our respective schools has a significant, >40%, international student population). My colleague, Associate Professor Brooks Holtom from Georgetown University in the USA, and I published a teaching brief about this technique in Harvard's prestigious *Negotiation Journal* (see *Command of the Field* section below for details).

> I learned more from the internet negotiation than I can put into words. Firstly, I didn't recognise how strong my perceptual biases and ingrained stereotypes were... I assumed that the person on the other side was French (as the

> negotiation was with students from a French university) and would act in ways that were stated in the books about French people. I also learned about my own weaknesses as a negotiator… I made assumptions about what the other negotiator meant when I read the words. My interpretations were often false and I never checked to see if they were correct until it was too late. Thank you for this experience… it has truly shed a new light on my own interpersonal biases. (M. van den Bremer, undergraduate, 2006)

Hands-on "exercise" in the Fitness Centre.

One class session per semester, the students meet me in the Fitness Centre rather than the classroom. The goal of this session is to create an experiential opportunity for students to learn about the connections between their physical states, mental states and associated negotiation abilities. The entire class is run at the Fitness Centre, in collaboration with Centre staff. We have pre- and post-exercise reflection sessions where we review the extant literature and recent findings in this topic area, a 30-minute full group training session in the spinning room (stationary bicycle riding with an instructor) and a 30-minute personal choice session. The only criterion for completion is that each student pushes him/herself to the point of sweating. Students report a high level of appreciation for the opportunity to examine this topic via a non-traditional hands-on learning activity (100% positive feedback over the past six years); they also report a sense of "bonding" with each other and a heightened awareness of the research and literature in this domain (e.g. Chodzko-Zajko, W., Kramer, A., & Poon, L. (2009). *Enhancing Cognitive Functioning and Brain Plasticity;* Medina, J. (2008). *Brain Rules*; James Blumenthal's two decades of research on this subject). To my knowledge, no other Negotiation subject uses this hands-on exercise as a teaching tool to connect learning to research.

> In this session, I learned that exercise is important in regulating emotions and my ability to negotiate and deal with situations in everyday life. It helps me to clear my mind and improves my ability to react. I had no idea how clear the link was between exercise, mental abilities and combating depression – this will definitely be a tool I use later in life. (C. Chambers, undergraduate, 2007)

Command of the Field via Resource Creation and Sharing

I believe that to be an effective and inspirational facilitator of learning requires a command of the field in one's respective academic domain. As such, my focus with any curricular resource or service I design is to monitor and adapt it based on student learning and reflection, and then when ready, share it with colleagues nationally and internationally via refereed journal articles and conference presentations.

Examples of this specific to teaching Negotiation include:

Kenworthy, A.L. (2010). Service-Learning and negotiation: An educational "win-win." *Journal of Management Education*, *34*(1), 62-87.

Kenworthy, A.L., Hrivnak, G.A., & Murray, J. (2010). Service-based consulting projects: Real-world, real-time, real pressure learning in Negotiation. In A. Kenworthy (Ed.). *Innovations in Teaching & Learning: Approaches to Professional Development From Across The Disciplines*. Sydney, Australia: Halstead Press.

Kenworthy-U'Ren, A.L. (2007). Teaching innovation, community partnering, applied learning and engagement: Enhancing students' university experiences through service-learning. In A. Cullen (Ed.). *Innovation and Excellence in Teaching at Bond University*. Gold Coast, Australia: Bond University Press.

Holtom, B.C. & Kenworthy-U'Ren, A.L. (2006). Electronic negotiation: A teaching tool for encouraging students to "look into the mirror" *Negotiation Journal*, *22*(3), 303-324.

Kenworthy-U'Ren. A. (2003). Service-learning and negotiation: Engaging students in real-world projects that make a difference. *Negotiation Journal, 19*(1), 51-63.

Kenworthy, A.L. (2000). Management students as consultants: A strategy for service-learning in management education. In P.C. Godfrey & E.T. Grasso (Eds.), *Working for the common good: Concepts and models for service-learning in management*, 55-68. Raleigh, NC: AAHE Press.

Additionally, my command of the field in the design and implementation of service-learning consulting projects in Negotiation subjects has resulted in the following (please note: 2009/2010 roles listed only):

Serving as guest co-editor for the 2010 special issue of the *International Journal of Organizational Analysis* titled "Scripting the next wave of exigent issues for service-learning in our unscripted future: When technology, globalism, and community engagement collide, part II" (with Laurie DiPadova-Stocks).

- Serving as guest co-editor for the 2010 special issue of the *Journal of Management Education* titled "A 'how to' issue on service-learning" (with Charles Fornaciari).

- Serving as guest co-editor for the 2009 special issue of the *International Journal of Organizational Analysis* titled "Shaping our unscripted future with service learning: When technology, globalism, and community engagement collide" (with Laurie DiPadova-Stocks).

- Editing *Innovations in Teaching and Learning: Approaches to Professional Development from Across the Disciplines* (2010: Halstead Press, Sydney).

- Co-editing (with P. Keyzer and G. Wilson) *Community Engagement in Contemporary Legal Education: Pro Bono, Clinical Legal Education and Service-Learning* (2009: Halstead Press, Sydney).

Evidence that the Contribution has Influenced Student Learning and Engagement, Been Sustained and Recognised

Student learning in Negotiation subjects.

Students often describe their learning in this subject as extremely impactful in terms of their professional and personal lives. As an example, in 2006, I assisted a former student, Karl Giertsen, in the design of a negotiation module at Norsk Hydro (a Fortune 500 energy/aluminium supplier with 33,000 employees in nearly 40 countries). As Karl stated in a thank you letter:

> Dr. Kenworthy inspired me to pursue a career that involved extensive use of negotiations. (At Norsk Hydro) I am currently negotiating frame agreements with our suppliers as well as being a negotiating advisor for our marketing department. I am practicing the ideas of Dr. Kenworthy on a daily basis… (Amy) was a great motivator for me during my MBA studies and has been an inspiration when choosing the direction of my professional career.

Many of my former students send unsolicited comments to my colleagues (e.g. Vice-Chancellor, Head of Department, Dean) and me following the completion of the Negotiation subjects. Representative quotes of this nature include:

- I learned more in her Negotiation classes than I have done from any other class during my 18 years of school. She has experience, knowledge, understanding and a personal attitude about the subjects she teaches that make her one of a kind. (M. Klemo, MBA, 2005)

- Amy's lessons were interesting, inspiring and just totally different than anything I experienced before. Her cases were worked out really well and in great detail. Everything was just like in real life and everybody enjoyed the varying exercises and negotiations. She deeply involved us in decisions related to the whole progress of her lessons and was always willing to help us outside of the classroom. Her class made my experience at Bond unique and unforgettable. (L. Marose, BCom, personal communication, 2009)

- Amy had a profound impact on my career and personal life. Nowadays, I am more capable to deal with and understand cultural differences and interpersonal issues. This has permitted me to become a more tolerant being. (M. Bonorino, 2003, MBA)

- You have inspired me beyond words… this project has changed my life. (S. Benson, BBus, 2010)

In support of this, on all of my Negotiation subject student teaching evaluations since January 2006, 100% of the students in each class mentioned the words "passion", "enthusiasm" and/or "knowledge" as strengths (qualitative comments are optional for students, yet 100% of the students write comments).

Sustainability.

In terms of the sustainability of the Negotiation subjects I teach, all are now extremely popular management electives for many of our degree programs. As an example, in the January 2010 semester alone we had 300% more undergraduate students (n=90+) who either expressed a formal interest in the subject through a program advisor or became waitlisted for the subject than our actual enrolment for the semester allowed (n=30). We have now committed to opening another stream of this subject in January 2011. For our EMBA program, the Effective Negotiation elective has consistently been one of the most popular for executive students, with student evaluations of 12.0/12.0 for overall teacher and subject effectiveness in 2008 & 2009. In terms of sustainability of the teaching innovations described above, they have been running every year in my Negotiations subjects from the first point of implementation: (1) service-learning consulting project, started in 2000; (2) weekly role-play negotiation simulations, started in 2000; (3) internet-based negotiation, started in 2001 and (4) hands-on "exercise" in the sports centre, from 2005.

Recognition.

Since my arrival at Bond in 1999, my teaching evaluation scores have ranked in the top 2.5% across all full time faculty members in the School of Business every semester I have taught. For the last 4 years, every semester I have taught I have had the highest teaching evaluation score of the 100+ faculty teaching that semester. I have won numerous teaching awards (e.g. Dean's award, Vice-Chancellor's award, students' choice awards, 2006 ALTC citation) and was the first non-US-based winner of the prestigious Organisational Behaviour Teaching Society's New Educator Award (2006). I have been invited to present my business Negotiation service-learning consulting project design to the 2010 MBA Directors Forum in Sydney as a keynote speaker and have done the same at other events in Australia (e.g. keynote presentation at June 2008 NAGCAS ALTC symposium in Melbourne) and abroad (e.g. keynote for 2010 service-learning symposium at University of Mary Washington).

For me, there is no greater gift as an academic than student passion, inspiration, learning and engagement.

Dr Allan Stirling

Assistant Professor of Anatomy, Faculty of Health Sciences and Medicine

Awarded Citation

For designing learning opportunities that engage and motivate medical students in clinically applied anatomy

Introduction

As the Assistant Professor of Clinical Anatomy in the medical program at Bond University my purpose in teaching is to bring my past experience as a medical doctor and my passion for creating meaningful learning experiences to teach clinical anatomy to students in all five years of the medical degree. I have developed a clinically relevant teaching style and assessment practices that enable students to focus on core knowledge and independent learning practices, preparing them for their future as practising clinicians.

> Yours have been the most entertaining, relevant and informative lectures. They were precise, to the point and easy to study from. I particularly like your style of lecturing - I felt like you were treating us as peers already. (Student A, 2008).

My teaching philosophy is based around the ideology that for learning to take place the student must be motivated and engaged. I subscribe to the idea that the teacher and student are partners on a learning journey and that there must be an element of collaboration and feedback if students are to achieve the learning outcomes. From a social perspective, the teaching role is one where the students and the educators interact and share knowledge in an honest and open environment. By acknowledging that my students' cultural and professional backgrounds contribute to the learning process and by embracing social cohesiveness in my teaching (through practical sessions and small group sessions) the students benefit from the social construction of knowledge from diverse perspectives and in a variety of contexts. (Ramsden, 2003)

Students are engaged and motivated by the use of a variety of approaches to convey the subjects' core information. Adopting a learner centred approach to my teaching provides me with the means and framework to create deep and meaningful learning experiences that encourage the students to analyse, synthesise and interpret the information being presented to them.

> I wish to pass on my thanks to Allan Stirling for the excellent revision session. Setting us clinical problems forced us to think and really made the link clear between the basic science and the problems we will soon be facing in the hospitals. (Student B, 2009)

Teaching affects learning. This is achieved by designing learning activities that stimulate and provoke curiosity in order to drive the personal learning journey of the students. An example of this is where students are set a task to create their own multiple choice anatomy questions. These are shared amongst the cohort as formative assessment items. Through having to construct good quality items the students consider the topic closely strengthening their grasp of the underlying concepts.

I regard the learning process as something to be enjoyed where my students are able to hypothesise and explain their ideas and think and respond critically about the information they are learning. I ensure the students possess the requisite knowledge base (foundation) to enable them to complete learning activities leading them to demonstrate complex problem solving and metacognitive skills where they reflect on and self-evaluate their achievements as they progress through their course.

In this application I am addressing the following criterion:

Approaches to the support of learning and teaching that influence, motivate and inspire students to learn.

My move from clinical hospital medicine into teaching was a decision made to enable me to influence, motivate and inspire students to a far greater extent at the very foundation level of the learning journey. I gain a greater appreciation of the journey the students are on through my own personal experiences as I have previously taught medical and dental students in the United Kingdom (2003 - 2004) and, as a doctor in a large teaching hospital (2001 - 2007).

Influencing students

Using active learning is my main principle to develop all learning activities that the students undertake. An example of this is through the creation of crosswords on anatomy topics with the students participating in their completion.

> Please pass on my gratitude and thanks for the high level of assistance and quality of teaching A/Prof Allan Stirling has afforded myself and in my opinion, the Cohort during the last nine weeks. His approach and innovating techniques to enhance my learning is greatly appreciated. (Student C, 2010)

By incorporating the visual and kinaesthetic (projectors and the whiteboards), photographs and line drawings I introduce concepts in a variety of ways. This is vital in the study of anatomy.

Students are systematically challenged using open questioning to take them out of their comfort zone and prompt them to question the topic for themselves. I incorporate Socratic (Mackenzie, 2008) or as I prefer to call it, provocative questioning. This stimulates curiosity and drives their learning.

> Allan's lectures are always really engaging... great use of media and interaction.... Great rapport! (Student D, 2009)

Using the student learning objectives as a foundation I have developed a suite of podcasts linked to the medical students' intranet that complement their independent learning. A demonstration of these podcasts can be found at: www.altc.webcoderz.com.au

These podcasts are based around a core anatomy topic and accessible via computer or iPhone as twenty minute presentations with voice narration, delivered using a slide show framework and incorporating live annotation with a graphics tablet. Embedded within each podcast are formative assessment questions that allow the students to gauge their learning progression, and also provide immediate feedback. This is an innovation in the faculty. No one else is currently using this technology. Several academics have asked for me to give a short workshop on the technology and creation of my podcasts to allow them to use this rich content in their subjects.

> Just wanted to feedback on the use of the podcasts from Dr Stirling – they are awesome! His lecture content/style is what will one day make the Bond medical programme the premier medical degree in Australia ... nice to see someone putting in effort for our learning (PBL Group, 2010).

Motivating Students

A key way I motivate my students is by sharing my enthusiasm for the subject through active involvement in demonstrating anatomical concepts using myself and the students. Additionally when teaching the students surface anatomy concepts I run practical classes where the students draw on themselves and their classmates with marker pens detailing the surface projections of the various organs and structures in the body. By incorporating visual, kinaesthetic, verbal and literary cues, students who learn in each of these ways embrace another learning opportunity that creates a more lasting memory than a simple didactic lecture. (Meyer, 2001)

Through incorporation of humour and anecdotes in my teaching I inspire the students, and strengthen their desire to take their learning forward. Sharing anecdotes from my time as a clinician introduces important clinical concepts into the classroom as well as providing some comic relief.

> Good use of "war stories" from clinical practice. Use of humour selective and effective. It was a pleasure to be in the audience and watch a "natural" at work. (Assoc. Prof D. Field, Peer reviewer, 2008)

Evidence

I have successfully motivated students to take ownership of their learning and enjoy the learning process and this is evidenced by being awarded two teaching awards: the Faculty of Health Science and Medicine 'Teaching Excellence Award' in 2007 as nominated by the students, and in 2009, after winning the Faculty 'Academic Teaching Excellence Award' I was put forward as the faculty nominee for the Vice Chancellors teaching award.

My teaching awards and the continuing positive feedback I receive are evidence that my quality has been sustained over a period of time. This can also be seen in the graph showing my TEVAL (teacher evaluation) ratings over the last three years. (Fig 1)

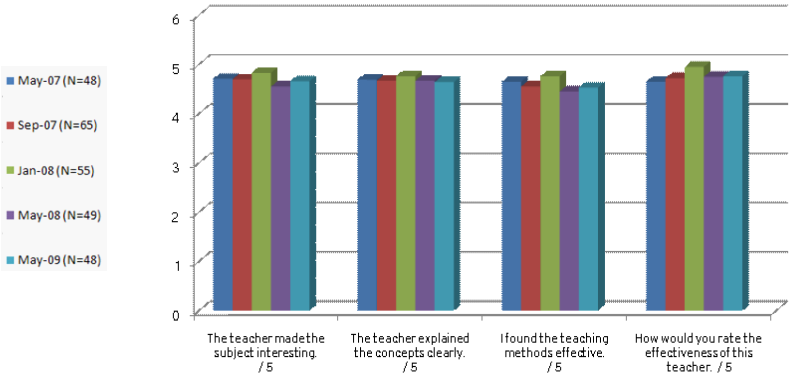

Fig 1 - Evidence of sustained high quality teaching

Another way I motivate students to learn is by designing revision sessions where I am able to weave aspects of the subject together and present them in an interesting way. I design revision sessions where the students can become involved in the process, consolidating their learning and further piquing their interest.

Through the use of quizzes and modification of TV style games the student has to take an active role in their own learning journey. Through these learning activities the students gain a greater sense of confidence in their own abilities and work towards examining a topic in a deeper manner (Petress, 2008).

Student revision sessions are delivered using quiz based games such as 'Who wants to be a millionaire" and "The weakest link". Using a power point generated game show platform and audio, I act as question master getting the students to gain points by answering questions on topics they themselves had previously selected. In this way the revision session is focused on topics of interest to the students and is delivered in a more interactive way. This provides students with immediate feedback and an opportunity to clarify 'muddy issues'.

The students respond well to these new methods of revising and feel safe within the learning environment to be able to take part in games such as these.

I subscribe to the idea that formative assessment is inseparable from teaching (Biggs & Tang, 2007).

It is another tool that inspires and motivates students to learn. I run several formative practical exams per year which involve anatomical models, photographs and cadaveric material. Here the students move around the anatomy lab with a buzzer sounding every minute prompting them to progress to the next anatomy station. At the end of these sessions I provide the students with an answer sheet and allow them to mark their own papers. The students are able to assess their strengths and weaknesses in a stress free exam environment and clarify any errors immediately. This allows the students to 'close the loop' on certain aspects of their learning (Race, 2001).

> In my role as a Laboratory Technician I have found Allan Stirling to be a most organised and inspiring teacher to the students at Bond University. He shows a genuine commitment to their education. (M. Andreas, Laboratory Technician, 2010)

Another way students are allowed to progress with their learning is by using an online feedback forum available to all the medical students. The students are able to post questions on a topic that they are unsure of and their peers can answer and add to the discussion. I monitor these online message boards adding to the discussion and keeping the students on the right track. I feel this is a great way to allow the students to take ownership of their own learning and can only be achieved in a learning environment where the students feel safe and confident in taking 'risks'.

Inspiring Students

Several of our graduates have visited me to seek advice about the career path they are planning to take. It is satisfying to know that as result of my passion for anatomy some students are pursuing a career in surgery having never considered this prior to my anatomy teaching subject. In this way I see my role not only as an educator but also as a mentor and role model for the next generation of doctors.

> Thank you so much for your encouragement, honesty and such valuable suggestions. It has been a great privilege to learn anatomy and medicine from you and I am so grateful for all your efforts. (Student E, 2008)

This unsolicited email was received from a student who was considering leaving the medical course prior to the clinical part of the course in the hospitals. She reported that the passion for medicine displayed by myself and other clinical teachers was one of the driving factors behind her decision to remain in the course. I still keep in contact with this student and she has since gone on to excel in the clinical phase of the course and is due to graduate this year.

> Allan is a valuable member of the preclinical team. Through his dedication the students have gained a greater level of anatomy understanding. He has taken great care in preparing the students anatomically for surgery and the students speak very highly of him. (Dr J. Gault, General, Breast and Melanoma Consultant Surgeon. Robina Hospital, 2010)

This feedback is immensely gratifying personally and professionally. It reaffirms that my teaching is effective and recognised to be of high quality.

Summary

My growth as a medical educator is due in part to the fact that I recognise I must evolve my teaching techniques and teaching style. I took the opportunity in 2008 to enrol in a 'Foundations of Learning and Teaching' course run at Bond University where I was exposed to other teaching practices and indeed other teachers. This formed the basis for a peer review and led to positive changes in the way I approach my teaching; for instance a greater adoption of self reflection and critiquing of my own teaching.

I am passionate about providing high quality, relevant anatomy teaching that involves the students in the learning process. I adopt new technologies such as the use of podcasts and teaching aids such as graphics tablets and electronic whiteboards and incorporate these into active learning exercises. Incorporating humour and verbal descriptions embellished with stories and analogies from my experience as a doctor maintains the students' interest and provides a framework for our discussions. Evidence of my success has been substantiated by the positive comments from students, peers, clinicians and academics. In addition my teacher evaluations and teaching awards show my teaching to be effective and engaging.

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Dr Jeffrey Brand

Associate Professor, Faculty of Humanities and Social Sciences

Nominated Citation

For the creation of imaginative industry-relevant curriculum, professionally and intellectually rich resources and engaging services to inspire and motivate future computer games industry professionals.

Summary of Contribution and its Context

My students will be knowledge workers (Reich, 2001). The Australian Department of Broadband, Communications and the Digital Economy (DBCDE) recently described the digital economy as an "economy … essential to Australia's productivity, global competitiveness and improved social wellbeing" (2009, p. 1). Multimedia and game "content" has been described by DBCDE as central to demand for broadband services and growth of Australia's digital economy. Multimedia and computer games are increasingly popular among media students and my contribution as a teacher is to help my students realise their ambitions of working in the computer games industry and to provide the relevant knowledge, competitive skills and inspirational learning environments necessary for their success.

As a university student, I had planned to become a journalist, but I became interested in the emerging world of digital media when I began a Master of Arts at the University of Michigan in Ann Arbour. I was hired there as a Teaching Assistant (or "TA") in 1988 to teach *Public Speaking*. I have often described that role as a great way to "get your teaching boots wet" because I quickly learnt how to be a better public speaker and I witnessed the power of providing students with an opportunity to learn by doing (Biggs & Tang, 2007). This was the foundation of my teaching philosophy which is to at all times respect my students and earn their respect by helping them achieve their dreams.

This citation application outlines my contributions to the education of future games industry professionals through the achievement of which I am most proud as a university teacher: I developed the Bachelor of Computer Games at Bond University and I designed and implemented a distinctive learning space called the *Level-up Lab* to inspire and my motivate students to think and act like knowledge workers for the digital economy.

Statement Addressing Chosen Selection Criteria

This ALTC citation addresses *Criterion 2*. My application establishes approaches to the support of learning and teaching that influence, motivate and inspire students to learn through development of curricula, resources and services that reflect my command of the field of interactive media.

Curricula

In 2006, I developed the Bachelor of Computer Games in consultation with colleagues, industry partners and students. The Bachelor of Computer Games is one of over 500 such degrees operating around the world. I did four things when drafting the degree proposal that I believe made the curriculum distinctive, relevant and imaginative:

1. Communication with my consulting clients in government and industry ensures the programme is relevant. I consult both publishers and developers of games (most programmes have a development-only focus) and I follow curriculum recommendations of the International Game Developers Association (IGDA, 2003) Education Working Group.

2. I talk to students who are enrolled in an elective I teach called *Computer games as Communications Media* which leads to the degree. As more students enrol in my "one-off" subject, I discover they want to work in the industry, but are unclear about how to achieve their ambition. They are concerned about the legitimacy of the business. This gives me valuable insight into what issues need to be addressed when designing and communicating the efficacy of such a degree. Focusing on industry-relevant skills and knowledge, policy and financial markets for the industry is the key.

3. Elements of our existing curriculum in media ensure the programme provides students continuity and compatibility with other majors. Rather than segregating the programme, I consider it more imaginative to examine the programme's fit within the context of the burgeoning interactive media industry. Students take an industry foundation, a development major and then an allied field major in an area of specialisation such as advertising, journalism, public relations, information technology or business. Four years on film studios such as Warner and Disney have acquired interactive game businesses and advertising is increasingly central to funding models in game production and distribution. Our program is well positioned for these changes.

4. Ongoing research with postgraduate students and colleagues is embedded in the design of the programme. For example, we have conducted empirical audience research for the Interactive Entertainment Association (c.f., Brand, Borchard & Holmes, 2008; 2009) and Commonwealth Classification Board (c.f., Brand & Finn, 2009; Brand, 2002).

Resources

In 2007 I designed and implemented a distinctive learning space called the *Level-up Lab* to inspire and motivate students. The Level-up Lab is a 28-seat media space featuring a library of over 600 computer games donated to the university by the Interactive Entertainment Association of Australia (IEAA), a "graffiti wall" painted with black chalkboard paint on which students chalk up their ideas, six flat-panel televisions on entertainment stands, a work-space of six high-end computer workstations with a wide range of productivity and creativity software, a high-definition projector, lounge chairs, free-standing lounge lights, and framed art from the interactive media industries.

The Lab is a space designed to inspire students to learn about the interactive media industry, to motivate them to learn about the commercial and artistic successes of interactive media products and to influence them to continue their professional and intellectual development every day. When students walk into the space for the first time, they invariably gasp. An e-mail from a student new to the programme this semester in January 2010 told me that my work on this space has been invaluable to student motivation. Matthew (January 2010) wrote, "I'm very committed to this course and I have never been so motivated for anything in my life."

As Oblinger (2006) wrote, learners expect innovation and relevance in their learning spaces and are motivated when schools and universities respond. The Level-up Lab is transformative in this way. It is a classroom, a laboratory, a studio, a lounge room all in one. Classes run in this room are taught by me and three other colleagues. Subjects taught in this space are indicative of its purpose with titles such as *Computer Game Audiences and Culture, Computer Game Form, Narrative and Style, Interactive Experiences* and, *Computer Game Industry and Policy* and *Professional Project and Presentation* and we have recently published research on the efficacy of doing so (Brand, Jervis, & Thwaites, 2009).

The lab is used by the students in the Bachelor of Computer Games and Bachelor of Multimedia programmes, for student experience days, for visits from dignitaries and colleagues from Australia and overseas. Pictures of the space have featured in many publications about the university.

Services

Learning and teaching do not stop at a lab or classroom door. As Knight (2002) wrote, teaching extends beyond the classroom, is grounded in communication, is social and is intertwined with learning. One of the ways I seek to inspire and motivate my students is in working with them outside the classroom and in contexts that break down barriers between teacher and learner. I show students that learning and professional development are an ongoing enterprise.

For example, in *Computer Games Industry and Policy*, we have a session on breaking into the industry. I explain that students need to bring their CV or résumé to the tutorial. Remarkably, most students have not developed one. So we "workshop it" and then I ask them to send it to me not for credit, but for "employment readiness." They are surprised this exercise is for their career rather than class credit. I tell them I will give them feedback outside of class and it works—I get a 100% response-rate and my students have a ready CV! Abel, a student taking my subject this semester as an elective for a degree in another faculty, wrote: "Hi Jeff, Thanks for giving me the most thorough feedback I have ever received ... at the Uni!" In February this year Wictor, graduate of the Bachelor of Computer Games, wrote:

> All my videogame industry scoping, which started seriously while taking your subject Game Industry & Policy, has finally paid off. It wasn't DICE in Stockholm who finally called, but a company that I know you talked very highly of, namely Ubisoft. ... Last Friday they called and told me that ... the 1st of February ... I am supposed to begin my new full-time position at Ubisoft HG's QA department in Paris!

Michael wrote in November 2007:

> "Hi Jeff, My quest to find a job that does not feel like a job has ended, I started at the digital division of McCann Erickson, this week and absolutely loving it! ... I would like to say thanks to you, because I know if I hadn't of walked into your New Comm Tech class I would not be here today. There is a sign in the office 'Brand is everything'!!!!"

My students are encouraged to use their university work in real-world applications. For example, the Federal Attorney General's office undertook public consultation in late 2009 on whether Australia should legislate to introduce an R18+ classification for computer games. The consultation paper by government included references to my research. Students in my subject *Computer Games Industry and Policy* wrote submissions for assessment and were encouraged (although not required) to make a formal submission to government. When I surveyed the 19 Australian citizens in the class, all 19 confirmed they were inspired and empowered to send their submission to government!

Finally, based on my published work with a postgraduate student on technology use in the field of public relations (Brand & Roald, 2004), I began assigning students the task of turning their academic work into real-world user-generated publications. My

students blog their progressive assessments using a public blog service of their choice. They podcast their major research papers and these are published through the public iTunes (not iTunes University), and they develop new media content by publishing high-concept, proof-of-concept, and design documents. Vince wrote to me in October 2009: "I'm blogging all my assignments now, it's a great way to build a portfolio."

Statement of Evidence of Ways in Which Contributions Have Influenced Student Learning

I have outlined and provided evidence for three ways in which my contributions to learning and teaching at Bond University have influenced student learning and professional outcomes.

I have maintained files of my Teaching Evaluations (TEVALs) for the 15 years I have worked at Bond University. They consistently contain words that testify to my style as a teacher: "passionate," "knowledgeable," "an inspiration," "practical," "real world," "hands-on," "interactive," "relevant," "motivated," "contagious," "I've learned how ... and why."

In addition to the qualitative evidence provided above, quantitative evidence of my influence and effectiveness is evident in teaching evaluations. In the past three years of teaching across 6 subjects at Bond University, I have achieved a mean score of 6.4 on a 7-point scale on the question, "All things considered, how would you rate the effectiveness of this teacher in this subject."

Year	Number of Subjects	Number of Students	Response Rate	Median Score	Mean Score
2007	6	114	68%	6.5	6.4
2008	4	217	65%	6.5	6.5
2009	4	101	62%	6.5	6.3

More telling is testimony of my influence by alumni in the inaugural Bond Office of Development publication *The Arch* in autumn 2009. I received many comments from senior management and colleagues about the number of quotes from past students in that publication. For example, Kim Sarafini was quoted in the magazine saying her favourite class was *Organisational Communication* taught by Dr. Jeffrey Brand concluding, "I ended up working in London as a Management Consultant...there is no way I would have been as successful so quickly, if it were not for the Professor's inspiration and dedication to his students including me." Another alumnus, Nyree Corby said of Bond's most profound impact on her life and career:, "Dr. Jeff Brand's wonderful subject on *New Communication Technologies* is what inspired me to pursue the type of advertising agency that I have today."

In the 15 years I have taught in the Faculty of Humanities and Social Sciences at Bond University, I have coordinated twelve subjects in Media and Communication. Of these subjects, I designed and introduced six including *Public Speaking* (1997), *Internet Advertising* (1999), *Computer Games as Communication* (2001), *Interactive Experiences*

(2003), *Research Methods in the Humanities and Social Sciences* (2006) and *Computer Games Industry and Policy* (2006). I have continued to achieve consistently high praise for my work as a teacher from students, colleagues, senior administration and support staff.

In summary, I am confident that I make a significant contribution to the learning and professional outcomes of my students. I motivate and inspire them by creating an innovative curriculum, an inspirational real-world learning lab and extra-assessment services for their learning experiences. My command of the field of interactive media is demonstrated in part by my continuous research including nine externally funded projects in the area of emerging and digital media and education with 25 refereed publications and conference presentations, three keynote addresses, eight monographs and numerous industry and popular press articles. I use a rigorous process to develop curricula in interactive media. The Level-up Lab is a key resource now available to students. I have served in 18 service roles within the University. The most significant leadership roles have included Chair of the Bond University Human Research Ethics Committee (2004-2007) and Associate Dean and Head of School, Communication and Media (2007-2009). I have supervised Master of Arts and Master of Communication students (both research and coursework) and I have supervised four PhD candidates, three of whom have successfully completed their degrees. Beyond developing and sharing my expertise with peers I am catalysing a new generation of knowledge workers through inspired curricula, resources and services.

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Dr Kuldeep Kumar

Professor and Head of Department, Faculty of Business

Nominated Citation

For sustained excellence in teaching statistics using spreadsheets, to students with diverse knowledge bases, and for the development of a real-data based learning project.

Summary of Contribution

Effective statistics teaching equips students with critical thinking and data analysis skills for effective decision making. As pointed out by Hal Varian, Chief Economist at Google:

> The ability to take data - to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it – that is going to be a hugely important skill in the next decades (www.mckinseyquarterly.com/Strategy/Innovation).

On 10 March 2010, The Group of Eight Universities declared that mathematics education in Australia is in crisis. The Chief Executive of ARC observed that the teaching of statistics, which is important for new development in biology, health and economics, is in an even worse state.

I align myself with a famous quotation from H G Wells: "Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write." I refute the quotation from Benjamin Disraeli's "There are three kinds of lies in the world; lies, damned lies and statistics." Keeping in mind the first quotation and to disprove the second, the knowledge of statistics is compulsory for all business students in Bond University. There has been interest in the teaching of statistics in Business Schools for some time (Moore, 1976). Bell (2000) emphasised teaching statistics with Microsoft EXCEL. Smith (1998) advocated "learning statistics by doing statistics", and Love and Hildebrand (2002) emphasised practical applications to make statistics more effective in Business Schools.

I have been teaching statistics for 25 years; the last 16 years at Bond University. With the innovative use of spreadsheets (EXCEL)[1] I generate interest by showing students the practical applications of statistical concepts in real life. Students of varying ability levels, those who have left mathematics long ago, students who are scared of mathematics and some who cannot do even simple calculations, learn about descriptive statistics,

distributions, confidence interval, correlation, regression, basic forecasting and more by the end of the course. The general feeling among students is that the study of statistics is too much theory and not enough application in real life. This perception is misguided. I teach the other way around, demonstrating practical applications first, involving students in relevant scenarios and then teaching the theory. This makes it easy for students to visualize the theory and apply it in real life problem solving. Students are challenged intellectually, and engaged to learn difficult concepts in a much simpler way.

Another consideration is the diversity of students coming to Business Schools. We have students from different disciplines as well as different countries. Most students admitted to Business Schools have low numeracy skills compared to their counterparts in Engineering, Science and IT schools. In one study Alcock, Cockcroft and Finn (2008) observed that students who have completed more advanced mathematics subjects at secondary school perform better academically in the introductory business and accounting course at tertiary level. However admission requirements in Business Schools do not stipulate higher level mathematics courses. The question is, 'How to teach statistics to these students?'

Usually statistics is considered a boring or "dry" subject. I make statistics interesting or "juicy", enhancing my approach to teaching and learning and improving the teaching of statistics in the Business School by:

- Using case or problem-based learning where all the topics are introduced with a problem in real life, maybe a business context. Then the statistical tools are taught to show how the problem can be solved applying these techniques to real-data. This stimulates curiosity and fosters student development.

- Emphasising application over theory.

- Using EXCEL for data analysis and teaching concepts in statistics, contributing to the development of students' analytical and critical thinking skills.

- Teaching students how statistics can be misused (for example correlation and causation) and the importance of verifying the assumptions in statistical data analysis.

- Placing emphasis on statistical communication including tabular analysis, graphical representation and report writing for non-statisticians. This inspires and motivates students by using high level communication and presentation.

- Encouraging students via an individual project to learn and apply concepts to relevant real life problems.

Selection Criterion 1: Approaches to the Support of Learning and Teaching that Influence, Motivate and Inspire Students to Learn.

EXCEL can be used to provide a basic knowledge of statistics and contribute to the development of analytical skills of students. Graphical representation using EXCEL motivates students to learn the basic concepts of statistics in a most effective way. It helps develop an ability to analyse and interpret data for use as a decision making tool. I integrated EXCEL into our introductory statistics courses and developed a tutorial manual to guide students through various statistical procedures with step by step analysis. EXCEL is a useful tool for graphical representation and producing tables. The Analysis Toolpak assists in complex statistical analysis. Basic statistical calculations use set functions. I also developed workbooks for use during lectures to demonstrate statistical ideas and sampling techniques. Students are motivated to relate difficult concepts by employing high level communication and presentation.

Although EXCEL has some weaknesses this does not detract from its utility in the classroom. As part of the learning process I point these out to the students. One challenge is that students may crunch numbers without questioning "Why it this done?" or "How we are getting these results?". To capitalise on this learning opportunity I emphasise correct interpretation of the output rather than just delivering the numbers. Feedback shows students appreciate the application of EXCEL as a tool of learning and have commented "EXCEL has made learning much easier" (Student, 2009).

Assessment plays a key role in making statistics effective in Business Schools. I designed an EXCEL based exam for post-graduate students. The exam is constructed to assess students' ability to use EXCEL as well as their ability to interpret and analyse the data. At the undergraduate level I designed a quiz to test the analytical skills of the students. I give them immediate feedback. Students have appreciated these quizzes for helping them learn the concepts. Workshop attendance has also shown drastic improvement.

To develop analytical and applied skills in statistics, at the post graduate level, I developed and implemented a semester long real-data based learning project. This project takes students from theory to successful application using actual data. As John Tukey said, "The best thing about being a statistician is that you get to play in everyone's backyard" (www.princeton.edu/pr/news/00/q3/0727-tukey.htm). Consistent with this thought, the aim of the project is to analyse any set of data of the student's interest. They can collect data from the Reserve Bank of Australia Bulletin, Australian Bureau of Statistics or any other organisation. Students have prepared projects forecasting the unemployment rate, consumer price index, gold price, oil price, tourist arrival, global warming, car sales and company share price comparatives. They have also completed projects with data collected from their own countries and businesses.

As part of the subject assessment, the project is presented to the class. This project allows students to explore the concepts addressed in class, and to describe information using a range of numerical and graphical procedures. Computational skills and problem solving capabilities using EXCEL as a tool for analysis, forecasting and presenting solutions to

business problems are developed. The practical examples given during the lectures and workshops prepare the students to consider the entirety of the project. It contributes to the students' critical thinking and analytical skills and scholarly values and fulfils one of the learning objectives of this course - to develop an ability to apply modern quantitative tools (EXCEL) to data analysis in a business context.

This individual project fosters independent learning. Additional individual learning occurs when students survey literature, and search and collect data. Report writing skills are used to communicate statistical results in simple language incorporating tables and graphs for visual representation. I facilitate this project with opportunities for feedback, from the data collection stage through to the analysis of data. Informal feedback on draft project reports is offered. The oral presentation and informal class discussions allow students to learn from each other. Students from different backgrounds approach the problem in different ways and peer evaluation and comments help them improve the project. The whole project fosters student development, stimulating curiosity and independence in learning.

Feedback from students reinforces that the project was practical and helped them understand theory through real life application. They reinforced their knowledge as they embraced the assessment task of generating the forecast. Students have commented "learnt a lot about the application of statistics through this project" (Student, 2008).

Teaching should be interactive and involve communication between teacher and students. I always keep my door open for the students and encourage them to ask questions, whenever and wherever they see me. I aim to ensure each and every student can understand what I am teaching. I practice teaching by walking around the classroom after giving a problem, in order to be present and accessible in the classroom setting. Attendance in my class is more than 80%. My approach to teaching statistics is in line with Problem-Based Learning as discussed by Boyle (1999). At the start of the lecture I pose a question couched as a focused real-life problem. The students have the opportunity to solve it before learning the topic. I then show them how statistics can be used to provide a solution in an efficient way. I update and revise this course on a continuous basis, with reference to feedback from students and my professional bodies and affiliations.

Evidence and Recognition

I receive consistently good teaching evaluations with median scores ranging from 6 to 7 out of 7. My teaching evaluations in response to the question, "Overall, how do you rate this educator's teaching in this subject?" are tabled below.

Year	Number of Subjects	Number of Students	Median Score	Average Score
2007	4	113	6.0	6.1
2008	4	99	6.0	6.0
2009	4	46	6.5	6.2

Students find my courses "well organized" and "comprehensive". They note that I am "extremely clear while explaining the concepts", "willing to offer individual help", "present the lecture material very well" and "give plenty of examples". In fact, students feel "Many other IT courses at Bond University can learn from this course" and "This course has been organized and planned almost exactly the way a course should run for optimal learning." Students have commented "it is a very pedagogical, well run course, where classes move at the correct pace and the teacher has extensive understanding/ knowledge of the subject" (Student, 2009). I continue to receive appreciation letters and thank you cards from my past students for inspiration, constant encouragement and teaching statistics "without tears".

I have been a Fellow of the Royal Statistical Society since 1984 and in September 1995 the Royal Statistical Society admitted me to the status of Chartered Statistician. I won the Teaching Excellence Award of the School of Information Technology of Bond University in 2003, for my 2002 teaching evaluation, and in 1999, based on teaching evaluations for 1998. I was runner-up for the same award in 1997 and 1998. I was also ranked first (best teacher) in the Department of Economics and Statistics at The National University of Singapore in 1990 and at the Indian Institute of Management, Lucknow in 1988. I won the Vice-Chancellor Quality Award for research supervision in 2006. In 2008 and 2009 Uni Jobs awarded me Bond University's Lecturer of the Year Award. In the Gold Coast Bulletin Honours list it was mentioned "His work on bankruptcy prediction and breast cancer detection are considered world class."

I won a Commonwealth Scholarship (1983), Young Statistician Award of the International Statistical Institute (1987), CEC Post Doctoral Fellowship (1990), Bond-Oxford Fellowship (1997), Australia Taiwan Exchange Programme Award of the Australian Academy of Science (1998 &2008) and Dean's Award for Research Excellence (2007).

The previous Dean, School of IT (Prof Ron Davison) commented "Kuldeep has carried a very high over load. In spite of this he has been very successful in research achievements and has maintained an excellent teaching evaluation." In the words of Prof Gopal Gupta, Ex Dean "As noted in the last two years' appraisal report Kuldeep's teaching and research performance continues to be excellent". In summary I observed significant and consistent problems experienced by students attempting to learn and use statistics. I addressed these problems using spreadsheets and encouraging students to use authentic data for interpretation.

[1] My references, for uniformity, are to EXCEL - Microsoft EXCEL 2007 or 2003. Other spreadsheet programs are equally valid.

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Dr Marilyn Mitchell

Assistant Professor, Faculty of Humanities and Social Sciences

Nominated Citation

For developing open, motivating learning environments and using professional experience, authentic activities and assessments to help diverse learners build expertise in effective workplace communication.

Summary of Contribution and Specific Context

I teach undergraduate and postgraduate students at Bond University in the subjects *Organisational Communication and Leadership, Group Communication, Communication Training and Consultancy*, and *Postgraduate Communication Research Seminar*. My challenge is to design and deliver programmes that motivate independent learning in students who are from many nations and cultural backgrounds and who have different learning styles, experiences, expectations, and academic orientations. As an example of the cultural diversity in my classes, the students enrolled this semester come from the ten nations of Australia, Austria, Canada, Denmark, Finland, France, Malaysia, Peru, Thailand, and the USA.

Students enrolled in my subjects are typically studying for a Corporate Communication, Public Relations, or combined Communication-Business degree. Many look forward to working in business, non-profits, or government as writers, trainers, public relations practitioners, human resource specialists, marketing staff, or communication managers. To help students make the leap from studying to effectively contributing in these roles, it is important for them to have knowledge of typical workplace problems and practice in solving the problems using Communication theory and research. When studying workplace problems, I believe that student learning is enhanced, and learning outcomes better set and reached by having a lecturer who has personal experience in corporate communication and can also take an academic approach. I have worked for 27 years in both senior communication roles and in academia. In my classes, students get practice with authentic learning activities and assessments, and can ask questions about how real organisations solved real problems. They get an insider perspective. Authentic examples, practice, and assessments motivate students to learn.

In designing my subjects, I think of one of my very first *Organisational Communication* students at Bond who said, "We want to know what it is really like out there [in the workplace]. We want to know how to cope with all of the problems". Some of the issues that we cover in my subjects are how to manage diversity at work, develop effective teams, make persuasive arguments, develop other people, and engage in conflict.

My background supports student learning in at least two major ways. First, I personally put Communication theory into practice in my teaching so that the learning environments are open and students feel encouraged to participate. I want students to know that I enjoy working with them. Second, I have designed all of my subjects to include authentic and sometimes personal industry examples, learning activities, and assessments to support all students in reaching the given learning outcomes. My teaching follows modern cognitive learning theory, which holds that people build knowledge and develop expertise within a field through experience (Gulikers, Bastiaens, & Kirschner, 2004).

In my classes, diverse students build knowledge and are motivated to learn when they are asked to reflect on their own workplace experiences and when they participate in new active problem-solving experiences or activities to which they can apply theory. According to Biggs and Tang (2007), when students are asked to solve problems and reflect, they are encouraged to engage in deep learning. The activities in my subjects are designed and selected to meet the needs of students with diverse learning styles as described by Kolb (1984). For example, I include active experiences such as role plays for Kolb's accommodators; brainstorming for divergers; authentic case studies for convergers; and theory critique for assimilators. Students appear to appreciate these approaches to teaching.

Statement Addressing *Criterion 1* (Approaches to the Support of Learning and Teaching that Influence, Motivate and Inspire Students to Learn) and *Criterion 3* (Approaches to Assessment, Feedback and Learning Support that Foster Independent Learning)

Criterion 1

For this criterion, I will discuss how I support and motivate student learning through showing genuine interest in the subjects and sharing my professional experience, using cognitive learning theory to engage students in dialogue and knowledge building, and aligning authentic activities with learning outcomes.

Biggs and Tang (2007) have noted how students can be motivated to learn by academics who "publicly display great enthusiasm for the subject" (p. 35). I believe that I do that for students when I tell them about my work and research experiences. As evidence, when asked about my teaching strengths in the Teaching Evaluations (TEVALs), one Organisational Communication student in 2007 said, "her passion for the subject and real-life knowledge".

Regarding my teaching, another student said, "Marilyn gives good examples and relates the material to the outside world" (TEVALs, 2007). In all of my subjects, I am able to credibly talk with students about communication problems that real people face in their workplaces and how theory applies when dealing with those problems. For example, I am able to authoritatively discuss and provide examples of what it is like to move from a staff to a managerial position; how and why organisations implement feedback processes such as appraisals; and how to research, design and deliver a range of professional workplace documents such as training materials.

I help students learn by building upon what they already know. Following this approach, I often begin a lesson by asking students to individually reflect upon their own personal experiences in relation to a topic and then to share the experiences with the class. This technique allows students of all cultures and experience levels to participate, and provides a platform from which we can all learn more about cultural diversity. Students discuss their international experiences in workplaces such as restaurants, gyms, grocery stores, landscaping companies, universities, television shows, radio stations, call centres, and so on. From the responses, we develop theoretical explanations, then practically apply the theories and reflect upon their usefulness. Regarding my approach, a student commented in the TEVALs that one of my strengths was that I "incorporate students' comments into the bigger picture" (2007).

To show how I build a lesson from student experience, when first studying the topic of workplace relationships in the subject *Organisational Communication*, I ask, "What motivates you at work?" Answers have included "interesting work, praise, good salary, good relationships, and a nice place to work". We then use these answers to discuss theories of motivation. Students are returned to their original answers and match the methods by which their supervisors motivated them to methods suggested by the theories. This activity is aligned with and prepares the students for formal assessment, to be discussed later in this application.

To provide an example of an active learning experience that I give to students, I will describe an in-class project that easily lends itself to an observation of communication. This activity is particularly appealing to students who have an accommodating learning style because they get to actively do something to start their learning. The purpose of the project is to learn about team roles. In teams, the students build towers from paper plates and cups while an observer records their communication roles. I adapted this activity from one that the research psychologist John Gottman (1994) has used to observe the communication of married couples. In the team activity, the communication roles could be task leader, socio-emotional leader, central negative (devil's advocate), information provider, tension releaser, and so on. At the end of the building, the observers report on each group member's communication behaviours, and we reflect upon the importance of each of the team roles and how to practice them. Students discuss how they have seen these roles in teams and how to deal with the crucial and difficult role of the central negative. This activity has the additional benefit of being fun, so students more easily remember the communication roles that they practiced. A photo of our tower building is shown here.

In designing subjects, I constructively align learning outcomes with activities and assessments. For example, one of the learning outcomes of *Organisational Communication* is to "Conduct interview-based research with organisational members to gain an understanding of what is important in the daily lives of these members, describe

organisational cultures and structure, and make recommendations for change". To help students reach this outcome, I designed one activity in which we reflected first in pairs and then as a group upon the culture of Wal-Mart USA as described in a New York Times article (Rosenbloom, 2009). In the activity, students noted how various cultural values of the organisation were described. The students noted that one value was to work safely. Evidence included descriptions of the employees' comfortable shoes, the hand antiseptic that they all used, and the physical exercises they performed before starting their shifts. The students also noted other values such as enthusiasm and teamwork. This activity gave us the opportunity to discuss how organisational leaders may try to instil certain values in employees and how well such an approach might work. Further, students from around the world could discuss the values expected by organisations in their countries. To support non-English speaking background students, I found that it is important to provide case studies such as this one prior to class so that the students have time to read them and can contribute more easily.

I have organised many activities in my subjects to support students in reaching the learning outcomes. For example, in the *Postgraduate Research Seminar*, one of the learning outcomes is to "conduct a comprehensive critical literature review". To support this outcome, I give students short summaries of four journal articles on a topic, and in class they prepare a four or five-paragraph argumentative literature review. Upon completing the activity, they get the opportunity to read each other's work and to compare their work to a model example. Regarding the activities, one student wrote "[The teacher is strong in] incorporating activities to reinforce the concepts taught in lecture" (TEVALs, 2007). Another wrote, "I loved all... the activities. They ... helped the class practice and internalize what we were learning" (TEVALs, 2009).

Criterion 3

In all subjects, I use assessments that are authentic in content (e.g. apply to a real group or workplace), audience (e.g. are created for real people with real needs), or form (e.g. follow the requirements of a professional presentation or publishable paper). These assessments typically occur earlier in the subjects so that students can begin applying theory in a more personal and relevant way before we have progressed very far into subject content. As an example of one of my authentic assessments, in *Organisational Communication*, I ask students to interview members of a workplace, then describe and analyse features and values of the workplace's culture, and make recommendations for change. This assessment helps students apply theory to develop a deeper understanding of mechanisms underlying effective workplace communication within particular contexts. I published a paper about this assessment (Mitchell, 2009) with the aim of explaining how it helps to move students along the novice-to-expert continuum in workplace communication. Please see the references.

In my *Communication Training* subject, students interview workplace members to determine training needs, then write and orally present a professional training proposal. They also prepare a training session for their classmates and write a report that explains how they applied learning theory in the training. One student noted the usefulness of

these assessments, and said "The assignments were not only for university but could be used in our portfolios. [I liked] the relevance of the subject to real work situations" (TEVALs, 2009).

In *Group Communication*, students observe a real team's meeting, then reflect on how leadership functioned in the group and use theory to propose improvements. In the Research Seminar, Masters students conduct a literature review that I encourage them to develop to a publishable standard. In 2009, I encouraged student J.G. to publish his Research Seminar paper. It now appears on the Public Relations Institute of Australia website.

Each of the authentic assessments allows students to self-direct their work to a large extent. For the *Organisational Communication, Communication Training,* and *Group Communication* assessments, students personally select what aspects of an organisation or group's communication that they would like to focus upon and make recommendations about. For the Research Seminar, the students select their own topic and research approach. Each of these assessments help students to develop their problem-finding and research abilities, which are hallmarks of *lifelong learners*. In *Communication Training,* one student commented that said, "She gives us the opportunity to do things for ourselves and gives us the freedom to do what we want in an assignment" (TEVALs, 2009).

To help students maximise their learning from assessments, I use several formative feedback strategies. A good example of these strategies is the approach designed for the Research Seminar. Here, the Masters students specifically asked for marks for writing portions of their 5000 word literature review as they went along rather than just at the end. For writing the first one-quarter of their paper, they get feedback and 5% of their total mark, for three-quarters they get more feedback and 10% of their mark, and for the entire finished paper they get 50% of their mark. Regarding this approach, one student wrote, "This structure is beneficial because we get feedback as we write so we have a chance to end up with a professional grade paper" (TEVALs, 2009). Another said, "I am definitely becoming a better writer and understanding what makes a good writer because of it" (TEVALs, 2009).

The Research Seminar students also asked for peer review and we now do that, too. I have also set up specific class sessions to provide individualised oral feedback. I also help students learn to judge the quality of assignments by allowing them to mark one another for some assignments. In *Organisational Communication*, for example, they use criteria sheets to mark one another on the group case-study presentations. Students appear to appreciate the feedback and learning support that they receive as indicated in the TEVALs. They wrote: "[She is] very helpful outside of class time to help me understand concepts discussed in class and for assignment" (2008); "The teacher gave valuable feedback on drafts and reports" (2007); and "Very thorough, great listener, great feedback" (2009).

Statement of Evidence of How My Contribution Has Been Sustained Over Time and Recognised by Students, Colleagues and the Faculty

Evidence of my programmes' successes are my 2009 Bond University Faculty of Humanities and Social Sciences Excellence in Teaching and Learning Award, in which my application was selected by the Teaching and Learning committee from a pool of other applicants; high TEVALs over several years (see table 1); positive results in student reflective assignments; supportive feedback from students and colleagues; and a positive peer review of my teaching from my supervisor, Professor Mark Pearson.

Table 1.

Results on the final TEVAL question: "All things considered how would you rate the effectiveness of this teacher in this subject?" (7=Excellent, 6=Very Good, and 5=Good)

Subject	Semester	Class Size	Mean Score
Organisational Communication & Leadership	Jan 2005	38	5.93
	Sep 2005	36	5.33
	Jan 2006	32	5.58
	Jan 2007	32	6.27
	Sep 2007	33	5.93
	Jan 2008	48	6.13
	Sep 2008	31	6.25
	Jan 2009	35	5.95
Communication and Shared Leadership in Groups and Teams	Sep 2007	15	5.73
	Sep 2008	23	5.69
Communication Training and Consultancy Management	Jan 2007	13	7.00
	Jan 2008	18	6.71
	Jan 2009	4	6.75
Postgraduate Communication Research Seminar	Jan 2004	9	6.25
	Jan 2009	9	6.83

The reflective assignments indicate that students are successfully learning how to apply theory in their lives, which shows that my subjects are delivering useful outcomes. For example, in her final report in Group Communication 2009, student A. K. from Norway wrote:

> Being a leader, even in student groups is a big responsibility and can be challenging. As the group consisted of members with the same level of knowledge as myself, and everyone had useful experiences that were important for the team, I adopted a democratic leadership style. For creating the best ideas, I found it important that everyone in the group contribute equally… Theory Z can… explain the leadership style I used, which is the style where the leader continually invites team members to participate in management decision-making.

In an informal email, postgraduate study-abroad student I.L. from Denmark wrote:

> Have learned very much at Bond and in particular from you! To me you are one of the teachers one too rarely comes across. Your lectures were always given, interesting and relevant. As to the way you were teaching them – there's nothing like it. I always felt that you were engaged, inspiring and patient. All in all, you managed to create an atmosphere where I felt safe enough to ask even the stupid questions. I've never had a teacher like you.

Further, colleague Wayne Murphy, for whom I tutored in the Bond subject Core Communication Skills, said, "Marilyn … has that special knack of making students feel welcome and engaging them in the task at hand, even when they arrive with low motivation".

Lastly, in a peer review of my *Organisational Communication and Leadership* class, Professor Mark Pearson noted how I developed a very warm classroom environment, used anecdotes from my personal work experience in the teaching, used the students' own experiences to help them learn theory and apply it, and used a very current case study to help students reach the subject learning outcomes.

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Dr. Vivienne O'Connor

Associate Dean (Clinical Training), Faculty of Health Sciences and Medicine

Nominated Citation

For the development and sustained implementation of the Clinical Skills Theme for a newly established Medical Program.

Summary of Contribution and Specific Context Chosen Selection Criteria 2: Development of curricula, resources and services that reflect a command of the field

A curriculum will determine and map the points throughout the course at which students will learn, develop, be assessed, and be provided with feedback in relation to the course learning outcomes (Robley, Whittle & Murdoch-Eaton, 2005). In most medical programs the learning outcomes have been added after the program has been developed for historical reasons. A new medical program provides the opportunity to start at the end point - with the graduate outcomes - and be able to determine the best means for the students to achieve these during the program. I conceptualised and led the development, implementation, benchmarking and continual refinement of the Clinical Skills Theme of Bond University's Medical Program. The differentiating features of the program are: student learning outcomes as the primary building block upon which teaching, assessment and feedback are developed, and organisation of a phase approach building to achievement of graduate outcomes. The curriculum has supporting resources and innovations (O'Connor, 2005; O'Connor, Groves & Minck, 2006; Robertson, Hegarty, O'Connor & Gunn, 2003) that exceed the expectations of other new programs. It has been sustained over the last four years, is highly regarded by the students and been shown to influence their learning.

Curriculum design

I planned the curriculum based on the best current research and good practice from Australasia, the United Kingdom, and North America available at the time.

External sources:

- Australia: Australian Junior Hospital Doctors Curriculum (www.cpmec.org.au/curriculum)
- The UK: Tomorrow's Doctors (www.gmc-uk.org/)
- Scotland: Dundee (www.dundee.ac.uk/meded);
  Scottish literature (www.scottishdoctor.org)
- Canadian and USA: Clinical Skills Program (www.aamc.org/www.came-acem.ca/)

Internal sources:

- Bond University core subject in Communication
- Graduate Outcomes

In addition I attended and contributed to international medical education meetings to ensure that the curriculum was backed up by explicit and measurable indicators of academic quality. Australian Medical Council (AMC) is the national accrediting body, its review of the Bond University curriculum in 2008 stated, "The Phases are mapped to align with the bond university graduate Attributes, as per standard 2.2, and in addition, Phase 3 and 4 learning outcomes have been mapped to provide foundation learning leading into the Australian Curriculum Framework for Junior Doctors".

Learning outcomes

The Medical program for the first two *Phases* is based around problem-based learning - a weekly clinical problem with learning outcomes from all themes that provides a scaffold supported by resources to assist the students achieve the learning outcomes. Students found it difficult to understand how learning outcomes were to be achieved. In 2006 I developed a matrix format for each week of the program to assist their learning. This was innovative in clinical education, and was trialled for one body system block, positively evaluated by the students and subsequently developed for the whole phase. "The matrix helped me to see what I needed to do for the learning outcomes" (Student A, Cohort 2005).

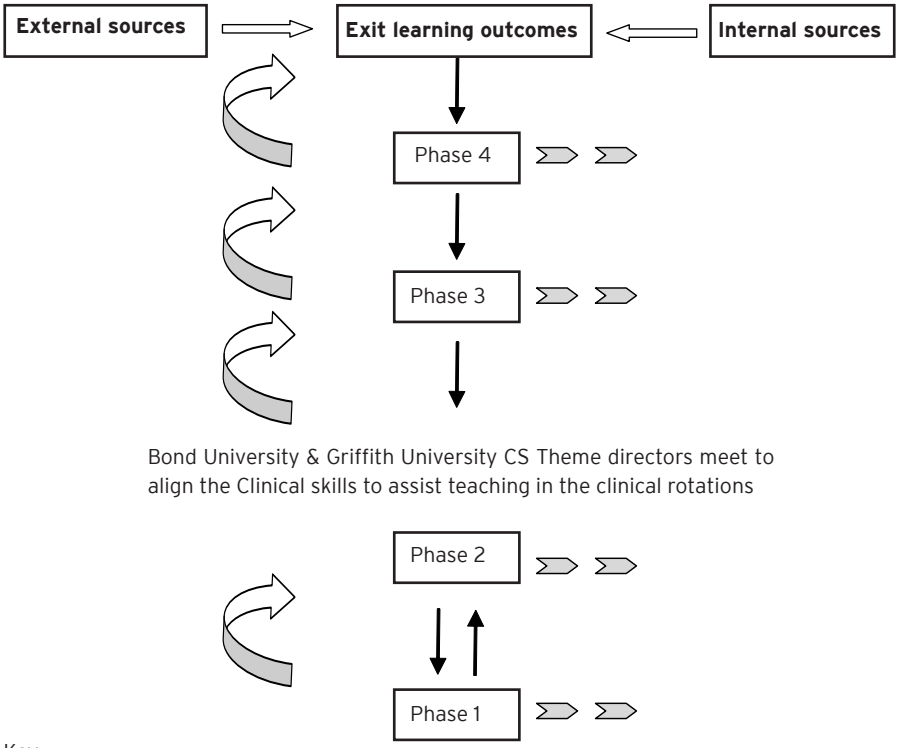
Integration

An integrated curriculum needs to demonstrate the links of the learning outcomes both across the semester (horizontally) and between academic years (vertically). This is particularly important for student learning to promote understanding of the curriculum as skills are built during the program.

Horizontal integration has been achieved for clinical skills by aligning the skills to the PBL basic science and body system blocks in Phase 1 and 2. For example, during the 4-week respiratory block the students learn to take the details from patients who have a respiratory problem; they learn how to listen to the chest and look for other physical signs of respiratory disease, and how to demonstrate the use of an inhaler. This approach is continued in the clinical Phase based around clinical discipline blocks. Vertical integration follows these skills from Phase 1 through to student graduation. The skills increase in complexity as the students' progress through the Phases of the program. For example, in Phase 1 the procedural skills include the basic hygiene and safety aspects of clinical practice. This is integrated into specific procedures in Phase 2 (for example, setting up and giving an injection) this is followed by combining the skills: the students need to explain the procedure to the patient, gain their consent to proceed, carry out the procedure with appropriate safety and hygienic controls, while demonstrating the appropriate communication with the 'patient' and document what they have done. In the clinical years the student repeats the skills on 'real' patients under supervision. This

iterative, spiral integrated approach has been recognised by the AMC accreditation board as a good support to student learning. AMC report 2008: "The Bond curriculum uses an outcomes-based, vertically integrated 'spiral' approach, and there is good understanding of the proportion of the four themes as they are spiralled up, with assessment integrated into teaching."

Development of the Clinical Skills Program



Bond University & Griffith University CS Theme directors meet to align the Clinical skills to assist teaching in the clinical rotations

Key

	= Spiral building of skills from Phase 1 through to graduation
	= Development of learning outcomes from those expected at graduation
	= Integration across each Phase

Resources Development

Since 2006 I have developed a series of resources, built up a team of staff to take over each area as it is developed and continued to refine and improve the Clinical Skills Program to benefit student learning. Some examples of the resources developed under my leadership include:

Paper-based/on-line resources.

- *Clinical Skills Workbook*. A folder containing all the checklists for skills for all the Phases of the Medical Program. For example, the Physical examination checklists were developed in collaboration with the group of 12 General practitioner tutors. This was developed during 2007 and is updated annually. The individual checklists are put up on the web for the students who download these to prepare for the tutor-supervised session where they demonstrate and receive feedback on their skills.

  "The book works well. I often see students reading before the session. The checklists ensure that the students know how they will be assessed too." (GP tutor)

- *Clinical Skills Passport*. Developed in 2010 for the Phase 3 and 4 students to record their experiences, procedures and attendance in the clinical areas, in response to the feedback from the clinicians in the hospital environment. This allows students, as adult learners, to monitor their own learning and receive feedback as they progress and the skills are observed in the clinical environment. Feedback from an emergency physician on the introduction of the Clinical Skills Passport, "very helpful and very good; the skills are appropriate and good; helpful in being able to...look at what the students have already done. It helps the student to know what is required."

  In addition, the completion of the passport is the first experience of a professional duty that will be required by the students during the rest of their clinical life: all doctors are required to keep records of their continuing medical education. Feedback from another hospital clinician on the Clinical Skills Passport: "A good way to start the students on life time CPD (continuing professional development) recording." The Passport will be evaluated this year, under a faculty teaching and learning grant, by both students and clinicians and modified with this feedback.

Video resources.

From a Teaching and Learning Award, Dr Stephanie Hadikusumo and I have developed six videos that demonstrate different physical body systems examinations. The videos use students in the "doctor" role and are under evaluation, to be completed by June 2010. Initial viewing of first video, "it is good to see what is really expected of you." Phase 2 student Cohort 2008 "other videos I have seen do not always have a good camera angle to see what the clinician is doing with their hands." (GP tutor A)

Staff resources.

I have built a multi-disciplinary team progressively for each Phase of the Program.

- *Simulated Patients (SPs).* In 2006 I advertised, interviewed and trained the first group of eight SPs at Bond University. SPs are people from the community specially trained to role play and give feedback to students on their communication and history-taking skills. The original group has largely remained and now expanded to 16 SPs. "Just great helping to train doctors – especially giving feedback from a patient"; "Good to see them develop over the years."

- *Registered nurses (SRNs)*. We have had two SRNs full-time for the last 18 months and a further eight SRNs who assist with clinical procedural skills at different times according to their experience and skill base (for example, the Intensive care nurses assist with Advanced Life Support sessions). "The use of experienced registered nurses has enabled medical students to develop and hone skills that are clinically relevant" (Nurse tutor).

- *GP tutors*. There are 12 general practitioners who have been with the program for 3 years and teach physical examination skills. A further group of GPs teach on the history taking and clinical reasoning part of the clinical skills program. "Great group. Good to meet and discuss the teaching before the session each week to standardise what we teach – keeps us on track!" (GP tutor B)

Assessment: Objective Structured Clinical Examination (OSCE) Development

Internationally the main method to assess clinical skills is the Objective Structured Clinical Examination (OSCE). This involves the development of stations where the students demonstrate their skills with a simulated or real patient in the presence of a medical or nursing practitioner. OSCEs are complex, intensive and time consuming to develop, but when well structured as I have implemented, they reflect authentic clinical practice and the content is mapped to the learning outcomes. My leadership in the development of the OSCE stations and their standardisation for the assessment of the end of each Phase of the medical program has been acknowledged by academics and students alike. In Phase 1 and 2 the OSCEs are developed in consultation with the GP tutors. In the clinical Phases the stations are developed with the specialist discipline groups.

> I would like to thank you and your team for the OSCE on Thursday. I found it to be the most enjoyable examination I've had...This exam encapsulated what I thought an MBBS exam should be. (Phase 3 student, cohort 2005, April 2008)

Closing the Loop

The Clinical Skills Curriculum has embedded feedback and learning support strategies into the course curriculum that are integrated with the disciplinary content. Through a spiralling process of practical clinical experiences, recording all skills and providing

feedback to the student on individual progress we hope to create a supportive learning environment. The provision of useful feedback to a learner by a clinician is highly valued, can influence the learner's progress and development, and is a recommendation for medical training (Barbour, 1999). We incorporate feedback into all tutorial sessions and also after assessment. After the summative assessment I hold a session for the cohort where each student has their individual report:

Station	Station discipline	Station total mark	Pass mark	Cohort average	Your score
1	Medicine	100	50	76.75	65.50
2	Surgery	100	50	83.61	85
3-5	....				
	TOTAL	500	250	366.41	377.75

I then present feedback on each station that has been taken from that provided by the examiners after the OSCE. The student can ask questions, comment and provide feedback as we discuss each station.

> I would like to thank you for the feedback session organised for the entire cohort. The session itself was very comprehensive and I no longer need to see you, as I found the very effective session most helpful. (Student Phase 3, Cohort 2007)

The clinical skills program receives and responds to feedback from the monthly meeting with the cohort representatives, the bulletin board – a site open to all students to send in anonymous feedback, evaluation reports on individual teachers (TEVALs), and by specific evaluations. I try to make any teaching session both interactive and clinically relevant to the real world in which the students will be working. Lectures are evidence- based and referenced to reinforce the approach that we wish them to learn.

> TEVAL 2009: What did you particularly like in this subject? "way lecturer made subject interesting and used real life clinical situations." (Student Cohort 2007)

We undertook a feedback on all the clinical skills this year and were pleased to receive responses from 76 of 90 students in Phase 2: 97% students strongly or agreed that the clinical skills sessions were most useful to their skill development; 98% students strongly/ agreed the procedural skills with models was informative and enjoyable learning.

Statement of Ways in Which Contributions Have Made an Influence

Benchmarking for the Medical program.

I have compared the Bond University Clinical Skills Program to ensure standards with other programs. My leadership in these areas has been recognised by other medical schools.

From Emeritus Professor, Head of School, an Australian University, April 2009:

> I have been working closely with Vivienne for the past few months to help the School of Medicine prepare for its accreditation meeting with the Australian Medical Council. During this time, I have had the opportunity to thoroughly review the medical program and understand the highly competent and expert contribution that Vivienne has made to the foundation, structure and development of the medical course. She has high level intellectual, strategic planning and development skills. She also has a delightful personality with excellent interpersonal skills

Outcomes for the graduates.

In the foregoing I have described how I developed a comprehensive Clinical Skills Program that demonstrates excellence in a new Medical Program. Its success and achievements have been recognised by all parties involved – students, academics, clinicians, nurses, standardised patients and other academics from national and international universities. During the senior OSCE examination we also employ simulated patients from other universities to supplement our team. The following unsolicited feedback was received:

> I enjoyed my simulated experience at Bond today. Many of the students I would readily accept as my personal GP in a professional environment. Some of the students I was examined by today I thought exceptional. There were also instances where students showed a professional manner well beyond their years (Simulated Patient 2, OSCE 2009)

However, once the students graduate we need to ensure that they demonstrate the standards of clinical skills expected of an intern. Feedback from the cohort who graduated in 2009 has assisted in evaluating the clinical skills program. From students graduating in 2009:

> You have all done a great job preparing us for this hard year. I know that the feedback from my supervisors will reflect this at the end of this year' and Just a quick email to update you and the faculty how prepared or miles ahead we feel out in the real world. First and foremost, I have to say, thanks to you I feel comfortable with communication skills - the bond students, compared to xx, are really well prepared for communications skills - more so than them, and on par with them for other areas. ... interns from other university appear to be shocked to find out what we know, asking if me and few of others have specific interest in these areas.. I would like to pass on my gratitude for equipping us with these skills.

Conclusion

I have been recognised for my excellent leadership of the Clinical Skills theme. A multi-disciplinary team and resources have been developed under my leadership and the Clinical skills area of the curriculum has been sustained over the last 4 years. Unsolicited feedback in this submission supports its success.

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Pam Teys

Assistant Professor, Physiotherapy Clinical Education
Faculty of Health Sciences and Medicine

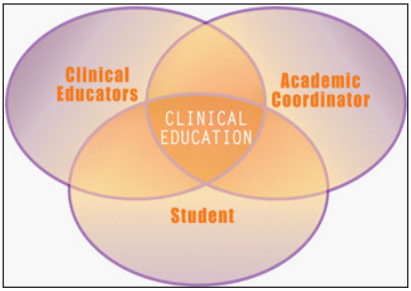
Nominated Citation

For influencing, motivating and inspiring physiotherapy students to maximise clinical education learning by supporting the intersecting needs of students and clinical educators.

The government initiative in 2007, professionalising, accrediting and formally recognising the importance of quality clinical education of medical and allied health professionals, gives credence to my unique teaching position. Funding has been provided at three levels:

- To support clinical education of health professional students within health settings
- To support the appointment of clinical educators within these health settings
- To support the education of the health professionals to enable them to educate students

The complexity of my teaching role across these areas is represented by these intersecting circles. In my role as Academic Coordinator, I must meet the needs of the students in clinical placements, as well as the needs of their clinical educators. Students are influenced, motivated and inspired to learn in Clinical Education when a skilled Academic Coordinator facilitates clear communication and productive learning experiences at the intersection of these roles.



My teaching role at Bond University is that of Academic Coordinator of Clinical Education (ACCE) within the Doctor of Physiotherapy Program. This role was developed to manage the larger component of clinical education that the new program had incorporated into its curriculum. Evidence states "students learn from more experienced people in their chosen profession in a variety of clinical settings" (Hays, 2007). My role incorporates the multiple and overlapping components of teaching in diverse learning environments. My teaching approach emphasises student learning and emanates from years of experience and knowledge as a clinician, clinical educator and lecturer. I am spurred on by reflection and words by Ramsden "the aim of teaching is simple: it is to make student learning possible" (Ramsden, 2005).

My Application Addresses Criterion 1: Approaches to the support of learning and teaching that influence, motivate and inspire students to learn.

The clinical context is one of uncertainty and significant challenges for all students and clinical educators. In addition to the successes and feelings of accomplishments there is also anxiety, anger, feeling of confrontation, and fear of personal inadequacies related to the performance of roles. I am in the unique position of being able to attend the clinical settings where I take a problem-based approach to the barriers, impediments and confrontations presented (Savin-Baden & Howell Major, 2004). I model ethical and professional conduct in this role. It is my goal to always use affirmative and logical communication as my way of influencing student performance. "I can now identify my need to adjust my approach to work positively with different personalities, without offence" (Student DB, D Phty, 2009).

> I write in support of your special capabilities in the area of clinical education of students. It is noted that I observed you to be an outstanding clinical educator who mentored, facilitated and assisted students in their clinical learning and management of patients at both the undergraduate and post graduate level. In particular, your abilities to facilitate the learning of students who had difficulties in transposing knowledge to the clinical setting were notable. (Professor Gwen Jull, University of Queensland, 2010)

I describe my teaching as one of orchestrating quality experiential learning. Sound preparation is a fundamental precursor to quality learning. I ensure all students have timely and accurate information about the imminent clinical environment they are about to enter. As each environment offers different opportunities, it is imperative students are aware no two environments will be the same. Each clinical setting also receives an Information Package explaining:

- student learning that has taken place prior to the placement;
- expectations of learning that are desired during placement; and
- assistance available to the clinical setting from the University during the placement.

I match students to each unique environment so learning is enabled and their growth as professionals nurtured. I also take into account the experiences and qualities of the clinical educators (CE's). A significant part of my work is engendering trust with my students. "Thanks Pam for this placement – I am loving it and it is just the direction in which I want my career to go" (BA Student D Phty, 2010).

> We both know that I was not positive about the idea of going to that placement. However your encouragement for me to take the placement has paid off. It is fantastic with great clinical educators who are very supportive of student development. Thank you for your guidance with this and I can certainly see that student placements are based on finding one most suitable for individual student learning. (AS Student D Phty, 2009).

My students are assured that I am available to assist them to negotiate the complex clinical environment. Bond's Clinical Education Program is unique in that it is the only problem-based learning course that embeds experiential learning with on campus teaching. It also promotes self-directed learning, and more time in the experiential environment. Because it is different, it can lead to misaligned expectations. With regular visits to clinical placements I monitor appropriate learning and the professional development of students.

My impact on the CE's has been to empower them and give them confidence to teach and guide the learning of these students. I assist them in the assessment of all cohorts in a fair and equitable manner. In one setting the CE who had students from four universities at different year levels requested some guidance when comparing the more knowledgeable student with the less experienced one and I was able to advise the CE on how to review performance benchmarking against minimum competency entry level required by the profession.

> Thanks for coming down to Tweed to explain the differences in the new marking scheme and how the expectations of the first year students differ from the Interns. It has been an area of concern for me and something you were able to clear up in my mind. It was also good to talk about the level of assistance the University is expecting the CE to provide. You also showed me how I could best utilize my time in a teaching mode. (NM CE, 2010)

My Head of Program commended me for my ability able to observe first-hand the dynamics operating at all levels of each of the clinical facilities, to assess and report interpersonal and intrapersonal issues between students and between students and CE's that may impede learning. Such dynamics are captured in the following scenario. As is my practice I phoned ahead to the clinical facility for an appointment and was informed about a student who had issues with the safe handling of patients and the feedback provided. I emailed the student immediately and relayed this feedback only to find out he was not aware of this issue. Such miscommunication snowballed into a situation where the student became defensive and the clinical educator was close to abandoning her support. I was able to give him timely advice and I had time to approach the clinical

educator to discuss the issue to create a pathway in which the student could learn. I followed up to ensure a healthy professional relationship was sustained.

My agenda is to motivate and inspire both students and clinical educators to be enthusiastic about learning in dynamic and ever-changing contexts. For the few students who are not enthused by this compulsory component of a practicum required for accreditation and registration, I motivate them by drawing on my knowledge of how all the experiences combine to produce the well-rounded professional. One student's only interest was in becoming a private practitioner. He was rejecting the need for clinical experience in paediatric physiotherapy. I relayed the advantages of knowledge of developmental patterns of growth and associated pathology which he later stated contributed a deeper understanding of movement disorders. "I can now see how the paediatrics experience fits into a global picture of human development" (BA Student, 2009).

Students may have difficulties in different clinical settings with their particular learning styles. These must be acknowledged and appropriately managed.

> Pam has a unique ability to assess a student's area of difficulty and bring both understanding and clarity in her solutions. Her knowledge of individual learning styles allows Pam to personalize strategies for the students to improve their performance. I have found that Pam communicates clearly and with conviction when assisting the student to build clinical competence. (EJ Student, 2007)

In the context of increasing demands on health professionals, physiotherapists are now expected to take on the role of clinical educator (Lake, 2004). "A commonly made assumption is that all experienced clinicians will be good teachers. The reality is that the correlation between clinical expertise and educational expertise is not strong" (Hays, 2007). I identify issues affecting enthusiasm and value and respect for the CE by the student, facility and the organisation. I listen and provide them with a vision of the student in the midst of a journey to becoming a physiotherapist and support them in shaping their role.

> I feel better now about teaching different students and I like the word you used – encourage 'student learning'. I felt supported and validated by your affirmation of my role in facilitating student learning and the expectations of them in a clinical setting. (NM CE, 2010)

I emphasise their positions as role models. I assist them in focusing on student learning that can only occur within a specific clinical setting. To assist them in their role of mentoring students, I give them strategies to appropriately manage effective and timely feedback plus encourage them to provide strategies that will help the student grow.

"Assessment is a powerful motivating force for students to learn" (Stuart, 2007). Motivation for student learning can occur through appropriate feedback with appropriate strategies to move forward. In the clinical setting, feedback can either be a powerful learning tool or very destructive. It can be varied, and can lack consistency, leading to confusion. My role

is to be proactive and responsive to promote the positive holistic learning environment. I encourage CE's to be sensitive when providing feedback to the students. I encourage the "who, what, where and when" concept. This supports a positive learning environment fostering the willingness for independent learning. I monitor when the students receive and hear regular and timely formative feedback from the CE. One student reported to me that she overheard some strong negative feedback from her clinical educator to the Director of Physiotherapy in the corridor and was intending to make a formal complaint. I intervened and the clinical educator is now aware of the inappropriate behaviour and its impact on the student. There is often confusion regarding a message intended or there is a "one chance" policy from CE's. An example is the following incident with a CE.

I needed to convince him that a student who made one mistake could become safe with guidance regarding the implications of his mistake and with further opportunity, demonstrate learning from that mistake. Assessment and feedback must include respect and support for the development of students as individuals as noted by one student. "Being a student with Pam I had never felt demoralised. She had never talked down to me or any other student in the same placement with me, I felt valued as a physiotherapist-to-be" (EJ Student, 2000).

Evidence of my Contribution

In my formal teaching role I have had the privilege to guide professionals to complete the Graduate Certificate in Clinical Education and apply the learning to their own clinical environment. "I very much saw Pam as my mentor in this area (clinical education) at the time and still do and have been able to apply and share many of the skills I have learned during the Graduate Certificate in Clinical Education in the clinical setting" (NM Student, 2007). Physiotherapists who have undertaken the formal Graduate Certificate in Clinical Education state they have a greater understanding of how students learn.

> Pam manages to accommodate all learning styles by not only considering them but also by using different approaches to learning. It is not hard to be motivated to learn when the teacher not only tries to make content interesting and relevant to all but also aims to support and inspire different students with different styles to appreciate the information and learning content in different ways. (PH Student Grad Cert 2008)

I am often asked to mentor other physiotherapists in the role of CE. My counsel is sought as an "expert" in clinical education of students by my academic colleagues who now have to take on this role as CE mentors under my leadership and by CE's in the profession. I have worked at many hospitals with physiotherapists who are having difficulties with student education. Evidence from one CE liaison officer stated, "You reinforced for me that what I am doing is correct and valuable for student learning" (RF CE, 2010).

In conclusion, students are fostered to be self-directed learners. When the CE finds our teaching provides the students with sound abilities in research and that they do not need to be taught everything, I hear comments such as, "Good, we can now find out the latest

evidence base for the treatment of low back pain" (CE SS, 2010). The circle of learning progresses. The problem-based learning approach for our students on campus flows into the clinical setting. "Students in problem-based learning teams become advocates, pleading a cause for a client, defending a stance or a cause, or encouraging team member to agree with a position or with new information" (Savin-Baden & Howell Major, 2004, p?). I feel the physiotherapy profession is one that particularly needs to produce students with the graduate attributes of knowledge, leadership, teamwork, communication and self – directed learning skills to become physiotherapists who can function in the "the future world of uncertainty" (Barnett, 2004).

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FOUNDATIONS OF UNIVERSITY LEARNING AND TEACHING (FULT)

SEMESTER 103

The participants in Foundations of University Learning and Teaching, Semester 3, 2010 were the first to experience the subject with revised content and style of delivery, under the combined Office of Quality, Teaching, and Learning. As part of their assessment, participants are required to submit a scholarly paper on a teaching and learning research question related to their teaching and their discipline. Their questions are distilled throughout the FULT sessions and incorporate the written feedback from the 'in-class teach your peers' session, group collaborative reflection participation and the peer-review of teaching component of the course. The 103 FULT cohort was comprised of academics from all four faculties. Included in this section are two papers from each of the Faculties of Law, Humanities and Social Sciences, and the Institute of Sustainable Development and Architecture. The broad common theme across the papers is motivation and engagement of students, as the contributors address in turn: intrinsic motivation, engagement for deep learning outcomes, teaching content to multi-disciplinary learners, universal design for learning in fundamental and contemporary skills, balancing pace and content coverage, and reflective practice.

I Love Law:

Teaching to Develop Intrinsic Motivation in Law Students

Leisha Browning
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Abstract

I am a Senior Teaching Fellow at the Faculty of Law, Bond University. I joined Bond in January 2010 and, in addition to my teaching role, I am a consultant policy advisor to specialist medical colleges. I am currently in the process of finalising my doctoral candidature with co-supervision from the medical and law faculties.

Prior to studying law I was a Registered Nurse, specialising in adult neurological and orthopaedic surgery. I obtained a scholarship and commenced studying law at Bond in 1993. Two years later I graduated with First Class Honours and was awarded the Queensland Law Society Prize, which is given to students with the highest aggregate results for the compulsory law subjects required for admission to practice in Queensland.

In my legal practice I have worked with government bodies, large commercial law firms, and not-for-profit organisations. My teaching expertise is in health law, corporate law, civil remedies, civil procedure, dispute resolution and professional ethics.

I first started teaching in 1999. I was practicing as a senior solicitor in a large commercial law firm. I became pregnant with my first child, and moved from working on remote coalmines throughout Australia to having an in-house legal training position. I thoroughly enjoyed my training role. I felt energised by my work, and reconnected with my passion for life-long learning.

In the years that followed I had teaching responsibilities in subsequent jobs. I trained non-legal staff in investigation and evidence collection techniques, legal editors in referencing and editorial reviews, and I set up a small consultancy service for health organisations to train staff in compliance.

My formal career as a University teacher began in 2007 when I commenced as an adjunct lecturer with the Melbourne Law School, University of Melbourne. For three years I taught and co-ordinated undergraduate subjects, and was promoted to a Senior Fellow developing new post-graduate subjects for the Masters of Health and Medical

Law specialist program. I also taught Professional Legal Training at the College of Law (Victoria) in its program for law graduates seeking admission to practice.

Over the past five years I have developed an appreciation for different teaching pedagogies. It is, I believe, a skill that I have developed to teach in a way to meet the individual needs of the students. I am confident in my ability to make the law applicable to real life.

I am enthusiastic as students explore a narrative, rather than passively told the facts of a case. I observe improvements in students' abilities to understand a case when they are able to visualise the parties to the legal proceedings, picture the facts being played out and empathise with the difficulty of the judges in determining outcomes. Learning with purpose is integral to my teaching pedagogy – it is integral to my students' experience that they understand that a law applies not only within a particular factual context, but is one that is influenced by broad changes to social values.

What is the Context of This Research?

My research combines my reflections upon my own experiences as both a student and a teacher.

During the FULT course, I completed a teaching perspectives inventory to determine which way I teach. I have an "apprenticeship" teaching perspective. This means that I prefer to engage with learners by assessing their individual learning needs and development, am likely to have skills in translating complex concepts into accessible language, and create meaning by developing ordered tasks.

Having learned about my teaching perspective, I more deeply reflected upon what I may do to ensure that I teach in a way that motivates students. The questions that I answer in this paper are:

1. Is there a link between motivation and learner outcomes? Rather than going on my 'gut feel' that there is a link to motivation and learner outcomes, I have analysed empirical research that supports this proposition.

2. What are the sources of motivation? By considering theories within psychology and education, I have considered the ways in which students may be motivated.

3. Is there a link between pedagogy and intrinsic motivation? Having identified two main sources of motivation (extrinsic and intrinsic motivation), I evaluated research on the association between teaching methodologies and intrinsic motivation. Research into student-centred teaching and learning in schools, broader tertiary courses, and law faculties, are considered.

What Empirical Research Has Been Done on this Topic?

1. Is there a link between student motivation and learner outcomes?

Empirical research (particularly within the field of educational psychology) indicates that there is a causal link between academic motivation and outcomes. This link consistently exists throughout the human lifespan – where learners of school age had better academic outcomes with higher measures of motivation (Alvirini, Lucidi, & Sara, 2008; Eccles et al., 1983; Elliott & Dweck, 1988; Ma & Xu, 2004; Tishman, Perkins, & Jay, 1995). Similarly, studies within university environments indicated that learners who were motivated tended to achieve higher academic results, and also perceive their learning experience as being more meaningful (Brockbank, McGill, & Beech, 2002; Dube, 2006).

2. What are the sources of motivation?

There are two broad categories of sources of motivation – extrinsic and intrinsic. *Extrinsic motivation* theories consider influences that exist outside of the person: external stimulus (sound, light, environmental factors); assessment measures and consequences (unpleasant consequences for failure or poor achievement, creation rewards through assessment); and social drivers to be part of a group, a valued member of a team and to imitate positive role models. *Intrinsic motivation* theories consider: mental elements of motivation (such as cognition and affect); physical elements of motivation (such as biological ability and physical development); and spiritual elements of motivation (such as connectedness to self and understanding of one's purpose in life) (Deckers, 2005).

At first glance it may seem as a teacher, the most effective way of influencing motivation of students is to focus on external influences. For example, teachers may ensure that a classroom is set up in a way that will enable each student to have visual and auditory contact with the teacher. The teacher may use the whiteboard, use interactive technologies, and take classes on excursions. Alternative methods of assessment measures may also be used – rather than law students having final, written exams, they may be assessed throughout the semester using portfolios, practical work, and oral exams.

However research indicates that students who are intrinsically motivated fare better academically in an educational context than those who are extrinsically motivated (Abbot-Chapman, Hughes, & Wyld, 1992). Intrinsically motivated students tend to use more complex learning strategies, are more self-confident in their ability to learn new material, choose to select tasks that are more within their proximal development, and are able to maintain knowledge for longer periods (Dev, 1997; Kohn, 1993; Levy, 2008).

These findings lead me to evaluate pedagogy and its relationship to the intrinsic motivation of law students. Specifically, my questions consider: What may I do to enhance a student's cognition or understanding of legal principle? How may I positively influence a student's affect or feelings about themselves and their studies? How may I promote a student's sense of connectedness to himself or herself? How may I encourage a student

to determine their purpose in life, both during and after law school?

To address these questions, I evaluated research into the link between pedagogy and intrinsic motivation.

3. Is there a link between pedagogy and intrinsic motivation?

To determine what teaching methodologies may promote intrinsic motivation by discussing research involving school aged children, tertiary non-law students, and law students.

School aged students.

An extensive international study carried out on behalf of the Organisation for Economic Co-operation and Development (OECD, 2003). The study considered student engagement as they approached the end of compulsory schooling. The data collected information about students' attitudes and values, their literacy skills, and family belonging, and family backgrounds.

The OECD report examined two aspects of student engagement that were linked to student disaffection and academic success – "participation" and "sense of belonging" (Levy, 2008). "Participation" measured the frequency of absence, class skipping, and late arrival at school. "Sense of belonging" addressed personal feelings about being accepted by peers, and whether the student felt lonely, like an outsider, or out of place.

As discussed earlier in this article, personal feeling (or affect) is a measure of an internal motivation. As such, it is important to recognise the significance of the findings in the report within the context of methodology and its limitations. Nonetheless, what is interesting about the findings is that there is *not* a strong correlation between an individual's level of participation and their sense of belonging (Levy, 2008).

The implications of these finding startled me. I had naively assumed that the students who turn up to tutorials were likely to feel engaged. However research indicates that an individual may have a low level of absenteeism, but feel that they are isolated or out of place in law school.

Tertiary non-law students.

Tertiary study has an implicit aim of developing learners who are independent, confident, and self-directed (Knapper & Cropley, 2000). In discussing effective teaching practices to promote intrinsic motivation in students, Levy (2008) identifies the need to create a strong sense of community, ensure that students establish networks, and that the university environment is personalised (Pintrich, Smith, Garcia, & McKeachnie, 1993).

New York-based author and Professor Ira Shor states:

> Empowering education ... is a critical-demographic pedagogy for self and social change. It is a student-centered program for multicultural democracy in school and society. It approaches individual growth as an active, cooperative, and social process, because the self and society create each other. Human beings do not invent themselves in a vacuum, and society cannot be made unless people create it together. The goals of this pedagogy are to relate personal growth to public life, by developing strong skills, academic knowledge, habits of inquiry, and critical curiosity about society, power, inequality, and change. (Shor, as cited in Levy, 2008)

To promote intrinsic motivation amongst students, Levy (2008) proposed that the following pedagogical strategies be adopted:

- Provide explicit information about the unique culture of university learning. It is suggested that teachers provide information about topics such as transition from school to university, independent learning, crucial thinking, and the role of universities.
- Engage in personalised learning and transition techniques. This requires staff to engage directly with students to break down preconceived notions of academics as experts who the students have to satisfy, and instead promotes learning as a collaborative process.
- Create a strong sense of a learning community. Staff may be encouraged to attend lectures themselves and to be engaged in life-long learning. Academics may encourage students to link presented tasks to the intended immediate outcomes, and long-term outcomes (Levy, 2008).

Institutional and faculty commitments are identified as being integral to the success of implementing pedagogical methods that promote intrinsic motivation. Teaching and learning policies may direct the development of practices to all staff, and not merely to designated staff with 'support' roles (Levy, 2008). Similar recommendations for commitments at individual, institutional and faculty levels are referred to in Chickering and Gamson's (1987) article about the "seven principles for good practice".

A report funded by the Teaching and Learning and Research Initiative in New Zealand identifies indicators that could be used to alert institutions to actions that are likely to improve students' engagement, and consequently, their success (Zepke, Leach, & Butler, 2009). These indicators measure the extent to which teachers:

- Give priority to building relationships with students, being available, counselling them when asked and providing prompt formative feedback on their learning.
- Show enthusiasm for their subject, make learning of the subject interesting and enabling to students to engage with it.
-

- Challenge students intellectually in ways that recognise students' objectives, abilities and interests.
- Enable students to actively apply knowledge they construct to practical problems and situations.
- Provide information about studying successfully when such information is needed (Hunter-Schwartz, Sparrow, & Hiles, 2009).

Law students.

A useful and recent source of information about the association between pedagogy and the intrinsic motivation of law students was published in 2009 by three American law professors. *Teaching Law by Design: Engaging students from the syllabus to the final exam* provides a legal education-focused overview of research on teaching and learning (Levy, 2008).

The following strategies are identified as improving intrinsic motivation amongst law students:

- *Teacher attitudes that motivate students*: expressing excitement about students' insights, being available to students, actively and explicitly looking for new ways for students to learn, by treating student learning as the principle goal in classes.
- *Authentic variety, and active learning*: promoting active learning and connecting new learning to career aspirations and life experiences.
- *Structuring student autonomy:* giving students choices about how class will be taught and what they will learn.
- *Goal-setting*: encouraging student to set master learning goals for themselves and monitor the attainment of these goals throughout the semester.
- *Participation (role-playing)*: engaging students in role-plays where they are future lawyers, or as a client.
- *Challenge, incongruity and conflict:* using both reasonable and continuous challenges, students learning tasks may become increasingly difficult. By using the Socratic method of teaching law after the fundamental concepts are attained, student understanding and engagement are enhanced.
- *Reinforcement*: whilst reinforcement tasks tend to focus students on extrinsic motivators, praise, public recognition, and unexpected prizes may encourage persistence (Hunter-Schwartz, Sparrow, & Hiles, 2009).

What is My Question?

The question that I asked my peers whom observed my teaching was: "Are you interested in learning more about this topic?" This question is consistent with my apprenticeship teaching profile, and has been developed into the specific topic of investigating pedagogical methods to develop intrinsic motivation in law students.

How Did I Conduct My Research?

For the purposes of this paper, I first considered empirical research about the link between student motivation and learner outcomes. I then directed my research to develop an understanding of the sources of motivation. I then focused on research about pedagogy and intrinsic motivation within three student types: school aged students, tertiary non law students, and law students.

How Did I Analyse the Data?

Due to a lack of information about motivation and theories of learning and teaching within the field of law, I analysed data published in journals and texts within the professions of psychology, and education. I compared theories of pedagogy based on studies of school-aged children. Within the university non-law student group, I considered research in the fields of medicine, mathematics and literacy. I then focused on research into pedagogy and intrinsic motivation in law students, and reflected upon my personal teaching style.

What Were the Results?

The peer observation for the FULT course provided me with the opportunity to obtain feedback from my peers as to whether or not my teaching style was one that promoted the interest of students. My peer observer is an outstanding teacher from outside of the Faculty of Law. I was observed presenting a Research Seminar Series paper entitled 'Shiny Happy Professionals – Doctors vs. Lawyers' in a seminar room. There were around 20 students and academic staff from the faculties of law, medicine, humanities, and design, in attendance.

Feedback from my peers about my teaching in front of the FULT class indicated that I have an approachable, warm manner, am knowledgeable in my topic, have the ability to attract the interest of learners, and generally promoted student's willingness to independently learn more. I received positive feedback about my use of teaching materials, such as ''take home learner packs'', and the way in which I connected with the audience through eye contact and questioning.

I was surprised by feedback that there is a disparity between my physical presentation and teaching style. I received comments that I dress formally, but present in a way that is rather casual. I was concerned that my appearance was interpreted as overly relaxed or even unprofessional. Instead, I was described as 'quirky' - an observation that I take being a great complement.

What are the Implications?

The implications for the findings from the FULT peer observation are that I have spent more time in my teaching preparation focusing on individual learner needs. Upon reflection, my teaching style is consistent with the pedagogy of empowering student focused learning. What I have changed in my teaching is that rather than teaching

because of my developed habits and style, I teach with methodology. I have an awareness of the theoretical basis of teaching practices that I use, and am able to reflect upon ways in which I may implement and evaluate best practice in my learner-centred teaching.

What Were the Limitations of My Research Design?

A major limitation in my research design is that I did not consider the meaning of 'learner outcomes'. In order to authenticate the proposition that student motivation leads to better outcomes, I recommend that consideration be given to identifying the criteria that is relevant to identifying and evaluating learner outcomes.

Much of the research referred to in this study assumed that better grades equated with better student outcomes. However, when I have asked students in my classes what they consider to be a measure of their 'success' in a subject, their final grade is important, but not the only criteria that they consider. Many students considered that they have done well in a subject even if this was not reflected in their final grades. To these students, it seems that their understanding of the subject, their ability to remember key points from the subject after assessment is completed, and whether or not they are able relate the subject to other courses, is a measure of that student's success. This research does not consider the disparity (if any) between law students and other learners and their perception of their success.

Further limitations in this research occurred due the lack of law-specific data about pedagogy and intrinsic motivation. There is a vast amount of research about pedagogy and extrinsic motivation. However there is comparatively less information about how universities, faculties, and tertiary education teachers may evaluate and influence the intrinsic motivation of students.

Within the context of my profession, there is a lack of specific research about legal education and intrinsic motivators. Research tends to focus on applied teaching strategies within postgraduate, three-year law degrees, such as those available in the United States. There is very little direction for the fast-track law program teachers, and information for teachers of undergraduate, graduate and post-graduate law programs.

To What Further Research Do My Findings Point?

It is my view that there is a need to research the following issues in Australian-based studies:

- The characteristics of law students, and what motivates them to choose law at this university.
- Reasons for variations (if any) in student motivation as they progress through their law studies (preferably results would be based on longitudinal studies).
- The impact of various teaching styles specific to law (such as the Socratic method, end of semester examinations, mooting) and intrinsic motivation.

- Through comparative research across faculties and institutions, determine variations of intrinsic motivators amongst law students from various universities, and amongst law and non-law student groups.

Research into the ability to develop intrinsic motivation through university teaching requires assistance from educational psychologists. At a practical level, this research requires support from the law faculties, including teaching staff, support staff, and of course, the students.

Although there is a lack of empirical data about the characteristics of law students and what motivates them to choose law, there is information about the association between depression and law school. In Australia, the Australian Law Students' Association, in conjunction with beyondblue, has released a brochure about the management of depression for law students: http://www.alsa.net.au/assets/publications_ALSA_depression_handbook.pdf.

Research addressing the identified gaps in the research will ensure that law-specific data is obtained. Recommendations for Australian law teachers, and for teachers with similar law training systems, may be developed.

Specifically, a university-based longitudinal study into the specific motivations of law students should be carried out at Bond University and at least one other public Australian law school. Ideally, specific sources of motivation of students should be identified and measured prior to students commencing their studies of law. The outcomes of these results may then be compared to non-law students to determine whether there may be any differences between different student groups.

Having obtained base-line data, a longitudinal study should then be implemented to assess changes in students as they progress through their law courses. Based on the recommendations of specialist researchers, qualitative and quantitative measurements may be required. The data obtained from this research should then be analysed with expertise from education specialists with a view to developing pedagogy that positively influences the motivation of law students in Australia.

Conclusion

As a result of this research, I have taken conscious steps to develop my understanding of each student's needs. I have adapted my teaching in three ways.

1. Pre-class, and during class, teacher-student engagement

First, at the first tutorial this semester, I asked each student to answer the following questions:

- Why am I studying Corporations Law?
- What have I done before I came to Bond University?
- What, if anything, would I like to improve upon in my studies?

I recorded this information, making notes on the student identification sheets. I made particular effort to remember each student's name. I printed out coloured student identification photos and compiled a working sheet for each tutorial group. During the semester, I refer to the information that I have collated about each student, and use this to develop learner specific tasks.

For example, in one class I have three students with a background in media and the music industry, one student with an enforcement background, a former speech therapist, and two students who completed their high schooling only two years ago. I have used examples of fraud by a director of a music production company. The facts that we discuss are relevant to the Y-generation students in the class. The facts are elicited by referring to the experience of the mature-aged students, and there is a collaborative discussion of the law. In another class, the same legal issues were discussed but we referred to corporate fraud by a director of a company that sells sporting goods. Three of the students in that class have backgrounds in competitive sport. Two of them have studied, or are interested in studying, sports law as an elective.

2. Set high standards for class attendance, and avoid punishment for non-attendance

Secondly, I have reconsidered my approach to students who do not turn up to their tutorials. Whilst participation and engagement has been found to be unrelated in studies of high school students (see for example the OECD report referred to earlier), it would surprise me to find similar results in my student groups. Perhaps it is an idiom of law that tutorial attendance may correlate to better academic results.

As such, I have set high standards for tutorial attendance. In the week before tutorials commenced, I sent an email to each student outlining information about me, what was expected of them in the tutorials, and what they were to do if they were unable to attend a tutorial (such as contacting me prior to their scheduled tutorial time, giving reasons for non-attendance, and making arrangements to attend an alternative class or to see me individually). A copy of the information that I sent out is attached to this paper.

Throughout the semester, if I have not heard from a student that is absent from a tutorial, I contact that student by email that day. I state that I have noticed that they were not in class and that I am checking that they are well. I have found that the students have responded to my email with thanks for my concern, reasons for their non-attendance, and have arranged to attended alternative tutorials or meet with me later to catch up on what they may have missed.

3. Provide immediate, comprehensive, and constructive feedback

Thirdly, I have implemented a feedback method to assist students in their exam writing techniques. I call this feedback method "Try Before You Cry". Each week, and in every class, I remind students that they may send me drafts of their tutorial answers to receive individual written and oral feedback. I make it clear that my feedback is not used for

tutorial assessment – the idea is that each student is able to get an idea of how they would go on the exam without any negative consequences.

As a result of implementing the Try Before You Cry feedback method, I am spending a lot of time responding to the drafts that I receive, and following up with face-to-face meeting with individual students. I am stretched for time, but I have observed many students improve their writing, and gain more confidence in their ability to do well in the end of semester exam.

Indeed the feedback does not seem to be beneficial to students only for the study of Corporations Law. I have had several students say that they wish that they had this sort of feedback from other tutors earlier in their law studies. At a personal level, my interest in the topics covered in the course has been also been re-ignited. In short, it's been a win-win strategy.

I conclude by appraising the value of the FULT course. I genuinely enjoyed the classes - the teachers are fun and supportive, the other participants and I are true peers and not strangers, and I now understand that teaching need not be a skill that I develop through trial and error.

As an early career teacher, FULT has been valuable to my own development. But I would not say that FULT is a course aimed for 'new' teaching staff. I highly recommend that participation in the FULT course be a requirement for all Bond University academic staff. Senior academics, including those in administrative positions, should be encouraged to attend, to observe the pedagogies of academic staff, and to promote within Bond University a culture of life-long learning.

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Class Participation:

Encouraging Engaged Enthusiasts for Deeper Learning Outcomes

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Exploring active learning teaching strategies to encourage diverse learners to participate in class – with a focus on engaging students in deeper learning through individual and small group discussion, interaction and feedback during lectures.

Abstract

This paper explores useful teaching strategies based on principles of active learning (Kember, Ho, & Hong, 2008; Huerta, 2007; Kember & Mcnaught, 2007), to encourage wider student participation in class, particularly during two-hour lectures, to facilitate deeper engagement and learning. It has been inspired by the concept of a learner-centred approach (Clark & Mayer, 2008) motivating students to become deeply engaged in their learning through establishing relevance (Kember et al., 2008) using practical individual, pair and small group exercises (Nickerson, 2005). The usefulness of this approach has been tested through triangulation of colleague, peer and student observation and feedback during a practice teaching session, a one-hour lecture observation and a one-hour lecture delivered during Week 9, Semester 3, 2010. Data was gathered during the three sessions. The focus is introductory and advanced public relations subjects delivered as part of Bachelor and Masters degree programs in communication.

Bond University's small class sizes facilitate individual interaction with students and this research, while preliminary, provides a glimpse into strategies to make use of this advantage to encourage strong participation during lectures as a means of demonstrating relevance and motivating deeper student engagement and learning. The results indicate the techniques used did encourage student participation and point to deeper engagement and learning in the subject material. This research is considered important to enhance the author's understanding of the student experience, how and to what level they are learning, and classroom practices which can improve this process. It helps identify the type of teaching practices which, through demonstrated enthusiasm, passion and experience, can encourage the same in students, motivating them to seek out knowledge.

Introduction

This study explores the impact of incorporating active learning techniques into lectures to engage students in deeper learning through active participation. It aims to seek student and lecturer response to using these techniques based on three teaching principles: ensure learning is relevant and applied through using real life and current, local examples; challenge students' current beliefs, and identify and correct their misconceptions of fundamental concepts; actively engage students throughout the learning experience through dialogue and discussion (Kember & McNaught, 2007).

The importance of quality teaching and a focus on student learning and deep engagement is essential in education for public relations and communication professional practice where industry requires graduates with developed intellectual faculties and strategic, analytical and problem-solving skills in addition to specific technical skills needed to perform jobs (PRIA, 2011). It is acknowledged participation alone does not automatically lead to deep learning, but must be designed to foster productive learning with a clear focus on subject goals (Stull & Mayer, 2007; Clark & Mayer, 2008).

While acknowledging the limits of this study, it does point to students' own observations of the benefit of incorporating active learning principles in the study of public relations to encourage deeper engagement and learning.

Literature Review

Current literature has been explored in three research areas to provide a framework for considering this project: how students experience deeper learning; relevance of active learning in encouraging cognitive processes; and developing techniques and practical exercises to encourage student participation as a means of motivating students to become deeply engaged in their learning.

Stull and Mayer (2007) suggest the rationale for learning by doing, activity theory, "is based on the idea that deep learning occurs when students are encouraged to engage in productive learning activities" (p. 810). In an analysis of how students become deeply engaged in their learning Stull and Mayer (2007) used cognitive load theory to describe three levels of learning:

> "extraneous processing in which the learner engages in cognitive processing … not related to the instructional goal…; essential processing in which the learner mentally represents the material …; and generative processing in which the learner mentally engages in deeper cognitive processing." (p. 810)

Generative processing would appear to be the optimum for encouraging students to achieve deeper engagement. The authors' caution, however, on developing learner-generated activities (for example the techniques under discussion in this research) which diverge from the main focus of learning as it can "inhibit generative cognitive processing if learners become confused as to how to carry out the task" (Stull & Mayer, 2007, p.

810). This suggests any techniques designed to encourage learning by doing should avoid superfluous cognitive processing; for example practical group exercises which may be too complicated and not clearly focused on demonstrating relevance of theoretical concepts. The aim of practical techniques should therefore be focused on providing activities which encourage students' capacity for essential and generative processing leading to greater engagement.

It is important to focus the activity on the learning outcomes, ensuring they are not too complicated and demanding and therefore reducing students' cognitive load to enable generative processing (Stull & Mayer, 2007). Clark and Mayer (2008) suggest the lecturer's goal should be to use instructional methods which 'manage essential load freeing working memory capacity for generative load' (p. 6). They stress exercises generating significant behavioural activities will only be successful in deeper learning if they also require students to engage in mental processes supporting learning outcomes for the subject, in ways that do not overload working memory with extraneous work (Clark & Mayer, 2008).

Evidence-based methods supporting cognitive activity in both active and passive learning environments are proposed including: providing a combination of examples and practice exercises rather than all practice; supporting new knowledge with graphic organisers; and asking students to write correct labels into blank graphic organisers (Clark & Mayer, 2008). Consequently, the practice techniques used during this study were based on clear practical exercises focused on the subject learning outcomes, encouraging students to apply theoretical concepts discussed during lectures and guided by both practical case studies as examples and "the scaffolding of (teacher-generated) graphic organisers" (Stull & Mayer, 2007, p. 810).

Blumenfeld, Kempler and Krajcik (2006), while advocating authenticity, inquiry, collaboration and technology as means to engage learners to think deeply about the content and develop understanding, also caution against assuming enthusiastic participation in classroom activities necessarily results in cognitive engagement (eg generative processing in Clark & Mayer, 2008; Stull & Mayer, 2007). It is however, agreed "motivation sets the stage … leading to achievement by increasing quality of cognitive engagement" (Blumenfeld, Kempler, & Krajcik, 2006, p. 476). Four determinants of motivation are suggested: value, competence, relatedness and autonomy, which lecturers should look to establish in the classroom environment as a means to motivate students in deeper engagement (Blumenfeld et al., 2006). This should not however, be taken as an automatic achievement and lecturers should take steps to sustain motivation in the face of challenges inherent in students' own interest levels and "translate interest into high-quality cognitive engagement required for meaning-making" (Blumenfeld et al., 2006, p.479).

The validity of providing practical exercises during lectures to motivate deeper student engagement is supported by Kember, Ho and Hong (2008) who found "teaching abstract theory alone was demotivating" (p. 249). Undergraduate students were motivated by a teaching environment which established relevance in their field of study, through

"showing how theory can be applied in practice, establishing relevance to local cases, relating material to everyday application, or finding applications in current newsworthy issues" (Kember et al., 2008, p. 249). In each of these areas students found practical exercises integral to establishing relevance, and consequently motivation (Kember et al., 2008).

This is particularly relevant in professional public relations practice where the industry, as represented by the peak professional body, Public Relations Institute of Australia (PRIA), requires education for public relations and communication practice to achieve two things: the development of intellectual faculties and strategic, analytical and problem-solving, or 'advisory', resources to be put to use as the graduate moves through his/her career; (and) the necessary technical skills to enable graduates to adequately perform their initial jobs (PRIA, 2010).

Nickerson (2005) suggests specific techniques for increasing classroom participation set against a backdrop of creating a "safe" environment to encourage involvement, advocating most students will judge whether the climate feels safe for them to participate, as any potential for them to feel ridiculed or humiliated will preclude participation. Specific techniques most relevant to this study include periodic paired or group work where students are required to discuss a concept in a small group setting and report back to the larger group. Students might also be asked to write down the answer to questions to allow "thought time" before responding. An additional technique calls on different students to provide their answer (particularly when there is no right or wrong response) (Nickerson, 2005).

Junn (1994) relies on past research indicating active classroom participation does facilitate student interest, motivation, learning and academic performance (Ferguson, 1986; Narayan, Heward & Gardner, 1990; Vidler & Rowan, 1975; Williams, 1971 in Junn 1994). She describes the "Pearls of Wisdom" exercise designed to encourage equitable participation by all students as well as a mechanism for the lecturer to objectively assess participation. Junn's (1994) card system provided students an opportunity to write down their contributions before presenting to class and then submitting at least 20 cards to achieve extra subject credit. In a similar process, Foster et al. (2009) recommended "instructors create a discussion climate that provides extensive opportunity for students to engage in discussion" in their investigation linking self-recorded participation to credit reward as a means of encouraging low participators (p. 174). These mechanisms for achieving wider student contribution support Nickerson's (2005) suggestions of asking students to write down responses to help articulate their opinions to a larger group. Devlin and Samarawickrema (2010), in determining criteria of effective teaching, draw on diverse literature to identify required skills and practices. Group interaction is identified as a common requirement (ALTC, 2008 in Devlin; Kember & McNaught, 2007; Marsh & Roche, 1994; Samarawickrema, 2010). The challenge then, is to develop practical exercises to establish relevance, build motivation (Kember, Ho & Hong, 2008) yet stay tightly focused on learning outcomes so as not to distract students with extraneous cognitive processing in order to achieve deeper engagement (Clark & Mayer, 2008; Stull & Mayer, 2007).

This review identifies a gap in the author's teaching practice centred on students' self-evaluation of how encouraged they feel to participate in lecture discussions as a result of experiencing a range of active learning techniques in the form of practical individual and group exercises; and if they believe this leads to deeper engagement and learning.

Research Question

This research is aimed at exploring methods/teaching strategies to encourage greater student participation during lectures based on the premise this will motivate students to deeper engagement and learning.

What are useful teaching strategies to encourage diverse learners in class participation with particular focus on engaging students in group discussion during lectures?

Student questions

Are you encouraged to participate in group discussions and feedback during lectures?

Does the lecturer:

- *Ensure learning is relevant and applied through using real life and current, local examples?*
- *Challenge students' current beliefs, and identify and correct their misconceptions of fundamental concepts?*
- *Actively engage students throughout the learning experience through dialogue and discussion?*

Hypothesis

It is hypothesised that if encouraged to actively participate in relevant individual and small group practical exercises during lectures, students will respond positively and be motivated to engage with the subject, achieving deeper learning.

Methodology

The usefulness of this hypothesis was tested through triangulation of colleague, peer and student observation during a practice teaching session, a one-hour lecture observation and a one-hour lecture.

Deliberate participative techniques were used during lectures to facilitate involvement:

- Involving students with open questions and allowing time for student responses.

  Example: Week 9 observation lecture topic focused on internal communication. Students were asked to think about the job they have enjoyed the most and write down three aspects which made it so. They were also asked to do the same for

the position they liked the least. This provided time for students to reflect and consider how to respond. Students were later asked to build on these observations to consider the effectiveness of communication tactics used in these workplaces and if this impacted on their engagement with the role.

- Breaking students into informal, small groups of two to four to discuss practical questions and exercises.

  Example: Week 8 lecture topic focused on public relations in sponsorship and events. As the lecture (one week before the observations) fell on Australia's Melbourne Cup day, this became the theme for active learning techniques. Students were asked to draw one of four sponsors' logos (Emirates, Myer, Channel 7 and Lexus) as they entered the lecture, providing a focus for group membership and the later exercise. Melbourne Cup live television streaming and background information were provided to groups. Students were given time to consider a series of questions aligning theoretical perspectives with practice and report to the whole group. Questions included: what kind of event is the Melbourne Cup; what is it seeking to achieve; why is 'your' organisation sponsoring the event; list some benefits; is it worthwhile?

- Calling on students to think about and write down their ideas on selected topics (including completing blank graphic organisers); then sharing with a peer before articulating to the whole class.

  Example: The peer teaching review session focused on Grunig and Hunt's (1984) four-model theory of public relations. After theoretical presentation supported by examples, colleagues were asked to work in pairs to determine current examples to illustrate the four models in practice.

- Ensuring constructive alignment by linking key theoretical concepts to real world case studies with local and global examples and requiring students required to consider as part of practical exercises.

  Example: Week 9 observation lecture included discussion on two international examples – IBM Values Jam and General Motors bankruptcy in USA and communication with staff in Australia.

Data was gathered during three sessions where observers provided feedback and responses to specific questions via a template. The first teaching session involved a 10 minute presentation to eight Foundations of University Learning and Teaching (FULT) colleagues and convenors in October 2010 where feedback provided insights into strengths and weaknesses of teaching strategies used to engage students. It assisted in gaining an understanding of more effective participative techniques to incorporate in lectures.

This was followed by peer observation where the teaching strategies of a senior colleague in the Faculty of Health Sciences and Medicine (HSM) were observed during a one-hour lecture in November, 2010. The colleague's teaching strategies had been acknowledged as exemplar evidenced by receipt of an Australian Learning and Teaching Council (ALTC) citation (Bond University, 2010). This provided insight into successful techniques used to encourage deeper engagement including participation, graphic organisers (Stull & Mayer, 2007) and humour.

The third session was a one-hour lecture delivered to undergraduate and postgraduate students studying *Public Relations Principles and Practice* and *Public Relations Theory and Techniques* in November (Week 9, Semester 3, 2010). Observations were recorded by both the senior HSM colleague and participating students. Observations and responses were provided by peers and colleagues via a template which was also adapted for student responses.

Student responses were considered important to address the identified gap in the author's teaching practice by providing students' self-evaluation of how encouraged they feel to participate in lectures and if this provides motivation for deeper learning as a result of experiencing a range of active learning techniques. Students also reflected on their assessment of effectiveness in delivering these techniques.

Student response rate was 77% with 17 of the 22 students present providing written observations. Student respondents had been attending lectures and tutorials with the author for eight weeks preceding the observation lecture, so had become familiar with some of the specific techniques used to encourage active participation. This is reflected in responses which include observations beyond the single one-hour lecture. It should also be noted the practical classroom activities are presented in an environment of structured lectures, supported by PowerPoint (PPT) guides.

Analysis

Data collected was analysed through four strategies:

1. To determine if teaching strategies and practical exercises encouraged group discussion and participation during lectures.
2. Did these teaching strategies involve students, specifically considered through the lens of three teaching principles: ensure learning is relevant and applied through using real life and current, local examples; challenge students' current beliefs, and identify and correct their misconceptions of fundamental concepts; and actively engage students throughout the learning experience through dialogue and discussion (Kember & McNaught, 2007).
3. Qualitative comments were analysed for descriptors to provide insight into peer, colleague and particularly student engagement with the teaching strategies. This included indications from students if they believed they were learning better through practical techniques used in lectures.
4. Student responses were also considered in relation to Bond University's formal teacher evaluation (TEVAL) results for the subject in Semester 3, 2010.

Results

1. To determine if teaching strategies and practical exercises encouraged group discussion and participation during lectures

The results indicate the teaching strategies and techniques did encourage participation in the subject with the exclusion of two students (12%) who indicated they preferred less interaction or did not want to provide input into lectures. All faculty observers indicated the teaching strategies successfully encouraged participation (see Table 1).

Table 1

Educator encouraged participation in group discussions and feedback during lectures

Respondent	Yes		No		No response	
	No.	%	No.	%	No.	%
FULT colleagues (total 8)	8	100%	0	0%	0	0%
HSM observer (total 1)	1	100%	0	0%	0	0%
Students (total 17)	15	88%	2	12%	0	0%

2. Did these teaching strategies involve students specifically considered through the lens of three teaching principles?

Table 2

Response to involvement through three teaching principles:

1. *Educator ensured learning is relevant and applied through using real life and current, local examples*						
Respondent	Yes		No		No response	
	No.	%	No.	%	No.	%
FULT colleagues (total 8)	8	100%	0	0%	0	0%
HSM observer (total 1)	1	100%	0	0%	0	0%
Students (total 17)	15	88%	0	0%	2	12%

2. *Educator challenged students' current beliefs, and identified and corrected misconceptions of fundamental concepts*						
Respondent	Yes		No		No response	
	No.	%	No.	%	No.	%
FULT colleagues (total 8)	8	100%	0	0%	0	0%
HSM observer (total 1)	1	100%	0	0%	0	0%
Students (total 17)	14	82%	0	0%	3	18%

3. *Educator actively engaged students throughout the learning experience through dialogue and discussion*						
Respondent	Yes		No		No response	
	No.	%	No.	%	No.	%
FULT colleagues (total 8)	8	100%	0	0%	0	0%
HSM observer (total 1)	1	100%	0	0%	0	0%
Students (total 17)	14	82%	0	0%	3	18%

All faculty colleagues agreed active and deeper engagement was achieved through the teaching techniques used in lectures. All students responding to these questions also agreed they had been encouraged to think deeply about the subject material as described through the three teaching principles (see Table 2).

3. Qualitative comments were analysed for descriptors to provide insight into peer, colleague and particularly student engagement with the teaching strategies. This included indications from students if they believed they were learning better through the practical techniques used in lectures.

Pertinent qualitative responses included:

- Student feedback on the classroom environment indicated students felt it was 'safe' to participate, particularly after involvement in group activities. A student who would prefer not to speak in lectures indicated they felt more encouraged and comfortable to do so. In contrast, two students indicated they would prefer less interactivity in class, but also responded positively to the three teaching principles.
- Peers, colleagues and students most appreciated techniques including: involving audience with open questions and allowing time for student discussion and responses, encouraging interaction among students; opportunity for small group discussion then feedback to class; encouraging students to provide input; 'do-able' classroom tasks; class activities divided into small groups which made it easier to participate.

- It gives (students) the chance to realise perceptions and patterns of thinking are similar to others which makes us more inclined to participate.
- Enjoy breaking into groups to share ideas with the rest of the class. This makes contributing less intimidating as it is a group effort.
- Learning concepts/theory becomes practical and easier to understand and recall.
- Discussion and questions approach exciting and definitely feel included in all discussions despite the large class.
- Class activities/group projects included in the lecture 'forces' participation and makes the lecture more interesting, breaks up the theory.
- Enjoy the examples and case studies because theory then becomes more relevant and practical and easier to recall.
- Examples help when you are studying for the subject.
- Helps studying … learn best this way.
- Recommended improvements mainly centred around delivery speed and suggestions to cover less content (although an English as second language student indicated they had become used to this style of presentation and found it assisted their language skills).
- Two students suggested less interactivity.
- Very organised; lectures with supporting PPT slides help study.
- Faculty suggestions included slowing delivery speed and providing journal references used in lectures before for student information.

4. Student responses were also considered in relation to Bond University's formal TEVAL results for the subject in semester 3, 2010.

TEVAL summaries (HSS, 2011) correlate with student responses in this study and can be interpreted to reinforce the results. Two pertinent questions have been reviewed:

Question 10: I found the teaching methods used in this subject were effective in helping me learn.

Response: Of the 20 students responding to the question, 19 (95%) either strongly agreed or agreed with this statement resulting in a score of 4.60:5.00.

Question 16: All things considered how would you rate effectiveness of this teacher?

Response: Of the 19 students responding to the question, 19 (100%) concluded excellent or very good resulting in a score of 6.47:7.00.

Discussion

The data collected from the triangulated sources of peers, colleagues and students predominantly supported the hypothesis. Most students did respond positively and indicated they were motivated to deeper engagement with the subject when encouraged to actively participate in practical exercises as part of the lecture framework. Interactive components did encourage greater participation and students indicated this helped with understanding and remembering subject content.

Implications for teaching suggest active learning techniques should be embedded in the subject delivery design. However, they cannot stand alone and must be introduced in a framework of clear, "passive" lectures to provide theoretical concepts and engage students in mental processes supporting learning outcomes. Lecturers should also be aware of providing a balanced, 'safe' environment to engage and not alienate students who may not feel comfortable with high level practical techniques. The results are also in line with Clark and Mayer's (2008) assertion that practical techniques must be strongly focused on learning outcomes to maintain relevance and avoid extraneous processing.

The overall student feedback on the subject also points to the benefits of combining practical classroom activities within a 'scaffolding' of more passive techniques; for example lectures supported by clear PPT slides; graphic organisers (Stull & Mayer, 2007).

Successful techniques providing positive learning outcomes for students included: questions offered to the class throughout the lecture keeping students' attention and relating to course materials personally; incorporating real world practices and examples into activities where students felt they could take out of the classroom and apply; breaking the lecture into smaller groups for discussion before feedback to the class; and facilitating a "safe" environment for participation through non-confronting discussions, encouraging individual response and knowing and using student names. Student feedback suggests strong acceptance for active learning techniques with indications this assists learning.

The results point to the benefits of incorporating these techniques into additional subjects with regular observations seeking to determine relevance and impact on student learning. Bond University class sizes and strong faculty connection with students is conducive to establishing an environment where students and lecturers can benefit from focused participation techniques and stronger engagement in the subject, as in this subject through TEVALs (HSS, 2011).

Limitations of the Research

This research is limited by the size of the research group, time and the generalised responses sought from students. While student observations did assist in determining if techniques used were encouraging participation, the study relies on students' own evaluation of their learning. There has been no additional confirming test or data to support student statements indicating they were able to engage with subject matter and

'learn better' or achieve higher grades as a result of the practical teaching techniques. This study also combined multiple participatory techniques so it is impossible to differentiate which had the most beneficial impact.

This points to future research to determine depth of outcomes in learning benefits and grades, and to test specific participatory techniques for individual effectiveness. It would be valuable to determine student outcomes over several subjects (for example, four core subjects in the public relations major) when active learning techniques are incorporated into weekly lectures.

Conclusion

This study set out to determine if active learning techniques incorporated into the framework of passive lectures could increase participation and motivate students to deeper engagement and learning. It has been informed by current literature cautioning on drawing immediate conclusions of deeper engagement as a result of enthusiastic student participation (Stull & Mayer, 2007; Clark & Mayer, 2008; Blumenfeld, Kempler & Krajcik, 2006). Advice was drawn from Clark and Mayer (2008) that the design of practical exercises must be strategically directed to learning outcomes for the subject and focus students on generative processing. Motivated students do not necessarily equate to deeply engaged students and lecturers must introduce steps to sustain motivation to translate student interest into high-quality cognitive engagement (Blumenfeld et al., 2006). The practical techniques introduced into lectures were guided by the author and Nickerson's (2005) suggestions.

Results of student and faculty observations indicated the practical exercises were successful in encouraging group discussion and participation during lectures while highlighting the need to create a "safe", participatory environment meeting all student needs within the group. The question of deeper engagement and learning for students pointed to motivation and engagement with students and faculty agreeing learning was relevant and applied, current beliefs and fundamental concepts were identified and challenged and students were actively engaged in the learning experience.

Practical exercises do not stand alone and must be viewed as a component within the framework of the overall subject, working best when encouraging students to apply theoretical concepts discussed during lectures and guided by both examples and practice exercises, rather than all practice (Clark & Mayer, 2008).

The study, while narrow, did indicate students could be motivated, participatory and engaged in the study of public relations through active learning techniques and this could lead to deeper engagement and learning. However, to work towards achieving this result, lecturers constantly need to be vigilant to ensure the practical activities are not too complicated or confusing, supported by clear lectures, focused on learning outcomes and move students beyond behavioural to cognitive, generative processing.

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Making Multi-Disciplinary Teaching Work:

A Reflective Analysis on Teaching Legal Content to Multi-Disciplinary Learners

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> If a doctor, lawyer, or dentist had 40 people in his office at one time, all of whom had different needs, and some of whom didn't want to be there and were causing trouble, and the doctor, lawyer, or dentist, without assistance, had to treat them all with professional excellence for nine months, then he might have some conception of the classroom teacher's job.
>
> Donald D. Quinn

> A teacher's purpose is not to create students in his own image, but to develop students who can create their own image.
>
> Author Unknown

What is the context of this research?

Bond University requires all students enrolled in a Bachelor degree program to complete four core subjects, chosen from across various different faculties. One of these core subjects, titled 'Contemporary Issues in Law and Society' (CILS), is housed in the Faculty of Law. In addition to being a university core subject, CILS is also available to law students as an elective. A significant number of students enrolled in CILS are in the embryonic stages of their tertiary education, and the course also hosts several secondary school students.

The diversity of students enrolled in CILS presents a pedagogical challenge to a legally trained academic. After all, teaching is a "complex encounter of the human experience" (Dees, Ingram, Kovalik, Allen-Huffman, McLelland, & Justice, 2007, p. 130), and as Donnelly (2007) notes, there is not a generic formula of good teaching that will suit all contexts and student cohorts. It is important for the academic to make legal concepts accessible to students who have little or no knowledge of the law, whilst still providing a challenging learning environment for law students at various stages of their degree program. Given the need to ensure that teaching methodologies are consistent with the needs of this diverse group, this paper seeks to identify appropriate methodologies by which this can be achieved.

What empirical research has been done on this topic?

The significance of a diverse student body is noted by Lewis, Waugh, O'Connor, Napier and Wikramanayake (2009), who argue that "diversity of the student body and internationalising the curriculum are important matters for staff to address" (p. 69). In this context, they advocate for the nurturing of global citizenship in students, arguing it to be a "desirable attribute, which will lead graduates 'to contribute to society in a full and meaningful way' ..." (Lewis et al., 2009, p. 71). Kennedy (2007) also writes about diverse student bodies and argues that as students learn in diverse ways, instructors must therefore use a wide variety of "instructional strategies" (p. 183). Kennedy (2007) goes on to suggest the use of in-class debates facilitates the development of oral communication skills, which are vital for success in most careers. She cites two different students discussing the usefulness of in-class debates:

> "... you listened to both sides of the argument, which I thought was the main strength of the debates, that you do see both sides, rather than just seeing it from one point of view. Lecturers tend to have their own opinion, so in this way we heard both sides of the argument." (p. 184)

> ... [debates] "taught me that I shouldn't be so narrow-minded and should hear things out until I make a final decision." (p. 184)

Kennedy's findings in this context are consistent with the teaching principles espoused by Kember and McNaught (2007) and cited by Kinash (2010). These principles suggest a teacher ought to challenge students' current beliefs, and actively engage students through dialogue and discussion (Kinash, 2010). The principles also argue that learning should be accompanied by real life and current examples (Kinash, 2010) and that a "deep understanding of fundamental concepts" (Kinash, 2010, p. 14) is more important than "covering expansive content" (Kinash, 2010, p. 14). This is supported by the work of Vess and Linkon (2001) who argue the aim of interdisciplinary teaching is to develop students' ability to see the world through the lens of another discipline, rather than to develop comprehensive knowledge of disciplinary content.

The need to ensure that students have opportunities to apply theoretical principles is another aim discussed by commentators on teaching and learning methodologies. For example, Stuesser (2010) notes the problem in not providing opportunities for application of theoretical ideas in the teaching of law subjects. He observes:

> "We expect students to hone the skill of legal argument, yet we rarely give them an opportunity to make a legal argument. We expect that students will be advocates and good communicators, yet we rarely give students the opportunity to advocate or formally communicate" (p. 100).

Where is the gap in the research?

A survey of the relevant literature indicates significant scholarship in teaching out of discipline, and of co-teaching a course with a colleague from another faculty. However, the literature surveyed talked little about the teaching of a specific discipline to students both in and outside that discipline. In a globalised and information rich society, the capacity to teach a multidisciplinary student body will become increasingly important. Therefore, this research seeks to address this 'gap'.

What is your question?

The question posed throughout the research process was as follows:

> What teaching strategies should an educator use to effectively engage non-law students, whilst still challenging law students, in the delivery of a law subject to a multi-disciplinary student body?

How did I conduct my research?

Research was conducted in three ways:

1. First, a peer observation exercise was undertaken. The peer observation was conducted by a senior academic from a non-law discipline. This provided a non-law perspective on the learning experience (See Appendices A and B). Peer observation is arguably a very useful tool in this context. Studies have shown peer observation "... aids the integration of theory and practice ... focuses on the value of interdisciplinary learning and ... the practice of new teachers to higher education can benefit" (Donnelly, 2007, p. 127).
2. Second, research was also conducted by way of a short survey of small groups of students, who at the time of writing, were enrolled in CILS.
3. Third, academic commentary on various aspects of pedagogy was analysed in the context of multidisciplinary teaching.

How did I analyse the data?

The data was analysed as follows:

1. *Peer observation:* The comments made by the peer observer were used to evaluate current teaching methods and to explore mechanisms by which to improve teaching methods.
2. *Survey of students:* The survey results were broken down into responses from law and non-law students. The frequency with which certain comments were made was recorded in order to identify common and consistent themes.
3. *Academic commentary*: After conducting a review of the relevant literature, material that was relevant to the teaching of a multi-disciplinary student body was extracted and analysed in the context of what methodologies were being used, or *should* be used, in the teaching of CILS.

What were the results?

1. Peer observation

The results of the peer observation process can be summarised as follows:

- The use of contemporary real life examples was a well received tool in teaching a multi-disciplinary class.
- The interactive method of teaching, including debates on issues, was useful in engaging students from various disciplines in a discussion of the relevant legal issues.
- The use of multi-media enhanced the learning experience.

As a note of personal reflection, the peer observation process was a useful affirmation of my personal teaching style. The personal lesson I derived from the experience is that while there is certainly room for improvement in my methodologies, much of teaching is common sense and instinctual communication. Therefore, it is appropriate to work on improving methodologies in the context of my own teaching style, rather than trying to forcibly adopt the stylistic approach of other teaching practitioners.

2. Survey of students

Non-law students

Of the students surveyed, 67% of respondents were enrolled in a degree other than law. (Due to logistical difficulties, not every student enrolled in the course was surveyed.) Disciplines included multi-media, business, humanities and social sciences, information technology, sports management and a secondary school student. Consistent themes emerging from the responses of non-law students were as follows:

- The incorporation of case law examples were well received, and were useful in seeking to understand the practical application of a legal concept.
- Legal terminology was at times overwhelming, but this was overcome through use of contemporary real life examples.

Law students

The remaining 33% of students surveyed were enrolled in a law degree. Themes in the responses of law students were:

- Students enrolled in degrees other than law had different perspectives, and this was quite fascinating.
- The discussion of legal concepts was useful in reinforcing the learning of early stage law students.

One law student made a comment that the discussion of legal topics was "too lay man".

Common themes

Notably, 100% of respondents indicated they enjoyed being in a multi-disciplinary class and debating with students from other faculties. All made reference to the use of contemporary 'real life' examples as being of great assistance in the learning process.

3. Academic commentary

A survey of relevant literature revealed the following themes:

- Encouraging global citizenship, global issues and the global dimension of local issues should be part of teaching methodologies (Lewis et al., 2009).
- Interdisciplinary teaching should aim to explain the different perspectives of a discipline, rather than to require substantial knowledge of disciplinary content. (Kinash, 2010).
- Practical engagement and application of theoretical concepts enhances the capacity of a student to understand a technical idea (Stuesser, 2010).

What are the implications?

The implications of the research conducted can be summarised as follows:

1. **There are ascertainable teaching strategies that can be used to cater for multi-disciplinary learners.**

For example, the use of real life examples to illustrate a theoretical point was considered to be very useful both by both law and non-law students who participated in the survey, and by the observer in the peer observation. This theme also emerged in the literature, such as in Kinash's (2010) exploration of the teaching principles. The use of real life examples in CILS should also serve the purpose of teaching global citizenry and provide a global context for, or dimension to, the contemporary issues being discussed.

In addition, the research found practical application of theoretical concepts to be an effective strategy. This was implemented in the CILS course by incorporating mock trials and group activities in tutorials. These methods are supported by Stuesser (2010) and Kennedy (2007) respectively. The comments of the peer observer, the surveyed students and the review of relevant literature also support the use of debate and interactive discussion in CILS lectures.

2. **Effective teaching of Contemporary Issues in Law and Society should focus on principles rather than be comprehensive**

The academic commentary strongly suggests the teaching of CILS should be more focused on general principles rather than trying to teach non-law students how to be lawyers. This makes the aim of teaching CILS clearer and this in turn, will lead to better learning outcomes. I intend to make this a more prominent design feature of CILS in the future.

3. **There are very real benefits to a multi-disciplinary learning environment.**

The student survey indicated there were clear learning benefits to be gained by hearing the views of students from other disciplines. Specific reference was made to the different way in which different disciplinarians think. In terms of an action plan, this research has led me to conclude that I should not only continue with interactive debates and group activities, but I should incorporate more of these.

What were the limitations of my research design?

The limitations of the research design were essentially about scope. For example, the research was based on the experience of only one semester coordinating CILS and the survey was conducted on a small group of students. It was also completed prior to the dissemination of student evaluation of teaching (TEVAL) results. This can be overcome by a continued focus on peer observation and a review of TEVAL results when they become available.

To what further research do my findings point?

In light of the limitations on research design noted above, it is intended that the practice of peer observation be continued. Further, the assessment schedule and tutorial structure will be reviewed to incorporate additional debates and practical activities where possible. In order to continue to monitor the success of these reforms, further surveys will be conducted, and as stated above, TEVAL results will be analysed once available.

Conclusion

In essence, the research indicated CILS is a useful teaching and learning experience. Attempts to incorporate a global dimension to the curriculum, and to encourage debate, were well supported by literature and student experience alike. The research has inspired further efforts to expand the scope of the CILS curriculum to include more discussion of eastern philosophical frameworks and contemporary thinking.

In addition to providing useful insight as to strategies for teaching CILS, the opportunity to engage with other educators and to be part of their reflective process was an invaluable experience for me as an early career teacher. It assisted in identifying and crystallising my philosophy of teaching, and in accepting and acknowledging my strengths and weaknesses. It was both humbling and empowering. The research process, and in particular, the peer observation, also served to illustrate there are tangible ways to improve individual teaching methods without compromising individual style and values. Rather, in improving technical expertise, an educator has a solid foundation on which to develop and nurture individual teaching style – including any flair or flamboyance that may entail.

In essence, and at the risk of sentimentality, the process also served as an affirmation of the value and joy of teaching and learning. In the words of George Bernard Shaw:

> This is the true joy of life, the being used up for a purpose recognized by yourself as a mighty one.

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ATTACHMENT A

Peer Observation of Teaching

Date: Monday 1 November 2010

Educator: Danielle Ireland-Piper, Senior Teaching Fellow

Observer: Jeffrey Brand, Associate Professor

Strengths & Suggested Improvements

Three educator commendations (e.g. maintained eye contact, well-organised, asked questions):

1. Engaged students by starting with an intriguing story (about bananas) to introduce concept of globalisation. An extremely engaging class. Topic material lends itself to discussion and debate (e.g. CILS)
2. Repeatedly centres examples on students' perspective, their language and their varying backgrounds and experiences.
3. Use of contemporary popular press and entertainment media examples enlivens, enriches and informs – excellent!

One educator suggested improvement (e.g. increase volume, summarise at end, slow down):

> Laser pointer never seemed to hit a target. I've been wondering why I'm compelled to use it myself. I think we need to have a QT&L session on pointing, referring to board and slide. The back and forth between screen and class, whiteboard and class is one worth exploring.

TEVAL Questions

Instructions: Insert an x in the selected column.
1 is low (strongly disagree); 6 is high (strongly agree)

1	2	3	4	5	6	Questions
				X		The educator defines expectations clearly.
					X	The educator manages the allotted time effectively.
					X	The educator makes the subject interesting.
					X	The educator treats students in a respectful manner.
					X	The educator challenges me to do my best.
					n/a	The educator provides constructive feedback.
					n/a	The educator provides timely feedback.
					X	The educator is able to clarify or explain difficult concepts.
					X	The educator shows enthusiasm for this subject.
					X	Overall this educator is effective in this subject.

Teaching & Learning Research Question

Educator Question: Did the educator effectively engage non-law students, whilst still challenging law students, in the delivery of a law subject to a multi-disciplinary student body?

Observer Response: Legal concepts and principles were well covered and the larger class remained engaged and participating. Repeatedly challenges her students to think, relate, and participate by asking questions.

Teaching Principles

Instructions: Educators to indicate three principles for comment.

1. Design your teaching to meet your students' future needs.
2. Teach deep understanding of fundamental concepts, even if this is at the expense of covering expansive content.
3. Ensure that learning is relevant and applied through using real life and current, local examples.
4. Challenge your students' current beliefs, and identify and correct their misconceptions of fundamental concepts.

5. Actively engage your students throughout the learning experience through dialogue and discussion.
6. Establish empathetic relationships with your students by getting to know them as individuals.
7. Motivate your students to achieve high expectations.
8. Seek feedback throughout the teaching process and amend, revise, and reinforce in response.
9. Thorough planning is needed for each of your teaching sessions, but you also need to flexibly adapt your plans in the light of feedback obtained in class.
10. Design assessment that authentically measures student achievement of learning outcomes.

Comments:

Principle 2: Key concepts are discussed, defined and debated. In this way, the lecturer allows deeper exploration of a key concept and the minor concepts are introduced along the way. Perhaps the only way to deepen further is to tap into and related or direct to readings?

Principle 3: Wonderful, varied and many examples. Both national and international - fitting for both student diversity and contemporary topics (apropos for this subject). It's lovely that the lecturer embeds multiple references to popular culture products that have relevance.

Principle 4: Many of the ideas conveyed in the class exist in a charged political economy and consequently may be contested through robust debate. One of the strengths of this lecturer's approach is that the content is regularly introduced using appropriate cues such as "alleged" and "according to some" and "however, not everyone agrees...". Love the story about WTO film on Battle for Seattle as a tool to show diversity and complexity of the concept of globalisation. Would be great to direct students to resources such as World Bank Fact Book Data, App, etc

BRILLIANT: If the world pop were 100 www.miniature-earth.com

ATTACHMENT B

Peer Observation of Teaching

Date: Tuesday 26 October 2010 (Week 7)

Educator: Jeffrey Brand, Associate Professor

Observer: Danielle Ireland-Piper, Senior Teaching Fellow

Strengths & Suggested Improvements

Three educator commendations (e.g. maintained eye contact, well-organised, asked questions):

1. Dynamic and efficient structure including: an outline of the material to be covered; a news items sections (which served to illustrate the relevance of the course to the 'real world'); intermittent audio visual material; and a quiz to conclude the lecture (which probably also served to evaluate whether learning objectives were met).
2. Very engaging and well balanced delivery with a highly effective balance between a friendly conversational style and the requisite level of formality and authority. This included well balanced use of highly relevant audio-visual material and real time interaction with students using twitter.
3. Consistent reference to overall themes, key terminology and course frameworks served to provide students with context and structure. The diagram was a useful visualisation of the context.

One educator suggested improvement (e.g. increase volume, summarise at end, slow down):

(**Note: the following comment is likely to be because the observer only sat in on one lecture in the middle of a semester and the issue was likely dealt with in the beginning of the course) . It wasn't clear to me why students needed to know about networks and digital intelligence. Is it so they can use them in their professional life? Or understand their broader implications for society?

TEVAL Questions

Instructions: Insert an x in the selected column.
1 is low (strongly disagree); 6 is high (strongly agree)

1	2	3	4	5	6	Questions
				X		The educator defines expectations clearly.
					X	The educator manages the allotted time effectively.
					X	The educator makes the subject interesting.
					X	The educator treats students in a respectful manner.
					X	The educator challenges me to do my best.
					n/a	The educator provides constructive feedback.
					n/a	The educator provides timely feedback.
					X	The educator is able to clarify or explain difficult concepts.
					X	The educator shows enthusiasm for this subject.
					X	Overall this educator is effective in this subject.

Teaching & Learning Research Question

Educator Question: N/A

Observer Response: N/A

Teaching Principles

Instructions: Educators to indicate three principles for comment.

NOTE: As the educator was not required to indicate three principles for comment, the observer identified three principles which were most relevant to the lecture observed.

1. Design your teaching to meet your students' future needs.
2. Teach deep understanding of fundamental concepts, even if this is at the expense of covering expansive content.
3. Ensure that learning is relevant and applied through using real life and current, local examples.
4. Challenge your students' current beliefs, and identify and correct their misconceptions of fundamental concepts.
5. Actively engage your students throughout the learning experience through dialogue and discussion.
6. Establish empathetic relationships with your students by getting to know them as individuals.

7. Motivate your students to achieve high expectations.
8. Seek feedback throughout the teaching process and amend, revise, and reinforce in response.
9. Thorough planning is needed for each of your teaching sessions, but you also need to flexibly adapt your plans in the light of feedback obtained in class.
10. Design assessment that authentically measures student achievement of learning outcomes.

Comments:

Principle 9: The lecture was so well planned that the educator did not need to look at content on slides at all in order to cover material identified. The educator was expert at engaging with the class and moving students on where necessary. Due to delays in the previous class vacating the theatre, the lecture commenced 10-15 mins late. Notwithstanding this interruption, the educator covered all material in a dynamic way without appearing rushed. This was exceptional.

Principle 3: Every theoretical point made in the lecture was supported by reference to a real life and current example. This made the material relevant to the students and enhanced a deeper understanding of the subject matter.

Principle 5: The educator achieved this with considerable success. The educator constantly interacted with students throughout the lecture, by asking questions and through encouraging use of twitter. Students were actively engaged and interested throughout the lecture and did not at any stage appear disinterested.

An Evaluation of How Universal Design for Learning (UDL) Principles Were Incorporated into Teaching Fundamental and Contemporary Skills to Property and Urban Development Tertiary Students

Yvonne Maher, Senior Teaching Fellow
Institute of Sustainable Development and Architecture

Abstract

Having been a practitioner in the field of property valuation for the past twelve years, I now categorise myself as an early career teacher. My first teaching experience started eight months ago at Bond University (Bond). Enrolling in Bond's *Foundations of University Learning and Teaching* (FULT) subject early in my teaching career has given me the opportunity to acquire some practical skills and theoretical knowledge about teaching. This was done in a supportive and non-threatening environment, as most of the course participants had similar practical teaching experience at Bond. Part of the course included having my own teaching peer reviewed by eight course participants as well as by an experienced and awarded teaching professor. I incorporated my newfound knowledge of Universal Design for Learning (UDL) (Meyer & Rose, 2000) principles into my practical lessons. UDL emerged from the field of architecture when government legislation in the USA required that buildings provide access to all people, including those with disabilities. Lieberman, Lytle and Clarcq (2008) are credited with being leaders in the development of the UDL framework for teaching to accommodate variations in students' backgrounds, learning styles, abilities and disabilities. McGuire, Scott, and Shaw (2006) developed a set of principles of Universal Design for Instruction (UDI) intended to assist educators to anticipate the diversity in learners when planning and delivering instruction to students in higher education. Based on my own teaching philosophy of equipping students with the relevant skills and knowledge to be able to perform tasks set for them by their future employers, the process enabled me to evaluate whether my explanations of various concepts were clear and easily understood by the students.

What is the context of this research?

When developing the content for the subjects I currently teach, I aim to equip my students with knowledge and skills they may need in their future employment. I do this by incorporating real world experiences into my teaching. This is based on my teaching philosophy; to instil students with confidence in their own ability to perform tasks set for them by their future employers. This philosophy developed from my personal experience, where upon graduation with a Bachelor's degree, I felt that I lacked the practical skills needed to carry out the duties of my profession.

This view is supported by Litchfield, Frawley, and Nettleton (2010) who regard the traditional focus of university curriculums as being insufficient to meet the expectations of a wide range of stakeholders that expect universities to produce graduates who are more ready for professional employment.

My research was based on evaluating three of the ten teaching principles formulated by Kember and McNaught (2007). These were to design my teaching to meet the students' future needs; to teach a deep understanding of fundamental concepts; and to ensure that learning is relevant and applied using real life and current local examples. My approach to achieve this goal was to design my course material on the principles of UDL in higher education, based on the work of Meyer and Rose (2008) who suggest that barriers to learning are likely to be found in the curriculum rather than in the individual learners who have diverse abilities, interests and skills.

What empirical research has been done on this topic?

UDL eliminates barriers to learning that some students may experience and this is not achieved through uniformity but rather through flexibility and creativity (Meyer & Rose, 2000). Edyburn (2010) views UDL as being about problems that can be resolved through innovative design, with technology being simply a delivery system. As there is a need for property valuers to develop knowledge about how sustainability issues affect property values, I have attempted to include material into my course curriculum that will provide students with the skills and knowledge needed to be able to assess real property not only in terms of its physical attributes but also within its environmental context. Although all of the above commentators espouse different perspectives on teaching and learning, they each offer valuable insights into how designing teaching to suit the needs of the students can enhance their learning.

Where is the gap in the research?

A literature review indicated a lot of research has been undertaken into how UDL can address teaching students with physical and mental disabilities. There appears to be limited research on how UDL can be used in higher education to address the diversity of age, experience and cultural backgrounds typically found in the classroom setting at Bond. The literature indicates the need for research into how to evaluate whether what is being taught to a group of diverse learners is in fact equipping them with the skills and knowledge they may need in the future.

What is my question?

My research question was whether or not my explanations of various descriptions were clear and easy to understand.

How did I conduct my research?

The first phase of the research involved completing a questionnaire which helped to formulate my teaching perspectives inventory, as developed by Pratt and Collins (2001). Refer to the Summary of Five Perspectives on 'Good Teaching' (http://www.teachingperspectives.com/tpi_html/tpi_summaries.htm). By completing this inventory I identified an area I could address in order to improve my teaching.

The second stage of the research occurred when I was peer reviewed by eight participants in the Foundations of University Learning and Teaching (FULT) subject. This presentation involved teaching a ten minute session on a topic that I normally teach to property valuation students. As the brief was to not use any electronic tools for the presentation, I prepared my presentation in advance using large sheets of butcher's paper.

The third phase was undertaken in a classroom setting, where I presented as a guest lecturer for forty-five minutes to students studying urban development and sustainability on a topic that I have also delivered to property valuation students. I prepared for this session using the Principles of Universal Design for Instruction developed by Scott, McGuire, and Shaw (2001). The presentation was delivered using PowerPoint™ and other tools to show how sustainability issues can be examined through Geographic Information Systems (GIS), websites and a hard copy of a State government publication, *The South East Queensland Natural Resource Management Plan 2009-2031.* This publication is the non-statutory environment and resource management plan for South East Queensland.

For that presentation I was observed by an experienced and highly awarded university professor from another faculty in the university, as well as the normal lecturer for that class.

How did I analyse the data?

Completing the teaching perspectives inventory questionnaire showed that my teaching perspectives philosophy (not personality-based style or technical method) is dominant in the areas of transmission and apprenticeship where I achieved my highest score of 37 in both areas. My lowest score of 30 (my recessive perspective) was achieved in the area of social reform whilst my scores in the areas of developmental and nurturance ranged between my lowest and highest scores.

From a transmission perspective, effective teaching requires a substantial commitment to the content of the subject matter whilst effective teaching from the apprenticeship perspective is a process that socialises students into new behavioural norms and ways of working. My scores indicated that with regard to my teaching, in the area of transmission, my beliefs, intentions and actions are highly consistent whereas in the area of apprenticeship there was some difference between my beliefs and action.

My fellow FULT observers gave both verbal and written feedback on my research question and in particular addressed whether they thought that my teaching was designed to

meet the students' future needs; whether I taught a deep understanding of fundamental concepts; and whether what they learnt was relevant and applied using real life and current local examples.

By analysing my teaching perspectives inventory and the feedback I received from the observers in the first teaching session, I made a conscious effort to change my teaching methods to try to incorporate their main suggestion of asking the learners more questions.

What were the results?

In both teaching sessions, the feedback was positive and affirmed my teaching methodology was achieving the desired result in the area of transmission. In both sessions, it was suggested I should ask the learners more questions to ensure they comprehended what was being taught. This would also serve as a means of improving my teaching philosophy in the area of apprenticeship by identifying in a timely way whether or not my explanations of various descriptions were clear and easy to understand.

What are the implications?

The implications for me are that I need to consider how I can incorporate some triggers throughout my presentations to ensure that I ask my students questions more often. I now realise I tend to get caught up in the actual delivery of the content. This could be attributable to the fact that in both sessions I may have tried to present too much content for the time period I was allocated for the respective presentations. In my own classroom setting where I teach a combined three hour lecture and tutorial, I have more time to ask the students questions by incorporating them into tutorial work. However, I am now mindful of the need to allocate specific triggers and time for questions.

What were the limitations of my research design?

The main limitation of the research design was that I did not have the opportunity to properly test the students to see if my methods of instruction were conducive to their learning. Anecdotal observations confirmed I was clear in conveying my message.

To what further research do my findings point?

This has given me the incentive to redesign my course content to incorporate time to question the students on an ongoing basis throughout my delivery. There are a lot of resources available to teachers of higher education to teach real property valuation and development students about sustainability issues. One of the key skills of developers and property valuers is to identify the highest and best use of a site. It is essential that students have a fundamental understanding of the risks associated with development. Without an understanding of the characteristics of land and sustainability issues, including the statutory environment in which is it situated, practitioners run the risk of incorrectly estimating the potential for development of a site. As governments continue

to develop strategies about how to deal with climate change adaptation and mitigation, the need for property practitioners to understand sustainable development principles will become more urgent. I will continue to modify my style of teaching in the future to ensure that I ask questions more often in order to assess the students' understanding as we progress through each session.

Conclusion

Applying UDL principles to the teaching of real property and development courses to tertiary students has given me creative licence to think outside the square to address the issues of diversity in age, race and experience in the university classroom setting. By incorporating a variety of teaching tools into the curriculum, including those being used by practitioners, students should be better prepared for future employment.

This peer observation exercise has been a positive, practical experience in that it has allowed me to receive constructive feedback on my teaching style and to evaluate whether in fact it is consistent with my own teaching philosophy and teaching perspectives inventory. The process confirmed my explanations of various fundamental concepts were clear and easily understood. This research also confirmed that in the area of transmission, my beliefs, intentions and actions with regard to my teaching are highly consistent whereas in the area of apprenticeship there was some difference between my beliefs and action. It has been effective in highlighting an area I need to pay careful attention to in designing my course material in the future. My research supports the theory that by adopting the UDL principles of teaching, courses can be designed to meet the students' future needs, to teach a deep understanding of fundamental concepts and to ensure learning is relevant and applied using real life local examples.

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Fast, Medium or Slow?

Balancing the Pace of Delivery and Completion of Tutorial Content Effectively

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Abstract

Learning occurs when one steps out of one's own comfort zone (Dewey, 1909). The present study, exploratory and descriptive in nature, was a result of seeing what lay outside my comfort zone of teaching. The main aim of the study was to investigate if I could balance the pace of delivery with completion of content. The research was conducted in a supportive, non-judgmental environment where I was offered feedback on my teaching style. Results revealed that the balance between pace of delivery and completion of content was achieved, but there were other areas which needed attention. Implications of the results, limitations of the research and directions for future research are discussed.

Research Background

It is surprising that one needs a degree in education to teach school children, but only needs to have some knowledge in one's discipline to be a university lecturer. Fenstermacher and Richardson (2005) pointed out that successful teaching was different from good teaching. Successful teaching is one where intended learning is the outcome. It did not matter how the teacher taught as long as the students learnt what was taught. Good teaching or quality teaching, in addition to learning as an outcome also focused on methods employed to teach and accountability. This is especially important in my field of Psychology where we deal with other people's lives. In a particular reference to teaching statistics (a subject I teach), Sowey (1995) stated that a good statistics teacher is one who makes the subject memorable.

Hammersley, Fletcher and Orsmond (2005) emphasised that peer observation is a tool that can be used to encourage quality teaching as the process promotes reflection, identification of areas of training and development, discussion and diffusion of best practices. I related to the authors' concept of reflective practitioners, "(they)...are those who use experiences as opportunities to consider both their philosophy and their

practice" (p. 214). While I did not know the term 'reflective practitioner' earlier, I knew I wanted to participate in Foundations of University Learning and Teaching (FULT) because I wanted to know the theory behind the practice of teaching and because I wanted to be an innovative, inspiring and a better teacher. Peer observers can also be considered 'critical friends' as elucidated by Handal (1999). A critical friendship includes belief in the professional competence of the critical friend, trusting the intentions of the critical friend and confidence that the critical friend will provide an honest critique (Handal, 1999). Furthermore, in a survey conducted by Kohut, Burnap, and Yon (2007) about the utility of peer observations, it was found that both the observers' and the observees' teaching improved as a result of participating in the process.

Empirical Research

Statistics is a much feared subject. Research indicates that approximately 80% of social and behavioural sciences undergraduates experience statistics anxiety (Onwuegbuzie & Wilson, 2003). Student motivation is often low as statistical knowledge is not perceived as useful or meaningful (Summers, Waigandt, & Whittaker, 2005) as they may know how to use various kinds of statistical tests, but not when to use them (Hall, Vance, & Tech, 2010). Based on interviews with four statistics teachers and five of their students, Eichler (2008) suggested that a greater understanding of teachers' beliefs and the impact of these beliefs on students' beliefs and knowledge was required. Fortunately, interest in statistical education is a growing field with a committed group of educators, psychologists and statisticians researching the teaching and learning of statistics (Garfield & Ben-Zvi, 2007).

So what are the qualities of a good statistics teacher? This question was explored by Petocz, Gordon, and Reid (2006) in a series of e-mail interviews with an international group of statistical educators. The most frequently quoted response was a sound base of knowledge of statistical theory and practice, followed by a bouquet of personal attributes such as enthusiasm, good listening skills, good communication skills, flexibility, sense of humour and an interest in statistical pedagogy. My interest is in statistical communication, in particular, the pace of delivery. When dealing with a complex subject like statistics, students need enough time to listen to the educator, write down important points and reflect on what they have heard and written. There seems be a dearth of studies which address the pace at which a statistics educator should go. One well-researched area is statistics anxiety, where the pace of delivery is briefly featured, is discussed in the following sections.

Cruise, Cash, and Bolton (1985) developed the Statistics Anxiety Rating Scale (STARS), proposing that statistics anxiety had six facets: Worth of statistics, interpretation, test and class anxiety, computation self-concept, fear of asking for help, and fear of statistics teachers. Williams (2010) investigated the relationship between instructor immediacy and statistics anxiety. Instructor immediacy is an array of non-verbal and verbal communicative behaviours that influence how students perceive physical and psychological closeness to the instructor (Anderson, Norton, & Nussbaum, 1981). Williams stated that statistics teachers can reduce fear of statistics among students by practising

immediacy behaviours such as smiling, maintaining eye contact and being expressive verbally. The author conducted a pre-test post-test control group study where instructor immediacy was the independent variable and statistics anxiety was the dependent variable. Two groups taught by the author were the experimental groups (where immediacy was consciously practiced) and the other two groups taught by different instructors were the control groups. The course curriculum, timing and textbook were the same for all four groups. A pre test baseline measure of statistics anxiety (using STARS; Cruise et al., 1985) was obtained from all groups on the first day of class followed by a post test measure of statistics anxiety towards the end of the semester.

Results indicated that there was a statistically significant relationship between display of instructor immediacy and reduction in statistics anxiety. While students in the experimental group showed a reduction in statistics anxiety on all six facets, the largest relationship was between immediacy and reduction in fear of the statistics teachers. Fear of the statistics teachers subscale assesses students' anxiety about asking for help in comprehension of statistics and their perception of the statistics teacher, for example 'statistics teachers talk so fast you cannot logically follow them'. I believe the pace of delivery of a statistics lecture and/or tutorial plays a key role in comprehension of statistics and in reducing statistics anxiety. Williams' study is an important one as it emphasises the role of instructor characteristics in encouraging students. However, the pace of content delivery is an area which needs further research.

Marson (2007) evaluated three empirically supported strategies of repetition, immediate feedback and use of original data to teach statistics to students over an eight-year period. Marson outlined his three teaching strategies at the beginning of class and invited feedback and reflection on the strategies all through the semester. The feedback received indicated that in general the students appreciated the strategies, liked being involved in the teaching method, and were surprised that the instructor was concerned about their learning. The important point to note is that the students were surprised that the instructor was concerned about their learning. In my past couple of teacher evaluations I have noticed that my statistics students have suggested that I go at a slower pace of content delivery. However, it is difficult to ascertain how slow is slow. During FULT I learned about Universal Design for Learning (UDL), where learning is initially designed for a niche population, but ultimately benefits everyone (Burgstahler, 2008). I decided to teach at the pace of the slowest student in class so that everyone would have enough time to take notes, construct their own meaning of the content, reflect and clarify doubts.

Research Question

While interest in teaching statistics is a growing field, there is a lack of research in the pace of delivery of content. If adopting the UDL methodology (Burgstahler, 2008), a point to remember is while going at a slower pace is most likely to benefit all students, will completion of the curriculum be compromised? In order to address the gap in the literature and to add to the body of knowledge, I undertook an exploratory study to investigate if I, as a statistics educator, could balance the pace of delivery and completion of content effectively.

Method

Participants and Procedure

This research was carried out in two phases. In phase one, I was observed by my FULT colleagues while I taught a prepared ten-minute session on a topic which was part of my current teaching curriculum. In phase two, I was observed by my peer observation partner, an Associate Professor of Law, during a scheduled Multivariate Research Methods tutorial. The process of peer observation was largely guided by Bell (2005), who suggested a structured process of planning, teaching, observing, discussing, reflecting and experimenting. In both phases, verbal and written feedback on my teaching was provided.

Materials

Peer Observation of Teaching (FULT, 2010). The Peer Observation of Teaching is an instrument designed to provide feedback to the FULT participants. It is comprised of four sections. Section one is where the observer provides commendations and suggestions for improvement in a free response format. In section two, 10 teacher evaluation questions are rated by the observer on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Some example items are: 'The educator defines expectations clearly' and 'The educator is able to clarify or explain difficult concepts'. Section three is where the observer is provided specific feedback in a free response format on a question identified by the participant (e.g. my question was 'The educator balanced the pace of delivery and covered the tutorial content effectively'). The last section was where the observer provided feedback in a free response format on three out of ten teaching principles, which were highlighted by the participant. The three teaching principles I chose were:

- Teach deep understanding of fundamental concepts, even if this is at the expense of covering expansive content.
- Actively engage your students throughout the learning experience through dialogue and discussion.
- Thorough planning is needed for each of your teaching sessions, but you also need to flexibly adapt your plans in the light of feedback obtained in class.

Results

Qualitative Analysis

A theme analysis of the commendations from colleagues and my peer observation partner revealed the following themes: 'well-structured', 'well-organised', 'engaging', and 'good examples'. The key themes that emerged for suggestions to improve were: 'provide bigger picture', 'summary at the end', and 'highlight key points'. Regarding my specific question on balancing pace of delivery and covering the content, the key theme to emerge was that it was achieved.

Quantitative Analysis

The mean scores on the 10 teacher evaluation questions (rated on a 6-point Likert scale) ranged from a minimum of 3, on the question 'The educator defines expectations clearly' to a maximum of 6, on the question 'The educator manages the allotted time effectively'. The mean scores on all questions are displayed in figure 1. The 10 questions were:

Q1. The educator defines expectations clearly.

Q2. The educator manages the allotted time effectively.

Q3. The educator makes the subject interesting.

Q4. The educator treats students in a respectful manner.

Q5. The educator challenges me to do my best.

Q6. The educator provides constructive feedback.

Q7. The educator provides timely feedback.

Q8. The educator is able to clarify or explain difficult concepts.

Q9. The educator shows enthusiasm for this subject.

Q10. Overall this educator is effective in this subject.

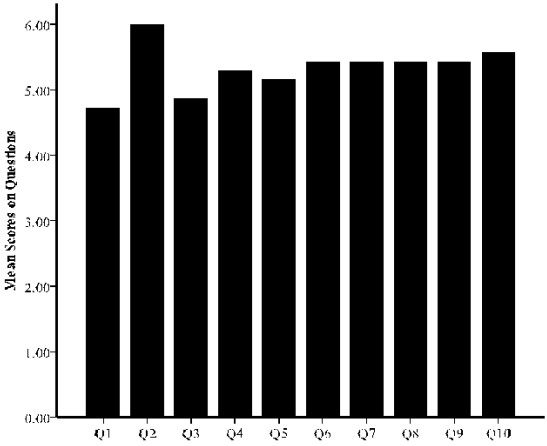

Figure 1. Mean scores on Teacher Evaluation Questions

Discussion

The main aim of the present study was to engage in a process of teaching, observing, reflecting and experimenting in order to enhance teaching quality (Burgstahler, 2008). The results indicated that the strategy I was using regarding the pace of delivery (going at the pace of the slowest students) was appropriate. However, the results also indicated that an area which I do need to work on is providing the bigger picture, the 'why' behind the 'what' and the 'how'. This is apparent by the lower mean score on the question 'The educator defines expectations clearly'. After being made aware of this error, I made a conscious effort to spend more time at the beginning of my tutorials to explicate *why*, what we are doing is important to know. The theory behind the practice is covered in the lecture, but needs to be reinforced in the tutorial as well.

It should be kept in mind that the present study was exploratory and descriptive in nature and therefore any inferences drawn are limited in generalisability. A quasi-experimental study with varying pace of delivery would better establish cause and effect. Future researchers could elicit feedback on their specific question from their students as well as their FULT colleagues and peer observation partner. Feedback from students, colleagues and the peer observation partner would provide different perspectives which in turn can guide one's pedagogy.

Participating in FULT has been an enriching and fulfilling experience for me. While regular feedback on teaching practice is provided by students, it can often be coloured by the marks received in that subject. Feedback by colleagues in a non-judgmental environment is more conducive to teaching and learning to teach. For me, the most important attribute of this process was that it was not just an evaluation of teaching, but thinking about it and learning from it (Handal, 1999), and learned I have.

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Learn to Teach & Teach to Learn:

An Insight of a Young Academic

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This is a slightly self-indulgent reflection on my teaching style and philosophy. I am grateful to the office of QTL (Thanks Shelley, Kayleen, Lauren and Marilyn) for the hard work they do in promoting more effective teaching, especially for a junior academic member like me.

Working in one of the top Australian universities, and being at the start of my young academic career, I recognise that my research is vital to my success. Nonetheless, I am a passionate teacher and believe that my teaching activities complement my research activities.

My first experience of teaching came in the form of sports coaching. I have coached football (Australians call it soccer) since I was 16, and hold a semi-professional football coaching qualification. Though this experience may seem unimportant, I believe that the philosophy underlying my teaching and that underlying the coaching of sports are quite similar.

Imagine a sports coach intent on imparting a particular skill to his player(s), whatever their age or skill. Now imagine that this coach simply gets the players to sit in front of him while the coach proceeds to demonstrate the skill(s) he hopes to pass on. While some, the best and most eager players, will pick up some technique from this display, for most, this will largely be a waste of time simply demonstrating that the coach has the skill that they wish to acquire. Most people accept that merely watching someone else do a sport is not the most effective way of teaching it (if it were, then UK pubs would be filled with top sports stars!); and yet this is something that is done quite regularly in academic teaching (and, I suspect, in most of the university subjects).

The key elements of a good coaching session are: breaking the skill down into manageable and component parts; encouraging an active learning environment; constant reminders of the big picture; fixing common faults; and continual encouragement. It is also useful to remind the players of the transferable skill sets that they are developing; they may be doing work on shooting, but it will also help their fitness and defensive skills.

I believe that lecturers should, similarly, aim to follow this blueprint for a successful session. And with this philosophy in mind I am drawn to the office of Quality, Teaching, and Learning's Foundations of University Learning and Teaching course.

Adding Value

When students begin a new course, they do not need to be convinced that I, as the lecturer, understand and can cover the material; they take this as given. Therefore simply giving them the answer in the way I would do it, without considering which aspects they might find hard, without discussion of why the approach is relevant, and without linking it to the remainder of their studies, adds little value. In such situations students will simply lose motivation and interest in the class.

Like sports coaches, university lecturers need to add value in their teaching. They need to provide something beyond what the student can get alone with a book or a set of PowerPoint notes. In the absence of teaching understanding and an engagement with the issues, students lose interest.

According to Bransford, Brown, and Cocking (2000), there is no universal best teaching practice. However it can be guided by a core set of learning principles and then the selection of teaching strategies can be purposeful. They went on to describe that focusing on how people learn also will help teachers move forward.

Upon completion of the FULT course, it is my intention that when I am delivering teaching sessions, I will be able to adopt the Bransford et al (2000) principles to provide a clear structure and the big picture of the course/subject. I will try to be clear in delivery of each step of the analysis. I will try to engage constantly with my students but try to make the environment a fun and interesting one, and one in which it is okay to make mistakes. I hope to emphasise all the great things, in addition to the material that I am trying to help them with.

I am constantly trying to make sure that the students are following the pace of my delivery, and I will try to make sure there is ample opportunity to rejoin the lecture if a student has drifted off. All of these contribute greatly to student motivation.

Motivation is the key to the successful coaching session, as well as to the successful economics of a sustainable development teaching session. According to Kember and McNaught (2007), motivation also comes through being involved in learning activities. Football pundits talk of football managers "losing the dressing room"; that is, their players no longer believe in the tactics and methods of the coach and therefore lose motivation which results in poor performances. A similar concept, "losing the lecture hall", is the cause of many lecturers' poor standing amongst the student body but the lecturer reaction is typically just to curse the need to teach and to wish that students would stop moaning. While attending the peer-review session in Marilyn's lecture, I have witnessed how she was able to maintain the motivation throughout the two hour session.

From my observation, the basic premise is simple; motivated students make the teaching experience more enjoyable for the teacher, and this generates more teaching enthusiasm which rubs off on student motivation. We enter a positive cycle of students appreciating you and you looking forward to teaching them. This is how I believe most people start their teaching career.

No one wants to be a poor teacher; unfortunately, many do not start well. We have all at some time faced a class of silent students who stare down at their page (I suspect Facebook pages); if our reaction to this situation is to adopt a more defensive "give them the answer and get out" approach, then this reduces student involvement and motivation even further. We have entered a negative cycle which ends in little fulfilment for either teacher or student.

Transferable Skills

To understand student motivation, one needs to understand why students are in your class. Of course, students are assessment driven (Biggs & Tang, 2007; Kember & McNaught, 2007). However, sometimes they have to be (degree regulations), but then the question is why are they in the degree or what are they hoping to get out of it. For most students, your class is just a stepping stone to some bigger goal of employment.

Therefore, through their courses students need to develop transferable skills that make getting a good job more attainable. The university has endorsed a list of Graduate Attributes which underpin curriculum development and assessment at Bond University. These attributes are:

- Knowledge & Critical Thinking
- Leadership, Initiative & Teamwork
- Communication Skills
- Responsibility

This list is not exhaustive, nor will it apply to all students, but my experience is that, unfortunately, students do not always see the benefit of these transferable skills on their own. As well as a clear understanding of what it takes to succeed in the course, students also need to be made aware of the transferable skills that they will acquire in the course.

These skills are inherently linked to issues of motivation and participation; students must put in the effort to gain them. Here the lecturer can use positive reinforcement for trying to get to the correct answer, and encourage a risk-free environment where failure is refusing to try. It is also important to ensure participation of all students; it is too easy for teachers to fall into the trap of always taking answers from the best student. It is at this stage where I have benefited fully from Lauren Hives' expertise on iLearn to bring the best out from introverted students.

Helping students to develop communication skills, either written, oral or presentational, is another important element of the teaching experience; university presents a risk-free environment to learn important transferable skills in this regard. Especially where the assignment is formative, our main teaching tools are feedback and encouragement.

Cultural diversity has become a fact of life in higher education (Burgstahler, 2007). In an increasingly global learning environment, oral communication is often between two non-native English speakers (and even one, let alone two, non-native speaker presents challenges to two-way communication). I believe that we, as teachers, can do a lot more to make the learning environment conducive to the education and learning of those coming from non-English backgrounds. The words we use, how we present, and especially how we make use of the whiteboard, can all facilitate an easier time for both student and teacher. I was especially enlightened during one of the FULT class session which includes international students and the roundtable discussions that took place that particular evening.

While I enjoy the opportunity to mould the minds of students (how I "spin" the subject can determine how my students think about Sustainable Development economics and policy), teaching also benefits my research through the development of my own transferable skills.

Teaching undergraduates, for example, forces me to simplify the subject matter and truly understand the material; this helps me to identify gaps in the existing models and stimulates research ideas. Through teaching, I develop my abilities to present and to think on my feet. I often present my own developing research to postgraduate students, who, because they are in a risk-free environment, are happy to ask tough questions that force me to think hard about the implicit assumptions in my work.

Low-Cost, High Value-Added Teaching Methods

> "More important than the curriculum is the question of the methods of teaching and the spirit in which the teaching is given"(Russell, 2007).

While this view aligns closely with my own emphasis on the learning environment, my concern is that people wrongly interpret the quote as meaning that the only way to teach effectively is to introduce new and innovative Web 2.0 teaching practices. While I am always very excited by innovative new ways to support learning, my worry is that the time and resource costs of these approaches mean that they are never widely adopted by other lecturers.

For example, I know of some lecturers who make extensive use of audience response gadgets to "ask the students" in real time and display the results quickly. Others have completely redesigned their course emphasising problem-based learning (PBL). These wonderful tools involve significant fixed costs. Too much emphasis on these high-cost methods only serve to push the inexperienced lecturers away from Teaching and Learning, and those who aim to improve the quality of teaching. This is consistent with

Burgstahler's seven principles of Universal Design (UD) which reinforces my belief of adopting low-cost yet high value-added teaching methods (Burgstahler, 2007).

My focus is actually on relatively simple, easy to implement teaching methods which can be used by new or more experienced colleagues. I shall briefly mention a few of these low-cost ideas here:

I try to maintain a list of objectives for each session on the board, which I tick off as we go. This serves as a simple big picture guide through the material that really helps keep the students thinking on track and lets them see why each step is important. Demonstrating relevance is a prime way to promote interest in my students. Relevance can be shown by giving an application of a theory, relating it to real-life examples, to current topics or to local applications (Kember & McNaught, 2007).

I constantly engage with my students in lectures and classes to get feedback on student understanding. Rather than simply asking them, I get them to work through the problems themselves or in small groups (even during the lecture). By forcing them to take an active role, students learn more and as they see the positive results over time, they grow in motivation and participation.

I encourage my students directly, congratulating them when they are correct, or even just for trying in class, and indirectly, by taking an interest in them and what they want to do, highlighting how what they learn might help them and give them an advantage in their pursuit of their goals.

I try to ensure that feedback for written work properly addresses weaknesses and lets the students see what changes they must make in order to improve their grades. I also encourage students to reflect on their own work by asking them to submit a post-mortem outlining what they would do differently if they could do it again.

To generate participation, I never accept the answer "I don't know". If offered, I say - "OK, well let's work it out together." I then proceed to try and tease the answer out of students by asking them the questions that they should be asking themselves while they "think on their feet". It is crucial that all students are asked randomly and we avoid the free-riding problem.

As this inclusive, active-learning environment is new to students, some persistence is typically needed. But over time, students begin to naturally think on their feet and so I can continually make the questions I ask them harder, deeper and more difficult to think through so that they develop the skills further.

Another simple thing is to apply the human touch. Getting to know your students and showing an interest in them certainly makes them more interested in your teaching and allows them to feel a really important part of the class.

Finally, the reality is that students will never focus 100% in your classes and sometimes will drift off. Breaks in the teaching - either by changing the style of teaching and approach (for example pair work), or even just a pause to retrace the main points so far, allow lost students the opportunity to mentally rejoin the session.

Going Forward

While I am still relatively new to the life of academia, I feel very excited in trying to develop an effective method of teaching that students generally enjoy. I am constantly looking to learn and develop as a teacher, seeking new teaching methods to improve the student learning experience. Upon completion of the FULT course, I now aim to further develop my teaching methods by enrolling in a graduate certificate program in teaching (wish list for 2011). I also constantly speak with some of my senior colleagues whom I know to be excellent teachers about the methods of teaching that they find effective. All of this allows me to reflect on my existing teaching practices and refine them or augment them with new approaches.

Additionally, I am hoping to undertake some pedagogical research to explore the effectiveness of a higher cost teaching method (another wish list in 2011). The project aims to quantify the effect of a popular classroom game on student outcomes. To do this I am using an experiment with students as my learning subjects; I will assess the extent of, and quantify, the benefits of a classroom game on student outcomes in both the short- and medium-run (Work in Progress).

Conclusion

Overall, I love teaching and I really get a buzz from it. I believe it helps my research and I find that imparting knowledge to students is greatly fulfilling.

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AUSTRALIAN LEARNING AND TEACHING COUNCIL

CITATIONS AND NOMINATIONS 2011

For a full introduction to the Australian Learning and Teaching Council (ALTC) initiatives, readers are directed to the introduction to the ALTC 2010 documents in this book (p. 23). At this point in the book, we wish to note changes to the Australian structure of the national teaching and learning body. When the Bond University 2010 and 2011 Citations and Awards were nominated and granted, they were administered through the government-funded independent entity in the form of the ALTC. As of September 2011, the ALTC has been closed and all subsequent initiatives of this kind will be administered through the Department of Education, Employment and Workplace Relations (DEEWR which is a direct department of the Australian government. At consultation sessions, employees of ALTC and DEEWR assured stakeholders that the popular ALTC initiatives, such as Citations and Teaching Awards, would indeed continue.

Bond University had a highly successful year of citations and awards in 2011. Eight citation nominations were lodged and two were awarded. Three teaching award nominations were lodged and two were awarded. This teaching award success rate is highly notable in that these were two of only twenty-two awarded nationwide. Each of the citation nominations included in this book are highly commendable. They were selected by a Bond University panel of award-winning teachers. Each may be used to inspire the work of other university teachers. With a wide diversity of topic, each reader is highly likely to discover tips, strategies and inspiration for their own teaching enhancement.

Here is a list of topics:

- Technologies and industry practices in authentic learning environments
- Medical curriculum applied to counselling
- Moot in sports law
- Systems thinking
- Teaching and learning research
- Dedicated tutorials for international students from non-English speaking backgrounds
- Assessment in advertising and communication

Dr Penny de Byl

Associate Professor, Faculty of Humanities and Social Sciences

Awarded Citation

For the sustained development of learner-centred innovative and effective curricula and assessment involving technologies and industry practices that engage students in authentic learning environments.

Contribution and Context

Learner-centred teaching is focused on what the student is learning, how the student is learning, the conditions in which the student is learning, how the student applies their learning and how the student is positioned for lifelong learning (Weimer, 2002). To deliver this experience for my *computer games development* students I employ an agile pedagogy, based on industry practices that encourage project management processes. This approach provides students with access to recurrent assessment and revision, a philosophy emphasising teamwork, self-organisation and accountability, practices allowing for rapid development of premium assessment and a business approach that integrates students' learning objectives into the curriculum.

My motivation to deliver exceptional, timely and relevant curriculum in a manner that gives my students the best start when they enter the workforce comes from my 20 years as a computer scientist, 12 of which I have spent teaching and researching in higher education.

I teach and develop undergraduate courses at Bond University in the Faculty of Humanities and Social Sciences in the domains of computer games development. Previous to this I taught game development at the University of Applied Sciences, Breda, The Netherlands (for 2 years), computer games, programming and graphics at the University of Southern Queensland (for 10 years) and computer science at the University of New England (for 4 years).

Having experienced rapid change in the technology and practices in my area of expertise over the past 20 years, I understand the importance of providing curriculum which is flexible and up-to-date while providing authentic and engaging learning and teaching experiences. I achieve this through the use and evaluation of new technologies and adaptive pedagogical and industry practices. This includes the use of the latest computing hardware, online collaborative spaces, social networking and team based project methodologies used in the software development industries.

> Last semester, as a group our class developed a project from start to prototype of an iPad application. From the beginning Penny encouraged the students to use an online networking space (Teamspace) for our class. The use of this program enabled us to communicate and upload files for our major project that helped us to receive information on a daily basis about the progress of our work from the design group, to the modelers and programmers. Teamspace is something that I will continue to use for future group projects as it allows many different agenda's relational to groupwork needs. For the project Penny devised a practical and relevant task and encouraged us to get creative. This enabled our team to work through real issues and situations together in a professional and organised manner. In comparison to traditional university tasks Penny made this one challenging yet achievable (Final Year Bond University Student 2010).

Herein, I demonstrate my scholarly and research-based approach toward the development of learner-centred activities and assessment tasks. These require students to engage with their peers and chosen domain and gain relevant experience with modern technologies used in the field. These methods are inspired by industry practices and the pedagogical research of me and other well-respected educators.

Selection Criterion: Development of curricula, resources & services that reflect a command of the field.

I have a command of the field of games development. This is evident in my national and international standing as a researcher, consultant, editor and writer.

Students benefit greatly from lecturers who are actively involved in their disciplines (Greene & Rice, 2007). I am a director of an educational games company, was manager of the ALTC funded games-based education project ALIVE (2006-2008) (de Byl & Taylor, 2007; deByl, 2008a, 2008b, 2009) and while in The Netherlands worked on a variety of serious game applications for external clients. As a result of this combination, I have been able to keep up-to-date with the latest developments in the games development field. My range of professional and research experience allows me to bring a depth of knowledge into the curriculum. This greatly enhances my teaching and learning materials. My teaching area computer games development aligns with my research and professional expertise.

Throughout my curricula I like to expose students to the day-to-day issues I have faced in game development projects and to illustrate the differences between theoretically ideal procedures and processes, and a more practical view including, for example, deadlines and compatibility issues with 3rd party software applications. I design assessment with constructive alignment to learning outcomes and industry examples. My primary motivation is to engage students with knowledge and skills *they* think are important. My job is to understand that and translate it through my expertise and experiences into their learning.

> The topics covered in class are pretty extensive, but Penny always find a way to put each topic in a real-life context, reassuring students that what they are learning will be useful if they were to choose game programming as a career. (3rd year student 2006).

This pedagogy is innovative and offers students a range of unique learning experiences in four ways:

1. The curriculum content is designed to assist students develop their knowledge of the game industry and critical thinking skills through the use of game industry standard tools.
2. Students are exposed to the challenges of leadership and initiative taking in team environments, as they must negotiate with each other and me to meet their learning objectives.
3. Students develop a wide variety of communication skills in face-to-face meetings, the writing of project specifications and relating them to curriculum learning objectives and using online collaborative project management tools.
4. The curriculum encourages students to take responsibility for their own and others learning progress as they are given a clear indication on a weekly basis of their advancement.

These experiences are achieved in my curriculum through the *provision of an authentic & realistic learning context* driven by the compelling evidence that students learn more successfully through engaging in authentic activities rather than passively receiving knowledge (de Byl, 2008; de Byl & Brand, 2010; Slavkin, 2004). To this end I provide my students with authentic learning experiences to inspire and provide a deeper understanding of real-world problems and to give them a sense of being able to contribute to a larger international community of practice. Thus, my approaches to teaching and learning include:

Community Engagement and Contribution*:* Realising they are part of a larger community of practice and understanding they can contribute knowledge to this community assists in engaging and integrating students into real-world contexts in their chosen domain. One of the activities my students perform is to join international game developers' forums and contribute to discussions. For assessment, students are asked to pick a question from the forum and write sample game code that demonstrates their answers through practical use. Evaluation of their solutions is peer-based where they are asked to review each other's solutions for useability, clarity and effectiveness. Students quickly appreciate the importance and value of being part of such a community while learning the relevance of critical evaluation.

> After working in the engineering field for the last 30 years it is rewarding to see a lecturer have so much influence in the successful development of a student's potential that will have an immediate impact on the workplace. (U.S.Q. 3rd year student 2005)

Industry Standard Software Development Tools and Practices*:* Computer Games development in industry is more often than not achieved in team environments. Coordinating electronic resources and sharing programming code is a particularly challenging task for any project manager. Two industry standards for online collaboration spaces are *TeamSpace* and *Google Code & Docs*. As my games students work in teams consisting of mixtures of on campus and distance modes, these spaces provide remarkable tools for keeping track of project milestones and sharing files. This allows students to interact and contribute on an equal footing for group assignments at any time of the day or night. To support teams in the setup of these environments they are provided with a step-by-step tutorial for establishing *TeamSpace* and *Google Code & Docs*. The usefulness of this software in teamwork is evident in the student comment:

> For several of the assessment items we have been asked to form groups with our fellow students. I have been part of a group of four where I was the sole external student. Through the use of these electronic tools I have been able to participate with my fellow students unhindered by distance. (U.S.Q 3rd year 2007)

In addition, the agile pedagogical approach I follow ensures all students set learning objectives for themselves each week and in the following week I sit down them individually during class time and discuss their progress, challenges and barriers to success. During these sessions we negotiate how the student is assessed with respect to their study efforts during the week. This ensures they have a personalised study plan and that they know exactly where they should focus their attention each week.

> Penny's effort to ensure all students succeed is invaluable, whether it be team effort or individual effort, and while inspiration and motivation for subjects often fades within university studies Penny continually provides the spark to keep her students on track to successful projects. (Bond University Final Year Student 2010).

Alternatives to Traditional Lectures*:* With such a diverse set of student knowledge and skills coming into computer games courses I prefer to take a problem-based approach to delivering content to best address the needs of the students. On several occasions during the semester I email my students asking for specific lecture topics they would like covered. In my first year games design class at Bond University, the first assignment is to design a game. Following the submission of the assignment, during the next class the students and I discuss the knowledge and skills they will need to complete their games. This list becomes the lecture and workshop topics for the remainder of the semester. This method also empowers students with the confidence that their learning needs are being addressed.

> While most lecturers are content in sticking to traditional presentation slides each week, Penny has gone outside the box to include group workshops in class, which encourage teamwork amongst students, and arouse their critical thinking. (U.S.Q. 3rd year student 2006).

Integration of Modern Technologies*:* Whenever possible I use new technologies in the classroom to facilitate group exercises (deByl, 2008). For example, in 2010 I procured 10 iPads for my class of 30 students. Each iPad had a different game on it. Students, in groups, were asked to play the game and analyse it with respect to game design principles. At the end of the class the groups shared their evaluations.

In addition to their use in class I also endeavour to provide students access to the latest computer hardware on which to develop their games.

> I would like to congratulate you and your students on a wonderful demonstration yesterday of the Bond i-Pad application (Assistant Director Technology Operations Bond University 2010).

Furthermore, in late 2010, I designed an innovative curriculum for the delivery of mobile game design based on agile pedagogy and industry development practices. This curriculum won an international competition which gives my 2011 students access to 20 Google Nexus One mobile phones and 20 software development licenses valued at over $75,000. Two judges of the competition commented:

> Very thorough and professional course design. Clear, concise, excellent content. (Nancy Doubleday, RIT)

> Just an overall well done program on game design. (John Jamison, ImagiLearning Games)

Graduate attributes and linkages with practice*:* Through the development of my curricula I address four graduate attributes. *Knowledge and Critical Thinking* is practiced by introducing students to the state of the art in computer graphics and games through the inclusion of topics in my course that relate directly to my research in serious games. I also encourage lifelong learning by imparting to students, research and analytical skills through exposure to new online and technology based learning practices. In addition, students are required to apply their knowledge in a multidisciplinary context through the application of computer graphics and computer games to a variety of other domains. For example, in 2007, a team of my students created an educational game to explain how antibiotics work in the bloodstream. This gave them the opportunity to apply their knowledge and skills to another discipline. *Leadership, Initiative and Teamwork* is developed through practical group projects facilitated by authentic industry tools and their use in collaborative environments. In addition, students are encouraged to show their initiative by demonstrating they have obtained specific knowledge in my areas of expertise through the flexibility given to them to be creative and add their own touches to their assignments. *Communication Skills a*re inherently embedded through teamwork practices as well as through the professional practice of writing up assignments and reports as research papers following journal guidelines for the formatting of their documents. Furthermore, I encourage students to establish their own standards and to self-assess their progress. To this end I provide the students with assessment items that require critiquing of others and their own work through peer assessment and group

assignments. *Responsibility* is emphasised not only in teamwork activities but also entrenched by making students aware of their global citizenship accountability through interactions with a diverse student cohort. Students are required to develop links to international communities of practice. For example, in 2007 there was a team with 2 Australian (1 on-campus and 1 distance), 1 French and 1 Malaysian student. Insisting on embedding these attributes into the quality standards of my students gives me confidence that they will be ready for the real world and successful in their chosen careers.

Together these approaches offer my students experience in working on large projects beyond those typically given in tutorials, development of one or more working game prototypes that demonstrate non-trivial skills, familiarity working with multidisciplinary teams, the ability to independently learn and adapt to new technology and become well-versed in game technology. These are the game industry's most valued graduate attributes (Parberry et al, in press).

> The major assessment for Computer Games Programming is a team based game project, putting into practice the tutorial exercises which provides specific aims and objectives and encourages new ideas in the development of the game. (3rd year student 2006).

In summary, I have demonstrated a command of my field by providing students with relevant, authentic and engaging educational curricula that integrates contemporary knowledge and skills from the games industry.

Evidence

Evidence of my command of using modern technologies in education and sustained contributions to related scholarly activities is demonstrated in my teaching evaluations, invited talks, publications, awards and a patent filed by USQ (Australian 2006901082 and US 60/860845) based on my research into educational applications of online virtual worlds and games.

My student evaluation of TEVALs taken at USQ (n=78) and Bond University (n= 40) are shown in Table 1.

Table 1. TEVALs from USQ and Bond

USQ Criteria (6 pt likert: 1 = strongly disagree; 5 = strongly agree)	Rating
Made session objectives clear	4.3
Explained concepts clearly	4.1
Was well prepared	4.2
Taught subject matter so I could understand it	4.2
Made the course interesting	5.0
Made opportunities for questions	4.4
Available for consultation	4.4
Gave adequate feedback	4.2
Logically structured lessons	4.1
Ranking of lecturer	4.1
Assessment criteria clear	4.2
Bond Criteria (6 pt likert: 1 - strongly disagree; 5 = strongly agree	Rating
I was satisfied with the quality of the subject	4.6
Class sessions were well organised	4.0
Students were encouraged to form and express their own ideas	4.3
The lecturer gave adequate feedback	4.0
The teacher was able to explain ideas clearly	4.4
The teacher was available for consultation	4.2
Made the subject interesting	4.3

> Penny's class has been perfect. She is organised. She is knowledgeable. She supports students, guides us carefully. I got a lot out of her class and learnt so much. (Bond University First Year Student 2010)

Breda University of Applied Sciences in The Netherlands did not have an equivalent teaching and learning assessment survey and therefore I took the initiative to survey my own students with respect to their views on my Agile Pedagogy. The measures I used came from the NSSE Benchmarks Survey for evaluating *Enriching Educational Experiences* (2007). The results are shown in Table 2.

Table 2. "Did the Agile Pedagogy enrich your learning experience?" Breda University Student Responses

n	Strongly agree	Agree	Neutral	Strongly Disagree	Disagree
28	3	11	8	4	2

> The reason I'm writing to you is to say an official thank you for guiding me throughout my research projects. It's been … pleasurable and memorable working with you. (U.S.Q. Masters Student 2007).

Recent invitations to share my knowledge and experience with the wider international community acknowledge my command of the field. In 2009, I delivered 3 addresses on games and technology in learning in the Netherlands focusing on the future of technology and games in education. The audiences included Dutch industry professionals, education specialists, the Breda University Board of Governors and the Commissionaire to the Queen of the Netherlands and advisors on education policy.

> We have experienced Dr Penny de Byl to be highly professional and capable with regards to creating innovative pedagogical solutions. As we have hosted some of her students as interns, we can confirm her to be an outstanding tutor to her pupils in the Netherlands (Saskia Althof & Mark de Jong, Directors, Mobivar, The Netherlands 2010).

My international contributions to the field of games-based education and the development of innovative curricula and resources are observed in numerous peer-reviewed publications, some referenced herein and highlighted at the end.

Furthermore, my professional standing as a pedagogical researcher and curricula developer has been commended and supported by various granting bodies including:

- Competitive Carrick Institute Grant, *$215K*: *The seamless integration of Web3D technologies with university curricula* (2007)
- Apple University Consortium Grant: *ALIVE portability to Mac Platform $10K* (2007)
- Mimeo Learning and Teaching Grant: *A Whiteboard in a 3D Gaming Environment, $1,500* (2007)
- USQ's VC's Strategic Development Fund, *$100K: Pedagogical Implications of ALIVE* (2006)
- USQ VC's Strategic Development Fund, *$60K: Advanced Learning and Immersive Virtual Environments (ALIVE)* (2005)

A variety of awards further verify my command of the field. These include the 2010 International Mobile Game Curriculum Design Competition, 2008 University of Southern Queensland Teaching Excellence Award, the 2007 Queensland Government Smart State Award for Women in ICT and the 2004 U.S. Game Industry 1st runner-up Best Game Development Tool award for my "Programming Believable Games Characters" textbook.

Final Statement

Stefani (2009) suggests that careful curriculum design and development can lead to transparency for students regarding intended learning outcomes. Using my expertise and knowledge in the application of contemporary games industry technology and practice, I expose students to authentic and engaging learning opportunities in which they are in control of their learning journey. The curricula I have developed using an Agile approach compels students to critically assess their understanding of learning objectives as they are required to liaise with me on how they are going to successfully progress with their studies. As it is more important what a student does than what the teacher does in determining what is learnt (Scheull, as cited in Biggs, 1993), I have developed curricula with less emphasis on didactic teaching and more on constructive and action-based learning. I see my role as a teacher to guide students toward a greater understanding of their chosen domain through providing challenging, meaningful and interactive instructional activities.

> Penny has inspired us by showing what we can achieve through the application of the knowledge we have acquired. This is often in the form of example programs that she has written. These are simple to understand but are also impressive. (3rd year student 2007).

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Awarded Citation

Innovative and student-focused translation of the medical curriculum to enhance a holistic understanding of client needs in the counselling context.

Keywords:

Innovative: creative, outside of the box, not reproduced from anything else, inventive. Consistently taught and evaluated throughout the curriculum via key academic tasks.

Student-focused: addressing student learning needs, matching teaching content to learning requirements, observing student responses to continuously modify and enhance your teaching and curriculum.

Translation: shaping complex medical concepts and frameworks to the mental health field (i.e. counselling), using reviewed and theoretical materials to create practical applications to counselling, developing teaching frameworks to ensure student comprehension and subsequent application of key concepts in the workplace.

Summary of Contribution and Specific Content

I currently teach undergraduate and postgraduate subjects in the discipline areas of Counselling and Behaviour Management within the Faculty of Humanities and Social Sciences at Bond University. In addition to these teaching duties, I have held the administrative position of Head of School for Social Sciences over the past six years. Prior to commencing my academic career, I practiced as a General Medical Practitioner for seven years in South Africa, United Kingdom and Australia. My clinical interests included Accident and Emergency, Oncology and Psychiatry and this made me aware of the importance of the "whole-person" approach.

I have designed and refined the curriculum, student-focused learning activities and assessment tasks for three medically-oriented subjects including Biochemistry, Anatomy and Human Biology. I have also shaped the two Counselling subjects (i.e. Foundations of Counselling and Understanding and Changing Human Behaviour).

During my early attempts to explain medical concepts and frameworks to Counselling students, I became aware that they had not acquired the prerequisite knowledge to apply

the "whole client" approach understanding the experiences of their potential clients. Students often reacted with hesitation and anxiety when exposed to medical content during learning activities. These two observations from my own teaching made me to become passionate about designing specialised teaching methods which encouraged students to learn highly challenging material within the familiar counselling context. In this manner, I have been able to build *missing* prerequisite medical concepts as needed by individual students and to demonstrate the relevance of initially unrelated (from students' perspective) subject matter to effective management of prospective clients. I use this student-focused learning approach not only in my formal teaching but also during supervision of students whilst they undertake practicum placements in external counselling organisations.

Statement of Addressing Chosen Criteria

I submit this ALTC citation in relation to Criterion 1 Approach to the support of learning and teaching that influence, motivate and inspire students to learn.

> **Fostering student development by stimulating curiosity and independence in learning.**

An important principle in stimulating curiosity and independence in learning is the recognition that individuals perceive and process experiences in different and preferred ways (McCarthy, 2005). I am aware that each student will possess a particular learning style and this must be tapped to enhance development of knowledge. I assist individual students to understand difficult concepts by emphasising their preferred modalities for receiving and processing new information. I also provide multiple examples from the Counselling context in explaining the key medical concepts and their relevance to effective clinical practice. I draw heavily from student interests in generating such examples e.g. medical illnesses students are interested in due to personal experiences or illnesses currently in the media are used as examples in class to keep students interested and emphasise the importance of the illness relating to the "whole person" approach. This is demonstrated by the following student comment "The way all the info became relevant and tied in together. It also has given me a great understanding and knowledge of the linking of the body and mind", "the connection between the biological and psychological aspects made so much more sense to me" (Student, Semester 1, 2010). Rather than teach medical content in isolation I embed all information and learning activities in issues relevant to the counselling environment. This assists in demonstrating how medical knowledge can enhance understanding of client needs and facilitates an in-depth and inclusive understanding on the part of students.

The case example offered here relates to a client suffering from multiple sclerosis. This is a progressive neurological degenerative disease, leading to mental and physical symptoms impacting on the client's day-to-day functioning. Medically, the significant teaching concepts to be explained would focus on the central nervous system symptopathology with reference to deterioration in central and autonomic nervous system functions and related organ systems. However, in the counselling context, the same teaching concepts

are explained with a focus on the diagnosis and treatment of any comorbid mental disorder which might occur and the general impact on day-to-day functioning. The comment which follows shows that students value this approach highly "Using real life examples in order for students to get a better understating of the link between biological, psychological and social aspects of a human being's problems" (Student, Semester 1, 2009).

Another important way students' curiosity is stimulated is by designing assessment tasks relevant to the issues students will confront once they begin working with clients and the professional challenges of their chosen career path. Student appreciation for this type of assessment design is seen in the following comment – "Phillip's ability to explain difficult concepts in an authentic way and the hands-on project, designed for us to apply the content to our area of interest." (Student, Semester 1, 2009). Assessment tasks are based on topical content (as reflected via key accrediting bodies, potential employers and interests verbalised by students) which emphasises practical application of learned material. All case studies are based on a multidisciplinary approach including the medical, psychological and social aspects involved from different perspectives. Students have validated the significance of this with comments such as "Phillip makes the content and lectures themselves so interesting! It is obvious that he has much experience in both the medical and the psychological fields, and it is so refreshing to be taught by someone who understands the balance and importance of both (thanks Phillip)" (Student, Semester 1, 2010).

Students are consistently encouraged to participate in group discussions aimed at formulation of a "whole client" approach in relation to specific client groups and presenting problems. Teaching sessions emphasise active problem-solving and self-reflection during completion of clinical case scenarios and interpretation of psychophysiological data. Students are also assisted to experience a simplified version of multidisciplinary interaction by being required to debate key issues, provide objective evidence for opinions and negotiate clinical outcomes in small groups and dyads.

Use of a scaffolding teaching approach (Hogan & Pressley, 1997) is designed to assist students in learning concepts and material in a cumulative manner. For instance, in presenting material on physiology the discussion would begin at the simplest level (i.e. cellular biology) and gradually increase in complexity to more complex systems. By doing this, I am able to track student learning effectively and provide revision of materials that might not have been understood. Student tracking and revision are done on a one-to-one basis to ensure individual and tailored teaching occurs. Often students who choose to study counselling are initially interested in learning about interaction and "therapeutic talk". In such instances, knowledge of the physical aspects of client functioning and any medical issues which influence these do not have immediate relevance. I address this issue of non-relevance by connecting medically-oriented concepts and information to the key issues which exist in the counselling. In this way, students are sensitised to the applications of this material immediately and are given the opportunity to learn in a manner that is meaningful to them. This is an important aspect of my teaching which has led to great success in student learning. I therefore offer examples of how relevance is

infused into irrelevant (from the students' perspective) material and this has a positive effect on student learning "We got to learn about biology and how it actually affects human behaviour" (Student, Semester 1, 2010).

The case example here relates to a client who has received a diagnosis of breast cancer. Medically, the significant teaching concepts would pertain to genetics, stage development and physical manifestation of disease and medical treatment of disease. In contrast to this, the teaching focus relevant to the counselling context involves discussions surrounding accurate identification and treatment of any mental disorder (e.g. depression and anxiety) arising from a cancer diagnosis. In particular the issues of how these adverse mental states would affect mobility, relationships, work performance and treatment compliance would form the basis for student learning.

The medical information important to understanding these diseases is interwoven in the discussion of concepts directly relevant to counselling. In this way, students are guided to learn potentially difficult material within a context and client group with direct relevance to them. I incorporate my own professional experiences from working in medical teams such as the John Flynn Hospital Oncology unit where I held the position of Counsellor. This provides a strong basis for referring to "real life" case studies to emphasize the importance of the "whole client" approach to students and this activates their learning as can be seen by this comment – "Phillip's medical background gives an interesting insight into the counselling realm" (Student, Semester 1, 2009).

The majority of counselling graduates will be required to work within a multi-disciplinary team once they are employed. My teaching approach explores the processes and responsibilities which must be met to be effective in such a team. Issues including professional boundaries, sharing information, working cooperatively and respect for colleagues are reviewed actively with students. Much attention (via discussion and completion of problem focused exercises) is given to guiding students to develop a robust professional identity as counsellors and clarity surrounding their unique and highly relevant contributions to a multi-disciplinary team. Examples of teaching activities used to address these issues include micro-analysis of actual de-identified cases from my practice which present students with the multidimensional aspects of patient care. The significance of these analyses rests on assisting students to understand and differentiate the patients' issues applicable to their expertise (e.g. for a patient with cancer the counsellor would be responsible for treating depression, anxiety and guiding him/her through the bereavement process). Small group activities requiring brain storming to identify practical solutions to problems which might occur in the medical environment (e.g. patient non-compliance to medical regimes). Examples of assessment tasks designed to build professional identity and performance include development of counselling protocols to be used in complex cases, and construction of a personal code of conduct on the basis of in-depth review of existing professional counselling codes.

Contributing to the development of students' critical thinking skills, analytical skills and scholarly values (problem-based learning).

According to Finkle and Torp (1995) problem-based learning can be defined as curriculum development and instructional systems that simultaneously develop both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active roles of problem solving while confronted by case studies that mirrors real-world problems. This teaching technique is used throughout my teaching. Medical theoretical concepts are linked to counselling practice via multiple case studies and problem-based learning examples.

Use of teach—practice—review process (Savery & Duffy, 1995).

Students are exposed to clinical case studies designed to highlight the key concepts they have learned. These case studies would typically present students with a situation which requires them to interpret clinical data, analyse clinical scenarios so that they discriminate between superordinate and subordinate issues, and provide a relevant response to a "problem". These clinical case studies not only focus on a key issue (e.g. counselling clients with a recent diagnosis of cancer) but also incorporate the relevant professional and ethical concepts involved. In this way, students are assisted to become familiar with the connections between various aspects of counselling practice.

My clinical experience as a medical practitioner has impacted on my development and continued review of curriculum and subject content and the most appropriate methods to convey complex medical information in a relevant way to counselling students. I have worked as a GP for seven years both in Australia and internationally. This background has provided me with varied experiences in patient care, family support and working in professional teams. I use this expertise in my teaching and student feedback suggests that this approach succeeds in engaging them in the learning process and prompting their continued curiosity and interest.

The counselling degrees contain a number of foundations subjects which require in-depth analysis and understanding of client groups with multiple difficulties. By training these students, who are primarily interested in mental health, about the medical/physical contributors to problems in functioning they are encouraged to become more inclusive and informed when working with their clients.

As students progress through the counselling degree, they become more informed about the types of client groups and presenting issues they would like to work with upon graduation. I encourage students to bring to class articles, case materials and media clips on their particular interests and use these to discuss medically-oriented information. In this way, I am able to form a clear link between (what might initially appear as) irrelevant information with materials of high interest. This is one means by which I promote student comprehension and motivation to learn.

My priority in subject design and selection of teaching strategies is to ensure that students receive a quality learning experience and to address *their* needs relating to *their* areas of interest. Prior to 2008, I presented the subject as a pure focus on biology and medical application of content; the teaching material was not contextualised to encompass the range of mental health and counselling issues students would confront upon graduation. This mismatch between teaching content and student learning needs made it difficult for them to truly understand and apply concepts to the counselling context and this affected their engagement with all aspects of the curriculum for this subject. This was reflected in comments such as: "Why do I need to study human biology, I don't want to become a doctor" (Student, Semester 1, 2006) and "Why do we need to understand all these body systems, I am studying counselling and is interested in the "psyche" not human biology!" (Student, Semester 1, 2007). These student experiences motivated me to reflect upon their learning needs and to redesign this subject to draw clear links between classroom learning and career aspirations. The redesigned subject was first presented to students in 2008 and has undergone continued refinement based on student feedback and accreditation requirements for professional counsellors. Using student satisfaction as a measure of quality learning and student engagement, the data contained in the table below suggest that I have been successful in delivering this over a number of years. Student evaluation data reflecting my effectiveness as a teacher have been consistently high: *6.42/7* (semester 081), *6.50/7* (semester 083), *6.69/7* (semester 091), and *6.88/7* (semester 101).

Please note that due to degree structure changes this subject is only offered once a year as of 2009.

Inspiring and motivating students through high-level communication.

Organising teaching material to match the student's knowledge base and learning needs inspires students to partake in class activities. By using spontaneous discussions during classes, student learning is reinforced by stimulating lateral thinking patterns and thinking "outside the box". I continuously incorporate reviews and revisions of key concepts across different topic areas to assist students in seeing the multiple and varied applications of what they are learning. Through the use of humour, empathy and corrective strategic feedback, I attempt to meet individual emotional needs of my students. I observe the behaviour of individual students (especially when they participate in small group discussion or contribute in class) to ensure they feel supported and comfortable in voicing their views and opinions. I also use observation and modelling (via my own performance) to ensure that they communicate in a professional and respectful manner.

The counselling program is designed to provide students with in-depth learning which related directly to the future roles and responsibilities they will undertake upon graduation. As such, it is crucial that teaching content and learning tasks approximate the "real world" and engage students on a practical basis which requires them to problem-solve, reflect, and analyse. I have devised the subject I teach to meet these important criteria by maintaining clear classroom-future employment links, undertaking

continuous evaluation of subjects to match student needs and new developments in the counselling field, and participate in internal evaluations of subjects to ensure that all content meets with the requirements of external accreditation bodies.

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Richard Baumfield

Adjunct Tutor, Faculty of Law

Nominated Citation

For the innovative combination of internationalism, critical thinking and cross-faculty interaction in connection with the redesigned and enhanced Sports Law moot program.

Summary of Contribution

As an early career academic, I came to Bond University in September 2009 and since that time have tutored and lectured Sports Law. When first appointed, I was given responsibility to oversee the Sports Law moot. At that time, the Sports Law moot was structured as a typical law school moot consisting of students arguing a hypothetical appellate case before an academic assessor who acted as the judge. In this setting I was familiar with the traditional teaching of law from a student's perspective, but wanted to develop and expand my personal teaching skill in a rich environment that afforded more student interaction (Knight, 2002).

Soon after my appointment, Professor Jim Corkery (the Sports Law subject coordinator) suggested a redesign of the moot in order to make it a unique learning experience which would incorporate developing legal principles but yet would be accessible (intellectually and procedurally) to all (not just law school) students (keeping in mind that approximately 35% of the students in the class are not law students). With Professor Corkery's guidance, my goal was to develop a moot program that would be a motivational learning experience for the students, loaded with "real-life" skills they could use in their professional careers.

Statement Addressing Chosen Selection Criteria 1: Approaches to the support of learning and teaching that influence, motivate and inspire students to learn.

With Sports Law being an emerging, important and interesting area of cross-border jurisprudence, I saw the challenge of redesigning the moot as an opportunity to integrate Bond University's key attributes of internationalism, innovation, critical thinking, cross-faculty interaction and ability to develop practical learning outcomes. With these core attributes guiding me, I have modified and completely overhauled the Sports Law moot program.

The current Sports Law moot (which forms a critical component for the Sports Law subject) incorporates many aspects not normally associated with law school moots. For example, students act not only as advocates but also judges and witnesses, students from different faculties participate with law school students, students examine and cross-examine witnesses, and students partially self assess. These attributes not only introduce students to aspects of the litigation process they would not have otherwise been exposed to, but it also gives them "ownership" of the project, enhancing the educational benefits associated with the program.

The feedback from students about the moot has been overwhelmingly positive. In fact, due to the extent of the positive feedback (both formal and informal) I am developing an international Sports Law moot competition based on what I have learned and developed at Bond University.

How has the Moot Been Enhanced?

The Subject Matter: Sport is inherently enjoyable, egalitarian and accessible (both intellectually and socially). These factors create the perfect environment for learning at all levels. Having sport as the general topic is a fantastic springboard for a learning program such as a moot because students easily comprehend the factual background thereby allowing them to focus on the more important and complex legal issues.

To make the moot as realistic as possible, I base the moot on a hypothetical dispute in connection with a topical international sporting event. For example, a recent moot involved an athlete who had been competing in the long jump competition during the Commonwealth Games. He had inadvertently ingested performance enhancing substances which were revealed in his sample and he was banned from competition.

By making the moot as realistic as possible, the entire learning process is more understandable and the desired learning outcomes are achieved. By using the theory component of the Sports Law program as a means of performing the required assessment tasks, students demonstrate their understanding and application as functional knowledge that they will take with them into professional practice (Biggs & Tang, 2007). Student feedback shows the value of this experience:

> "The sports law moot we did was very beneficial, practical and lots of fun! It allows students to be placed in a practical environment, and not just focus on memorizing material. It's a great way to learn and boost your confidence for the future . . . " (Student, Semester 3, 2010)

As part of the process, students are required to go the website for the Court of Arbitration for Sports and the website for the sporting event, and recover all the necessary documentation (for example, the Rules of the Court of Arbitration for Sports, the World Anti-Doping Code, the Olympic Charter and more) to familiarize themselves with the issues. It is up to the students to find the relevant material and develop their arguments and positions.

Jurisdiction: I structured the moot to be a dispute before the Court of Arbitration for Sports. This is an international arbitration body created by the International Olympic Committee that hears "sports related" disputes. The attraction of having the moot in this jurisdiction is that it is an international court with its own rules. It does not matter which country students are from or what legal system they are studying (civil law or common law) they can all participate in the moot on a level playing field.

The Legal Issues: I have changed the focus of the moot from domestic legal issues to progressive international topics. The law of sport (known as *Lex Sportiva*) is a new and rapidly developing area of law. Indeed, every time I am preparing my material to teach the subject I am surprised at the amount of new developments that have occurred since I last taught the class (for example; cases, legislation, pronouncements from ruling bodies). I take these new developments and build the moot scenario around them. As a result, students are addressing issues in the moot that in some instances were only argued before the Court of Arbitration for Sport as recently as a month earlier. From a learning perspective, this has the dual benefit of introducing students to newly developed legal principles while at the same time making the moot a unique and fresh experience every semester it is undertaken.

Roles: In the typical law school moot, the academic advisor is the judge and the students are advocates who make legal submissions regarding a hypothetical appellate court case. What sets the Sports Law moot apart from other moots is that students run the entire process themselves. The students are nominated to be either arbitrators, witnesses or advocates. The moot is dependent on each student's performance in his or her role. For example, if the witness does not understand the fact pattern and gives incorrect responses to questions, the moot will not achieve its desired results because without a witness there is no factual pretext upon which the advocates can base their legal arguments and without legal arguments there is nothing for the arbitrators to adjudicate. Knowing that every student is relying on every other student to make the moot work, motivates the students to perform at their best as a member of a team. Nobody wants to be the person who lets the entire class down.

Giving students different roles in the courtroom also allows them to consider alternative perspectives of the proceedings. For example, students who are arbitrators are able to interact with witnesses from the judge's perspective. For the student advocates it is one of the only times at law school that they are required to take testimony from a witness and tie it together with legal argument. This is a work-life skill that all junior lawyers need to develop.

Cross-Disciplinary Interaction: Students from all faculties at Bond University enrol in Sports Law. For example, we regularly have students from health sciences, business and journalism (in addition to law students) in the class. In fact, some health science degrees make Sports Law a mandatory subject.

Having students from other faculties participating in the moot with law students creates an obvious problem since these students generally have had little exposure to legal

studies and they are being graded against students who have studied law for several semesters. I have incorporated numerous features into the moot to get around this disparity and ensure a base level of knowledge. For example:

- Half a tutorial is dedicated to teaching students how a court room works. I perform role plays, explain courtroom etiquette and explain how to make oral submissions and legal argument.
- Students are chosen for the different roles in the moot. The various roles (judge, witness, counsel) accommodate and cater to the different strengths of the students. For example, I might select a health sciences student to be counsel for a party whose case is based on complicated pharmaceutical issues.
- During the moot I guide and assist the students by interjecting and asking the witnesses and advocates questions to bridge any discontinuities in the discussion.
- The law students generally have not examined or cross-examined witnesses, acted as judges, or dealt with complex international legal issues before. This also levels the playing field as all the students (both law and non-law) are being exposed to these things for the first time. This is reflected in feedback from students:

  "The moot was really fun and helpful because we haven't done that in other subjects. It was different too because it's not the usual Queensland jurisdiction and evidence rules." (Student, Semester 3, 2010)

Student Created Learning: One of the central precepts of the moot is that students are responsible for most of what occurs in the moot court (they are advocates, witnesses, and arbitrators). The students have different roles and I am really an observer who gently guides the process. The arbitrators conduct the trial, the advocates examine and cross-examine the witnesses and the witnesses answer questions under examination and cross-examination. By providing a context for the students' learning where their interaction with the information and the educational environment is directed and adapted with their input, I scaffold deeper learning (Ramsden, 2003). The students take "ownership" in the activity and this enhances the learning outcomes. "The moot was a good experience – as a law student it was refreshing to do something fun for once and not dry." (Student, Semester 3, 2010)

Internationalism: As I have based the moot on international law in an international court, the moot can be used to bring students together from different universities, countries, legal systems, socio-economic groups, political ideologies and social backgrounds.

Experience: The moot – unlike the typical law school moot - exposes law students to professional world skills of examining and cross-examining witnesses.

> "The moot court was a new way of learning, and it was a new experience" (Student, Semester 3, 2010)

Review: As part of the moot learning process, I encourage peer review and self-assessment. After the moot, the students discuss as a group, how they performed and what they observed. This is interesting because, since different students have different roles, their perspectives of the moot differ widely. For example, the student who is the witness may think the advocate was tough in the questions asked in cross-examination whereas the arbitrator may think that the advocate's questions missed the point.

Evidence and Sustainability

Since I have been teaching the Sports Law subject with the redesigned moot program, my student evaluation of teaching scores have been consistently high. When asked the question, 'All things considered, how would you rate the effectiveness of this teacher in this subject?' the mean scores I received over the four semesters since Semester 3, 2009, ranged from 6.38 to 6.9/7. The sample comments included throughout illustrate the students' positive learning experience and engagement with the moot program.

Benefits of the Sports Law Moot

The major benefit of the moot is its broad accessibility as a learning tool. Over the years, students from a number of different faculties have mooted (law, health sciences, journalism and business) and they have all fully participated, performed well and learned a great deal. I have also had many students who have English as a second language and have grown up and studied in non-common law countries. These students have likewise fully participated, advanced their knowledge of the subject matter and enjoyed the experience. "The moot court was enjoyable and it was an interesting way to gain insight into how court proceedings may take place." (Student, Semester 3, 2010)

The Future

I am now developing an international sports law moot competition based around the structure I have developed in the Sports Law program at Bond University. It is my vision that the competition will involve student teams from several universities around the world. Initially the moots will be conducted via Skype or other similar technology. I hope to grow the competition and have the Court of Arbitration for Sports and other institutions such as the International Olympic Committee involved. As the body of law known as *Lex Sportiva* continues to develop and more universities offer a sports law subject, I have no doubt that this international competition will gain an enormous amount of attention in years to come.

Conclusion

I am passionate about the Sports Law moot because it is a terrific platform that allows students to be involved in a unique learning experience. The moot introduces students to important aspects of the practice of law that they would not otherwise experience during their studies. Furthermore, the moot is enjoyable and provides students with opportunities to study and interact with students in other facilities – again, a rarity in law school.

I have observed and assessed students in moots in a number of law subjects. A marked difference is noticeable with the Sports Law moot. The students are much more focused, prepared to participate, receptive to feedback and willing to go the extra step to find creative arguments to support their positions. "I learned a lot from the moot. Other subjects could learn from that." (Student, Semester 3, 2010) I personally think the students gain a lot more from the interactive environment created in the Sports Law moot than from many other more traditional forms of assessment. This is reflected in the student feedback (which invariably is positive) and the number of students who tell me how much they enjoyed participating in the moot.

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Dr Dirk Hovorka

Associate Professor of Information Systems, Faculty of Business

Nominated Citation

For designing learning environments which engage, motivate, and inspire students to grasp the dynamic relationships and multi-dimensional nature of systems.

Philosophical Motivation

From my early recognition that education serves the purpose of rearranging the furniture inside our heads, to my current emphasis on encouraging students to *engage with critical thinking* and to ask the *right question*, I have continuously evolved the content of my courses and my pedagogical approaches. Bond University provided the opportunity to continue development of a "Systems Thinking" subject based on the observation that a holistic approach to problem solving provides students an alternative way of conceptualising real-world problems. As students learn to place themselves as participants within the system, rather than as outside observers, they gain the central insight that the behaviour of all systems, big and small, is a direct result of the structure of the system.

For students to address today's world problems requires more than textbook-based skills, and the opportunities presented by the world today emerge from the convergence of multiple factors and feedbacks. Using a modelling technique known as causal loop diagramming, and working with both small and large scale real-world systems, students gradually learn to identify the *relationships* and *interactions* that produce the behaviours of all systems rather than the events which often dominate our thinking. Students gain the critical ability to *identify* root problems, to *synthesize* information from multiple sources, to take a holistic view of how *the system* of concern functions and changes over time, and to *evaluate* alternative solutions and outcomes. Through collaborative exercises students learn to evaluate system behaviour (such as profitability of a business, growth of an urban area or preservation of a conservation area) from multiple perspectives: pragmatic, sustainable, financial, and ethical. In contrast to many of the assessments students face in University, rarely in the world are there singular 'right' answers to problems, and students' ability to foresee and evaluate the unintended consequences of interventions is crucial to their success and ability to act in a socially responsible manner.

The vocabulary and tools of system dynamics provide students an alternative lens for problem formulation and solution which is valuable in any discipline or area of practice. By

engaging students to see the world as sets of coupled systems which interact over time, they become aware of the consequences of their decisions and the need to recognize long term patterns of behaviour. With a strong emphasis on critical thinking, students become aware of their own biases and preconceptions.

> "I had always envisioned my college classes being just like his. The material was extremely interesting, and the manner in which he engaged the students was unlike any teacher I had ever had. He showed us how to argue points without our frequent logical fallacies, while at the same time respecting each of our opinions." (student email to head of Department, 2007)

In an interactive class exercise, students are amazed to observe that, on average, 50% of their peers will not notice a person wearing a gorilla suit walking across the court during a basketball game. Recognition of their own 'perceptual blindness' (Mack, 2003), of seeing only what they expect to see, sensitises them to the need for deeper observation and self-reflection on their own mental models and expectations. Other exercises demonstrate common associative patterns of cognition where students mentally 'fill-in' information and the surprise engendered by the implications of exponential growth of any systems. The language of system dynamics then provides them the tools to see patterns in the world and develop problem solving strategies which include evaluation of unintended consequences and long-term timeframes. One student noted the degree of engagement thusly:

> "I would also just like to mention that Dirk has been the best lecturer I've had at Bond. His teaching style is extremely dynamic as each lecture is more of a class discussion which makes the whole class engage. He promotes knowing how to think about a problem rather simply recalling information from lecture slides." (student email to Head of School 2010).

The Systems Thinking perspective on teaching is an extension of subject development I began at the University of Colorado in 2006. Students have reacted positively to this philosophy of teaching as evidenced by the comment:

> "The first day of class Dirk made a very bold statement that by the end of the semester he was going to quite literally change the way we think. It was really the sort of thing that you might read about in a book or see in a movie. Dirk made good on his word and delivered. Dirk's style gives the students the ways, means and guidance to teach themselves [and] to look at the world from a new perspective that we'll, or at least I, will carry for the rest of my life." (student email to Department Head 2007)

Creating a Systems Thinking Environment

In expanding students' awareness that the world is composed of interrelated systems in which you cannot do just one thing, I specifically address *Criteria One: Approaches to the support of learning and teaching that influence, motivate and inspire students to learn.*

My first challenge for students is to realise that systems *thinking* is not composed of specific facts or formulas. Rather it is a way of seeing the *systems* of relationships among any set of concepts or objects that currently exist or that may emerge in the world. Using a *discovery frame* of learning, we utilise real world systems such as health and current events to illustrate systems concepts enabling students to see the relevance and problem solving capabilities as applied to topics which interest them. Engaging students allows me to draw on my expertise in information systems, tele-communications, earth science, and philosophy, to guide them in creating the interdisciplinary connections underlying many of the challenges faced in society. By examining the impact of flooding in Queensland on business systems, or the social and economic consequences of climate change, or dynamics of technological change in organisations, I strive to make the readings and class discussion current and relevant to the lives and decisions students face. To express the understanding of the world gained by one student,

> "I feel that the ability to analyse large-scale, complex systems is missing from many key decision-making bodies. The world would be a very different place if those with power had the ability to see how their decisions affect what seem to be distantly-related system components and thus prevent "unexpected side-effects."(student email to Head of School 2010)

Students' different learning styles require me to illuminate the material through a combination of presentations, interactive discussions, contrasts and peer-learning activities.

> "I found this class to be the best class I've had the opportunity to take, and would recommend this class to anyone and everyone. I would even go so far as to say it could be a core option offered to all students as it helps them look at their university life and life as a whole differently, and very possibly more effectively."(student email student email to Head of School 2009)

To engage students in active learning, I encourage them to question their current knowledge and beliefs, by asking them to develop alternative or contrary points of view. The underlying premise is that: "Good teaching is more a giving of right questions than a giving of right answers" (Albers & Weber, 2006). By discussing and justifying different points of view, students learn how to identify and analyse problems, formulate options, and compare, contrast, and evaluate different perspectives. I have designed a series of hands-on activities in which students would directly enact the behaviour of systems and reveal the all too human tendency to not learn from system feedback. In creating this disequilibrium, I enable students to scaffold from their extant knowledge to the new principles, concepts or evaluations under discussion.

In using a Socratic approach I emphasise participation and questioning by students in a discovery frame of learning (van Joolingen, 2000). I reinforce this self-reflective mode of learning through use of bi-weekly journals in which students interpret and react to topics from a systems perspective. These topics include the systems they see in their own lives or jobs, how events in their home countries affect other parts of the world or how human

actions are shaping the opportunities of future generations. Initial frustration is followed by a greater awareness of what they are learning and why it matters. These journals are a reflection of who they are and allow for continual feedback and reflection of their own learning processes.

Students comment that my subjects are rigorous, but provide opportunities to broaden their thinking in new directions. In framing my classes, I emphasise that learning is about new knowledge, new problems, and new solutions because "we can't solve problems by using the same kind of thinking we used when we created them" (Harris, 1995). In her peer review of my teaching, Dr Fay Haisey (Professor – Education) commented on my effective use of "'discovery situations' enhanced by direct questioning and the requirement for students to try new concepts in new situations, as well as tying new knowledge to existing frames of reference." This reflects my learning goal that students acquire exemplary skills and knowledge to aspire to create original thoughts, not simply reproduce what is already known.

Research Contributions

My approach to the creation of environments and contexts which enable and promote student learning is heavily informed by one stream of my research agenda. I believe that to be an effective facilitator of learning requires cutting edge research into modern approaches to the domain. With the increasingly ubiquitous access to social media technologies, and students' familiarity and expectation of digital access to teaching material, comes the need to assess the actual impact of social media on learning outcomes. There is a pressing need for an integrated model which integrates pedagogical approaches, student interactions and information technology support of learning. This research addresses the empirical gap between the increasing use of social media as part of university teaching and the demonstration of improvements in learning outcomes.

I have co-authored two papers outlining a conceptual model and research approach and presented these at international conferences on Information Systems.

Hovorka, D.S. & Rees, M.J. (2009, December). *Active collaboration learning environments: The class of web 2.0.* Paper presented at the 20th Australasian Conference on Information Systems, Melbourne, Australia.

Hovorka, D.S., Rees, M.J. & Alkilani, A. (2010, December). *A design framework for researching collaborative learning environments*. Paper presented at the 21st Australasian Conference on Information Systems, Brisbane, Australia.

The current Bond University Director of Quality, Teaching, & Learning commented in a letter of reference that my research on active collaboration was strong evidence for my "innovative approach to blended learning, his understanding of new generation students and their learning, and his commitment to meeting these needs through supporting his students to use interactive technologies." To support this research, I have been awarded a Bond University Teaching and Learning Grant to pursue the development and testing of a learning model which integrates pedagogy, learning theory and characteristics of social media (2010 Quality Teaching and Learning Grant: Hovorka. D.S. & Rees, M.J. "The Design and Evaluation of Collaborative Learning Environments").

Evidence of Salience and Future Development

As a result of my work in creating and applying a systems thinking perspective in my subjects, I received the 2009 Teaching and Learning Award from the Faculty of Business, Technology and Sustainability.

In a recent recommendation my former Department Chair wrote:

> "Systems Thinking is a very important yet difficult course to teach because of the abstract nature of its thesis: almost everything is a system, but for the same reason hard to convince students why it is important. Even other great teachers at the school have had difficulty with this course. Yet I have seen Prof. Hovorka manage to help his students acquire this way of thinking with an appropriate mixture of pedagogical devices (such as lectures, class discussion, video clips, in-class exercises and games)." (Jin Tae Lee; Chair Information systems, University of Colorado, 2009)

At Bond University, the subject has become popular with students and has been incorporated as a required subject for the Information Systems degree.

I have also received letters from recent Bond University graduates who comment on the career fitness for purpose of the subjects I teach. Typical comments include:

> "Among others, your course especially prepared me for this experience and I'm really thankful."(2009 Graduate employed as Consultant for BMW)

> "I think what allowed me to have that edge over the other applicants is that towards the end of my 2nd interview with the IT manager and HR manager is how I started a nice discussion on sustainable energy, and what their views on green computing were." (2009 Graduate at AEMO)

> "Dirk has my most profound appreciation for challenging me to be a better student and IT professional. My time at Bond was a much richer and meaningful experience because of Dirk Hovorka." (2010 graduate at La Roche Pharmaceuticals)

Formal Evaluations

My student evaluations of teaching for *Teaching Effectiveness* have consistently exceeded 6 (on a scale of 7) and my combined scores for *Teaching Effectiveness* and *Subject Quality* place me in the top quartile of the Business School faculty. In addition to the numeric scores, student attitudes are reflected in the comments on the Student Evaluations of Teaching including:

- "Dirk is an excellent, engaging and though provoking teacher. His use of real life examples makes the subject of 'systems' a fascinating one to explore. I strongly advise my mates to do this subject!"

- "Not slide based teaching but discussion based teaching – this is brilliant!"
- "Teaching relevant theories and ideas that apply to the real world."

The perspective that the world is composed of systems whose goals, behaviour, and points of intervention can be observed and changed, forms the basis of my approach to student learning. As students realise they are not outside observers who are learning something "interesting" but irrelevant, but are actually embedded in the very systems they are studying, they become empowered to affect their own behaviour and goals. Their approach to learning changes as they begin to see how the individual subjects they are studying are actually connected and relate to the world. One student commented that my classes are: "always thought-provoking, well-prepared and interactive which put us, as students, in a powerful position to ask questions, provide opinions and ultimately develop our thoughts."

The goals of my teaching philosophy and the reflective practice students engage in during the semester cannot be observed in any one assessment. Through multiple forms of continuous and constructive evaluation, it is demonstrated that all students who engage the material gain new skills and new perspectives. The real assessment will come long after they have left the university and continue to see and evaluate systems throughout their lives. The goal I challenge students to achieve was summed up in a statement from a recent graduate:

> "Overall, I would not exchange my experience of Systems Thinking and Dr. Hovorka for any other class that I can think of. This class is very important to me because it can be applied to any subject and also to my life." (Email to Head of School 2010)

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Dr Shelley Kinash

Associate Professor and Director, Quality, Teaching, and Learning

Nominated Citation

For creating process and publications to inspire, foster and sustain a research-based approach to learning in undergraduate and postgraduate students, teachers and university educators.

Statement Addressing Chosen Selection Criterion 5 - Scholarly activities and service innovations that have influenced and enhanced teaching and learning.

My distinctive contribution to student and academic learning throughout my 17 years experience as an education academic, 4 in academic development, is to empower students and academics to define themselves as learning and teaching scholars. My central role as *Director of Quality, Teaching, and Learning* at Bond University (since 2008) is teaching and learning research leadership.

My service contribution is to invite and apprentice students, at every phase of the learning journey, into the research process and to create guides and exemplars so that the process can be maintained, adopted and broadened over time and across the lifespan. My first university students were studying to be teachers or for careers as other types of teaching professionals. I accompanied them into schools and supported them to research what it means for children to learn. Curriculum development teams invited my contribution to create multimedia materials to develop prospective teachers' skills in inquiry-based approaches. This led to a doctoral fellowship with the *Galileo Educational Network* (www.galileo.org) to research teacher professional development in inquiry-based approaches to teaching. This extended my research impact to include prospective and current teachers. In order to ensure that this work was sustainable and extended beyond those specifically involved in the immediate context, together we published content about how to be research learners. The next extension of my impact was to broaden my students from the discipline of education to multi-disciplinary university educators including such diversity as law, medicine and business. Those I am now teaching also have greater impact in that they subsequently pass on their learning of research-based approaches to future generations of professionals in multiple disciplines.

The greatest sustainable contribution I can make as a teacher is to foster a love of learning in my students. My philosophy of teaching defines this pursuit as equivalent to research; wondering minds ask questions, collect data, interpret and produce evidence

of outcomes. There are five key elements of my enacted teaching philosophy. First, my service role as a university academic is to lead the cohesion between teaching and research roles of academics, and learning and research roles of students (Macfarlane, 2007). Second, I apply the definition of scholarship of teaching and learning (SOTL) as "the work of the classroom as a site for inquiry, asking and answering questions about students' learning in ways that can improve one's own classroom and also advance the larger profession of teaching" (Huber & Hutchings, 2005, p. 1). Third, I advocate that teaching IS research and that research IS teaching (Cole & Knowles, 2000). Fourth, I believe that in order to be a teacher, whether of enrolled students or of academic peers, I have to "get inside students' heads" and that I do so by researching alongside them (Brookfield, 1995, p. 92). Fifth, my style of teaching and learning research leadership is that of empowerment, meaning that I build agency in students and my academic peers (Kezar, Carducci & Contreras-McGavin, 2006).

Summary of Particular Contribution and its Specific Context

Research-led Teaching for University Academics

Research-led teaching means that University Academics read, think critically and apply teaching and learning research and that they interrogate their teaching and gather evidence to ensure that their students are learning. My most notable service contribution to research-led teaching is the way in which I have developed and facilitated our *Foundations of University Learning and Teaching (FULT)* subject for our academics. While it is standard practice for academic development units to offer some type of induction teacher-training to new teaching academics, my approach to infusing teaching, learning and research has made FULT distinctive at Bond University in three ways.

1. The key component of our FULT subject is Peer Observation of Teaching (Bell, 2005).

Through my leadership, Bond University frames Peer Observation of Teaching (POT) as an experience of research-led teaching. In other words, it is an opportunity to inquire into one's teaching, observing the impact on learning, for both the FULT participants and the Full and Associate Professors who serve as Support Colleagues. We partner FULT participants with Support Colleagues from another Faculty so that the focus of the inquiry is on teaching rather than content.

> It's a privilege and a pleasure to be a support colleague in the FULT programme. After many years of "winging it", and judging one's performance only by student feedback, it's reassuring to know that what one does instinctively is actually the way it's supposed to be done and it is the chance to "refuel" down the highway of career development. Most of us came straight into teaching from some sort of professional position, with no formal teacher training, and only a vague idea that we'd like to "pass it on". (Unsolicited email from Associate Professor 23/11/2010)

2. The culminating assignment submitted by FULT participants is an in-house published teaching and learning research article.

I have designed FULT so that in the first session, we support academics to articulate a question about their teaching and/or the impact on their students' learning. Within each subsequent session we apply this question to scaffold their understanding of teaching and learning research. We structure the assignment to mentor future publications in that the participants write an article with the same rigor and scholarship of A and A* journal articles.

3. I have arranged crediting arrangements as a 10-point credit subject.

Receiving subject credit for their completion encourages students of Academic Development to extend their vision of teaching and learning development beyond a single subject to a milestone in continuing education, research-based inquiry into their teaching and lifelong learning. Some of our FULT graduates have applied the credit toward a Graduate Certificate. Others enrol in numerous workshops I facilitate such as *Getting Your Teaching and Learning Research Published*.

Teaching-led Research for University Students

Teaching-led research means that teaching and learning are embraced as legitimate and important research topics, and junior researchers are mentored in the methods and philosophy of education research. My most notable service contribution to teaching-led research is the system of supports I have developed and extend to students. My approach is distinctive from the standard research supervision academics provide only to post-graduate students in three ways.

1. I extend supports beyond the students that I myself supervise.

I provide teaching and learning research workshops to all higher degree research students (HDRS) across all university faculties and provide one-on-one consultations upon request. Since 2008 I have facilitated 25 HDRS workshops at Bond University; sample titles and evaluation scores are included in the *Evidence* section below.

> A big thank-you for setting aside time last week for a one-on-one session on qualitative research methodology. It was a great help to get the overview on hermeneutic phenomenology and specifically the Reflexive Methodology approach to qualitative data analysis which is definitely the "missing piece" of the jig-saw that I have been looking for. (Uninitiated email from a HDRS 28/11/2010)

2. I ensure that teaching and learning research training is sustainable by posting materials online and mentoring Academic Developers in workshop facilitation.

I ensure that there is online open access to the slideshows, templates, checklists, exemplars and videos I develop. These resources are posted on my ePublications site, on the HDRS site and distributed by the Office of Research Services to increase student exposure and access. I co-facilitate workshops in a train-the-trainer model to pass-it-on, enhance impact and sustain curriculum.

3. I mentor the students to publish their teaching and learning research in journals.

I believe that students at all stages of their education should be mentored in teaching and learning research. When co-researching with students, I ensure that their names appear on the by-lines of the articles. An undergraduate student and I were co-researchers in an extensive school-based research project for which we received two awards and published three journal articles and two ERA Creative Contributions. I have published a book and a journal article with two different graduate students. Sample citations are in the *Evidence* section below.

> The 9 months working with you definitely increased my learning. I think I really adopted your inquisitive outlook in everything around us. There's a research question to be asked in everything we do! Searching, gathering and collecting articles is just the tip. Working on the articles helped me to draw connections between different scholars, see how one article has the potential to change all the subsequent literature, and plot things in a contextual framework. The focus of the sometimes painstaking process is to find the gap, but once we could clearly see that the gap exists and that we have a real spot to stick our contribution in, it gets exciting. (Unsolicited email from Graduate Student, 5 Dec 2010)

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Evidence

Sample Table of Teaching and Learning Research (TLR) Workshops

Q1. The workshop enhanced my understanding of [insert topic].
Q2. The workshop provided sufficient opportunities for active, engaged learning.

Dates	Topics TL = Teaching & Learning TLR = Teaching & Learning Research	Number in Session	Mean score on Q1	Mean score on Q2
4 Sep 2008	Sessional Staff TL	8	4.5/5	4.5/5
13 Mar 2009	TL for Bus Tutors	15	5.6/7	5.8/7
16 Oct 2009	TLR Prep for Confirmation of Candidature	10	5.4/6	5.5/6
31 Mar 2010	Puzzle of TLR	25	6.4/7	6.2/7
21 Apr 2010	Focus Groups & Research Interviews	8	7/7	6.6/7
24 May 2010	Writing strategies for TL scholarly publications	5	6/7	6.4/7
28 Sep 2010	Learn to Teach, Teach to Learn	8	6.9/7	6.9/7
Sep-Dec 2010	FULT – TLR	12	6.8/7	6.9/7

Sample Student Co-Authored Publications

1. Book co-authored with Graduate Student

Kinash, S. & Paszuk, A. (2007). *Accessible education for blind learners from kindergarten through post-secondary (AEBL)*. Charlotte, NC: Information Age.

2. Journal article co-authored with Graduate Student

Kinash, S., Knight, D. & Hives, L. (in press). Student perspective on electronic evaluation of teaching. *Studies in Learning, Evaluation, Innovation & Development*.

3. Journal articles co-authored with Undergraduate Student

Kinash, S. & Hoffman, M. (2009). Pedagogical sustainability of a rural school and its relationship with community. *Rural Society, 19*(3), 229-240.

Kinash, S. & Hoffman, M. (2008). Child as researcher: within and beyond the classroom. *Australian Journal of Teacher Education, 33*(6), 76-93.

Teaching and Learning Research Awards

In 2008 I was the Primary Researcher on a project with Flagstone Creek State School (FCSS) titled, "Innovative school-community learning in a digital world." The project was designed to foster scholarship of teaching and learning for the participating teachers. Two awards resulted:

- Showcase Award for Excellence in Schools - Regional level (Darling Downs Southwest Queensland Awards); *Excellence in Innovation* category.
- Australian Awards for Teaching Excellence - Australian College of Educators (Darling Downs).

Statistical Evidence of Research Impact

Evidence of *teaching and learning research impact* as compared to peers in the same disciplinary cluster (academics in the Faculty of Humanities and Social Sciences HSS) is found in ranking second in highest full-text download of my teaching and learning research publications from Bond's electronic repository in September, 9th in October, and 6th in November 2010. My own publications plus my encouragement of others to publish scholarship of teaching and learning has contributed to a steady climb of HERDC points in HSS from a weighted score of the 2008 collection of 49.23 to 57.02 in 2009. Reported HSS HERDC outputs rose an additional 39% in 2010.

Susan Macfarlane

Manager, Student Learning Support

Nominated Citation

For creating a program which nurtures and enhances international student tutorial participation in the Australian Higher Education context.

Summary of Contribution and its Content

Students from non-native English speaking backgrounds (NESB) are to be held in high regard for taking on the incredibly difficult challenge of studying in a foreign country, language and culture. In 20 years of teaching English as a second language and through periods of overseas study in non-English Languages, and as Manager of Bond University Student Learning Support, I have encountered many students and learnt, understood, and empathised with so many of the problems they encounter. They not only face the conventional challenges of a university degree, but also have rehoming and cultural issues as well as considerable comprehension and communication difficulties in class. These students are intelligent and have usually performed well in their home country by developing study skills and approaches that suited their environment and the learning goals of their previous institutions; however, these skills do not always transfer to an Australian university's expectations and students can be seen "as lacking in independent, critical thinking skills; as plagiarisers or rote learners, speaking broken English and having awkward ways of participating in class" (Ryan & Carroll, 2005, p.6).

As does De Vita (2007), I maintain that tutors can assume a greater role in bridging the cultural discontinuities of students transitioning from reproductive pedagogies to deep learning and critical thinking. This can be deconstructed and addressed at the micro level of the tutorial. To foster a more positive academic, social and cultural experience for International NESB students and to enable them to demonstrate their learning in an Australian higher education context, I created a tutorial solely for NESB students. This idea was mooted by Claremont (2008) as a possible approach to accommodate these students, but was relinquished due to the administrative cost. Bond University's dedication to small class sizes and Internationalisation made my proposal a reality. A difficult, controversial subject, Cultural and Ethical Values (CEV), with no 'right' answers was chosen to encompass cultural as well as English complications. An exclusive international NESB students tutorial provided a less threatening but still real environment for students to develop the confidence to follow threads of a conversation,

argue, interject and assimilate into their adopted educational country's culture whilst utilising "the cultural capital all students bring with them to the classroom" (Ryan & Carroll, 2005, p.7).

Statement Addressing Criteria 4: Respect and support for the development of students as individuals

In addressing the criteria I examined recurring themes in the discourse of students and considered the factors of different learning approaches and respect for educators, and linguistic ability and time restraints, to frame my citation using De Vita's (2007) corresponding pedagogical problems.

Cultural differences in teaching and learning styles

One of the main academic obstacles NESB students encounter at University is tutorial participation. Many cultures, particularly Asian cultures, subscribe to the belief that the teacher should teach and the student, absorb (Wu, 2002). No challenging of ideas or concepts is accepted. Whole class and small group discussions are shunned in favour of the lecture/listen mode. NESB students often find themselves in uncomfortable tutorial situations because they are asked their opinion when they would prefer to be told the answer. They do not want to disrespect the teacher by offering an opposing view point and feel that tutorials in western culture are disrespectful and bordering on rude.

English language ability

However, "Seeing culture as the dominant factor in shaping these students' participation in tutorials is only a partial understanding of the issue" (Marlina, 2009, p. 237) as English ability is another debilitating concern. All NESB students will struggle at some stage with spoken English more than written forms. University courses have a high level of need for subject specific vocabulary but whereas this problem can be surmounted by dictionaries and diligence when reading textbooks and carrying out research, tutorials do not provide the time for this process. The same applies for production of language; to write assignments, students can take time to use a thesaurus and grammar books and also ask a friend to check their work, but when speaking in tutorials, international NESB students do not have the time needed to first understand, process and assimilate information so that they can in turn produce opinions. Tutorials are fast paced with fewer resources to rely on due to the less structured flow of spontaneous discourse. Slang, body gestures and cultural norms all contribute to the inability to follow and participate in conversations.

Tutorial participation is vital in the Australian University model as it provides both a social and educational aspect. Studies have shown that most local Australian students prefer to mix less with Asian students (Volet & Ang, 1998). International students can feel rejected by other students when not chosen as partners for projects because they are perceived as less intelligent when they have not expressed their views as eloquently or vociferously as local students. This exclusion and non-assimilation leads to emotional stress which

is compounded with academic performance pressure. Students are frequently assessed on tutorial participation "based crudely on the frequency of attendance...or subjectively based on oral participation" (Lovejoy, 2001, p.3). Lovejoy's study on tutorials found that 41% of international NESB students felt anxious about tutorial participation requirements.

Structure and Content of Contribution

Cultural and Ethical Values is a CORE subject. This ensures that a large proportion of undergraduate students will be enrolled and have access to this tutorial. Program advisors in all faculties at Bond University strongly suggest and plan for students to sit this subject at the beginning of a degree. International students who take this subject early in their degree can be supported from the outset and provided the knowledge and skills needed to overcome tutorial participation problems. They go on to achieve success and assimilation in their future subjects.

Launched in semester three 2009 with 10 students, the CEV International tutorial trialled a series of extra tutorials in addition to the students' standard ones to gauge response and demand. This trial showed a need for the course to become permanent. Students can opt to take this class exclusively in lieu of their assigned class. It has been increased to two hours to provide students more processing time. The tutorial is run early in the week so students are able to attend another standard tutorial later in the week to apply their new vocabulary and discussion skills. It is completely voluntary and continued enrolment and positive student response has ensured its backing within the faculty of Humanities and Social Sciences.

In this tutorial, students exhibit less timidity as they all face similar issues. Other students are more tolerant. Students report that the class had a "friendly open class environment", "no local students' dominance like normal tutorials" and "feeling more confident to voice out". In the international-only tutorial, students still have to follow conversations, but because all the participants are NESB students, there is less misunderstanding due to unqualified use of colloquialisms, idiomatic expressions and analogies. This results in reduced language fatigue for speakers and listeners (De Vita, 2004). The students are relaxed and supportive as they are aware that this tutorial is provided to help and nurture them and two tutors are provided – one subject specific, the other, an English as a Second Language (ESL) teacher. This is evidenced by recurring feedback comments for example "the two teachers always tried to make it easier". By including an experienced ESL instructor I assist students with moderate English ability, ensuring the use of short sentences and basic vocabulary. Active tenses, chronological order and the incremental building of ideas with visual backup are used wherever possible. Verbal signposts and gestures highlight information and idea construction. Pauses after presenting ideas for assimilation, and repetition and paraphrasing for comprehension are all tools used by the ESL teacher in this class.

The maximum staff to student ratio is 1:12. This provides ample opportunity for students to ask extra questions. "[I am] given more opportunity to engage with students & tutor" and "It gives me more time to talk to the tutor". As well as first covering any questions

on lecture material in a supportive and encouraging manner, I give students questions on that week's work to ascertain whether they understood the concepts. Small group discussion is initiated to build students' confidence in formulating their own ideas which also "gives us more opportunity to speak". Theoretical topics are more easily assimilated by students when they are asked to apply theories and concepts to their own culture and experiences (McLean & Ransom, 2005) and this is better instituted in smaller groups. Group work allows students the chance to speak without the accompanying discomfort that occurs when they are forced to be more assertive (Chanock, 2010) by giving opinions in front of the whole class. Groupings are constantly changed to elicit more interaction of different personalities and nationalities and students feel "able to talk more with students" and appreciate the "many points of view". This interplay is closely monitored for any negative or intimidating overtures to students struggling with expressing themselves. The supervisors roam the room to pose additional questions to groups who have finished their discussions and to encourage quieter students to speak out.

Whole class discussions follow group reporting. This is important as it gives two types of students the chance to present a group's opinion and therefore reduce any loss of face; those who are too intimidated and those who have cultural difficulty in being presumptuous enough to voice their own opinion in the presence of a teacher expert. Having pre-prepared ideas to present, having had time to ponder and then discuss the issues, gives students the confidence to speak in a whole class situation. As a facilitator, I am always encouraging when students speak out. This combined with positive responses from other students and the comfortable, non-threatening and non-judgemental atmosphere of the class translates into increased student participation as the weeks progress.

Improvements from student feedback

Student opinion is extremely important to me and I compile feedback at the end of every semester as well as informally listening to issues and suggestions during the course. I am continuously assessing and improving the course. As a result of student requests, and to accommodate more students with differing learning styles, I am using a Universal Design for Learning (Rose & Meyer, 2006) approach and have implemented a Blackboard site for this class where tutorial questions are posted prior to the tutorial and answers posted afterwards. The next step in providing multiple means of representation is to initiate an e-discussion board in the May semester 2011, where students will interact with each other and discuss ideas, examples and suggestions freely.

For students to focus on grades as well as different cultural academic expectations, I have included two classes of an hour each, dedicated to the two course assignments. I provide information on how to break down the assignment questions and what type of structure is appropriate. I am also planning a class for exam preparation. Interactive electronic vocabulary games for the improvement of comprehension and writing skills will also be created.

Evidence that this tutorial has supported the development of students as individuals

When asked the question on student evaluation of teaching surveys, if they would recommend this course to a friend for the following semester, all students but one from 75 students over four semesters said they would. As students can attend both the international Cultural and Ethical Values tutorial as well as a standard one, they are asked to compare the two. Responses were received from 32 of the 65 students in the last 3 semesters. When compared to the regular tutorial, the qualitative evidence for the international tutorial is that the students perceive a positive change in their learning and participation in the context of higher education:

- 78% of students said that it helped them understand the content of the course very much.
- 73% agreed or totally agreed that it gave them more confidence to speak in class and give their opinions.
- 60% felt more comfortable stopping the tutor and asking questions.
- 60% feel it has given them more confidence to participate in tutorials in future.
- In the Semester 3 2010 Bond Student Evaluation of Teaching survey, feedback from students (11/25) was:
    - 'Students were encouraged to form and express their own ideas.': 4.5/5.0
    - 'I found the teaching methods used in this subject were effective in helping me to learn.': 4.0/5.0.

Summary

My management of Student Learning Support is both pro-active and reactive. I am serious about student input and feedback and endeavour to effectively assist and guide students to success in their studies at Bond University in the best ways possible. Tutorial participation is one of the recurring problems experienced by NESB students and tutors who wonder why their NESB students do not participate fully (or at all) in tutorial discussions. Cultural and Ethical Values was considered a difficult subject both because of the vocabulary and theoretical western ideas as well as the need for discussion and relevant examples. In my tutorial specifically for international NESB students, time is provided to counterbalance English ability and cultural expectations, and differences are discussed and nurtured. Responding to student needs, I constantly adapt and improve the content and delivery. My success is in helping many international students feel more confident in tutorial discussions. As one student expressed it, "the international tutorial was the place where I could express my thoughts".

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Susie Ting

Senior Teaching Fellow, Faculty of Humanities and Social Sciences

Nominated Citation

For advancing and positioning assessment as a central feature of teaching and curriculum for student engagement in advertising and communication subjects.

Summary of Contribution and Its Specific Context

Nine years teaching undergraduate and postgraduate students Advertising and Communications subjects in the Faculty of Humanities and Social Sciences at Bond University have given me the opportunity to experience, re-examine and re-design the assessment process and observe the effects on students' learning. Effective assessment methods, as part of learning experiences, form the lynch pin of education and are crucial in developing new thinking and in forming attitudes and motivation toward learning (Boud & Falchikov, 2007; Bryan & Clegg, 2006). I use assessment and feedback to model and enhance higher order thinking to encourage an enduring love of learning.

My observations of students illustrate a shift from the information to the conceptual era of learning. This demands a complex balance of effective and cognitive thinking and behaviour (Stephenson & Weil, 1992). My philosophy of teaching is to encourage my students to pursue meaning through active, engaging opportunities, and to seek patterns and alternative answers through challenging learning experiences. Over time, I have discovered that the primary means of contributing to the higher order thinking skills of students (McMahon, 2007) is to ensure all assessment tasks involve these skills reinforced with equivalent high-quality feedback.

I found resonance with the underpinning principles of Boud and Associates' (2010) *Seven propositions for assessment reform in higher education:*

- Assessment is a central feature of teaching and the curriculum. It powerfully frames how students learn and what students achieve.
- Assessment is the making of judgements about how students' work meets the appropriate standards.
- Assessment plays a key role in both fostering of learning and certification of students.

The propositions mirror the assessment that my students and I co-design in a shared learning experience within the disciplines of Advertising and Communications. The major

assessment item for Advertising is an online exam. The students are emailed the subject, a good or service. Prior to the exam, students investigate the history of the subject, consider who uses it, who does not and why, community awareness and acceptance. I encourage them to immerse themselves in the subject from every perspective; economic, legislative, cultural, and fair trade issues, and to draw on the concepts and work we have covered all semester. In the exam the students are provided a specific challenge, such as a product re-launch or identifying a new market for an existing product, or de-marketing. They are then required to identify a target market, to produce a strategy and outline a campaign.

In the Gender Communication subject I guide the students in self and peer assessment and feedback. Throughout the semester the tutorials take the format of 'Teach the Tute' where students are encouraged to find a way to engage their peers in the lecture topic of the week, They can do this through any form of expression, activity, role play, podcast or YouTube video. One student created a board game "Vanity Insanity", another group filmed an interview with representatives from the Gay, Lesbian, Bisexual and Transgender Communities. The final assessment for this subject is negotiable. The students determine whether they work individually or in groups. They propose a topic for investigation and provide me with their rationale for approval. Topics have included 'Political Policies and Same Sex Parenting Adoption', 'Kidnapped Brides and Forced Marriage', and 'Male-Female Communication through Humour'. Students must identify their audience (e.g. schools, legislators, community groups) and choose relevant forms and channels of communication (e.g. film, podcast, article, drama, political or lobbyist speech). Bringing together all the concepts and constructs of their semester's learning, I invite them to explore questions of social reform, methods of investigation, and how their learning has current and future value. In a recent assessment, a student created a podcast exploring Rap Music, examining the difference between his listening and awareness. He had heard rap music for years, but the class made him think critically about the social impact of the words and movements.

Statement Addressing Chosen Criterion

In the design and teaching of Advertising and Communications subjects at undergraduate and postgraduate level I make an outstanding contribution to students' learning through meeting *Criterion 3 – Approaches to assessment, feedback and learning support that foster independent learning*. In the sections below, I describe my achievement of this criterion through providing specific examples of the way in which I apply each of Boud and Associates' (2010) *Seven propositions for assessment*.

> **Proposition 1 – Assessment is used to engage students in learning that is productive.**

First, assessment activities are *real* projects that make an authentic contribution to the field of practice. As an assessment activity, I invite and facilitate competitive group advertising pitches for real clients, casting students as authentic generators of their own knowledge. For example, Bond University Student Learning Support (SLS) briefed

students on their role and the difficulties they face in student awareness. Students formed mini agencies, researched the problem, designed and pitched campaigns, some of which resulted in on-campus advertising, a Facebook page and a modified booking system.

Proposition 2 – Feedback is used to actively improve student learning.

Second, I provide extensive feedback grounded in my experience as a professional communicator and advertising consultant. My feedback strategies include one-on-one consulting outside the classroom, but in class students are guided in self-assessment and peer evaluation, by developing and using rubrics. There is also external evaluation from assignment *clients*. The organic nature of this process compels me to self-monitor assessment practices. The verbal assessment process gives the student a valuable on-going learning and support experience as opposed to an isolated, de-contextualised grade.

Proposition 3 – Students and teachers become responsible partners in learning and assessment.

Third, the students and I navigate assessment tasks together. Applying the principles of Universal Design of Learning (Rose & Meyer, 2002; Rose & Meyer, 2006), I challenge my students to propose assessment projects using any means of expression that enable them to best demonstrate their learning. Advertising students are given the choice of an online exam over the traditional option. The online format provides a 'real world' time-limited challenge whereby students have a chance to research a wide topic, apply skills and understanding gained throughout the course and provide a 'client' with a comprehensive strategy.

> "I would like to let you know just how much I loved the method of the online exam in Advertising Principles. As exams are constricted to a time/place/procedure and are set up in a stressful environment, most students tend to feel pressured in the exam and do not tend to 'test' well. I found it a better way to express my creative ideas/thoughts, which helped me to focus in the thought process and in the exam situation" (Student, 2008)

Proposition 4 – Students are inducted into the assessment practices & higher education cultures.

Fourth, I scaffold students' learning (Millikin, 2007) in accordance with their level of learning in advertising and communications. This ensures that they can 'engage equitably with assessment tasks' (Boud, 2010). By challenging students to negotiate assessment types that reflect their intended career path, I give them opportunities to develop the skills for success in their disciplines. My observation is that when students are involved in the design of assessment they see the ongoing value of the task and take ownership of the outcome.

> "I have learned so much information and new knowledge from taking this course. First and foremost, the only reason I learned as much as I did was because the way the class was run and structured……It makes learning so much more fun and exciting when it is done in this fashion." (Student 2010)

Proposition 5 – Assessment for learning is placed at the centre of subject and program design.

Fifth, I strongly believe that assessment is not an add-on to learning. Assessment is an integral component of learning and I explicitly address this concept with my learners. I use a constructivist approach to learning through assessment (Hein, 1995), incorporating authentic and self-directed learning. Using constructive alignment (Biggs and Tang, 2007) to match assessment to intended learning outcomes demonstrates how well they have achieved those outcomes. Each element of a student's assessment is designed to form part of a portfolio of work, documenting the growth and development of their understanding of fundamental concepts and creative thinking. I encourage some risk taking to move students out of their cognitive and behavioural comfort zones to increase their capacity to deal with unexpected challenges. This increases their capacity to deal with change and adversity (Stoltz, 1999). In the fluid workplace, those who can deal with change and adversity have a distinct advantage.

Proposition 6 – Assessment for learning is a focus for staff and institutional development.

Sixth, as a lifelong learner I continually challenge and question my own conceptualisation of assessment. Rapid change in technologies and fields of work demand radical expansion in assessment opportunities. Using what is abundantly available, we can create infinite academic and 'real world' challenges. Support for and encouragement of effort is also invaluable. Recent studies by Dweck (2002, 2007) support this by illustrating the detrimental effect of focusing on a grade outcome at the expense of acknowledging effort. As the move towards standardisation continues, it is essential to acknowledge that although standardised outcomes are important in establishing transnational educational parity, it is crucial that we accept many different educational strategies and paths are effective in achieving those outcomes. Keeping abreast of current industry shifts is paramount and this in turn provides us with an ongoing challenge to expand our skills in developing new assessment parameters and incorporating appropriate technology.

In designing assessment tasks, I ask myself: How can I reward effort while adapting assessment to student learning needs, strengths and desired outcomes?; How do I provide appropriate and challenging choice of learning activities and how do I model the criteria to show balanced measurement of achievement?; How do I remove ceilings to show the range of possibilities to address a task?; How can I encourage the integration of technologies?; How do I incorporate and encourage cross-disciplinary practices?; How can this be used in a collaborative environment?; How can a student use this in building a body of work for inclusion in a portfolio?

Proposition 7 – Representation of student achievement (assessment) is inclusive & trustworthy.

Seventh, through rigorous application of the six preceding propositions, my students and I are assured that assessment outcomes, and thereby grades, are accurate summations and reflections of student learning. Critical reflection on traditional assessment convinced me of its limitations, its focus on being 'right' or 'wrong' and the encouragement of students to resort to the safety of reproductive, repetitive thinking. Building a range of techniques to help students showcase their talents and encourage exploration of multiple means of demonstrating learning in real ways, not only provides formative feedback but is also consistent with industry practice of communications and advertising.

> "It is because of you that I changed my major [...] from accounting to marketing and management. Last week I job shadowed an advertising firm and was able to get some great insight! I loved it! I showed the owner and some of the brand managers, my advertising journals from your class, and they were very interested. It is because of your class that I am thinking about pursuing a career in advertising." (Student, 2009)

Recognition and Sustainability Over Time

This section presents the evidence that this approach to learning, through focusing on assessment and feedback as embedded components, has made an outstanding contribution to student learning.

> "I think it is great that you allow us to express ourselves without having many restrictions put on assignments. It becomes much more enjoyable to do the work and therefore, I believe I got much more out of this course tha[n] some of the other previous courses I have taken back home." (Student, 2010)

Evidence of the impact of this approach to assessment on my students' learning is found in my teaching evaluations. In both Advertising and Communication Subjects over the past four years at Bond University, I have achieved mean scores of 4-5 on a 5 point scale for the question, "The learning task and assessments were consistent with the subject's stated goals."

The students awarded me the Student Council Award in 2005. This award is based on the students' responses to their learning experience. In 2009 I received the Faculty Award for Best Use of iLearn. Students are assessed on my Blackboard (iLearn) site for interactive and collaborative learning.

In summary, the evidence convinces me to continue the dynamic cycle of further developing assessment as an embedded part of learning. I will continue to learn and grow as an educator of advertising and communications at Bond University and to engage in lifelong learning about the link between assessment and learning, to find ways to share my learning with other academics.

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Dr Patrick Warnke

Professor of Surgery, Faculty of Health Sciences and Medicine

Nominated Citation

For introducing tactile learning workshops to engage medical students' interest, motivation and curiosity for complex surgical topics to prepare for the clinical environment.

Summary of Contribution and Its Specific Context

Medicine can be learned from books, lectures, tutorials or together with the latest electronic features such as mobile-learning and web based tutorials (webinars). These tools are two dimensional and not supportive of three dimensional tactile or kinaesthetic learning. Tactile learning is experiential and incorporates one of the first sensory impressions we have at birth.

Surgery requires active hands and high levels of manual dexterity. Apart from basic suturing sessions on rubber sheets or gloving scenarios provided by most medical programs, developing manual skills or tactile learning has been a minor focus. Students are often discouraged when entering the clinical hospital setting. They find their manual clinical skills are limited. In my experience they frequently feel embarrassed and stressed in front of patients, supervisors and colleagues when their manual performance does not match their high levels of theoretical knowledge. The literature identifies medical student distress as contributing to psychological pathological disorders such as *burnout* (Liselotte, Dyrbye, Thomas, & Shanafelt, 2005) and *reality shock*, particularly where the distress arises from lack of confidence and realisation of the extent of their own incompetency (Schmalenberg & Kramer, 1979).

Statement Addressing Criteria 2:

Development of curricula, resources and services that reflect a command of the field; in particular the development and presentation of coherent and imaginative resources for student learning.

New Methods for Experiential Teaching

In 2009 at Bond University's Faculty of Medicine I developed and introduced a new modular system of ten interconnecting "Hands On" experiential workshops focusing on tactile learning, to improve manual dexterity and to teach simple to advanced surgical clinical skills. In addition, these workshops mimic "real life" surgery experiences to train

Bond University students for the clinical environment. I want my students to become competent as junior doctors and to be confident of avoiding typical beginner mistakes. Complex modern surgical topics, such as "keyhole surgery" are explained by myself and guest surgical specialists demonstrating the use of special surgical instruments or processes. Students are then engaged in experiencing these instruments and scenarios themselves to challenge and motivate further independent learning and ease understanding of multifaceted topics. The workshop modules are supported by the surgical lecture curriculum which I have developed to suit the workshops. They are designed in accordance with my previous international experience incorporating top surgical teaching examples from Europe and the US. Also the recommendations of enthusiastic clinicians associated with Bond University and support by surgical companies have been integrated to make these workshops a successful experience for our students.

10 "Hands On" Workshop modules:

The workshop modules are 90 to 120 minutes long and start with an introductory lesson (15 minutes). The modules are repeated several times to allow for small student groups. In some workshop modules the students rotate through different 20 minute stations in groups of four. They gain individual experience in the surgical topics and instruments of that station. The lecturers join the scenarios and dress up themselves to demonstrate their enthusiasm for the topic and to make it "real". This vicarious presentation has been shown to promote intrinsic motivation in the students for further learning inside the group or through subsequent self directed revisions (Hodgson, 1997). I have arranged for surgical companies to supply the original equipment for maximum "reality" in each workshop and for representatives to be present to address detailed student questions about issues that cannot be read in a textbook. The students are encouraged to put their hands on and use instruments such as endoscopes, laparoscopes, ultrasound machines and bone saws to experience "what it means to be a surgeon". Each workshop is supported by "classical" surgical lectures inside the curriculum to complete the package.

"Hands on" workshop modules:

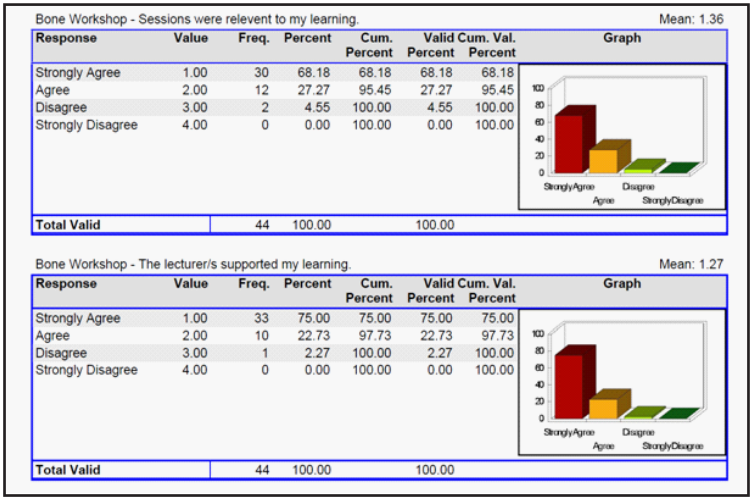
1. Closing a cut. Sutures and knots.
2. Scrub up: Be prepared for the OR.
3. The Mock Operating Theatre. Be a good assistant and member of the team.
4. Be a surgeon: Excise a mole and close it! Tricks and typical mistakes.
5. Keyhole surgery: Scopes and approaches
6. Surgical ward round. What's important?
7. Emergency on your ward. You assist!
8. Soft tissue trauma: Advanced suturing
9. Crack! Bones, joints and fracture treatment
10. Neurotrauma, spine and hemorrhages

Sustainability and Evidence of the Program's Success for Student Involvement:

Apart from my personal conversations and experience of positive feedback while conducting experiential teaching modules, data has been collected via anonymous student evaluations (tabled below). The preliminary feedback from the first student cohorts undergoing the workshop modules was excellent.

> "Patrick Warnke's lecture was good for us to know how the interventions and treatment worked for MI (Myocardial Infarction)." (Student Yr 2, Sem 5, 2010)

Patrick Warnke: Student Evaluation of Bones and joints Workshop - 2010



Bone Workshop - Sessions were relevent to my learning. Mean: 1.36

Response	Value	Freq.	Percent	Cum. Percent	Valid Percent	Cum. Val. Percent	Graph
Strongly Agree	1.00	30	68.18	68.18	68.18	68.18	
Agree	2.00	12	27.27	95.45	27.27	95.45	
Disagree	3.00	2	4.55	100.00	4.55	100.00	
Strongly Disagree	4.00	0	0.00	100.00	0.00	100.00	
Total Valid		44	100.00		100.00		

Bone Workshop - The lecturer/s supported my learning. Mean: 1.27

Response	Value	Freq.	Percent	Cum. Percent	Valid Percent	Cum. Val. Percent	Graph
Strongly Agree	1.00	33	75.00	75.00	75.00	75.00	
Agree	2.00	10	22.73	97.73	22.73	97.73	
Disagree	3.00	1	2.27	100.00	2.27	100.00	
Strongly Disagree	4.00	0	0.00	100.00	0.00	100.00	
Total Valid		44	100.00		100.00		

There is ongoing support for the tactile workshop teaching strategy from our associated surgical specialists, who have received our first group of motivated students in the clinical environment. (Statement of Support attached.)

To develop my teaching skills I completed Bond University's Foundations of University Learning and Teaching subject, Semester 3, 2010. I was able to explore the theory of how students learn, through a balance of process and content, and actively experience how my disciplinary expertise and teaching skills work together to intertwine teaching and learning.

Discussion

My goal is to create outstanding, confident and highly regarded Bond University junior doctors for the clinical environment. Feedback and critique about immature skills in junior doctors, and complaints raised by the students themselves in regard to the previous teaching methods were evaluated. With the development of electronic based teaching

tools there is a move from classic factual knowledge building to experiential learning by doing (Fry, Ketteridge, & Marshall, 2003). Anecdotal evidence suggests teachers no longer demonstrate with 'museum' artefacts, because pictures of the same artefacts are now available on the internet. But wasn't it a special, often unforgettable experience for one to see, touch and actually "feel" the artefact? I try to recreate this experience for surgical teaching.

Building upon earlier work by John Dewey and Kurt Lewin, American educational theorist David A. Kolb believes "learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984). The theory presents a cyclical model of learning, consisting of four stages.

The four learning stages of Kolb's theory

One may begin at any stage, but must follow each other in the sequence:

1. Concrete experience (or "DO")	Kolb's four-stage learning cycle aims to interpret how experience is translated through reflection into concepts, which in turn are used as guides for active experimentation and the choice of new experiences. These four stages are integrated into the workshop modules.
2. Reflective observation (or "OBSERVE")	
3. Abstract conceptualisation (or "THINK")	
4. Active experimentation (or "PLAN")	

For example, the functions and mechanisms of endoscopes explained, based on patient cases. Meanwhile an endoscopic procedure is demonstrated on a model by a surgeon. The students then perform the procedure themselves while being guided by the surgeon. The critical issues are discussed. The students are then challenged with unexpected procedures, where they have to manoeuvre the endoscope themselves through a "black box" to experience limitations and advantages of this "keyhole surgery" technique.

Using the original equipment provided by supporting external surgical companies we can mimic "real life" with our scenarios. Some mock theatre scenarios have been so "real" that one or two students felt unwell and nearly fainted as they expected to experience massive blood flow during the fake operation for their first time. Even though no blood was ever visible, we could use the situation to train behaviour to avoid fainting in such circumstances. The students felt very relieved and prepared as their biggest fear was collapsing on their first day in the Operating Theatre. No such incident occurred later with the same students in the real theatres.

According to Liselotte et al (2005), when commencing clinical practice, several factors combine to intensify medical student distress and reality shock. These include separation

from peer support group, new work environments at different hospitals, unstructured learning environments, informal curriculum, and depressed, burnt-out, cynical clinical supervisors. (Liselotte et al., 2005; Schmalenberg & Kramer, 1979). Robinson, Bernau, Aldington, and Beasley (2006) identify feelings of liability to patients and team members as early warning signs of medical student distress and burnout. Further pressure is experienced by medical students where responsibility in clinical practice exceeds student capabilities (Wilhelm, 2002), and where students experience anxiety and lack of confidence (Grace, 2002).

On the other hand, increased student wellbeing enhances and promotes professionalism (West & Shanafelt, 2007) whilst mastery in work assists medical staff to resist burnout (Spickard, Gabbe, & Christensen, 2002). Therefore, the "real life" scenario workshops address these issues to develop fundamental confidence and manual skills. Another way to increase wellbeing and thereby increase resistance to reality shock and burnout is to respond to student input into the curriculum (Liselotte et al., 2005; Schmalenberg & Kramer, 1979). Students at Bond University have consistently requested more basic surgical clinical skills education. The design of the workshops for advanced suturing with mole excision and emergency procedures were a direct result of student preferences.

To date, there has been overwhelming and positive feedback from students and clinicians. I believe we will continue to increase the confidence of our students to be ready and better prepared to enter clinical scenarios.

> "Thank-you to Professor Warnke for his lecture on surgical management. We find these lectures incredibly valuable to our learning and would like to see this continued in the future." (Student, 2010)

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FOUNDATIONS OF UNIVERSITY LEARNING AND TEACHING (FULT)

SEMESTER 111

The Foundations of University Learning and Teaching Semester 1, 2011 participants were drawn from across campus. As part of their assessment, each participant submitted a scholarly paper on a teaching and learning research question related to their teaching and their discipline. The group included in this section represent one paper from each of Faculty of Law, Faculty of Health Sciences and Medicine, and Information Services (our librarian of the group), and three from the Institute of Sustainable Development and Architecture. In particular, there are two contributions from the new School of Architecture, and two first time tutors with first time subjects and students to teach. The overall theme of the papers is confidence and inspiring diverse groups of students. These contributors inquire into: incorporating active learning opportunities, teaching to diversity, how to inspire students, applying multiple means of engagement, development of self efficacy and confidence, and the dichotomy of technical jargon for quality learning.

Incorporating Active Learning Opportunities into One-Off Library Workshops

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Information Services

Abstract

I have worked at Bond University as part of the Liaison Services team in Information Services since October 2008. Teaching students and academics how to use Library resources is a significant component of my job, but with no formal teaching qualification, I have often felt ill-equipped for this aspect of my job, and it is for this reason that I enrolled in the Foundations of University Learning and Teaching subject offered by Bond University's Department of Quality, Teaching, and Learning.

In fulfilling the requirements of the subject, I had to deliver a ten-minute teaching session for a small group of my colleagues, as well as partner with another university academic for a peer-observation session of each other's teaching. Feedback was obtained and analysed from both of these sessions, and has been valuable in informing me of areas of strength and those in which I have much room for improvement.

Context

Changes in the teaching and learning ethos of higher education, together with the ever-increasing complexity of the online information environment, mean that librarians are compelled to acquire skills, knowledge and educational competencies which are not traditionally part of their training (Peacock, 2001). In the context of a blended learning approach, traditional didactic methods of information literacy instruction are grossly inadequate, and librarians need knowledge of learning theories, as well as an understanding of how learning occurs, in order to be effective in the design, delivery and assessment of information literacy instruction (Giustini, 2008).

Incorporating opportunities for active learning into library workshops is a greater challenge in view of the fact that these workshops are usually of a one-off nature and typically less than an hour in duration. Furthermore, the participants are invariably from different disciplines across the university, and bring with them varying degrees of competency and confidence in the use of information technology.

What empirical research has been done on this topic?

To find articles addressing this topic, I searched ERIC, and conducted 'cited reference' searches on key articles using Google Scholar, Scopus, and Web of Science. There is an enormous amount of literature on the topic, and I cannot claim to have conducted an exhaustive and systematic literature review, but I did identify a number of relevant and helpful articles.

Gold (2005) reviews the literature on library instruction for adult learners, as well as the characteristics of adult learners, and offers a number of suggestions for making library instruction more engaging, interesting and meaningful.

Burger (2007) documents the marketing, design and teaching strategies used by The University of Illinois Urbana-Champaign's library in *Designing successful workshops for digital tools*. Burger claims that workshops of this nature have a 'built-in active learning component' in the form of the computer workstation, which allows participants to explore for themselves the resource being demonstrated in the workshop. However, this alone is insufficient to ensure that active learning occurs, and Burger discusses ways of creating the type of learner-centred environment conducive to active learning.

Giustini (2009) discusses the practical aspects of designing library workshops within a framework of adult learning theory and instructional design principles. The paper also refers to Sork's planning model, Young and Harmony's "how to" framework, and the BOPPPS model (a 'rubric' for the lesson planning process) from the University of British Columbia's Centre for Teaching and Academic Growth, all of which have been added to my growing list of additional required reading.

Where is the gap in the research?

I do not feel that the literature search I did was thorough or systematic enough to be able to identify with confidence any gaps there may be in the research. However, what I have read so far, together with anecdotal evidence from my own day-to-day experience, leads me to believe that the gap (for me at least) is largely in putting into practice what is being written about in the literature.

What is my question?

How can I facilitate active learning in a brief, one-off library workshop for a diverse group of adult learners?

How did I conduct my research?

My 'research' into this question was comprised of a ten-minute 'teach your peers' session, as well as a mutual peer-observation session with my peer observation partner, Marie-Claire Patron, who teaches French and Spanish in the Humanities Faculty. I observed Marie-Claire teach a one-hour French class to a group of 6 students, and Marie-Claire

observed me teach a one-hour workshop on cited reference searching to a group of HDR students and university academics. Feedback was obtained from my FULT classmates and my peer observation partner, on the ten-minute and one hour sessions respectively. In addition, a recording of the 'teach your peers' session was provided by the FULT facilitators, which allowed for self-assessment as well.

How did I analyse the data?

I considered the feedback from colleagues for my 'teach your peers' session, as well as the feedback received from my peer observation partner who observed the one-hour workshop I delivered on cited reference searching.

I also met with my peer-observation partner following our peer-observation session to discuss our observations in more detail and I watched the recording of my ten-minute 'teach your peers' session.

What were the results?

Most notable amongst the feedback received from my colleagues on my ten-minute 'teach your peers session', was the observation that there was not much interaction happening and that it was too one-sided. When I viewed the recording I had to agree. Even though it was only ten minutes, I was bored watching and listening to myself! It was frustrating to realise that I had ended up doing precisely what I had been aiming to avoid. My intention had been to engage participants from the outset by asking if anyone had seen a television news item or documentary recently which they thought might be relevant to their teaching, and to use these as the examples with which to demonstrate. However, as is often the case, I was nervous and consequently resorted to subjecting my learners to a largely one-sided demonstration.

Positive feedback for this session included the observations that I appeared confident and knowledgeable, was well organised, spoke clearly, maintained eye contact, and made good use of the technology.

Feedback received from my peer-observation partner on the one-hour workshop she observed on cited reference searching indicated that I had:

- Ensured that the session would be relevant to all participants by requesting examples of their research interests prior to the workshop, and using these as the basis for the hands-on exercise
- Chatted to participants as they arrived and placed name tags on participants workstations to ensure that I would be able to address all participants by name
- Used an example provided by a participant as the basis for the demonstration component of the workshop
- Provided clear instructions in the form of a handout and provided additional support for participants by having another library colleague present to assist where necessary

What are the implications?

Although the feedback received from my peer-observation partner for the one-hour workshop was largely positive, I suspect that obtaining feedback from all of the class participants would have provided me with at least an equal number of suggestions for improvement. Based on further reading I have done since the workshop, I can think of a number of things I could have done to facilitate active learning and make the workshop more learner centred. For example, social interaction is an important aspect of constructivist learning. If I had introduced an activity where participants were required to work in pairs on a task and then report back to the group as a whole, this may have created a livelier and less formal atmosphere, in which participants may have been "more relaxed, more likely to venture a guess, to share an opinion, to correct one another, to demonstrate confidence, and to feel less self-conscious about mistakes" (Cooperstein & Kocevar-Weidinger, 2004, p. 145).

What were the limitations of my research design?

I did not ask participants to complete evaluation forms at the end of the workshop on cited reference searching, and there was no built-in assessment component to the workshop, so the only feedback I obtained for the cited reference searching workshop was from my peer-observation partner.

To what further research do my findings point?

Given that I have not yet spent enough time exploring the literature on this topic to be able to confidently identify a need for further research in the literature, I shall confine myself to identifying my own further research need. It is apparent to me that while I have indeed taken some steps in the right direction to facilitate active learning in library workshops, this has been largely intuitive, rather than being grounded in any real knowledge of learning theory and its applicability to my role as a liaison librarian. I have a great deal more reading to do on the subject, to broaden my knowledge and understanding of both traditional and emerging learning theories. I am also still a long way off from attaining the confidence required to adopt a more constructivist approach to designing library workshops. However, participation in FULT, together with the reading I have done so far, and other resources identified during my literature search which I have yet to be explore (e.g. http://blog.lib.umn.edu/jveldof/workshopdesign/), have all provided a foundation from which to move forward.

Conclusion

Completing the *Foundations of University Learning and Teaching* has equipped me to better meet the requirements of my role as a liaison librarian in the context of the current teaching and learning ethos at Bond University. It has provided me with the basis for developing a theoretical framework within which to contextualise the teaching component of my role, and the motivation to step out of my comfort zone in attempting to apply my new knowledge in my day-to-day practice. I can see that ensuring that my

teaching is theoretically grounded and adopting a blended approach to designing future workshops will be necessary if I wish to create the type of learner-centred environment conducive to active learning. I hope to follow the lead of Giustini (2008, p. 112) who suggests that while constructivist teaching "requires some 'letting go' of control in the classroom, it yields some exciting results."

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Teaching International Trade Law to the Google Generation: Perspectives on Teaching a Diverse Audience

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Introduction

International trade law is a specialised subject of law that straddles the realm of economics, law and policy studies. Usually this is an optional subject and is studied by law students in the penultimate or the final year of their undergraduate degrees. This subject is also a popular choice for law students pursuing a master's degree. The aim of the subject (depending on the stage it is taken by students) is to introduce elements of global trade regulation, with particular focus on the law of World Trade Organisation (WTO).

This essay presents the perspectives of the author in teaching international trade law to a diverse audience comprising mostly of what are now referred to as the 'Google' Generation or Generation Y. Put simply, this generation of students are the vanguard of the modern knowledge and information driven society. They boast more awareness of socio-economic issues and if they do not know something – these students are likely to just 'google' it and adopt whatever is stated in the initial display of results. This creates a challenge for the teacher to achieve the learning outcomes of a course designed to familiarise law students with global trade regulation.

The discussion in this essay on teaching experiences is presented in three scenarios i.e. teaching law students, teaching non-law students and presenting at conferences. These three scenarios comprise an audience from a variety of backgrounds and views. The challenge for the educator is to achieve the equilibrium between delivery of course content, fostering discussion in the class (and outside the class), challenging pre-conceived notions and generally encouraging students to look at the 'other side' of the picture. The aim of this essay is to highlight the difficulties and the challenges educators face in modern classrooms where the students are more likely to have an opinion and are not shy in expressing it. In order to accomplish this, Part 2 provides a brief introduction to the area of international trade law and then focuses on identifying the typical scenarios where this subject is taught. This lays down the foundation for Part 3 which presents typical profiles of students that the author has encountered (this is by no means a perfect illustration but identifies a broad pattern of debate and likely strands of opinions in the classroom, which often impacts on assessment in the subject as well). Part 4 examines the teaching and assessment in this subject. Part 5 concludes.

A brief overview of international trade law

This subject pertains to regulation of international trade relations in a multilateral environment, where countries are trading with several other countries. Naturally, where countries trade with each other, disputes are inevitable. These disputes are a by-product of trade policies designed to enhance domestic welfare of the countries they are maintained by, while capitalising on economic opportunities elsewhere. As a result, the foremost lesson every educator imparts while teaching this area of law is that there are always winners and losers when countries trade with each other.

International trade covers exchange of goods, services, technology and investment between countries or groups of countries (also referred to as blocs). The law aspect of international trade touches upon the need for orderly administration or regulation. International trade law can be summarised as a corpus of rules designed to identify and enforce common trade goals. Thus, this body of rules has been developed not through the traditional legislation methods that law students learn in the formative years of their law degrees but rather by countries negotiating with each other (often in extended 'rounds' of negotiations spanning years). As a result of the unique origin of international trade laws, the regulation of trade often reveals the conflicting interests and competing perspectives adopted by countries. This is the first reality that students new to this subject come to terms with.

The legal regime currently governing international trade is composed of multilateral trade agreements that are administered by a supervisory/governing body known as the World Trade Organisation (WTO). Students are taught the basic structure of the WTO, the multilateral and plurilateral trade agreements that WTO administers, how WTO resolves disputes between member states, trade remedies available to WTO members against another member states and how WTO members are continuously negotiating new reforms and additions to the existing framework. All of these issues are closely connected to global economic activity ranging from basic sectors such as textiles, clothing and footwear to the more advanced sectors of trade such as steel, automobiles, integrated circuits and telecommunications. Students also learn that trade rules in case of services are different from rules governing the traditional trade in goods.

The task of the educator who aims to go beyond superficial learning outcomes is to not only identify the key features of international trade law but establish a link to everyday issues people face (whether in the developed or the developing world). For example, an educator might consider addressing issues flowing from the US and Australia free trade agreement, why a certain section of Australians is worried? In other words, if free trade between two traditional allies is good news, why are objections being raised? Similarly, wherever the WTO or a trading bloc is holding a summit, mass protests are often visible. Why do people protest against free trade? Is free trade good or bad? Should there be free trade? What benefits or losses does free trade bring?

In order to answer these questions a typical student might easily use internet based search engines and read whatever comes up in the first few links. Alternatively, the student turns

to Wikipedia and adopts the same knowledge before coming to the classroom. While acknowledging that there are diverse opinions on institutionalised trading system, the task of an educator is to encourage critical assessment with a view to achieving learning outcomes. This means challenging the beliefs and existing impressions of students. But how is this accomplished?

Teaching international trade law in a modern university may be illustrated in three scenarios. Each of these scenarios affects the task of the educator in how he/she addresses the issues and achieves the learning outcomes of the course.

Law students

These students are well aware of the basic structure of law. Since most universities require public international law as a pre-requisite subject, these students are aware of how international law and international organisations work. Students that choose to study international trade law have an interest in international business and commerce type subjects and may also posses (although not necessarily) undergraduate degrees in economics, commerce or international relations. As a result the educator can safely assume that the typical student does possess a basic understanding of how international rules work to regulate the conduct of states.

Non-law students

These students come from a non-law discipline and are most likely enrolled in a law degree designed for non-lawyers or are required to take an optional law subject as part of their degrees. Some universities also teach law based subjects to students enrolled in other faculties. Whatever the background and reason for non-law students to study this course, the task of the educator is a difficult one; combining the basic features of international trade law and summarising the issues and debates in easy language. This is no ordinary task, especially since it is highly likely that these students have not studied public international law formally and are not familiar with the jurisprudential distinction between international law and domestic law.

Conference/seminars

Although this scenario is not directly related to 'teaching', many international trade academics frequently encounter an audience comprising a mix of politicians, lawyers, economists, social workers, non government organisation (NGO) representatives and trade officials at symposia or conferences. Herein lies the true test of an academic. Such an audience may not only be up to date with current issues in international trade but may also harbour opposing opinions to the arguments presented by the academic (who is the 'educator' in this scenario). Conversely, the audience may be totally unfamiliar with the topic being presented by the academic. The unpredictable and open ended nature of this scenario makes it uniquely challenging. The dual learning outcomes in this scenario are a successful contribution to the policy debate by the academic and feedback received from an audience on the presentation that could lead to further refinement of the arguments.

Typical audience profiles

The composition of the audience plays a critical role in each of the above scenarios and directly affects how learning outcomes of the course are achieved. Adaptability is the underlying attribute that enables effective contact with the audience.

The following profiles provide a general overview of the types of students/audience members that an educator may encounter.

The 'conservative'

This student typically has right-wing views about international trade. He is less willing to rely on internet based information alone and is politically aware which allows him to supplement his views about international trade related issues. A major attribute is that he can relate local issues such as environment and economy to their surroundings. Usually this student is a mature age candidate who has some work experience and prior degrees in another discipline. He is a somewhat open supporter of free trade, although exceptions exist where free trade hurts local employment and businesses. If local jobs and business are being affected, then this student will adopt an argument in favour of protective use of trade remedies and cite that there are always exceptions to free trade.

The 'leftist'

Young, impressionable and outspoken, this student is the single largest subscriber of internet based information to guide their opinions. She often brings to the class her foremost objection against the concept of free trade, which flows particularly from the impression that WTO is inherently evil and that it is the offspring of 'evil' capitalists who wish to control the flow of wealth by depriving the working classes. This student may also form her opinion due to involvement with student groups or internships at NGO's. She has particularly strong beliefs and often engages in frequent dialogue with the educator. The engagement with the educator requires careful regulation. This regulation is important in terms of time-management (the educator has to cover the course content after all!), allowing room for other students with different views to speak and ask questions, preventing monopolisation of class discussions. The challenge for the educator is to provide an alternative perspective for this student to consider without hurting the confidence of the student (she is learning after all and the educator is there to nurture her thoughts).

The 'reformist'

This student wants to change the world. He is ambitious and is usually a high-achieving student. As with other categories, he is primarily reliant on internet based resources to guide his opinions but is more willing to trust other resources. It is also highly likely that this student has had the chance to gain actual work experience that goes beyond internships. What is interesting about this category of student is that he is an evolved form of either the 'conservative' or the 'leftist' category. As a result he may begin from

the basic pro or anti-global trade narratives but later become amenable to the 'other side' because he feels he needs to understand the issues first before he can herald the change. His arguments and responses to international trade policy related issues are measured and level-headed. Since this student has a wider reading than a typical student, he is more likely to venture into higher research programmes. The educator's task is to not only encourage participation in the class but also help in development of ideas that may blossom into high quality research.

The 'victims'

Usually encountered more in conferences and seminars than in the class room. In the class room, this student is more likely to be an international student from developing countries. She strongly relates to the 'leftist' category. She is influenced by an influx of imports that have affected domestic industries and therefore, feels strongly against international trade. The educator's task is to identify and supplement her 'half-baked' knowledge and to show the other side of the argument. This task is made further difficult if the candidate has work experience in her country in sectors that have suffered from import competition. In a conference environment, the audience member from this category would ask questions, and allude to, the 'unfairness' of the global trading system and how it marginalises the developing countries. There is no easy answer to the 'unfairness' debate. The educator's response (presenter in this environment) must be objective and impartial. Usually, the audience member from this category provides a valuable opportunity for a constructive critique and the issues/questions raised by her should not be ignored. These must be addressed (and incorporated) in the presenter's research to make it more viable and realistic.

The 'Asian' student

An increasing number of international students in Australian universities now come from Asia. These students come from a variety of socio-political backgrounds and this, in turn, means that they may have varied leanings. Furthermore, many of these students may have yet to form an opinion on international trade related issues (although there may be students who are knowledgeable and have interesting contributions to make in the class environment). Most Asian students from non-English speaking backgrounds also face language barriers in contributing to the class discussion and studying an advanced subject that marries law with economics and policy. Due to the domestic and cultural environment in their country of origin, these students may also feel reluctance in sharing their opinion on international trade issues even if they have some background knowledge. The task of an educator is to encourage dialogue and to cajole these students into participating more in the class as well as to spot students that are struggling with the materials to communicate their issues with a view to resolve them in an effective manner.

Teaching and Assessment

What is an ideal teaching method for teaching this subject in order to achieve quality teaching, learning and understanding? A superficial method may be prescribing a textbook and going over it chapter by chapter and then conduct a 100% exam at the end. This method resolves the issue with audience categories – everyone takes the exam whether you like it or not and everyone answers the question according to a pre-determined marking scheme and whoever gets most of the issues 'right' will get a High Distinction and so forth. The advantage is simplicity and uniformity.

An educator promoting true understanding of international trade law adopts a different approach. Teaching this subject must integrate real-life examples e.g. it is simply not enough to discuss WTO's regime on safeguards by PowerPoint presentation and expect the students to do the rest of the reading through textbooks. Students need to know more than the safeguards and their application. An educator must bring a real-life example of the application of safeguards as a case study and then ask the students to identify the issues flowing from it. This method must be adopted through covering the substantive content of the course and should not be limited to isolated examples.

By prompting discussions in the class, the students are able to express their opinions and receive counter-arguments. The fact that there are opposing arguments adopted by their peers makes learning more attractive to the student e.g. labour rights issues and their effects on trade competitiveness or how is the availability of life-saving drugs and patents under the WTO TRIPS Agreement reconciled? Questions prompting discussions should ideally come at the end of covering a topic and not while covering of the course content. The reason for this is two-fold: (1) the content needs to be covered before students can discuss the issue; and (2) discussions during class impede the progress because there is a risk that the 'reformist' or the 'leftist' student might deliberately ask an obtuse question. In the discussions following coverage of a component or a topic, the educator must ensure adequate air-time for the 'Asian' student or the 'victims' as well because the 'reformist' and the 'leftist' may dominate the discussions which defeats the entire purpose behind teaching by discussions. This method, if pursued properly, can pay rich dividends in terms of achieving understanding and learning outcomes. Professor Bryan Mercurio (2011), who has taught international trade at UNSW and Chinese University of Hong Kong, illustrates an example of a 'leftist' student who studied in his course at UNSW in 2005 with a background experience of working with NGO's. This student was well-informed in international trade related issues from the NGO perspective and was recalcitrant in listening to the opposing arguments but by the end of the course his views became less-skewed. This is a good example of how an educator triggered a transition from 'leftist' to 'reformist' thought.

Professor Mercurio (2011) also notes that most 'Asian' students are comfortable with discussions regarding the substantive content in international trade law but at the point where substantive content is to be linked with socio-political issues (such as democracy, human rights and rule of law), these students are either reluctant to participate or are generally less willing to talk. In these situations, the educator has to involve the students

in the discussions. One suggested method is to introduce group presentations in the class and distribute topics. Rather than leaving the choice to the students to pick their partners, the educator should mix-and-match students from different categories. The experience of letting a 'conservative' work with the 'Asian' will foster understanding of different competing perspectives and concepts in international trade. Additionally, this experience can be combined with the added incentive of making presentations part of the assessment process. This makes presentations and the effort that goes into them more worthwhile.

A major issue that almost every educator faces is the assessment process in this subject. Due to the nature of the subject, performance in international trade law cannot be assessed exclusively by a 100% exam since this promotes superficial understanding and is merely a test of memory rather than reason and application. Instead, a composite assessment regime must be designed that promotes long-term understanding by students and not just 'getting through the subject.' The next logical question pertains to the essentials for an ideal regime that combines the test of analytics in the form of research essay, test of understanding and presentation in the form of group presentation and finally an exam. However, due to time constraints and reasons of practicality not more than two of these methods can be combined in assessments. If the best two were to be picked, a research essay and group presentation would be the leading preferences because these two offer the best combination of achieving the aims of understanding and presenting reasoned analysis.

Conclusion

The teaching of international trade law requires a considerable effort on the part of the educator, especially when it comes to avoidance of teaching one's own opinions. If the educator wishes to achieve the equilibrium between teaching, learning and understanding he/she must be a patient listener, an encouraging teacher and should be able to present the entire picture (with conflicting interests and competing perspectives) to a class that may have already formed an opinion in advance. By identifying the likely tendencies of the students, monopolisation of class discussions are important in order to give less-active students a chance to contribute and to ask questions. The learning outcomes of this course are achieved when students learn to appreciate that in international trade there are competing interests and that there is no clear winner or loser.

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How Can Teachers Inspire Their Students?

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My name is Mark Jamison and I am a registered Architect and member of the Australian Institute of Architects. I am the director of Jamison Design which is an architectural studio based on the Gold Coast providing innovative architecture & interior design services. My time at Bond University started in 2011 as a tutor in Architectural Design Studio 1 at the Soheil Abedian School of Architecture - Institute of Sustainable Development and Architecture. I have had no previous tutoring or teaching experience prior to joining Bond University.

As part of my participation in the Foundations of University Learning and Teaching in Semester 1 2011, I was enthused to ask the question 'How Can Teachers Inspire their Students?' This paper reveals how teachers have responded to this question and also touches briefly on the academic topic I am interested in, 'Marking by a Bell Curve'. I believe inspiring students of architecture is critical. I am passionate about architecture and I want to show this to students and inspire them to become passionate about architecture. I hope that the architectural students at Bond University create unique architecture that amazes and astonishes my peers, the general public and me.

Quality teaching within higher education is extremely important because the students of today become tomorrow's professionals and community leaders. The students of architecture need to be inspired to push new boundaries, to understand the past but critically analyse to confirm or explore new directions.

When students are inspired they will be motivated to research, explore and learn about their topics. I have discovered three readings while researching that I believe respond to my question of 'How Can Teachers Inspire their Students'. These three readings are *Four Ways Teachers Can Inspire Students* by Eric MacKnight, *Finding Inspiration* by Eric MacKnight, and *Passion-Based Learning* by Konrad Glogowski.

In Eric MacKnight's first writing, he outlines the *Four Ways Teachers Can Inspire Students*. MacKnight is an English teacher who has taught since 1980 in public, independent, and international schools in countries such as the United States, Morocco, Switzerland, Austria, Canada, the Netherlands, and China. MacKnight's (February 18, 2007, para. 2) *Four Ways Teachers Can Inspire Students* are as follows:

1. Be passionate yourself, and share your passion with your students. Most of my students agree that an uninspired teacher will not inspire students. "I believe that teachers being passionate in teaching is the key to everything", writes a Grade 8 girl.

2. Explain why. Repeatedly my students say that when they do not understand the point of an activity or lesson, they lose interest. History lessons seem to be a particular problem ("Who wants to learn history? The stuff in the past does not matter anymore. What does matter instead is the future") but any topic can seem irrelevant if its relevance is never explained.

3. Teach for understanding. If students find a topic boring, 9 times out of 10 they do not understand it. "Whenever you stop understanding things, you also lose interest . . . ". (On the other hand, if the teacher finds it boring, we have a different problem altogether. See #1, above.)

4. Be supportive, kind, and open. Primary school teachers understand this. Unfortunately, too many secondary school teachers seem to think their first commitment is to the curriculum, not the students. They forget, too, that even though adolescents try to act older than they are, they still respond very well to kindness, and very poorly to its absence. Students clearly understand the importance of teachers being kind and open, and cultivating positive relationships with students. I wish every teacher understood this, too.

MacKnight believes that a teacher should be passionate and share their passion with the students. The teacher needs to explain in detail the relevance of the topic and teach for understanding. Also a teacher must be supportive, kind and open. In doing this MacKnight believes a teacher can inspire students.

In another writing, MacKnight discusses what students need to be successful in school and what do they require to be good learners. He identifies reading, good habits and inspiration as key ingredients. MacKnight (February 10th, 2007, para. 2) states, "Inspiration - without inspiration, what will motivate you to read, develop good habits, and learn?" Inspiration is the engine that drives our efforts to *improve,* and then he states further into this writing that students must have a dream to then be inspired to read, develop good habits, and learn (February 10th, 2007 para. 7). "What is your dream? If you have a dream to pursue, a vision to fulfill, then you will be inspired. Everything you do, every day, will be a small step toward the realization of your dream" (February 10th, 2007 para. 7). MacKnight believes students must be inspired to dream, and then once they have a dream they will be inspired to learn so as to pursue that dream.

The final piece of literature *Passion-Based Learning* by Konrad Glogowski (2007) discusses how he believes learning today can be passion-based and deeply personalised. Glogowski holds a PhD degree in Curriculum Studies and Teacher Development from the Ontario Institute for Studies in Education of the University of Toronto. He explains that he is interested in how educators can help people find and pursue their passion. Glogowski (February 5th, 2007 para. 4) states "Good educators have always been able to

ignite that spark in their students." Glogowski (February 5th, 2007 para. 8) believes that students can be inspired by their teachers when the teachers step out of their comfort zone of content: "As an educator, I need to step outside my 'comfort zone of content' by sharing my own self: things that I myself am passionate about. I need to stop peddling content and show that I am a learner too." Konrad Glogowski believes that teachers can inspire their students by sharing their own passions and personal beliefs with the students and telling them that they hope to learn from and with them.

On reflection of MacKnight's first writing *Four Ways Teachers Can Inspire Students* in particular point 2 - *Explain Why* and point 3 - *Teach for Understanding,* I feel these two points form an essential foundation for teachers who are striving to inspire their students. During my participation in the Foundations of University Learning and Teaching in Semester 1 2011, I was given a peer assessor who observed one of the architectural design classes I was tutoring. During the peer assessment debriefing class my peer assessor commented that in my tutoring role I made sure that all students had a clear and comprehensive understanding of the brief or task specified. Architecture like all arts, is very subjective. As architectural design tutors, we ask the students not to just accept and satisfy the brief or task given to them. We encourage the students to question and extend the brief or task. To do this, students must have a clear and comprehensive understanding. Once the students have an understanding of the brief or task and fully understand its relevance, they will be inspired to investigate and learn. The students will then be inspired to question, extend the brief or task and create a resolution.

The question of 'How Can Teachers Inspire their Students' has been my main question at the start of my academic career, however I have begun to question other academic topics. As mentioned previously, my academic involvement is at its very early stages and I have now completed my first semester as tutor in the Soheil Abedian School of Architecture and completed the Foundations of University Learning and Teaching in Semester 1 2011. Participating in both has broadened my experience, given me basic knowledge as an educator and presented me with many academic topics.

Another topic that interests me, especially in the field of Architectural education is 'Marking by a Bell Curve'. This is where a student is marked on their relative performance in their group. The profession of architecture is competitive and only one architect is engaged to do a particular project. Therefore 'Marking by a Bell Curve' may suit Architectural education assessment as it allows for a clear leader in the assessment and all other students are graded in relation to that leader and all other students participating in the assessment. 'Marking by a Bell Curve' does have positive and negative aspects and I intend to investigate this topic in the future stages of my academic career.

The three writings discussed within this paper give examples of 'How Can Teachers Inspire their Students'? MacKnight explains that teachers should be passionate, provide a detail explanation of the topics and its relevance, teach for understanding and be supportive. Students must be inspired to dream, and then once they have a dream they will be inspired to pursue that dream. Glogowski explains that teachers can inspire their students by sharing their own passions and personal beliefs with the students and telling them that they hope to learn from and with them.

During the first stages of my academic career I have learnt from these writings of Eric MacKnight and Konrad Glogowski. As part of my tutor role in the Soheil Abedian School of Architecture I now endeavor to engage students in conversation. I inform the students of my beliefs and passion for the particular subject topic we are discussing, and then ask them what they are feeling about it or what interests them about the subject topic. If the students come up with a new idea or direction, I can then research this prior to our next meeting and show them that I am learning with them. I also take time at the beginning of each class to explain the topic in full and discuss the topic's relevance, ask questions so that they can show they have a good understanding and be kind and supportive to the students. These actions that I now undertake as a part of my role as an adjunct tutor will hopefully inspire the students to dream and inspire them to pursue that dream.

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Applying Multiple Means of Engagement to Teaching Project Management

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Abstract

I started working at Bond University in October 2007. My role as Project Portfolio Manager is to assist the Director of Information Services and Director of Project Management office in ICT investment, project and portfolio management. Prior to joining Bond University, I was working as a trainer in the area of project, program and portfolio management in Australia, Middle East (Dubai) and across Asia Pacific (Singapore, Malaysia and Indonesia). I have taught several Project Management courses and MS Project 2007 tools prior to joining Bond. I am currently pursuing my PhD at the Institute of Sustainable Development and Architecture.

My teaching and learning question is how to relate to student engagement to ensure that learning is relevant and applied through using real life and current, local examples. This research was carried out during the preparation of teaching as part of Foundations of University Learning and Teaching course. It is important because it examines how considerations of future pedagogy will impact on the student experience particularly in the field of Project Management.

What is the context of this research?

Teaching project management in higher education can be challenging. The educator (teacher) must have a deep and rigorous relationship with the knowledge of the discipline. Project management teaching and learning initiatives however, require new and non-traditional ways of thinking on the part of those who are involved not only in the articulation of its agenda, but also in its design and delivery. For an effective project management teaching and learning agenda, we need to plan, design and deliver the project management teaching and learning management agenda to address a set of crucial pedagogy parameters. This has arisen because students are now extremely technology 'savvy' and may have very different expectations of higher education than what they currently receive. In addition, the birth of the 'digital native' (those who have been born into a digital age and know no other) is driving the need for change in the student–educator relationship within higher education. Designing and delivering an effective teaching and learning of project management, is only possible when it is acknowledged that the views and perceptions expressed by students MUST be taken into consideration.

What empirical research has been done on this topic?

That future project management pedagogy that will impact on the student experience has been examined by Ojiako, Ashleigh, Chipulu, and Maguire (2011). Two key components emerged from the data which represent students' perceptions of what is significant in their project management learning experiences. The first component, transferable skills, addresses parameters such as interpersonal skills, time management, curriculum coherence, critical thinking and communicating. The second component is virtual learning which includes the quality of e-resources and how relevant and accessible information is managed online. The study has indicated that an effective use of virtual learning environments is more crucial for students who are less skilful at managing their studies independently. They bring an important contribution to literature on teaching and learning project management as traditionally studies have either focused on teaching and learning (within project management) or students' experiences relating to pedagogic factors generally.

Other growing interest in the teaching and learning of project management has been driven by various factors including growing stakeholder interest in the education of project managers (Wearne, 2008) and the need to affect a successful transformation of project managers to reflective and creative practitioners (Kolltveit, Karlsen, & Gronhaug, 2007; Ojiako, Johansen, Greenwood, & Edum-Fotwe, 2008).

Where is the gap in the research?

The Ojiako et al. (2011) study addresses the need to consider how to inform future pedagogy of project management by enabling the 'customer' (student) to become involved in the enhancement process, particularly using a virtual learning environment. This will help in student engagement and collaboration between the students. However, the gap of this research is in linking together the two concepts of teaching and learning (within project management) and students' experiences relating to pedagogic factors. The current lack of recognition of the softer parameters of empathy and emotion must be acknowledged in teaching and learning project management subjects.

What is my question?

The question relates to the implications for the future pedagogy in project management. This question leads to designing the teaching to meet the students' future needs. As an educator for project management, I need to learn the latest teaching technology, such as iLearn (Blackboard), to design the course work to engage the students who will actively collaborate around course content and group projects to enhance the communication and engagement.

How did I conduct my research?

I conducted this research in two separate sessions. The first session was to present to FULT colleagues on a topic I was to present to the School of IT students. The feedback was positive. They commented that I have deep understanding of fundamental concepts and knowledge of the subject that I am going to teach. Also, there were positive comments on the design of the outline of my teaching to meet students' future needs.

For the second session of research, I was invited by the School of IT to give a two hour presentation on IT Governance and VAL IT, which is one important component of a project management course. During the two hours, I shared my industry knowledge on VAL with the students and discussed a case study relevant to the subject. As guest lecturer, I was invited to assist in one of the assignments where students needed to relate a real life implementation of VAL IT. As educator, I relate my experiences in the field of VAL IT and how it is implemented in large organisations to benefit from the implementation. This research involved my research partner, an energy organisation in Queensland, where I arranged a teleconference for the students to discuss their implementation, framework and challenges. I observed the motivation and engagement of students when they discussed and interviewed the energy companies' representatives. I believe the students learned the theory explained in the lecture and transformed the theory into practice.

How did I analyse the data?

The observation made by my FULT colleagues was that I have designed my teaching to meet the students' future needs, I possess deep understanding of fundamental concepts and I applied this through using real life and current, local examples.

What were the results?

The feedback from FULT and students from School of IT has been favourable. Due to the practical nature of project management, one of the students required more time for explanation of the technique of the implementation. Another surprise was feedback from several students that they find VAL IT an important component of IT and they have great interest in continuing research on VAL IT for their own theses.

What are the implications?

From the results, I realised that I have the ability to coach and nurture students on the subjects that I will be teaching at Bond. I would like to use technology, such as the new features of iLearn 9.1, to design the teaching and learning more effectively. I hope the blended mode of delivery using technology will actively engage with students throughout the learning experience through dialogue and discussion. I will seek feedback throughout the teaching process and amend, revise and reinforce in response.

What were the limitations of my research design?

In order to authentically know whether the changes I have made to my teaching are making a difference to the students, I should include technology such as videoconferencing with the research partner and students rather than just teleconferencing, and use iLearn to collaborate with students, using feedback to strengthen student engagement.

To what further research do my findings point?

My vision is to offer a range of delivery alternatives including face to face, blended or optional delivery modes. The improvements in communication technologies in iLearn 9.1 combined with changing lifestyles of students have led to significant changes in delivery modes. I foresee the use of technology such as iLearn 9.1 with web and podcasts, allowing face to face time to be reduced and focusing on student interaction. Even now student interaction is being successfully achieved through virtual teamwork and collaboration. I hope to increase my ability to use the technology to enhance the student engagement and future pedagogy for students in Project Management.

Conclusion

The *Foundations of University Learning and Teaching* course has taught me to develop my teaching skills and explore the theory of how students learn, through a balance of process and content. This course has given me a path of academic teaching with a skill set and the confidence that I can translate my industry knowledge into useful attributes for graduates as they enter my field of studies and professional experience. The sharing of experiences from guest speakers, the educators, my peer observation partner and colleagues of FULT were very useful and valuable. I have gained not only the knowledge of teaching and learning but friendship with fellow FULT colleagues and educators from QTL. I strongly recommend PhD graduates or new teaching staff at Bond to attend this course as induction into a teaching role at Bond University.

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Do I Know Enough?

Inquiry into the Development of Efficacy and Confidence Levels in New Tertiary Teachers

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Abstract

My name is Leah Lang. I am a practicing registered architect and now a design studio tutor in the ISDA faculty at Bond University, in the Architecture school which is in its inaugural year. I am one of four tutors for the main subject of design studio.

My teaching / learning question revolves around the concept of teaching efficacy and confidence. 'Do I know enough?' – when I am in a new school, with a new course outline, no senior lecturers and all new members of staff straight from practice and not from teaching backgrounds. If I have enough knowledge to practice successfully for 12 years in the 'real world' within my profession of architecture – do I have enough confidence to pass this knowledge and experience onto my students without any formal teaching skills? And if so, how will I know I have done so effectively?

My research has taken place at Bond University during Semester 1 2011. My research consisted of attending the FULT (Foundations of University Learning and Teaching) course. I also completed teaching and teaching efficacy surveys and a literature review within my topic of teaching efficacy and confidence in novice teachers. The FULT course had many activities / facets which assisted my research including the peer observation partners component. There was also a practice teaching session to my peers in the FULT course. This was a pre-prepared lesson of 10 minutes in duration to 4 of my fellow classmates all from different faculties.

I have chosen the topic of the efficacy of teachers in their first years, particularly focusing on their confidence levels due to its relevance in particular to the time in my academic career, a new school with limited examples of senior staff and my desire to develop these skills in the hope of becoming a great teacher to my students.

My teaching philosophy as written in January 2011 when I had barely completed 3 teaching sessions was: To encourage my students to want to learn the practice of architecture;

and for my passion and enthusiasm for architecture and design to engage the students in an 'active' learning environment. I want to challenge them, their existing ideals and encourage them to find the answers themselves and to always want to know more. I also want my teaching style to create a fun, inspiring classroom environment. Finally, I aim to be an 'all round' teacher, providing effective opportunities for all students to learn in multiple ways.

Background

The first day of term and of the Soheil Abedian School of Architecture had started (Jan 17th 2011) and the design studio course coordinator gave his 1.5 hr lecture. He then introduced the 4 tutors; we each took our place at the lectern and gave our introductory speech including our background and design sensibilities. I had written my entire speech (not a good start), I had practised it 50 times and still, as I read it out, my voiced wavered and I wondered - Do I know enough? Am I sufficiently knowledgeable to be teaching these students? This is the very personal reason for my research and inquiring into the confidence and efficacy of first year (first semester) teachers.

Tertiary teaching is, in many ways, a distinct profession unto itself as well as an enormously important part of the architecture profession. The skill sets and the experience required for both architecture and teaching are often complementary, but often quite different. Just because you do something well does not mean that you can teach it well-which is not to say that you should not try. And for anyone who has ever had a truly great teacher in your life, you know that teaching is doing. Teaching and learning, in fact, happen everywhere-in the classroom and studio, but also in the office, at lunch, in the elevator, on the way to or from a client meeting, during happy hours or when you walk out of the office for the day.

In an architectural degree there is an overriding primacy given to the architectural design studio as the main forum of creative exploration, intellectual engagement, interaction and assimilation. It is the testing ground for all types of knowledge gained in theory and lecture courses. Consequently, the attitudes formed in the studio are those that young graduates take to the profession. Kolb's theory of experiential learning 1984 (as cited in Bell, 2007), is a strong base for design studio teaching and has relevance to the concept I have discussed regarding professionals coming from practice starting their teaching careers. Kolb described that learning comes from "real-life" experience but in order to thoroughly learn from the experience we need to reflect on that experience, develop ideas stemming from those experiences, test them and reflect again on the whole process.

I have vivid memories as will most who have studied architecture, that characterise their design studio experience. Late nights, exciting projects, extreme dedication, lasting friendships, long hours, punishing critiques, predictable events, a sense of community and personal sacrifice all come to mind. Those aspects are not usually written into the curriculum or even the design assignments, but they are likely the most memorable and influential. The experiences, habits and patterns found within the architecture design

studio make up what we have termed 'studio culture.' This is a concept I also consider to be experiential learning. My current, albeit limited, self efficacy and confidence in my novice 'teaching self' comes from the idea that what I have learnt at university and over the last 10 years of practice will be applied and passed on to the students through activity based learning. There will be instances where I will be able to assist their theory learning and understanding with real examples and stories.

Literature Review

What is efficacy: Meaning and measure?

> "People with a high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided" (Bandura, 1984)

Ashton and Webb (1986) defined teacher efficacy as the extent to which teachers believe that they have the capacity to affect students' performance. Few studies have looked at the development of efficacy beliefs among first year teachers. I believe this is an important area of research as self efficacy is related to teachers' stress and commitment to teaching (Woolfolk Hoy, 2001), as well as students' learning outcomes and overall satisfaction (Haynes, 1999).

The instruments that researchers use to measure efficacy are questionnaires called "The Personal Teaching Efficacy Scale" also known as "Ashton Efficacy Vignettes" developed by Ashton, Olejnik, Crocker and McAuliffe (1982) in Benz, Bradley, Alderman and Flowers (1992) and more recently "the Teachers' Sense of Efficacy Scale – long and short form developed by Tschannen-Moran and Woolfolk Hoy (2001).

All findings indicated that experienced teachers had significantly higher efficacy scores than newer teachers to the profession. The best predictors of efficacy seemed to be the adequacy of teachers' own preparation, attitudes about teaching (Tschannen-Moran & Woolfolk Hoy, 2001) whether the teacher had a professional development preference and the support from the faculty, school, university or department for which they taught.

What impacts does a teacher's efficacy and confidence have?

Student achievement is the end product desired in education and hopefully is a result of effective teaching. In many of the studies I read there was no direct relationship between student achievement scores and efficacy. However, Woolfolk Hoy (2001) showed that teachers with a high sense of teaching efficacy believe that they have the ability to make a difference in student achievement.

Teachers who have high expectations of their students feel responsible for students' learning, have good listening skills, overcome student or generational stereotyping (Benz, Bradley, Alderman & Flowers, 1992) and use multiple means of representation in their teaching methods are more likely to be effective which in turn increases the teachers

own self-efficacy. Bandura (1977) also identified personal traits such as encouraging, organised, professional demeanour, tolerant, flexible, enthusiastic, warm, trustworthy and fair as being associated with effective and confident teachers. When Bandura's theory is applied to the concepts of teacher efficacy, outcome expectancy reflects the degree to which teachers believe students can be taught given factors such as, family background, IQ and institution conditions. Self-efficacy beliefs indicate a teacher's view of their ability to bring about positive student change. Teachers with high self-efficacy and confidence would not give up easily if faced with a difficult situation or where they did not get the results they wanted. They would persist longer, would provide a greater academic focus in the classroom and would exhibit different types of feedback than teachers with low self efficacy and confidence.

The gaps in the research

There was limited research on tertiary teacher efficacy and confidence levels, especially novice or first year teachers. There was also no specific information on female teachers, teachers in Architecture Schools or teachers joining the staff of a newly formed school. In the majority of the research found, there were predominantly articles on (secondary) high school teachers' abilities and confidence issues. This information was specific to the teaching of certain subject strands such as mathematics and science, as well as the lack of self efficacy in teachers using the internet and technology as teaching tools. Due to this recent subject and technology specific focus of confidence and self-efficacy in the teaching profession, I have actually turned my research to some of the early findings of teachers' efficacy levels and how this affects their confidence, commitment, enjoyment and students learning outcomes and satisfaction with the course and teaching.

The goal of this paper is to provide a journal type account of a first year female architecture tutor in the inaugural year of a university school. This is quite a specific case – because it is unique to me but I hope it will assist new tutors across disciplines, coming from practice or their own studies, about the journey they are on and some methods that may help assist in the transition. I thought this topic required a real voice and point of view as the literature is based mostly on statistics and studies.

What is my question?

As a new tertiary teacher, how can I be sure I know enough? How do I raise my value or efficacy of myself and my abilities so I can have the confidence to teach my students well? I am in a School of Architecture in its inaugural year, with a new course outline, no senior lecturers and all new members of staff straight from practice and not from teaching backgrounds. If I have enough knowledge to practice successfully for 10 years in the 'real world' within my profession of architecture – do I have enough confidence to pass this knowledge and experience onto my students without any formal teaching skills? And if so how will I know I have done so effectively?

How did I conduct my research?

My research has taken place at Bond University during Semester 1 2011, my first semester of teaching. My research consisted of attending the FULT (Foundations of University Learning and Teaching) course which began in January and continued for 8 sessions until March 2011 once a week for a 3 hour session. I also completed 2 teaching perspectives inventory (TPI) surveys online one at the start of the course and one at the conclusion as well as 2 efficacy indicator surveys and a literature review focusing on 3 articles from research of approximately 15 articles within my topic of teaching efficacy. The FULT course had many activities / facets which assisted my research, including the peer observation partners component with Phillip Fourie, M.B.B.S. Post Grad Dip (COUN), Associate Dean and Head of School of Social Science, Faculty of Humanities and Social Sciences at Bond University.

Phillip Fourie, who I met with 3 times, once to observe his teaching, once he observed and critiqued my teaching, and then we met to review our observations and findings. As a senior lecturer at Bond University he guided me through techniques and methods he has used to gain confidence and efficacy in teaching his classes. There was also a practice teaching session to my peers in the FULT course. This was a pre-prepared lesson of 10 minutes in duration to 4 of my fellow class mates all from different faculties. I taught a lesson on the golden ratio and its application to architecture, art and the human body.

How did I analyse the data?

I analysed the data by completing the surveys and reading all the feedback from my academic peer observation partner and the peers from my in-class practice teaching session. I then analysed and interpreted the results from the summaries and descriptions given as well as the peer feedback using the Kolb process of critical reflection and experiential learning (Bell, 2005):

1. Concrete experience – I began teaching for the first time and to assist this I filled out teaching surveys, completed courses and observations, taught and was observed on various occasions.

2. Reflective Observation – After each week of the FULT course, and the teaching and observation sessions, I wrote my thoughts on what I had learnt and experienced and how this related and could be applied to my teaching skills.

3. Abstract Conceptualisation – Through my reflections I could understand how higher levels of confidence and efficacy would result in the students having more confidence in me and what I have to say. Also that I would feel more capable if things do not go to plan or there are difficult students in the class.

4. Active Experimentation - By applying the concepts and information I was gaining through the associated activities I found the confidence in my teaching ability increased which in turn made my tutoring sessions more enjoyable for both me and, I assume, for the students as well.

What were the results?

Results from the TPI survey developed by Pratt and Collins (2001) indicated my teaching style was dominantly both 'nurturing' (40 points) & 'apprenticeship' (40 points) of five possible perspectives. The sub scores below each of the perspectives further helped identify my philosophy of teaching by clarifying whether my views in the perspective were grounded i.e. these scores highlighted that what I believe, what I intend to accomplish and what teaching actions I am undertaking confirm the perspective. I completed the survey twice, in February after only 2 weeks of teaching and April, after the semester was completed. The results did not vary greatly except for the dominant perspectives and sub scores getting stronger in those categories. The following describes the perspectives that were dominant in my profile.

- *Apprenticeship*: This is the idea that as teachers we socialise students into new behavioural norms and ways of working. This perspective perfectly summarises my views and concerns on coming from practice to teaching. Teachers that come from this perspective are experts in their fields, giving students guidance and direction with the intention that they will progress from dependent learners to independent workers.
- *Nurturing*: Students learn best when they do not fear failure. Good teachers care about their students and realise that the process and journey of learning is often more important than the end result or outcome.

The teachers' Sense of Efficacy Scale (Woolfolk, 2001) consisted of comments regarding your teaching ability (how much can you do?) on a range of topics and asked you to grade yourself from 'nothing' to 'a great deal'. This survey gauged your effectiveness over 3 areas: efficacy in student engagement, efficacy in instructional strategies and efficacy in classroom management. My scores were slightly below the mean that was printed at the back of the survey (see appendix).

Ashton's Efficacy Vignettes (Ashton, 1982) consisted of teaching scenarios that you were expected to apply your own similar experiences to and judge your response to that situation from 'extremely effective' to 'extremely ineffective'. As my experience in a classroom is limited, I had only experienced parts of the scenarios but applied common sense to the remaining and resulted in an above average result.

I would consider the survey results to be of a quantitative nature as they gave me conclusions based on numbers graded to general sets of questions or scenarios. The following were responses from my peers and partnered academic regarding their observations of my teaching style. My peers assessed me during our 'in-class teach your peers' session and my partnered academic, Phillip Fourie, assessed my teaching as he observed me with my tutorial group one afternoon. The feedback was extremely positive indicating good points such as great use of visuals, activity planning, eye-contact, well organised, giving good relatable examples and being supportive to students' needs.

Some of the suggested areas for improvement were, fast pace of speech and the need to slow down, and when discussing one student's work in particular, to try to involve all the students as an example. This feedback was invaluable as it was from senior lecturers with many years experience and peers from different faculties who had a fresh unbiased perception of my teaching style. The 'in class peer teaching' session was also videotaped which was very useful, as until that point I had never heard myself publicly speak to a class. It was also good to reflect on items such as posture, hand gestures, tone and presentation skills.

Peer observing Phillip, a senior lecturer in action, was an amazing experience. To watch an educator apply many of the 10 teaching principles I had learnt in the FULT course, in a classroom to their students was excellent. I watched him teach a deep understanding of fundamental concepts, relating these to real life experiences and motivating the students all using multiple means of representation of teaching methods through stories, PowerPoint, handouts, role playing and discussions.

The results of the surveys and feedback from my peers were surprisingly positive. I believe my perception of my low self confidence and lack of efficacy is stronger than how those around me saw it to be. I am assuming this would be the same with the students. It was a pleasant surprise and lifted my opinion of my ability of my teaching self which will assist with my confidence moving into my second semester of tutoring in architectural design studio.

Some of the tips I have uncovered that have assisted in increasing my efficacy and confidence with teaching are:

- *Keep a fresh ongoing perspective*: If you find yourself nervously dwelling on any one aspect of classroom management, stop and ask yourself: What were my students able to do well? What went successfully?
- *Exercise Flexibility*: Adjusting to new classroom situations is a long process and requires an introspective mindset. What didn't I succeed? What could you have done differently? This helped me to realise that there are numerous other ways to deal with a problem and that I am not necessarily the cause of it.

Specific to the study of Architecture and to designing a healthy studio culture, the teachers need to emanate the essential values of optimism, respect, sharing, engagement and innovation. There are talented and energetic students who will embrace these shared values when they are embraced by confident and effective teaching staff.

What are the implications?

When new teachers experience a difficult or challenging classroom experience, they quickly lose touch because that one 15 minute segment of an unsuccessful lesson simply tore them down. They quickly forget all those positive classroom teaching experiences. Since new teachers lack the confidence seasoned teachers work hard to establish, it then becomes very hard for new teachers to rebuild a positive flow of teaching energy. The

worst thing for a new teacher to do is to start a Monday by bringing a bundle of nerves and jitters into the classroom. It becomes a no win situation. When you are able to shift the focus away from yourself and to your students, you are able to focus on true teaching moments of here and now. What is the most important thing my students need right now? How can I effectively cater to my students?

It's hard to do this because much of what happens in the classroom is often determined by a new teacher's personality, confidence level and efficacy. The research I have read on this topic has not particularly surprised me; however, I have been pleasantly surprised by the comments from my peers and my survey answers as I have progressed along this journey. I always believed that confidence and competency projected by people in a position of power or in a teaching role are essential traits for the individuals they are directing, mentoring or teaching to feel empowered to trust and be guided by someone with knowledge they are yet to gain.

What were the limitations?

To genuinely know whether the techniques, knowledge and self development I have undertaken over the last four months has had a positive impact on my teaching efficacy and my self confidence I should have also interviewed the students of my class, the lecturer of the subject and my fellow tutors. They could put in their own words the differences they perceived in my teaching from the first week until the final week to see if they noticed an improvement in my self confidence or efficacy.

What further research is required?

As the research has shown, teachers' efficacy does not necessarily impact on students' grades. However, it is a factor in ability for a majority of students to learn well and have a high level of satisfaction within the course and with the teaching provided. To increase my confidence and efficacy I will continue to observe senior staff prepare and give their lectures. I intend to sign up for a public speaking course to develop techniques in this form of communication that is essential and one of the direct contributors to my lowered self confidence in the classroom. I will make six monthly reviews with the course co-ordinator to assess my performance and progress and, if appropriate, ask a few of the students in an informal interview their opinions of my teaching style. Again using Kolb's Experiential Learning Cycle I will endeavour to keep teaching and isolating experiences that I would like to improve, reflect on my methods for dealing with that situation, analyse and theorise an idea as to why this issue is occurring and finally actively experiment with remedies and improvements for these situations. As my journey and experience through the next few years of teaching progresses, so too will my search for techniques to increase my confidence and efficacy.

Conclusion

My teaching philosophy at the end of the FULT course, my research, reading and the completion of this paper is:

My aim is to have a holistic approach to teaching and learning, striving for an optimum learning environment and the best possible outcomes. I have huge enthusiasm for Architectural Design and I hope to instil this in the students. My teaching style will not be one light bulb moment but a journey that will evolve over the next few years of my academic career. Application, trial, evaluation, reflection and modification will be the steps of my process on this journey. And good communication and organisation skills will be my preferred method of travel. I have the advantage that small class sizes provide me with opportunities to test these different ideas and approaches and receive prompt results / feedback.

I advocate to all first year tutors to trust yourself and your abilities, take help when it is offered from all and be a sponge and soak up all you can from senior tutors, lecturers, peers and students regarding developing a pedagogy and efficacy that works to engage, enthuse and inspire. Be yourself and bring the passion, knowledge and enthusiasm that led you to your career choice to your students. Be reflective of your teaching style constantly willing to learn, reflect, reassess and adapt. Be open to constructive criticism and change.

Not a great deal varied from the ideals I started with but now I feel they are more grounded, solid and attainable. Maybe I have already increased my teaching efficacy and confidence!

APPENDIX 1 :

TPI – Teaching Perspectives Profile: Individual – completed Feb 2011

RESULTS FOR FEBRUARY 2011

Teaching Perspectives Profile: *Individual*

Respondent: **Leah Lang**
TPI ID Number:
110120181607

Transmission	Apprenticeship	Developmental	Nurturing	Social Reform
Tr: **30**	Ap: **33**	Dv: **33**	Nu: **38**	SR: **31**
B:9, I:10, A:11 ✓	B:8, I:12, A:13 ✓	B:10, I:12, A:11 ✓	B:12, I:15, A:11	B:8, I:12, A:11
45	45	45	45	45
44	44	44	44	44
43	43	43	43	43
42	42	42	42	42
41	41	41	41	41
40	40	40	40	40
39	39	39	39	39
38	38	38	• **38** •	38
37	37	37	• **37** •	37
Your scores at or above this line (36) are your DOMINANT perspective(s).				
36	36	36	• **36** •	36
35	35	35	• **35** •	35
34	34	34	• **34** •	34
33	• **33** •	• **33** •	• **33** •	33
32	• **32** •	• **32** •	• **32** •	32
31	• **31** •	• **31** •	• **31** •	• **31** •
• **30** •	• **30** •	• **30** •	• **30** •	• **30** •
Your scores at or below this line (30) are your RECESSIVE perspective(s).				
• **29** •	• **29** •	• **29** •	• **29** •	• **29** •
• **28** •	• **28** •	• **28** •	• **28** •	• **28** •
• **27** •	• **27** •	• **27** •	• **27** •	• **27** •
• **26** •	• **26** •	• **26** •	• **26** •	• **26** •
• **25** •	• **25** •	• **25** •	• **25** •	• **25** •
• **24** •	• **24** •	• **24** •	• **24** •	• **24** •
• **23** •	• **23** •	• **23** •	• **23** •	• **23** •
• **22** •	• **22** •	• **22** •	• **22** •	• **22** •
• **21** •	• **21** •	• **21** •	• **21** •	• **21** •
• **20** •	• **20** •	• **20** •	• **20** •	• **20** •
• **19** •	• **19** •	• **19** •	• **19** •	• **19** •
• **18** •	• **18** •	• **18** •	• **18** •	• **18** •
• **17** •	• **17** •	• **17** •	• **17** •	• **17** •
• **16** •	• **16** •	• **16** •	• **16** •	• **16** •
• **15** •	• **15** •	• **15** •	• **15** •	• **15** •
• **14** •	• **14** •	• **14** •	• **14** •	• **14** •
• **13** •	• **13** •	• **13** •	• **13** •	• **13** •
• **12** •	• **12** •	• **12** •	• **12** •	• **12** •
• **11** •	• **11** •	• **11** •	• **11** •	• **11** •
• **10** •	• **10** •	• **10** •	• **10** •	• **10** •
• **9** •	• **9** •	• **9** •	• **9** •	• **9** •

B - belief I - intent a - action.

APPENDIX 2:

TPI – Teaching Perspectives Profile: Individual – completed April 2011

RESULTS FOR APRIL 2011

Teaching Perspectives Profile: *Individual*

Respondent: **Leah Lang**
TPI ID Number:
110414211917

Transmission	Apprenticeship	Developmental	Nurturing	Social Reform
Tr: **27** – 3	Ap: **40** +7	Dv: **35** +2	Nu: **40** + 2	SR: **29** – 2
B:8, I:7, A:12	B:12, I:14, A:14	B:10, I:13, A:12	B:13, I:14, A:13	B:9, I:9, A:11
45	45	45	45	45
44	44	44	44	44
43	43	43	43	43
42	42	42	42	42
41	41	41	41	41
Your scores at or above this line (40) are your DOMINANT perspective(s).				
40	• **40** •	40	• **40** •	40
39	• **39** •	39	• **39** •	39
38	• **38** •	38	• **38** •	38
37	• **37** •	37	• **37** •	37
36	• **36** •	36	• **36** •	36
35	• **35** •	• **35** •	• **35** •	35
34	• **34** •	• **34** •	• **34** •	34
33	• **33** •	• **33** •	• **33** •	33
32	• **32** •	• **32** •	• **32** •	32
31	• **31** •	• **31** •	• **31** •	31
30	• **30** •	• **30** •	• **30** •	30
29	• **29** •	• **29** •	• **29** •	• **29** •
Your scores at or below this line (29) are your RECESSIVE perspective(s).				
28	• **28** •	• **28** •	• **28** •	• **28** •
• **27** •	• **27** •	• **27** •	• **27** •	• **27** •
• **26** •	• **26** •	• **26** •	• **26** •	• **26** •
• **25** •	• **25** •	• **25** •	• **25** •	• **25** •
• **24** •	• **24** •	• **24** •	• **24** •	• **24** •
• **23** •	• **23** •	• **23** •	• **23** •	• **23** •
• **22** •	• **22** •	• **22** •	• **22** •	• **22** •
• **21** •	• **21** •	• **21** •	• **21** •	• **21** •
• **20** •	• **20** •	• **20** •	• **20** •	• **20** •
• **19** •	• **19** •	• **19** •	• **19** •	• **19** •
• **18** •	• **18** •	• **18** •	• **18** •	• **18** •
• **17** •	• **17** •	• **17** •	• **17** •	• **17** •
• **16** •	• **16** •	• **16** •	• **16** •	• **16** •
• **15** •	• **15** •	• **15** •	• **15** •	• **15** •
• **14** •	• **14** •	• **14** •	• **14** •	• **14** •
• **13** •	• **13** •	• **13** •	• **13** •	• **13** •
• **12** •	• **12** •	• **12** •	• **12** •	• **12** •
• **11** •	• **11** •	• **11** •	• **11** •	• **11** •
• **10** •	• **10** •	• **10** •	• **10** •	• **10** •
• 9 •	• 9 •	• 9 •	• 9 •	• 9 •

APPENDIX 3:

Teachers' Sense of Efficacy Scale (long form) inc. results and average scores.
Tschannen-Moran & Woolfolk Hoy (2001).

Teachers' Sense of Efficacy Scale[1] (long form)

Teacher Beliefs	How much can you do?								
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Reliabilities

In Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17,* 783-805, the following were found:

		My score	Long Form		Short Form		
	Mean		SD	alpha	Mean	SD	alpha
OSTES	7.1	6.8	.94	.94	7.1	.98	.90
Engagement	7.3	7.1	1.1	.87	7.2	1.2	.81
Instruction	7.3	6.7	1.1	.91	7.3	1.2	.86
Management	6.7	6.5	1.1	.90	6.7	1.2	.86

[1] Because this instrument was developed at the Ohio State University, it is sometimes referred to as the *Ohio State Teacher Efficacy Scale*. We prefer the name, *Teachers' Sense of Efficacy Scale*.

Directions for Scoring the Teachers' Sense of Efficacy Scale[1]

Developers: Megan Tschannen-Moran, College of William and Mary
Anita Woolfolk Hoy, the Ohio State University.

Construct Validity

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see:

> Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17,* 783-805.

Factor Analysis

It is important to conduct a factor analysis to determine how your participants respond to the questions. We have consistently found three moderately correlated factors: *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*, but at times the make up of the scales varies slightly. With preservice teachers we recommend that the full 24-item scale (or 12-item short form) be used, because the factor structure often is less distinct for these respondents.

Subscale Scores

To determine the *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

My rating ↓

Long Form

7 8 7 8 7 9 6 5 = avg 7.1

1. ***Efficacy in Student Engagement***: Items 1, 2, 4, 6, 9, 12, 14, 22
2. ***Efficacy in Instructional Strategies***: Items 7, 10, 11, 17, 18, 20, 23, 24 7,6,7,7,8,6,6,7 = 6.7
3. ***Efficacy in Classroom Management***: Items 3, 5, 8, 13, 15, 16, 19, 21 = avg 6.5
   6,8,8,7, 5, 8, 5, 5

Short Form

Efficacy in Student Engagement: Items 2, 3, 4, 11
Efficacy in Instructional Strategies: Items 5, 9, 10, 12
Efficacy in Classroom Management: Items 1, 6, 7, 8

APPENDIX 4:

Ashton Efficacy Vignettes Ashton, T., Olejnik, S., Crocker, L. & McAuliffe, M. (1982)

Ashton Efficacy Vignettes*

Read each situation carefully. Consider similar situations from your own teaching experiences. Indicate how effective you would be in handling each situation by circling the appropriate number

1 extremely ineffective — 2 — 3 — 4 moderately effective — (5) — 6 — 7 extremely effective

---

1. One of your students misbehaves frequently in your class and is often disruptive and hostile. Today in class he began roughhousing with a friend in the back of the class. You tell him firmly to take his seat and quiet down. He turns away from you, says something in a belligerent tone that you can't hear and swaggers to his seat. The class laughs and then looks to see what you are going to do. How effective would you be in responding to this student in a way that would win the respect of the class?

   1 extremely ineffective — 2 — 3 — 4 moderately effective — 5 — (6) — 7 extremely effective

2. Maria, an educable mentally retarded student in your class, has been working diligently, but still performs below grade-level in all subjects. At a conference the mother says that she doesn't expect much of the girl, because Maria is "dumb" just like herself. How effective would you be in talking to Maria's mother about her feelings and about the effect that parents' expectations can have on their child's school achievement?

   1 extremely ineffective — 2 — 3 — 4 moderately effective — 5 — (6) — 7 extremely effective

3. Your county has mandated that all teachers must restructure their course requirements to insure adequate development of students' basic skills by including these elements in each lesson plan. How effective would you be in incorporating achievement of basic skills objectives into your lesson plans?

   1 extremely ineffective — 2 — 3 — (4) moderately effective — 5 — 6 — 7 extremely effective

4. Students in your school gang together in same sex, same race cliques. Your principal has requested that each teacher work to promote more positive interactions among these groups. How effective do you feel you would be in helping your students develop more positive interactions?

   1 extremely ineffective — 2 — 3 — (4) moderately effective — 5 — 6 — 7 extremely effective

5. Half a dozen low-achieving female students are not getting much from your class. Lately they have begun to "hang around together" and to advertise that they don't like you or your class. They have begun to fool around, disrupt our lessons, and occasionally "talk back." When you attempt to involve them in class work they either make jokes or sit sullenly. How effective would you be in eliminating their disruptive behavior?

   1 extremely ineffective — 2 — 3 — 4 moderately effective — (5) — 6 — 7 extremely effective

6. This year your principal has assigned you to teach a class of low ability students in your subject matter area. The teacher who taught this class last year tells you that these are the slowest students that she's taught in her twenty year teaching career. How effective would you be in increasing the academic achievement of the students in this class?

1	2	3	(4)	5	6	7
extremely ineffective			moderately effective			extremely effective

7. You have a student who never hands in assignments on time, seldom gets to class before the bell rings and inevitably forgets to bring books or pencil to class. He obviously has the ability to do above average work, but you have discussed this matter with his parents, and they don't seem to understand the importance of school achievement. How effective would you be in motivating this student to get to work?

1	2	3	4	(5)	6	7
extremely ineffective			moderately effective			extremely effective

8. A new student has been assigned to your class. Her records indicate that she never does her homework and does not seem to care about her education. Her IQ score is 83 and her achievement scores have been below the 30th percentile. How effective would you be in increasing her achievement test scores?

1	2	3	(4)	5	6	7
extremely ineffective			moderately effective			extremely effective

9. The student-teacher ratio in your class of compensatory education students is 20 to 1. You must plan your lessons to meet the individual interests and abilities of the students. How effective would you be in designing activities to match the individual interests and abilities of the students in your class?

1	2	3	4	5	(6)	7
extremely ineffective			moderately effective			extremely effective

10. Because of repeated failure, one of your students confides to you that she has given up and will attend school only until she can find a way to drop out. How effective would you be in persuading her that she can be successful in school?

1	2	3	4	5	(6)	7
extremely ineffective			moderately effective			extremely effective

11. A number of your students have been sleeping in class. They do poorly on in class assignments and seldom turn in homework. You learn that they are taking drugs. How effective would you be in helping the students with their drug problem?

1	2	3	(4)	5	6	7
extremely ineffective			moderately effective			extremely effective

12. A learning disabled student has been mainstreamed into your classroom. He has been described by his previous teachers as being extremely hyperactive and having severe reading problems. How effective would you be in teaching this student?

1	2	(3)	4	5	6	7
extremely ineffective			moderately effective			extremely effective

13. A new teacher in your school has been reviewing cumulative records for her students and asks you to explain the difference between grade equivalent and percentile ranks for several of her students on the standardized achievement battery. How effective would you be in explaining the difference between these two types of scores?

1	2	3	4	5	(6)	7
extremely ineffective			moderately effective			extremely effective

14. You have been selected to work on a curriculum selection committee to choose textbooks and materials to be used in your county for the coming year. The materials chosen must fit a wide range of instructional needs for students of differing abilities. How effective would you be in doing this work?

1	2	3	4	(5)	6	7
extremely ineffective			moderately effective			extremely effective

15. Your school has adopted an instructional textbook series in your area with excellent objectives and teaching materials, but almost nothing in the form of tests or exercises to monitor student progress. How effective do you feel you would be in developing a set of evaluation procedures to accompany the text for your grade level?

1	2	3	(4)	5	6	7
extremely ineffective			moderately effective			extremely effective

*In Ashton, P. T., Olejnik, S., Crocker, L. & McAuliffe, M. (1982). *Measurement problems in the study of teachers' sense of efficacy*. Paper presented at the annual meeting of the American Educational Research Association, New York.

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Reduced Technical Jargon Aids Understanding, But Does It Diminish Quality Learning?

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Abstract

Despite being a new recruit to Bond University, I have been involved with research within the Faculty of Health Sciences and Medicine since 2007. My research was focused on reducing the impact of comorbidities in older women with type 2 diabetes through the use of regular exercise, thus teaching Clinical Exercise Testing to exercise and sports science students was an ideal platform to integrate teaching, learning and research. While many students are initially attracted to exercise science due to the physical application and content, the program is fundamentally a science degree. Effective educators should provide scientifically sound and industry-relevant content, but ensuring that educator and student expectations align can be challenging. One of the major questions therefore might be: how does an educator deliver science degree content in easily understood language, while ensuring the quality of content is preserved? To investigate the effectiveness of teaching advanced science content while limiting technical and confusing language, two observations of lecture-based teaching were conducted. Peer-observations included assessment of the delivery of content, as well as student interaction (i.e. engagement). Discrete observations of the content on student laptops from the rear of the audience provided an index of student attention to the lecture content (i.e. were students viewing non-related websites or the lecture content?). The capacity to limit excessive technical language might improve student learning of advanced science-related content in undergraduate applied-science disciplines.

What is the context of this research?

Understanding of science is achieved when students have the capacity to synthesise learning from experimental demonstrations and presented information, and subsequently develop expertise of a subject matter. Indeed, there should be a clear distinction between merely *knowing* and truly *understanding* science, given that the career paths resultant from an undergraduate science degree typically require a thorough knowledge of a given field. Impeding the understanding of science, it is suggested that 'jargon' and 'unintelligible names' are delivered at an unmanageable rate in undergraduate science

degrees (Arons, 1973). Consequently, improved student learning might be achieved through reducing the technical jargon that is a hallmark of science and delivering content in easy-to-understand language.

What empirical research has been done on this topic?

There is limited evidence that well-developed understanding of science may be enhanced by exchanging technical jargon for easily-understood language. An insightful study into teaching philosophies employed in university-level science courses demonstrated that approximately 79% of 1st year physical sciences lecturers viewed teaching as a predominantly teacher-focused activity (Trigwell, Prosser, & Taylor, 1994). A teacher-focused strategy in science lecturing typically focuses on *teaching*, rather than *learning*, which requires that students can learn without being 'active' in the teaching-learning process (Trigwell et al., 1994). Consequently, educators may overlook or be unaware of deficiencies in student learning; if a fundamental technical-concept is misinterpreted by the student during lecture, a teacher-focused educator would not be able to provide context for the concept and may potentiate further learning impairment. Alternatively, Sheppard and Gilbert (1991) suggest that educators that adopt a student-centred strategy for teaching may facilitate high-quality student learning as students are able to apply new knowledge in a context relevant to the individual. While investigation of educators' teaching philosophies may provide a framework for retrospective explanations of student performance and understanding, the work by Trigwell et al. (1994) did not provide any insights into student outcomes.

An extension of the student-centred approach to teaching was investigated by Brown and Ryoo (2008). The framework for this study was the observation that younger individuals demonstrate a remarkable ability to understand and exchange complex communications (e.g. 'discrete' signals on sports fields; symbols and codes in video games), yet this ability is not always replicated in science and related fields that use similar representations (Gee, 2003). Thus, Brown and Ryoo (2008) investigated whether middle-school student outcomes were improved by teaching in two stages: 1. a general concept was learned by students using everyday (vernacular) language; 2. specific and scientific content was subsequently learned by students which directly applied to the previous general concept. Two groups of students learned the same content and were subsequently assessed using an identical exam; however, delivery of content was different for each group. The 'treatment' group received a two-stage (1. vernacular concept; 2. scientific content) strategy and the 'control' group was taught using exclusively scientific language. Students that received the two-stage strategy performed significantly better in both multiple-choice (knowledge) and open-ended (understanding) questions than controls, suggesting limitations to student outcomes may be simply a poor knowledge of technical language (i.e. jargon) rather than a misunderstanding of novel content/concepts.

Where is the gap in the research?

While there is evidence that performance indicators of middle-school students may be improved by teaching technical concepts using a two-stage strategy that emphasises

learning by using easy-to-understand language, there is little evidence that students with a high-level of prior learning (i.e. completed high school) would benefit from similar strategies. The present study was designed to investigate whether student interaction and/or engagement during lecture sessions involving advanced and technical content could be improved by employing the two-stage strategy.

What is my question?

Can student understanding of advanced science-related content be improved by a two-stage learning approach, in which content is delivered using: 1. broad concepts delivered in easy-to-understand language; and 2. subsequently providing the specific and technical language that pertains to the desired concept to be learned?

How did I conduct my research?

To investigate the effectiveness of teaching advanced science content while limiting technical language, two peer observations of lecture-based teaching were conducted. The first observation involved a statistics lecture that was delivered to a first-year university cohort, while the second observation was of a final-year cohort during a biochemistry lecture. Peer observations included qualitative assessment of the delivery of content, as well as student interaction (i.e. engagement). Discrete observations of the content on student laptops from the rear of the audience provided an index of student attention to the lecture content (i.e. were students viewing non-related websites or the lecture content?).

How did I analyse the data?

Peer observations were recorded on a data sheet which provided feedback for specific criteria pertaining to the effectiveness of the educator to communicate with students. In addition, the observer provided qualitative feedback and suggestions from personal experience to the educator. Following peer observation, the observer and educator discussed the feedback and data, clarifying any comments as necessary. Given the qualitative nature of the research, it was decided that the most appropriate mode of reporting would be to provide a commentary of the observations for future reference.

What were the results?

As an educator.

The peer-observation process was challenging from an educator's perspective due to the inherent feeling of being assessed! The comments provided by the observer justified the process and led to a greater awareness of the strengths and weaknesses of the educator's delivery method. Given that the author is from a predominantly research background and has only recently developed a teaching position, it was encouraging to learn that "student interaction and engagement... (promoting the) thinking process with students" was a key strength throughout the lecture.

Given that the students were in the final year of their undergraduate degree, it was most appropriate to place the new content in the context of previous learning, rather than using vernacular that would be understood by 'lay' individuals. It was specifically noted that "getting them (students) to think about previous content which allowed them to think and place in context the info that was to be covered…", supporting that the two-stage strategy was well delivered. Moreover, the observer noted that the author was strong in "stopping and checking students for understanding", which demonstrated an awareness of the importance of formative assessment.

A suggested area of improvement was the use of the floor. The author was principally delivering content from "behind (the) lectern", which was suggested to be less engaging than moving into the audience. In subsequent weeks during a research presentation, the author proactively interacted with the audience by occasionally moving from one side of the audience to the other, and by addressing the audience from the first row and from the whiteboard, ensuring coverage of the entire floor space. The author received many positive comments regarding the presentation, including the "use of the auditorium".

Laptop content: it was reported that the students using laptops during the lecture were consistently taking notes and the content on the screens appeared to be lecture related (i.e. lecture slides). No reports of social media sites and/or other non-lecture related websites were observed.

As an observer.

It was refreshing to visit, as an observer, a lecture in a different field of science. The educator in this instance had ~15 years of teaching experience and was proficient at engaging students. It was clear that the educator had a good rapport with students and understood that various students learn in different modes.

Specific comments on the educator's delivery included that the style was most relaxed and the language was "conversational – slow and clear". Consequently, it was evident that the students were comfortable and did not hesitate to ask questions for further information. As an observer, the author noted that this style would be applicable to all fields of science.

The specific task of providing novel content in a non-technical delivery was mastered by the educator. The educator had a strong ability to explain, with clarity, apparently difficult and abstract concepts, such as 'variance'. The observer noted "I was particularly impressed that you 'demystified' the mathematical operators/symbols"; the educator almost 'played down' the significance of the operators (such as sigma) by statements such as "this fancy symbol simply means *add everything up*!" Similar statements were regular features of the educator's teaching and it was clear that students were far more engaged with the lecture content (statistics) than if an alternate approach that neglected to explain unfamiliar mathematical symbols/operators had been utilised. The educator's ability to make statistics content appealing to the students was exemplary.

The educator's ability to tailor content to different learning modalities was also observed. In brief, most topics were presented in 1. visual form (figure), followed by 2. text-based definition, reiterated in 3. simple spoken word, and occasionally summarised using 4. web-based and/or video media. The educator demonstrated awareness that students learn using different techniques, and the process of providing content in a variety of forms did not seem repetitive but rather integrated information to provide a meaningful and interesting presentation.

Laptop content: at no point were any students observed using social media sites and/or other non-lecture related websites. Rather, students were consistently taking notes and the content on the screens appeared to be lecture related (i.e. lecture slides).

What are the implications?

The results of the present study suggest that the reduction of technical language associated with the sciences improved student interaction and engagement. The observation that the content of students' laptops during lecture was almost exclusively content-related material suggests that the educators were successful in engaging students. Using a two-stage approach, of developing a non-technical example employing easy-to-understand language (vernacular) and subsequently developing technical content after students demonstrated a clear understanding of the concept, appeared to synthesise previous experiences with novel content. This approach might be developed in future teaching by incorporating a semi-formal and formative assessment at the conclusion of each topic to provide an index of student learning. Based on results from student assessment, content delivery and mode may be customised to meet student requirements and subsequently address deficiencies in understanding and learning.

What were the limitations of my research design?

The principal limitation of the present study was that the observations did not include a longitudinal assessment of the teaching and learning principle. That is, it was not possible to test whether the strategy influenced student outcomes. The impact of directed and student-centred learning would assumedly improve student understanding, but this was not measurable in the short duration of the study.

To what further research do my findings point?

As a result of the present study, it is anticipated that future teaching by the author will incorporate the two-stage strategy, contributing to improved student outcomes as determined by formalised assessment. As an educator, the author's teaching and learning objective is to develop science graduates that may critique novel information, and if found relevant, to synthesise this information with previous experience. To ensure these 'higher-order' skills are developed, teaching that initially promotes a deep understanding of content is critical for subsequent analysis. In the author's opinion, the brief intervention described in the present study appears to rapidly develop understanding of content without sacrificing the quality of learning.

Conclusion

The pertinent finding of the present study was that quality teaching does not necessitate "dressing up" novel information. Rather, the students' capacity to understand and critique important information presented during lecture is undoubtedly more pertinent than having the ability to remember and reiterate facts/knowledge. The two-stage approach employed in the present study – to initially draw upon a 'universal' concept that is easy-to-understand, and subsequently build technical knowledge upon the concept – appeared to be of benefit, even to students in their final year of undergraduate science. This finding builds upon the earlier data presented by Brown and Ryoo (2008) that student outcomes may be improved from reduced technical jargon that has been reported to impede learning in science.

Completion of the present study, and particularly participation in the Foundations of University Learning and Teaching program, enabled the author to develop an understanding of the key attributes that contribute to quality teaching in tertiary institutions. As a direct result of participation in the Foundations of University Learning and Teaching program, the author has also acquired valuable skills that would have taken many years of trial and error to develop in the classroom (i.e. lecture theatre, tutorial, laboratory); it is clear that student learning in the immediate future will benefit from participation in the program.

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FUTURE DIRECTIONS

We hope this inaugural edition of *Scholarship of Teaching and Learning at Bond* has allowed you the reader to look into the rich and varied worlds of the different disciplines here at Bond. The end of this book in no way marks the end of the research journey for the contributors. These researchers will continue to develop and contribute to knowledge theory. QTL anticipates the new and interesting directions they will take and will continue to offer support and encouragement.

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