Abstracts

Online quizzes

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This presentation will focus on how an online quiz tool can be used to support both formative and summative assessment. The session will include a brief demonstration of the quiz activity within the learning management system (Moodle) used at the University of Western Australia. Discussion will include the topics of quiz creation, question generation, submission, marking and feedback, from both student and lecturer perspectives.

55 Minute Symposium
Embedding communication and literacy in the curriculum

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Academic communication and literacy have emerged as key elements in 21st Century curricula. Indeed, the development of academic communication and literacy skills has been explicitly incorporated into international strategic curriculum change (Blackmore & Kandiko 2012). This cross-institutional symposium will discuss embedding academic communication and literacy within the curriculum and within disciplines in higher education. The main goal of the symposium will be to explore key issues and strategies around embedding, within the broad context of curriculum change and renewal.

Although there is growing recognition that the most effective way to promote academic communication and literacy skills is to embed teaching and learning support for these skills into discipline-specific curricula, with academic language and learning specialists collaborating with discipline specialists, the challenges of embedded approaches are also recognised (Arkoudis & Starfield 2007). Apart from issues of funding and resources, a major challenge relates to the process of collaboration itself and difficulties related to differences in teaching philosophies, power relations and institutional priorities (Arkoudis & Starfield, 2007).

Involving a panel of academic language and learning specialists and discipline specialists from Murdoch, UWA and Curtin, the symposium will explore the opportunities and challenges of embedded approaches through individual mini-presentations and open discussion of key issues. Topics of individual mini-presentations will include:

• examples of successful embedding programs, such as Curtin University's *Starting University Confidently and Competently English Support Scheme* (SUCCESS);
• local and national initiatives, including Murdoch School of Education's initiative to develop core literacy concepts/attributes for Education and Carmela Briguglio's *'Embedding English Language Development into the Disciplines'* OLT fellowship;
• examples of institutional frameworks, such as UWA's *Communications Skills Framework*, developed as part of its *New Courses 2012* initiative (CATL 2012).

Open discussion topics will include:

• the role of communication skills/academic literacy in curriculum renewal;
• key factors in successful collaborative partnerships between teaching and learning specialists and disciplinary specialists;
• exploring shared understandings and the establishment of a common language to speak about academic literacy.

A major goal of the symposium will be to engage audience participants in the discussion and to establish the basis for collaborations beyond the forum. It is hoped that the symposium will

also contribute to the development of strategies for further promoting academic literacy and communication skills at Murdoch University and other institutions.

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Data fabrication and falsification in undergraduate psychology honours projects

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Academic integrity is a key concern within the Australian higher education sector and internationally. Research on student academic integrity has largely focused on plagiarism, with limited research exploring the extent of data fabrication and falsification in student collected research data. Recent research and media exposure has highlighted the existence of data fabrication and falsification by a small percentage of psychology academics, but no published research to date has examined their prevalence amongst psychology undergraduate students. In psychology, the honours year presents students with their first major opportunity to collect research data as part of a year-long individual research project. In this presentation we will report the results of an investigation into data duplication in psychology honours students' research data sets. This investigation was underpinned by the methods developed by Blasius and Thiessen (2012).

Reference: Blasius, J. & Thiessen, V. (2012). *Assessing the quality of research data*. London: SAGE.

Guiding an invisible team: A first-hand insight into virtual leadership

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Over the past decade we have seen a strong shift towards blended approaches in both higher education and workplace environments. The business sector in particular has paid increased attention to the management of gradually more dispersed project teams (e.g. Gibson & Cohen, 2003; Hertel, Geister & Konradt, 2005; Lipnack & Stamps, 2008; Sridhar, Nath, Paul & Kapur, 2007; Webster & Staples, 2006). This in turn has put pressure on educators to teach effective virtual leadership; first, in order to sufficiently prepare students for a career in an increasingly globalised work environment, and second, to reflect a learning environment that is progressively characterised by online education and falling classroom attendance. This study took place in the context of a final year public relations unit that aims to prepare students for a career in an increasingly internationalised industry. Students participated in a communication challenge as part of *global virtual teams*, which had to overcome challenges such as the lack of face to face contact, working across different time zones, cultural and language differences, virtual conflict management and the need to motivate geographically dispersed team members. Particular attention has been paid to the role of the *virtual team leader*, as perceived by participating students. This paper provides insight into the complexities and challenges of virtual teams as opposed to traditional, face to face teams.

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Teacher perspectives on international students and international education

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Research on international higher education abounds, and the importance of this inquiry is clear in a global and competitive tertiary education economy. However, a review of this research suggests some areas that might benefit from further inquiry. What are the qualities of interpersonal relationships between international students and their teachers? How do international educators feel about their work and their workload? How do teachers think about culture and its operation in the classroom? This study aimed to broaden knowledge in these areas and to provide information that was specific to the context of Western Australia. Five individual interviews were conducted with members of the postgraduate teaching staff in the Accountancy School of the Business Faculty of a Western Australian university. Content analysis of written transcripts was used to clarify the sentiments and concerns of these participants, and to establish which attitudes were shared between colleagues. This study revealed a variety of teacher perspectives on international students and education. These teachers thought seriously about their role as educators, about the operation of culture in the classroom, and about their students. Even so, the continuing importance of funding and professional development were confirmed. This study highlighted some areas where further research would improve our understanding of teaching practice in an international context. This research could, in turn, help to target professional development and funding programs.

Implementation of a hybrid mobile web learning environment in the health professions: A design based research approach

Refereed Professional Practice paper: Full text on website

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Teaching has always been at the core of what it means to practice in the health professions. Health professionals generally accept that as part of their role they will be involved in educating subsequent generations of health professionals. However, whilst health educators typically have extensive knowledge and skills in the area of their professional discipline, the art and science of passing knowledge from one generation to the next (pedagogy) in the clinical setting, is often overlooked in the context of demanding clinical, teaching, and/or research responsibilities. Furthermore, many health professionals have had no formal training in educational theory and best practice methods, and busy schedules leave little time for improving their own educational knowledge and skills by attending scheduled courses or workshops. This paper discusses how design-based research influenced a hybrid mobile-web learning solution for providing educational professional development to health professionals who are also teachers. It is argued that design-based research provides a rigorous framework in which to ground educational design and development processes, particularly when dealing with embryonic and unproven learning technologies.

Using problem-based scenarios to help bridge the gap between theory and praxis in pre-service teacher preparation

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This presentation reports on the initial implementation of a project to support and develop pre-service teacher understandings about the work of teachers and of schools as organisations. The project, undertaken in 2012, utilised the expertise of classroom teachers to create a problem-based resource. The resource comprised five problem-based scenarios, each with a particular focus pertinent to the classroom environment. The scenarios begin with a written

problem, a series of focus questions, and a linked activity, followed by a series of reflective/evaluative questions. Each problem is supported by relevant research literature and the linked activities provide opportunities for pre-service teachers to work individually and/or collaboratively towards solutions. The activities engage pre-service teachers in a range of modeled teaching and learning strategies which aim to build group cohesiveness and collegiality, and reinforce appropriate professional behaviours. Although the project is still in its implementation phase, participant evaluations so far have been positive. Initial feedback indicates that there is some value on focusing on authentic situations which originate in working lives of teaching practitioners to help bridge the theory-praxis gap in pre-service teacher preparation. The resource provides opportunities for pre-service teachers to engage in experiential learning in a safe and supported environment that allows for repeated practice before embarking on a formal field experience. Participant evaluations will be used to inform and guide further refinements to the resource and associated materials.

Portfolios, protean careers and the theatre: Preparing for diversity

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Performance Studies, undertaken at Curtin University from undergraduate to PhD level, forms part of a Humanities faculty that includes courses in visual arts, multimedia, design, built environment, performance studies, screen arts and writing. Given the complex nature of careers across these sectors, the development of employability skills is a high priority. As elsewhere, students in Curtin's theatre courses explore the practical techniques and theory involved in the world of theatre and performance, developing collaborative and creative skills in performance, directing, writing, devising, dramaturgy, critical analysis, stage management and theatre production. Within the program students encounter a range of theatrical performance, incorporating many opportunities to participate in public productions. What they don't do, is to consider the relevance of this learning to their future lives and careers; and in an already overcrowded curriculum there is little space for this discussion. The broad suite of skills and experience gained by theatre students are ideally suited to an e-portfolio approach. Given the missing element of future planning, this project set out to discover whether e-portfolios could be employed as a means of exploring possible future selves within the professional world of the arts and the wider creative industries. The project engaged first year Performance Studies students enrolled in a core performance unit. It challenged students to think about the role of undergraduate study in their future lives and careers, and to begin to compile evidence of skills and abilities beyond performance. Results suggest that e-portfolio approaches could play an important role in the development of students' emerging professional identities, particularly within fields of study for which full time jobs are unlikely and where creativity, flexibility and diversity are highly desirable graduate attributes.

Peer reviews: What can we learn from our students?
Refereed Research paper: Full text on website

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This paper describes lessons learnt whilst using an online peer review system in an undergraduate unit for pre-service teachers. In this unit students learn to use information technologies as part of their future teaching practice. The unit aims to foster graduates who become life-long reflective educators by providing opportunities to explore and reflect on how they might use technology in authentic learning situations. Whilst peer review is an appropriate activity for supporting critical thinking and reflective practice, it requires a number of decisions to be made in relation to student preparation and support, implementation strategy, and technological infrastructure to make it work in specific contexts. Much research has been conducted in recent years to inform educators in making these decisions. However, there are still gaps in the research, particularly in how to improve the quality and consistency of feedback that students give to each other. This paper describes the experiences of implementing an online peer review system aiming to improve quality and consistency of feedback. This exploration has revealed that we can learn much about ways to improve our teaching practices by giving students an opportunity to review each other's work and give each other feedback.

The core of the learning environment: Embedding English language development across the curriculum

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Internationalisation of tertiary education means that teaching needs to cater to a diverse student body with a variety of learning needs. Paramount amongst these is the need for graduates to develop the necessary intercultural communication skills needed for the global study, work and social contexts in which many will be operating. It is generally assumed that international students studying outside their own country will develop the required communication skills simply by living in the new country and/or mixing with local students. We know from research that this is not necessarily the case; skills in English as a second or additional language (ESL/EAL) need to be developed through student effort and/or deliberate intervention in teaching and learning. Currently, all Australian universities provide some form of language and learning support, particularly, but not only, for ESL/EAL students. Such support is provided through a variety of organisational models, including central, faculty-based or campus-based language and learning centres. This allows for a variety of language development strategies including student self-access materials, language and academic literacy programs, collaboration between language and discipline specialists, and fully embedded support within subject content. This paper argues that the 'international university' should provide a full range of learning avenues for student language development, ranging from student self-access to totally embedded language support. Thus a multi-layered model of language development provision (MMLDP) will be presented, and the implications and effectiveness of different types of provision will be discussed.

Using Microsoft *PowerPoint* beyond developing a series of lectures

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We live in a society that is governed by technology. Amalgamating this powerful tool with teaching and learning is deemed most effective to facilitate tertiary education. In the biological sciences, there are numerous limitations to maintaining viable cells in an undergraduate laboratory setting, due to the expenses of providing a medium size class of students with equipment and materials, required to conduct the procedure. Furthermore, students are restricted in accessing cell culture laboratory resources for revision purposes. Therefore, designing an interactive learning resource in the form of a virtual laboratory would be ideal, to provide students with a learning experience of a real life laboratory scenario which is readily available, without incurring any costs to the university. Students are able to engage with the resource; in their own time and at their own pace. The Microsoft office application, *PowerPoint* was utilised to design, develop and implement an effective learner-centred, interactive virtual laboratory resource. A gaming style edge was employed to stimulate learning, given that the students of today are more accustomed to utilising technology, in order to enhance their understanding of scientific concepts that they can apply in the real world. Feedback obtained from academic staff, peers and students suggested that the virtual laboratory is a good learning resource, of great value in regard to the level of engagement, usefulness and usability. Overall, *PowerPoint* can be utilised beyond developing a series of lectures: it can be employed to create a basic program for teaching and learning.

Update: The third cycle of live group performance assessment and feedback using three expert markers and *iPads*

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The project, now in its third development phase, sought to develop an assessment app to improve and streamline the assessment of live performances. This phase resulted in the refinement of the digital assessment app, a mobile (server-based) app that enables three content experts (music, drama and visual arts) to assess live performances. In this cycle, five *iPads* were used; three for the markers, one for peer group marking and one for videoing. All data was saved live to the cloud. The app allowed the assessors to focus on the quality of

learning, while the technology streamlined and enhanced the assessment process, eliminating physical handling of student feedback and collation. The markers found that their overall marking took significantly less time. The result was a process that adhered to assessment principles and enhanced feedback and turnaround time significantly. The students reported that feedback given was easier to access and valid. They reported engaging with their feedback by accessing it on multiple occasions and sharing and discussing it with others. The presentation will conclude with a number of other examples and discussion of where the app is being used to enhance the assessment and data collection processes. In addition a number of *iPad* accessories that improve usability of the *iPad* in the assessment process will be on display.

Redesigning Australian Indigenous Studies at Murdoch University: Keeping it relevant

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This paper discusses the rewriting of Murdoch University's Australian Indigenous Studies (AIS) major over the last two years. It argues it is necessary to move AIS beyond the 'standard tropes', and evaluate the discipline in light of continuing developments in thinking about Indigenous/non-Indigenous relations. Our purpose has been to move curriculum beyond increasingly empty ethical positions so as to arrive at a pedagogy that is informed by recent and sometimes controversial developments in the broader Indigenous and non-Indigenous public sphere. This paper will demonstrate how we have scaffolded our major to pre-empt and challenge student's initial assumptions about Indigenous studies; provide them with opportunities for cultural immersion, work integrated learning (incorporating Indigenous cultural competence) and the intersection of Australian/ Indigenous history and current political challenges. Further, it will demonstrate how we have incorporated a theoretically rigorous third year where students engage with Indigenous critical theory and other conceptual literature on the nation, nationalism and settler-colonialism.

Our purpose is to situate AIS within a larger intellectual context, expose students to literatures not yet commonly associated with the discipline, and situate AIS in a larger national and global context. Overall, our goal is to prepare students for informed postgraduate work and to be able to enter the work force with an ethically sophisticated grasp of contemporary Indigenous and non-Indigenous relations. The critical framework for our discussion will be largely informed by Martin Nakata's 2004 Wentworth Address, *Indigenous studies and higher education*, and Marcia Langton's recent work on indigenous exceptionalism (2012).

Getting things "white": The need for non-Indigenous cultural self awareness

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As part of the Federal government's 'Closing the Gap' agenda in the post-Bradley Report era, there is an expectation for numbers of Indigenous students at universities to increase. This requires that the predominantly non-Indigenous university staff and system develop the ability to create an environment of cultural safety, if the students are to succeed.This paper is based on some of the findings from the presenters' PhD project in which she has learned from Aboriginal people about what helps and hinders their experiences of education in prisons in Western Australia. This 'critical whiteness' research has prioritised and privileged Indigenous voices and utilised the culturally and academically rigorous methodology of 'yarning'. The implications of the findings are much wider than a prison context and are relevant to all educational settings. The paper will explain the concepts of cultural safety and cultural self awareness and explore the importance of non-Indigenous people developing this within themselves, if an environment of cultural safety is to be an established part of service provision. Some examples of training exercises and their impact on trainees will be provided.

Enhancing feedback for students across a health sciences faculty

Refereed Professional Practice paper: Full text on website

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How much feedback is enough for undergraduate students in medicine, dentistry and health science? Feedback is meant to provide students with sufficient information on their performance in a given activity so it guides their future performance in similar activities. Different models of feedback have been described in the literature, some more comprehensively than others, with formative assessment and reflective practice being the underlying themes for all of the models. Data gathered from the undergraduate courses of Medicine, Dentistry, Health Sciences and Podiatric Medicine raised awareness of the common issues related to insufficient and inadequate feedback for students about their performance. These findings shaped the development of five targeted pilot projects. The pilot projects looked at ways to improve verbal and written feedback through formal and informal mechanisms. This paper describes how one Faculty is approaching the difficult task of shifting the established culture of offering limited feedback to students and enabling students to ask for feedback that is appropriate and useful for them. In doing so it offers ideas for other Faculties wanting to enhance the feedback mechanisms for students.

Using peer feedback as part of the first year student experience

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Peer review is the process by which students evaluate the work of their fellow students and provide feedback to them, with the main objective of the exercise being improvement of the reviewed work. Several peer feedback activities were incorporated in 2012 as part of the learning experience in a large (enrolment of 634) first-year unit SCOM1101: Introduction to Scientific Practices. Students were surveyed about their experience of giving and receiving peer feedback, with specific questions asked about their perception of the usefulness of the feedback activities to their learning experience, improvement in the quality of their own assignments and increased ability to provide and incorporate peer feedback appropriately. Student attitudes towards giving peer feedback followed several common themes. In the main students reported the feedback they received was helpful, with advice being taken and suggestions used. The advantages of the peer review process also extended to the student giving the feedback, with an improvement through practice in their ability to provide constructive comments and to self-review. Many students also commented that the peer review process would have benefits elsewhere, such as the workplace and other units of study. Some suggestions are made about improvement of the learning experience, such as provision of more guidelines on how to provide feedback and anonymity in feedback, leading potentially to more honest and constructive criticism of the work. The benefits to teachers of using peer feedback in a large class setting are also discussed.

Professionalisation of the academic workforce

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While there has been substantial research undertaken on what constitutes excellent teaching in higher education, there remains a lack of a commonly understood framework describing quality university teaching. Given the significant changes in the Australian higher education environment, which includes an increasingly diverse student and staff population, a new regulatory and accreditation framework, and the growing imperative to demonstrate quality in teaching in the international marketplace, it is timely to address this omission. This presentation will report on an OLT project which has been designed to synthesise the research and current practice in universities as a foundation for the development of a quality framework integrating principles and evidence of good practice that can be implemented at the institutional, faculty and individual staff level across Australian universities. The framework will also align with promotional levels for academic staff. This is a timely initiative giving meaning to the often used, but less understood term 'academic profession' at a time of significant change in the sector.

Reflecting on postgraduate students' reflective comments for effective unit design and delivery

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Effective unit design and delivery benefits from the involvement of students. Understanding online students' working patterns, their previous experience with online learning management systems (LMS), and their anxiety levels during the semester may assist the design and delivery of online units. This exploratory study looked at the experiences of postgraduate students studying an online research methods unit. Sixty students enrolled online were invited to reflect on the unit. There were two open-ended questions about useful aspects and how best to structure a positive learning experience. They were also asked to report their anxiety levels using the validated Kessler-10 (K-10) scale at four-week intervals over a 12 week semester. Six students participated; all employed, with three working full time. All students regarded themselves as 'proficient' or 'highly proficient' in using the LMS. No clear pattern can be drawn from the average K-10 anxiety score although anxiety appeared to rise after week 5 for some students. While a larger sample size would allow inferences to be drawn from the quantitative data, lack of control over work hours, becoming stressed and disengaged with the unit materials were the reported causes of anxiety. All students reported valuing the interaction through the LMS and support provided by both the tutor and their peers. In the future, tutor support might be enhanced through video-recorded materials. Challenges encountered during this study and future implications for the design, development and evaluation of an online research methods unit will be discussed.

Post enrolment language assessment: Six years of experience

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Whether you call it a *Diagnostic English Language Test* (DELA) or a *Post Enrolment Language Assessment* (PELA), by 2009 almost half the universities in Australia were administering one in some form (Dunworth, 2009). This method of assessing language after students have enrolled, although relatively new in Australia, has been in existence in some international universities for almost a decade. This paper reviews the process of implementing a PELA at one Pathway College in Western Australia, beginning in 2007. Although a grass roots initiative to begin with, the process has developed over time to form a key feature of the enrolment process and identification of *Students At Risk for English*. In 2007 the PELA was administered to a few classes of students at CERT IV level, however, by Trimester 3, 2012, 73% (n=186) CERT IV students and 92% (n=72) new Diploma students were surveyed. This paper will provide both qualitative and quantitative data collected since 2007 highlighting the potential difficulties and documented benefits of administering a PELA at one Pathway College.

Embedding communication skills in two first year Business units: The lecturers' perspective

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The *Bradley Review*, AUQA/TEQSA, massification and internationalisation have all combined to create a context within Australian higher education that now requires greater focus on developing students' academic literacy skills. Previously, the development of academic literacy was, in the most part, the responsibility of individual students working with academic language and literacy advisors external to the faculty. Recently, however, the approach has begun to change. This study evaluates a pilot project that embedded academic literacy skills in two core first year Business units, Management and Marketing, at a pathway College in Western Australia. The Communication Skills Program Coordinator and Unit Coordinators worked collaboratively to create embedded and student centred academic literacy tasks that focused on key assessments within the units. The project identified a number of significant outcomes; notably an awareness of a more student centred pedagogy, an ability to collaborate across disciplines, two embedding models and positive student and lecturer feedback. Whilst a number of challenges were encountered during the planning and development stages of the project, none were considered significant. Feedback from the pilot project is being used to inform the development of a College wide embedding policy and process to be implemented in the forthcoming academic year.

55 Minute Workshop
"Work it out": Novice to expert - multiple representations

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As you become an expert in your discipline area you come to appreciate how all the parts fit together. You learn the culture and the different ways that people within your discipline communicate. A novice student sees only disparate bits of content that probably do not sit easily with their prior knowledge and misconceptions. How then can we, as facilitators of learning, provide an environment that encourages students to engage with the culture of the discipline and take part in the conversation?

My thesis for this activity is that by requiring participants to create a marking rubric and then present a simple concept in as many ways as possible they learn how that concept links into their knowledge base. For students who have no understanding of how to go about this task, a just-in-time video presentation of an expert performing a similar task can aid them by modelling the multiple ways a concept can be represented.

This workshop is a small part of an OLT application for a National Teaching Fellowship. What I want from this workshop is twofold. The first being a rubric for judging the quality of a multiple representations presentation and the second being feedback on whether you think the output of the fellowship would be useful as a learning tool for your students. What you will experience in the workshop is a presentation which involves multiple representations of a simple physical relationship, e.g. F=ma. During the presentation you will be asked to identify different representations of the relationship so that we can make a rubric to judge such presentations. Then in groups you will be asked to take on the role of student and construct a similar presentation from a simple relationship of your choice. A few groups will be encouraged to give their presentation while the rest of us score it using the rubric.

Why? The more a person understands something, the more ways they have to express their understanding, e.g. formula, diagrams, examples... For people to be able to move from novice, teacher dependent students to graduate students, and eventually experts in their field, they have to engage with the culture of their discipline and all of its forms of communication.

"Work It Out" is a student centred learning experience where students are expected to "Work It Out" for themselves. It encompasses more than just the communication activity illustrated above. Students will be able to study examples and modelled activity as an when they need to know via open educational resources on the Internet. These resources could possibly include such things as "How to get the most out of a text book", "How to draw good diagrams", "How to unpack an exam question". Teachers can prompt students to access these resources

by providing assignments that require students to "Work It Out" as demonstrated in this workshop.

VoxPops: Innovative teaching tools to engage health science students

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VoxPops are an audio-visual teaching tool that can be used to enhance learning and assist students to utilise new technologies to present their own skills, reflections and knowledge and enhance their employability. *VoxPops* can expose students to the expertise of practising health professionals, without needing health professionals to attend classes and are a sustainable way to provide active and engaged learning for on campus and online students. A faculty-supported teaching and learning grant funded the development of the *VoxPops* that were embedded into a final-year unit in the Bachelor of Health Science course at Edith Cowan University. Health professionals were interviewed on their day-to-day working roles; their passion for public health as a profession; their expectations for graduate competencies; and their vision for future roles of Health Science graduates in the workplace. The *Voxpops* were utilised to support the objectives and content of the final-year Professional Practice Unit. This project enabled academic staff to engage with key health professionals and to establish further dialogue with a view to ongoing partnerships. The *VoxPops* were combined with Adobe *Connect Pro* sessions and e-lectures to assist on campus and external students to develop an e-portfolio. The integration of the *VoxPops* into unit materials ensured the sustainability of the content, where updated interview applications can be undertaken readily by students to supplement their own e-portfolios. The *VoxPops* represent an innovative teaching tool that can enhance student-centred learning; develop students' employability skills; guide the development of future health professionals; and strengthen the relationships between academic staff and health professionals.

The impact of academic instructor feedback on self and peer evaluation perceptions: An examination of student evaluations within a team setting

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Team projects are a common assessment vehicle in many academic domains. Whilst it has been widely acknowledged that self and peer evaluations help support crucial team behaviours and processes that promote fairness in team assessment, little research has been done examining the timing and role of academic instructor feedback on the perceptions of self and peer evaluations within the university setting. This paper explores the effect of academic instructor feedback on self and peer evaluations with a view to determining its impact on evaluation perceptions. The study uses a quasi-experimental design to uncover if there are any differences in self and peer evaluation outcomes, post academic instructor feedback using 26 observations from students in a second year business management course. Evidence suggests that the utility of academic instructor feedback, including grades, can influence rating motivations and outcomes, and may play a positive role in the reliability of summative peer assessment.

Developing educational research skills in early career academics

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As universities moves towards becoming more research intensive while maintaining quality in teaching and learning, it is expected that all academic staff will engage in scholarship of teaching and learning. One aspect of scholarship is research in teaching and learning. Although academics may want to conduct educational research, they do not necessarily have the research background to do so. Educational research has its own particular research paradigms, methodologies, data sources and methods of analysis, some of which may be unfamiliar. In 2011, a curriculum resource and professional learning program was developed at Curtin University to enable academics to engage in educational research in tertiary settings.

The curriculum resource includes modules on educational research paradigms, research methodologies, data sources, ethics, data analysis, writing, publishing and applying for grants. In 2012, the program was piloted with 26 academics. The program has been challenging as academics struggle to understand research methods they are not familiar with, and find time within their busy academic lives. Nonetheless, the participants are enthusiastic and many are making steady progress in their research. This presentation will focus on preliminary findings of the experiences and outcomes of the participants.

Creativity and curriculum design

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Internationally, industry dissatisfaction with graduate skills and rapid technological change has been driving higher education away from delivering content to developing graduate competencies, transferable skills and lifelong learners. For more than a decade now, the university sector has responded to government and accrediting bodies by trying to identify and integrate competencies within and across curricula. Creative thinking is central to meeting the ongoing personal and professional development of graduates and the needs of employers, and it is one of the competencies identified by all Australian universities as an important graduate attribute. However, there is little evidence that Australian university curricula address it explicitly or assess it formally. The question is how do we teach creative thinking and embed it in the curriculum in a purposive, deliberate way. This presentation examines how a first year unit called *Creativity and Innovation* at Murdoch University teaches and assesses creative thinking skills.

Supporting students in a foundation unit through embedding sessions and workshops: Learning Advisors and Business Edge collaborate

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It is recognised that the first year at university is often a difficult transition period for students and support is needed to help them develop the core set of academic skills required for tertiary success. At times, students are unaware of or unable to find the support they require. To address this need, an innovation at Edith Cowan University's Faculty of Business and Law over the past few years has been for the Learning Advisors at the Academic Skills Centre to provide academic skills support in the forms of workshops, embedding sessions and individual assistance to students. This presentation will provide details of an exploratory study conducted by the Learning Advisors and a lecturer for BES1100 Foundations of Business Knowledge, a compulsory first-year unit for business skills development. The study sought to explore firstly, if embedding in the unit was a useful strategy and secondly, the attitudes of students to additional support provided by the Academic Skills Centre. A total of five contextualised sessions were embedded by learning advisors in a class of BES1100 in Semesters 2 of 2011 and 2012. Additional workshops were also provided outside the classroom to students in Semester 2, 2012. These forms of support were timed to highlight and teach students the academic literacies required for their most current assessments. At the end of the unit, students were surveyed to determine if they found these embedding sessions and additional workshops useful. Preliminary findings suggest that there is scope for inclusion of more of such embedding and workshops within similar foundation units.

Science and engineering students' report re-writing process in foundation year units: Students' perceptions and feedback

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In first year foundation units in science and engineering at Curtin University, academic communication skills have been embedded in the core discipline units to enhance the teaching and learning of the main skills of report writing, oral presentations and research. All science and engineering students are required to have some degree of competency in report writing

and oral presentation skills by the end of their first year. In both science and engineering, academic communication skills are content driven, and all students need to write a substantial report and submit it for assessment. The submission of the first report is in week 8 of semester. After the first submission students are provided with detailed feedback and a mark. In order to reinforce the feedback and the learning process students have to resubmit a more 'thorough' version of their report in the final week of semester. The second report submission is also assessed but the weighting of the two submissions are different, with a heavier weighting on the final submission.

At the end of the semester students in both academic communication classes are required to submit a piece of reflection on the report writing process as part of their assessment. The researchers have decided to use the feedback and reflection given by students to evaluate the report submission process. They intend to investigate whether the existing submission structure (i.e. the resubmission of reports) assists students in learning about report conventions, structures and the writing process. They will examine the benefits and drawbacks of the resubmission process and explore how they can make the learning experience more productive and successful for students.

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Relationships between student satisfaction and assessment grades in a first year engineering unit

Refereed Research paper: Full text on website

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Monitoring the quality of teaching and learning by universities relies primarily upon a combination of feedback from formal student-evaluation surveys and the long-established measure of student-cohort performance in unit assessments. This study explores major factors that might affect the data provided by these two measures and seeks to identify potential relationships between assessment performance and each of student satisfaction and students' engineering discipline interests. Enabling this study is a large data-set obtained over the last four years from the teaching of a first-year Engineering Mechanics unit delivered twice per year to approximately 350 students in each semester from all engineering and some of multi-science disciplines. Over these years, this unit has largely remained stable in terms of unit learning outcomes, syllabus, delivery methods and teaching staff, thereby permitting potentially robust conclusions to be drawn from analyses of the data-set. By interrogating this data-set, three questions are addressed in this paper, namely (i) Is there a correlation between academic performance and student satisfaction with the unit, (ii) Did a change in assessment weighting affect students' overall performance, and (iii) Does student interest, as reflected by their engineering-oriented discipline choice, affect their overall assessment outcomes. The investigations presented in this paper are preliminary, focusing on four-semester studies in 2010 and 2011, adopting a broad-brush approach, in order to provide the direction to more refined and rigorous lines of enquiry using the same data to determine the efficacy of present monitoring systems for teaching and learning. The initial results show that student feedback is correlated well to their assessment performance provided that cultural bias is removed. Overall, the influence on performance of changing the assessment weighting appears to be minimal and does the students' engineering-discipline interests.

Moodle Analytics: Past, present and future

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Learning analytics has been one of the hot topics of 2012 within the educational technology space, and *Moodle's* presence as one of the leading LMS platforms in the world has put it squarely in the firing line of those who have a desire to 'do analytics'. But what does this mean

in practice? What does *Moodle* already provide in the way of analytics? Who else is working on extending this? What do we mean by 'analytics' in the first place? Can valid inferences be drawn from *Moodle*-centric analytics without considering them in the context of other learning technologies being used by students? Finally, what does the future hold for *Moodle Analytics*? This presentation will give structure to the challenges faced, an overview of the current state of play, and a roadmap to the possible futures in this field, including NetSpot's contribution to the broader effort of improving *Moodle's* analytics capabilities.

Student English language development in Australia's universities: Developing an institutional approach

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This paper reports on the findings from a study funded by the Australian Government Office for Learning and Teaching (formerly the ALTC). The study investigated institutional approaches to the assessment and development of post-entry student English language proficiency in higher education. Using a mixed methods approach, the study involved data collection from online surveys, interviews with university staff, case study reports and desk research. The data obtained helped inform the development of a website dedicated to providing a guide to existing practices in Australia, offering advice on establishing an institutional strategy, and information about activities that exemplify good practice. The presentation will describe the project and its aims, outcomes and deliverables. The presentation will also identify the key issues that appear to inhibit the introduction of successful institutional strategies, and the factors that facilitate it, as well as describing how universities go about evaluating their different approaches.

How do we engage male learners in higher education?

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In the last decade there has been a clear shift in improving school educational outcomes for males in the classroom. The primary and secondary education systems acknowledge the inherent differences between how male and female students engage and learn. There is recognition that gender differences in engagement and motivation translate to under achievement at the school level. Pedagogical leadership coupled with school support strategies have gone some way to engaging male learners in the classroom while maintaining a gender equity focus. Research into physiotherapy student performance demonstrated that males were under performing through the course, compared with their female peers. Similar under performance has been noted for male students in medical education. Is this an issue isolated to the health professions or is it more widespread in the higher education sector? Workplace learning has been identified as one solution to maintaining engagement and motivation in male learners. However, can educators be doing more at the 'chalkface' to improve the gender disparity in higher education performance?

Evaluation of peer assessment of fieldwork as an assessment and learning method

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Peer assessment can be used as a method to help in improving students' professional skills in fieldwork execution. In this study, evaluation of the application of peer-assessment of fieldwork is presented for one undergraduate unit in Geospatial sciences over a test period of two years. The used framework for peer-assessment of fieldwork is first described. Preparation of students for this task is discussed including the use of modelling and scaffolding strategy. Tools used for assessment including structured grading schemes with clear definition of the marking scales and

marking instructions are presented. Reliability and validity of peer assessment are investigated and results are discussed. Reliability is estimated from the differences among assessments carried out by groups of peer assessors, and validity is measured by comparing students' marks with tutors' marks. The correlation of marks given by different groups of assessors (peers, tutors, and self) for each fieldwork component is presented and results are compared and summarised. Students' feedback is discussed. The advantages and drawbacks of applying peer assessment of fieldwork as a way of formative and summative assessment are debated. In addition, peer assessment is used as a tool to show tutors the need to better explain some of the assessment criteria, their expectations, and show students how to obtain better marks and achieve the learning outcomes specific to each practical task. A comparison of results of implementing the peer assessment during the first year of testing with those of the second year after applying recommendations and lessons learned from the first year are presented.

A blended learning approach in higher education: A case study from surveying education
Refereed Research paper: Full text on website

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The development of a blended learning approach to enhance surveying education is discussed in this paper. The need for such learning strategy is first investigated based on a major review of the Surveying course including analysis of its content, benchmarking with key national/international universities, and various surveys to key stake holders and recent graduates. Appropriate blended learning methods and tools that couple learning theoretical principles and developing technical skills are discussed including using learning management systems, flip teaching, collaborative learning, simulation based e-learning, peer- and self-assessment and e-portfolios. Two blended-learning tools that have been developed for surveying units are presented as examples. The first is an online interactive virtual simulation tool for levelling, one of the key basic tasks in surveying. The second is an e-assessment digital marking, moderation and feedback module. The e-learning and e-assessment tools have been incorporated for three years into several surveying units at Curtin University. Surveys of students showed that the majority of students found the interactive simulation tool useful and contributes to improving their understanding of the computations. Students also found the digital marking rubric helpful in assisting their understanding of practical task requirements, in improving their performance, and in helping them to focus on the objectives of each activity. The paper concludes with a discussion on developing generic skills through authentic learning in surveying education.

Looking beyond the laboratory: Finding time to encourage development of a global perspective in a content-driven biology unit

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Internationalisation of the curriculum is central to the core values and strategic direction of many modern universities. Among science-based academics, a global perspective is often considered to be inevitable, given the multinational nature of modern scientific collaborations and the widespread international mobility of professional scientists. Unfortunately, these realities are often distant from the undergraduate science classroom, particularly for non-mobile students. More worryingly, explicit instruction in cross-cultural engagement and communication skills, essential for working effectively in a multinational team upon graduation, is commonly absent from tertiary science courses.

Our study was conducted within an ALTC extension grant "Finding common ground: Enhancing domestic and international student engagement" awarded to Murdoch University in 2011. It addressed one major challenge to promoting cross-cultural competence among undergraduate science students: finding time to scaffold such learning within the context of content-heavy, time-poor units. Small changes aimed at enhancing global and cross-cultural awareness were incorporated into existing assessments and teaching activities within a second-year biomedical physiology unit. The presentation will include interactive demonstration of some specific strategies implemented. Forty percent of domestic and sixty percent of international student survey respondents articulated specific learning about interaction in cross cultural groups resulting from unit activities. Many students also identified

specific examples of how cultural beliefs would impact on the place of biomedical physiology within the global community. We suggest that significant development of cross-cultural awareness and a more global perspective on scientific understanding can be supported among science undergraduates with relatively minor adaptations to course content.

Reflecting on a new educational approach to developing skills of reflection-in-action in a Masters unit on negotiation

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Developing students' capacity for deep reflection on their actions in professional and learning experiences relevant to their studies has been a growing concern in a number of disciplines. The ability to reflect and respond in real time – reflection in action (Schön; 1983, 1987), however, appears neglected. Furthermore, in Negotiation studies, specific focus on developing the capacity for reflective practice is rarely explicitly taught. In semester 2, 2012, the curriculum of a Masters unit in Negotiation was re-designed around the notion of 'become an effective negotiator by becoming a reflective one'. This focused on the development of students' capacity for reflection in practice, incorporating both the development of generic skills in reflection by adapting Bain et al's (1999) framework, and the disciplinary skill of negotiation script development. This presentation will report on the purpose and research data findings arising on the first implementation of this re-designed curriculum. It is of relevance to educators in any discipline interested in the development of students' capacity for deep reflection and reflection in action.

55 Minute Workshop
Attributes of quality teachers in higher education: Developing a new taxonomy

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Many Australian universities are reviewing how they may facilitate improved student and graduate outcomes. One method of achieving such outcomes is to support academic staff in their preparation, delivery, and assessment of student learning. This workshop facilitates reflection and consideration of the skills and competencies that participants consider are important for an academic staff member to achieve recognition as an 'expert' teacher. A range of skills and competencies, and taxonomies that have been indicated in the literature will be presented and discussed with a view to developing a more substantial taxonomy of the 'expert' teacher in higher education.

A literature review by the workshop presenters has identified a range of taxonomies that provide some guidance on the attributes of an expert teacher in higher education. Other peer reviewed papers provide a range of attributes but do not classify these into particular taxonomies. A range of taxonomies that endeavour to account for the attributes, skills and knowledge of expert teachers will be presented as a background to the workshop during which one of these taxonomies (from Bain 2004) will be used to allow participants to reflect upon and categorise a range of words and phrases (at least 25) from the literature to the chosen taxonomy. Bain's work was chosen as the basis of this workshop as his work included six factors, whereas other models included four. Therefore one might expect that Bain's work would be more extensive than the other models. Bain's work was based on his review of people whom he considered to be excellent teachers and he indicated that "good teaching can be learned" (p. 21), suggesting that this workshop could be a useful precursor to further professional development for the enhancement of teaching skills.

A range of reports and peer reviewed articles in relation to higher education were content analysed by the authors independently to develop a list of skills and competencies considered a requirement for good teaching at university. Specific skill gaps were identified and processes to fill these gaps will form part of the workshop. From a professional development perspective, as well as providing information, this workshop will facilitate individual

reflection, assessment of personal values, group discussion and move towards the development of a new and extended taxonomy of teaching in higher education.

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Development of employability capability across a degree program: Validating measures of employability and work-integrated learning dimensions

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The higher education sector is undergoing profound change as accountability measures and stakeholder expectations of graduate outcomes challenge traditional models of delivery and assessment. With the emergence of a regulated, standards-based regime, evidence of graduate outcomes, which encompasses graduate proficiency and graduate employment outcomes will become increasingly important. Employers, graduates, students and government agencies such as TEQSA are increasingly seeking evidence of graduate outcomes which include the acquisition of work-readiness skills. To address this requirement, institutions are exploring innovations where work-integrated learning (WIL) is embedded in curriculum, and employability capabilities are explicitly applied and assessed. Incorporating authentic learning into the student experience facilitates the development of skills in preparation for the global job market. The intended outcome is ultimately to ensure the employability of graduates thereby enhancing the knowledge capital and subsequently the economic growth of Australia. However, relatively little quantitative and comparative evidence exists to substantiate the impact of WIL on the employability of graduates. This paper reports on some preliminary work from a national project funded by The Office of Learning and Teaching that has an overarching aim to determine the impact of WIL on the employability of graduates. An overview of the research design and methodology will be presented and some preliminary results tabled. The operationalisation and validation of measures of employability and work-integrated learning dimensions will be discussed.

Teaching language and culture through film

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At The University of Western Australia, students who begin to learn German undergo a year of intensive language training. This is necessary in order to prepare students for their second year of studies, in which all lectures and written assessments take place in German and students are required to study German film and literature. Furthermore, as of this second year, students are joined by those who completed German as one of their leaving subjects at school. Consequently, this does not allow much time for detailed teaching of German culture in the beginners' unit. However, it is now widely accepted that exposing students to the culture of the target language is of the utmost importance. The question is then, how best to do this given limited contact hours and the already heavy workload of the students? In order to assist in cultural teaching at first year level, a *Filmkritik* assessment has been incorporated into the course. Hence, students must watch and reflect upon a German film that explores significant issues in German society. By encouraging students to watch a German film, engage in the content and themes and then compose a piece of written work, students are required not only to use their German language skills, but must also engage in critical thinking. In this paper, I will highlight the advantages and disadvantages of this assessment method, outline the ways in which students were supported throughout this process and lastly, review the outcome of this task and the extent of its effectiveness in engaging students in deeper learning.

Engaging students with learning technologies: A reflection on the *eScholar* process

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Established in late 2009 the *Curtin eScholar* initiative sought to provide impetus and support for teaching staff to accelerate the adoption of technology mediated learning processes in their programs. In 2012, after the completion of 30 new projects, the outcomes of 14 eScholar projects were reported in a new e-publication, *Engaging students with learning technologies*. The eLearning Advisory team who worked with the eScholars have unique insights into the processes and systems that enabled the success of these projects. This presentation is an effort to contextualise the projects and demonstrate how the team and the eScholar initiative were instrumental in mobilising, facilitating, monitoring and publicising the individual projects. As the most recent recipients of the 2013 eScholarships begin to move forward with implementing their projects, the Advisory team reflect on the key strategies and approaches that have driven this initiative over its first three years.

Formative and summative assessment in Human Biology: Reflecting on test performance and feedback

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This study investigated a cohort of 805 undergraduate students who accessed online feedback about their performance on formative or summative computer based Human Biology tests. Students were encouraged to reflect on their performance and feedback. Of these students 34% reported on demographic information, test performance, usefulness of the feedback and their reflection on it, through an online post-test reflection (PTRS) survey. Older, female, more experienced learners and higher scoring students were more likely to respond more quickly and to provide written comments on the PTRS survey. Most respondents reported scoring less than expected on their test, especially if it was a summative test. Those who had done poorly and expected higher marks, as well as those who did better than expected, were all more likely to say that their result did not adequately reflect their knowledge. However, attitudes and reflections of those who undertook the tests formatively rather than summatively were qualitatively different. Students generally used formative tests strategically, to assess their prior knowledge before studying and to gauge the depth and breadth of future tests. These students were more likely to attribute their performance to their preparation or motivation. Students being summatively assessed were more likely to attribute poor performance to external factors such as unclear questions or questions outside the syllabus. Reflection on formative assessment suggested a different response to the assessment condition, where the opportunity to test their knowledge in a non-threatening situation allowed them to reflect differently on their own knowledge and performance. Implications for designing assessment which encourages reflection on feedback will be discussed.

Taking the broader view of student outcomes: Lessons from VET sector evaluation

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The vocational education and training (VET) sector has a social inclusion agenda which involves measuring the wider social impact of VET education. Qualitative data about broader student outcomes supplements the quantitative data about student completions. In this presentation it is argued that teaching practitioners can apply these program-level evaluation approaches to individual courses to provide a richer description of learners' experiences

which may aid ongoing course development. Student outcomes need to be evaluated in context and in reference to student needs as well as societal and institutional expectations. For example, a key lesson in the VET sector is that non-completion of a course is not necessarily a poor outcome. Student surveys highlight that people may enrol with the intention of completing only one or two units that represent a 'skill set' that they value. Surveys further indicate that over 80% of these students gain a job, or a promotion in an existing job, and are satisfied with their training. They are, then, justifiably viewed as having positive outcomes, and this must be balanced against the quantitative analysis of enrolments vs completions, which otherwise represents non-completions as negative outcomes. In this example, a broad view of student outcomes allows a richer description of system performance. The key concepts in program-level evaluation are discussed and a framework is presented for applying them to individual courses, as a supplement to existing feedback mechanisms. The intended audience is practitioners in any adult learning context.

Designing an online lecture in the discipline of Soil Science
Refereed Professional Practice paper: Full text on website

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Technological developments have not only been introduced to support traditional face-to-face education, but also to facilitate the spread of distance education programs and online learning. This paper contributes to the development of online lectures based on the foundations provided by learning theories (behaviourism, cognitivism, constructivism and connectivism). Using this approach, the author has developed an online lecture in the discipline of soil science on the topic 'crop residue management and phosphorus cycling'. Different aspects of designing an online lecture in terms of the content of lecture and its organisation, learner preparation, a couple of activities to engage students and strategies to promote interaction have been discussed in detail. This lecture is designed for use in future and the feedback received by authors would be effectively utilised to improve upon this practice.

Guided conversations: A new online teaching module brings cancer education to a greater cohort of learners

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Bottled specimens have long been used in the teaching of anatomical pathology, but usually only in small classes, due to scarce availability of specimens, venues and qualified staff. We developed and gathered feedback on a new online mode of delivery for bottled specimens on the topic of "Neoplasia." A key feature of the online module is interactive exercises, for example students need to identify the region on a photograph which corresponds to a tumour capsule, with instant feedback telling them whether their choice was correct and why.

The online tutorial was made a compulsory exercise for 153 students in a second year pathology unit; 147 students attempted the exercise. After the submission period, students were offered an anonymous survey asking them to compare the online tutorial with face to face tutorials they had attended, and 41 responses were received. The online exercise was well liked, with scores of 2.22 out of 3 for educational value and 2.05 for helping students learn the content. Students valued using the tutorial at their own pace and in their own time, but preferred to have the opportunity to ask questions of a tutor. In future we may combine this tutorial with a "drop in" session where experts are available for questions. This model has the potential to bring a high quality learning environment to a broader cohort than can realistically sit in face to face tutorials, enabling teaching of cancer topics to larger class sizes, communities outside the university, or the general public.

The inclination of information and communication technology (ICT) students towards entrepreneurship

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The lack of innovation in human capital in terms of quality and quantity as well as the significant brain drain has retarded the progress of Malaysia towards becoming a developed country by 2020. In view of this situation, the Ministry of Higher Education of Malaysia has assigned the National Coordination Taskforce for Innovation to develop an *innovative human capital* (IHC) at tertiary level. One of the key elements in the IHC implementation plan is to enhance the entrepreneurial skills through education. The objective of this study is to investigate the perception and reception of non-business students on entrepreneurship education at the Faculty of Information and Communication Technology (ICT) of International Islamic University Malaysia (IIUM). It examines the level of students' inclination towards becoming entrepreneurs and their interest to learn entrepreneurial skills. The survey will utilise 200 usable responses from third and fourth year students from the faculty. They will be selected using two types of sampling method, namely stratified sampling and simple random sampling. The primary data consists of a set of survey questionnaires which include entrepreneurial intention, inclination towards learning entrepreneurship, attitude towards entrepreneurship, subjective norms of entrepreneurship, perceived behavioural control over entrepreneurship, and the influence of faculty on entrepreneurial behaviour. It will provide some insights on the factors influencing ICT students to venture into entrepreneurship. It will also suggest measures on the importance of graduates becoming successful entrepreneurs and being less dependent on employers.

Impact of collaborative peer and self assessment on students' judgment and written communication
Refereed Research paper: Full text on website

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Judgment and (written) communication are two of the five learning standards identified by the Australian Learning and Teaching Council for Accounting Bachelor and Master Degrees. This paper reports the use of a custom-designed collaborative peer and self-assessment teaching initiative, embedded into the curriculum for post-graduate Introductory Financial Accounting. The study, which is modeled on the one used in the Achievement Matters: External peer review of accounting learning standards project, uses as its base, carefully selected exemplars, written by peers in a previous cohort. Students are required (twice) to assess the quality of the written communication in exemplars (using their judgment), which in turn generates informed debate on the expected standards of written communication and the application of an assessment grid. Assuming that students learn from this process, they then have an opportunity to apply their learning to their own written work.

The study is designed to capture any change in the quality of firstly, the students' judgment using the online tool Self and Peer Assessment Resource Kit (SPARK^{PLUS}) and secondly their written communication (using the outcome of an independent grading process). The results indicate a statistically significant improvement in the quality of student judgment in relation to the grammatical, structural and presentation components of written communication. In addition, the quality of their written communication shows a statistically significant improvement in all six components specified by the assessment grid. While there is insufficient evidence to draw any specific conclusions, our observations and student comments suggest that the teaching initiative contributed to this improvement.

ACODE Benchmarks *ARMS* Module

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ARMS automates the ACODE Benchmark assessment process for universities. TT Partners, an ISO9001 quality-endorsed professional services company specialising in education since 2003, uses its award-winning *ARMS* quality management system to deploy the ACODE Benchmark Modules. *ARMS* was developed around an innovative, flexible enterprise improvement framework that assists with assessment, reporting and change management of programs of work. The system provides the critical qualitative dimension for organisations concerned with data collection, analysis and benchmarking, strategic planning, organisation profile and continuous improvement. *ARMS* consolidates many processes, data sets and systems to build insight and actionable knowledge critical to institutional change, improvement and quality. Simple workflows provide effective and accountable task management and progress tracking. The power of *ARMS* is realised through its ability to implement programs and projects, apply business frameworks and rules, and associate budgeting and timeframes to deliver real educational improvement and capability.

The Australasian Council on Open, Distance and E-Learning (ACODE) Benchmarks for the use of technology in learning and teaching support continuous quality improvement in e-learning. The approach reflects an enterprise perspective, integrating the key issue of pedagogy with institutional dimensions such as planning, staff development and infrastructure provision.

Designing, developing and evaluating authentic online educational assessment

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The teacher education unit *Early Childhood Learning Environments* offers student teachers the opportunity to examine a range of theoretical perspectives, key concepts and contemporary issues related to the design of early childhood learning environments that promote children's learning. Unit learning objectives include identifying keywords and metaphors used to identify desirable characteristics of an early years learning environment, developing skills in designing provocations that promote multiliteracies, and reflecting upon a range of educational activities that can build children's awareness and respect towards the natural environment. One assessment component requires the student teachers to collaborate in small groups to design and share online *PowerPoint* presentations of a provocation made from recycled materials that can be readily integrated in an early childhood learning environment and addresses the new *National Quality Standard* for early childhood education and care (Quality Area 3: Physical Environment). This presentation will examine the learning processes involved when designing, developing and evaluating an authentic online educational assessment.

The importance of action research in teacher education programs
Refereed Professional Practice paper: Full text on website

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Following entry into the workforce, there are limited opportunities for new graduate teachers to engage in critically reflective activities about their educative practice. In an increasingly complex and challenging profession, the need for teachers, administrators and school systems to become involved in professional development activities is ever present. Undertaking a unit in action research methodology provides those professionals working in the education system with a systematic, reflective approach to address areas of need within their respective domains. The University of Notre Dame Australia (Fremantle) offers a core unit in action research methodology as part of its eight (8) unit Master of Education degree.
This paper discusses the place of action research within a Master of Education degree, and within the teaching profession. The approaches adopted by two tertiary institutions (one in the United States, and one in Australia) to teach action research to educators are highlighted. More specifically, the professional practice employed by one academic to teach the action research unit within a Master's degree course is outlined. The author has taught the unit *ED6765: Action Research in Education* for the past four years consecutively, and believes the skills and knowledge developed as part of undertaking this unit are critically important within teacher education and the teaching profession. Some examples of past action research projects designed and implemented by students are also included.

Massive open online courses: A real threat to university learning and teaching?

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Massive Open Online Courses (MOOCs) are a new and significant education initiative. MOOCs are online courses (units/subjects) provided free of charge with the pedagogical content prepared, and delivered, by the world's 'best' professors from the world's elite universities. They are a significant challenge for local universities. Why should domestic students learn from local academic faculty when they can learn (at no expense) from the world's best and most charismatic educational experts from the world's best universities? MOOCs are a real threat to those local universities that decide this is just 'another' educational technology fad that will have a short life cycle with no lasting impact on higher education. We argue that this disruptive innovation (MOOCs) requires a pioneering response from universities. We suggest that the rise of MOOCs provides Australian universities with greater opportunities to attract prospective students by the delivery of sound educational courses which ensure the development of generic and specialist skills in a well-supported, systematised manner. Local universities can synthesise and integrate discipline-based learning provided by MOOCS with local pedagogical content delivery in an intensive small group environment. Local universities who use smaller face to face classes (in conjunction with MOOCs) will also be able to provide a dynamic educational experience for students and one that is immediately responsive to students' understanding of educational content. Local universities will also need to provide additional face to face services in terms of further initiatives in work integrated learning and employment services, to ensure that students will still continue to enter local higher education institutions.

Location based augmented reality: Towards Indigenous cultural sustainability

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This presentation describes the design and development of a location-based augmented reality project that privileges Nyungar place narratives to support a first year unit on *Indigenous Culture and Health*, which aims to develop health professionals with cross-cultural capabilities. The development of cultural understanding is best supported through authentic learning experiences in the form of first hand narratives from Indigenous people. However, a more sustainable and scalable model was required to accommodate over 2000 internal and external students, which could also be expanded across all faculties. Place narratives were selected and recorded in collaboration with elders and other members of the Nyungar community. Mobile technologies and augmented reality were used to create hybrid spaces that overlay real places with Indigenous place narratives, articulated through a range of media. This approach means that place narratives are experienced in situ rather than via reading, viewing or listening from a geographically removed place. As a result, students are able to access, and reflect upon, an alternative, embodied experience of the Perth landscape which privileges Nyungar culture and history. Student interaction is possible by uploading text, photographs and comments.

What is the point? Building careers after a national teaching award

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One of the claims for national awards has been that they have elevated the status of university teaching by improving the reward structure and increasing the public profile of academics with strong track records in the practice and scholarship of teaching. The award may well represent an end point for or, perhaps, a high point in an academic career. It acknowledges and celebrates nominees' contribution to teaching and learning and places no obligation on them. However, there is a difference between not wishing to place an obligation on an

awardee and failing to offer him or her opportunities to flourish. Were the awards to constitute recognition and no more, this would be a wasted chance. Based on interviews and a survey of Australian awardees as part of work for the ALTC, this paper explores the hopes and ambitions of awardees, and the extent to which their expectations were met in the years following their award.

The paper is based on a Fellowship report: http://www.olt.gov.au/system/files/resources/Israel%2C%20M%20UWA%20Fellowship%20report%202011_0.pdf, and also a brief (and light) one page article: https://wun.ac.uk/sites/default/files/sound_advice_on_being_a_winner.pdf

Broadening participation: Fairer pathways to UWA?

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As part of a response to the Australian Government's targets for universities to enrol 20% low-SES students by 2020, two initiatives have been designed and implemented to ensure that more of these students can gain access to UWA: *Fairway*, with a focus on individual students whose academic potential has been hampered by one or more forms of disadvantage and *Broadway*, with a focus on school-based educational disadvantage. Both programs had first intakes during 2012 and are demonstrating encouraging results. *Fairway UWA* supports students with a program of academic and social enrichment during Year 12. The program recognises that students who face financial difficulties and other challenges are often prevented from achieving to their full potential. *Fairway* aims to provide resources, mentoring and support for these students and to provide a means by which students can demonstrate their capacity for tertiary study. *Broadway UWA* acknowledges that students from low ICSEA schools have the potential to succeed at university. The students receive comprehensive support from Student Services and a range of other support structures in their transition to university study. This paper will outline the rationale, design and early outcomes of the programs. It will consider the broader context of equity and access in the higher education sector and also provide recommendations for the future.

Changing the game: The Australian Council of Deans of Science National Centre for Teaching and Learning for Science and Mathematics

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Improving teaching across a faculty benefits from local effort with national support. Effective teachers within a faculty can lead change more effectively when supported by their own deans and associate deans, peers at other universities, and a shared resource base on 'what works'. This approach is being pursued by the Australian Council of Deans of Science (ACDS), who are conceiving plans for a National Centre for Teaching and Learning for science and mathematics. The new Centre will collect effective models for organizational change within schools and faculties. It will commission good practice guides providing distilled advice to support changes in teaching and learning, such as for processes of curriculum renewal. The Centre will draw on the experience of learning and teaching leaders, science faculties and associated discipline groups to offer authoritative advice to universities and external bodies. The ACDS Centre will maintain a presence online, which will link together existing groups, projects and leaders. The website will house the good practice guides and will provide a 'practice exchange' to support dissemination of effective teaching strategies between disciplines. The Centre will provide timely advice for the Council of Deans on teaching and learning issues and national policy. This conference session, one of five sessions in a tour of Australian Capital cities, is for attendees to contribute their ideas and views to make the new ACDS Centre relevant to their practice and effective in improving policy in their faculty and nationally.

55 Minute Symposium
Is the captured lecture the death of good, innovative, flexible pedagogical practice?

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In his blog, Mark Smithers asks: Is lecture capture the single worst example of poor educational technology use in higher education? Recording live lectures and making them available to students is a contentious topic in Universities, yet the use of lecture capture in University policy and practice, student expectations, and extensions to other contexts such as flipped classrooms and Massively Open Online courses (MOOCs) continues to rise.

Students make use of lecture recordings to support their learning due to their capacity for repeated listening. Students' self-reported use of lecture recordings for improving understanding is significant (Gosper, et al., 2008). Students may make strategic choices to attend or not attend lectures (Gosper et al., 2008), although successful students are more likely to combine attendance with use of captured lectures (Von Konsky et al., 2009). Furthermore, lecture recordings were of most benefit to low achievers in their learning (Owston et al., 2011). and are study tools that potentially address different learning styles (Gosper et al, 2008), and allow for students to choose the best tool for them. Recorded lectures have afforded new approaches to teaching, such as the flipped classroom. Captured lectures are a simple way of providing the material for the out-of-class activity. MOOCs provide online learning incorporating a range of video lectures with discussion forums, online quizzes and other activity to extremely large online classes.

At this symposium we will discuss and debate the relevance and value of captured lectures for university learning, while sharing the principles, approaches and practices of captured lectures in four Western Australian universities.

This symposium is of interest to University staff interested in what guides their own institution's use of lecture capture, and curiosity about what the other universities are doing. It is of interest to those wanting to discuss and debate the role of lectures and of captured lectures in university learning.

References (further references available from the presenters)
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Promoting student engagement with feedback for report-writing in first year engineering

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The usefulness of tutor-feedback to students for assessment tasks depends on if, and how, students engage with it, making the positive involvement of students in this process crucial. This account is a retrospective analysis of using the incentive of bonus marks to improve engagement with feedback given for report-writing to students in Semester 2 in the

Engineering Foundations and Principles of Communications unit. The purpose of this incentive was to improve my own teaching practices, and primarily born of frustration with a different group of students in Semester 1 not engaging with feedback. The assignment brief was similar for both semesters and required students to produce an initial report on site safety. Formative feedback was provided and students were allowed two weeks to produce an improved final report. Adequate engagement with feedback was recorded if students attempted to address more than half of the feedback.

The results of the bonus-mark incentive for the Semester 2 were encouraging: for direct-entry students the engagement with feedback rate rose to 66% compared to 15% students in Semester 1. Interestingly, for alternative entry students the non-incentive engagement with feedback in Semester 1 already sat at 45% and increased to just 50% in Semester 2. This analysis suggests first, that direct-entry students may need a tangible incentive to engage with feedback and that second, alternative entry students do not respond to this incentive to the same degree as do their direct-entry peers. Whether this is due to socio-cultural, language, economic factors or pedagogic strategies is uncertain, and needs further investigation.

55 Minute Workshop
Making time at Teaching and Learning Forum 2013 to TATAL
(talk about teaching and learning)

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Good teaching takes time and commitment. Few teachers would disagree with this statement which also resonates strongly in the literature (McCormack & Kennelly, 2011). The TATAL (Talking about Teaching and Learning) process offers a rare opportunity for time-poor academics to devote productive periods towards their professional growth. In social networks of teaching academics, participants engage in reflective practice that is shared in a safe environment, where colleagues support and provide feedback to individuals. TATAL groups have been running successfully across the country for four years and have been a popular addition to the last two national HERDSA conferences. The social reflective practice employed assists participants in constructing a personal teaching philosophy which can be incorporated in teaching portfolios required for award nominations, promotion, and fellowship applications, as well as general development of teaching practice.

This workshop will introduce the TATAL process and rules of engagement which support the establishment of a productive community. The theoretical frameworks, including action learning and 'Chatham House' rules for collaborative reflective practice, that underpin the program will be discussed. Participants will have the opportunity to briefly trial one of the processes employed including discussing personal TATAL goals, negotiating 'Chatham House' rules, free writing, sharing, providing feedback, reflecting and rewriting with the overall aim of refining and articulating their personal thoughts about teaching generally and their practice specifically (McCormack and Kennelly, 2011).

A more comprehensive (3 hour) follow up workshop will be held on 12 February at UWA for those wishing to engage more deeply in the process. Participants may choose either or both workshops depending on their interest, requirements and availability.

Following the two workshops the TLF-TATAL group will continue to meet either in a virtual world using a system like *Skype*, or face-to-face by arrangement. During this time participants may receive supportive feedback to finalise their teaching philosophy statement, and to prepare a teaching portfolio. The decision to commit or not to continue meeting as a group can be made by individuals following the workshops. The facilitators will provide materials and initial mentoring to support the ongoing conversations. Conference delegates prepared to share stories about their teaching and learning would be welcomed and encouraged to attend.

Reference
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55 Minute Symposium
Involving our peers in developing our teaching

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Increasingly there are pressures on teaching staff in universities to meet quality standards. Demands for increased research are accompanied by demands for teaching approaches which keep up with current thinking. This session will focus on peer assistance in teaching development. Offered in two parts, the first will involve a short paper from each of the presenters, after which the audience will be invited to further explore the topic.

Peer observation of teaching: A more holistic, objective and informed evaluation of student learning - Steve Klomp

The peer review approach identifies ways to improve the learning experience and sets benchmarks to encourage continual improvement. Peer assessment is free of some of the subjectivity of student based assessment systems. It is informed, in that it is completed by a professional with knowledge of the area and it takes into account the aims of the unit and the conditions under which the unit is conducted. It is timely as immediate feedback is provided to the practitioner. The peer system reduces stress on staff, allowing them to be assessed only on factors over which they have control, and removes the perception that education standards can fall victim to a requirement to achieve high student assessment scores. The peer system allows the practitioner to be assessed by a person with whom he or she feels comfortable. It provides useful management information, including the identification of agreed training and resource needs. Results can be used for public relations purposes and outcomes shown to completing students.

Peer observation of teaching: Risks and responsibilities - Megan Paull

In the development of a peer observation of a teaching program within our school, it has become apparent that this is a practice feared by many and practised by few. Many, it seems, are relatively comfortable taking classes, and presenting to conferences, but there is some reticence at having a peer observe their teaching and provide feedback. For those who came to tertiary teaching via an education pathway, having another observe their work and provide feedback is nothing new, and experts in education are often well versed in the field. For those of us, however, who came to academia via other pathways to teach in the area of our expertise without necessarily having been trained in teaching, it can be quite daunting to have a peer sit in on a class. Further, it is not usual for peers to be trained in giving feedback; for some of us feedback techniques are part of our disciplinary expertise, for others this is not so. If peer observation of teaching is to be beneficial, it is essential that it is carried out in a responsible and systematic manner, and that both parties are well prepared for the task.

We invite you to join the conversation and offer your thoughts – in favour of peer involvement in developing teaching, or not – and to hear the views of others on the topic.

55 Minute Symposium
Reflecting on the academic in the flipped classroom space

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Re-locating the content-heavy, discipline knowledge -based lecture from inside the classroom to outside the classroom lies at the heart of the *flipped classroom* concept. Time in class is then dedicated to active learning tasks where students receive rapid and relevant feedback related to the application of concepts. The flipped classroom assumes a social constructivist philosophy and the practical strategies incumbent in such an approach include, but are not limited to: cooperative learning tasks; paired work and group work; problem-based learning; differentiated instruction; integration of technology into teaching and learning. The preparedness of individual academics for the flipped classroom is an area requiring further study and this workshop is designed to engage teaching academics in critical reflection on: personal teaching philosophy; pedagogical approaches (current and future); technology (personal and institutional capabilities); physical learning spaces (working effectively in existing and future spaces). This workshop is targeted towards all teaching academics in

higher education. Participants do not need any prior understanding of flipped classrooms as the workshop is designed to introduce and explore the concept of flipped classrooms.

Reference
Educause (2012). *7 things you should know about flipped classrooms*. Educause Learning Initiative. http://net.educause.edu/ir/library/pdf/ELI7081.pdf

Student engagement: What is it and how well are we doing it?

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An increasing number of young people with diverse backgrounds are gaining entry into universities through a multitude of entry routes, which has led to increasing internationalisation of the student body. Also, these developments have put increasing pressures on universities to reconsider the ways in which they engage with students in the global marketplace of higher education. Student engagement has been conceptualised in many different ways and is a term that has been utilised in higher education globally, in many aspects of learning and teaching. Engaging students can have many positive outcomes, including an improved student experience and a greater commitment to active learning. Student engagement in Australian universities has been concerned principally with strategic approaches to meet student needs, by improving and enhancing the learning environment. This has required universities in Australia to be more innovative in their approach and involvement with activities and conditions to generate higher learning, supported by a culture of quality assurance and management processes. At Edith Cowan University (ECU) there is no specific policy for 'student engagement', but engagement with the wider community by being an integral part of it, involving different stakeholders, is a strategic priority at ECU. Student engagement at ECU is embedded in a number of different ways through teaching, learning and assessment, which will be alluded to in more detail during the presentation. Student engagement is and will continue to be an important issue for all those involved in the provision of higher education in Australia.

Embedding reflective writing in a Business Internship unit

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Units which link a student approaching graduation with significant experiential learning and a relevant industry placement are potentially valuable for students, particularly if participants are able to reflect critically on the experience. The School of Business at the University of Notre Dame Australia, Fremantle campus, sought to embed reflective writing and reflective practice within its Business Internship unit. In doing so, significant challenges emerged to have the reflective writing be viewed as a professional tool and to achieve the desired standard to meet unit outcomes. It became evident that explicit teaching, better scaffolding and more thorough processes of training students to write reflectively were required. Subsequently, reflective writing workshops were trialled and embedded in the unit. To enhance the quality of the Business Internship unit and cement it as a capstone experience, broader and more complex issues such as: student perceptions of the value of an internship and of engaging in a professionally reflective process; academic literacy of business students and differing experiences of international students; in relation to student engagement and the student learning experience were also explored.

Speech pathology students' responses to e-portfolios

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Speech pathology students across Australia are required to develop a portfolio to demonstrate their competencies. In the new Speech Pathology course at Edith Cowan University students have being using an e-portfolio for this purpose for 2.5 years. The e-portfolio is assessed in one unit each semester of the four year course as both a formative and summative assessment, demonstrating their development of professional clinical competencies and also their

reflective practice. This project investigated the students' level of engagement, response to the technology, and appreciation of the link between their e-portfolio and their future careers. Responses were gathered through the use of questionnaires and focus groups. Second, third and fourth year students were asked to complete questionnaires on the e-portfolio and invited to attend focus groups. This presentation will give the results from the questionnaires (response rate 47%) and the 3rd and 4th year focus groups (participation rate 51%), and discuss implications for the use of e-portfolios with students.

Is lecture attendance and participation in large first year classes a lost cause?

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'I couldn't come to your lecture. Did I miss anything?'

Today's university students are juggling numerous commitments. Attending lectures is one option for them in how to spend their time; it is not the highest priority for many or even most university students in the 21st century. Increasingly, students have the option of viewing or listening to recorded lectures and downloading lecture notes from online learning management systems. Still, for many of us who teach, the question above rankles. Why would a student ask such a thing? Do students not perceive value in attending our lectures? We surveyed a large (n= 634) first year science class that we taught in 2012 about their approach to lecture attendance. As is common across the university, lecture attendance began to fall dramatically about midway through the semester, so that only about 14% of the students (85) self-reported attending most lectures throughout the entire semester and 33% (196) reported attending less than five lectures out of the 24 provided in the semester. Some relevant factors are that this unit, SCOM1101 Introduction to Scientific Practices, is a large first year unit (class) designed to improve students' communication understanding and skills in a range of majors in the BSc. The unit was assessed entirely by assignment, had no exam, and had weekly tutorial sessions in which students received extra information intended to assist them complete their assignments.

Questions to be examined in this talk include: Is this a problem? Do students who attend lectures receive better marks or is getting the material by other means adequate for their learning experience? Are there other benefits of coming to lectures (e.g. social benefits of making new friends at university)? The question that many of us have considered is what can we do about it? We will discuss various strategies that can be adopted if we want students to attend lectures and ask for suggestions, participation and discussion from others.

Does web-based role play establish a high quality learning environment? Design versus evaluation
Refereed Professional Practice paper: Full text on website

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Online role-plays have been celebrated for providing an environment which allows for high quality learning. Innovative approaches have been embraced in foreign language studies, especially in countries where a great distance to the target country needs to be overcome, not only to expose students to the target language but also to provide them with a forum to apply and extend their newly-acquired language skills in creative applications outside the face-to-face classroom. This paper explores the design, application and evaluation of one of these innovative teaching and assessment strategies: an online role-play in German Studies at UWA. Complex educational objectives, as classified by Bloom and many others since, were the starting point for our design. However, despite all the ideal ingredients being included in the role-play, our evaluation transpired to be a corrective of sorts. It was intended to re-affirm that students appreciate the best-practice learning strategies which have guided the design and development of this role-play. Student feedback gained through student surveys, vocabulary tests, classroom observations, as well as quantitative tracking of contributions has been utilised to analyse the level of student engagement and their reflections on their learning in this role-play. Our findings suggest that even an ideally designed web-based role-play will not

necessarily lead to a more effective way of learning, at least not from the students' perspective.

Engineering students' identities and motivation

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Parkinson's (2011) study of threshold concepts (Meyer & Land, 2003) experienced by first year engineering students identified understanding 'roles of engineers' and 'self-directed learning' as troublesome and transformative, and therefore critical to engineering students' progress (Male, 2012). Informed by Bennett's (Bennett, forthcoming) research on student engagement, we explored students' identities, understanding of possible selves, and motivation in a second year engineering foundation unit. Two classes of 49 students in total each participated in a two-hour interactive workshop in which they worked individually and in groups considering their motivation for studying the unit, their dream achievements as engineers, their perceptions of engineers, how these compared with their identities, and their strengths and weaknesses for their team project in the unit. The workshops included whole-class discussion, reflection, brain-storming, small group work in and outside discipline groups, story telling, and a one-minute paper. The students completed responses related to the role of an engineer, their ambitions as engineers, their identities, their strengths and weaknesses, and a one-minute paper. These were analysed for evidence of threshold concepts, and factors that could influence student motivation. Students demonstrated limited understanding of the relevance of the course or possible roles as engineers. Additionally, students held design aspirations that are likely to be inconsistent with engineering practice. The data are consistent with 'roles of engineers' being a threshold concept for the students. The findings indicated that students are likely to benefit from opportunities to improve their understanding of roles of engineers.

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Enhancing industry engagement in engineering degrees

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Engineering practice is not well understood by those outside its practice. Engineering roles are diverse and engineers' work is not undertaken with close interaction with members of the community. These factors contribute to engineering students' lack of awareness of engineering roles. Engineering educators provide opportunities for students to be exposed to engineering practice by engaging industry in engineering degrees, largely to meet accreditation requirements set by Engineers Australia. However, this engagement is limited, mainly occurring late in degrees. For the Australian Council of Engineering Deans, with 12 partner universities, professional and industry bodies, we are developing guidelines for more effective industry engagement in engineering degrees. Our approach is evidence and research based, including a literature review and consultation with academics and engineers. Students will participate in later stages. Data are being analysed for evidence of ways to expose thousands of students to engineering practice. The draft guidelines will be reviewed by academics and engineers and be further refined following student consultation.

Draft recommendations for engineering faculties include coordinated approaches with identified contact people, promotion of potential interaction, engagement with engineers at various levels, recognition of engineers' contributions, identification of benefits to employers, recognition of industry liaison as part of an academic's role, and processes for ensuring continuity when university and employer personnel change. Recommended types of interaction include engineering panels, engineering expos, groups of students interviewing engineers, senior engineers giving lectures, and engineers mentoring students in team projects. Universities should engage engineers in ways that are flexible, respectful, and give engineers opportunities to meet students.

The value of international experiences for medical students as perceived by medical students and clinical staff

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In the face of emerging trans-national health issues, the question of medical student mobility and the value of international exchange for medical students has become increasingly relevant to students and faculties around the world. In order to investigate and compare student and clinical staff perceptions of the value of international medical exchange, an anonymous online survey was administered at an Australian university. Analysis revealed strong student and staff support for multiple modes of exchange. Differences emerged between the two sample groups in perceived value of alternate forms of exchange and areas of greatest benefit. The results suggest that efforts should be made to maximise the potential benefits of student enthusiasm for international experiences by facilitating exchange opportunities, and providing both university and student-body led guidance so that the key benefits of exchange, as identified by staff and students, can be achieved.

Testing program reveals deficient mathematics for health science students commencing university
Refereed Research paper: Full text on website

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In response to staff concerns about literacy and numeracy standards of commencing students, the Faculty of Health Sciences at the University of Notre Dame Australia (UNDA) Fremantle campus, worked with academic support staff from the University's Academic Enabling and Support Centre (AESC) to develop a Post Entrance Numeracy Assessment (PENA). The PENA was designed to parallel and complement the University's Post Entrance Literacy Assessment (PELA) and to assess fundamental skills and knowledge in mathematics that should be acquired by years 9 and 10 at Secondary School. The explored data highlight that significant numbers of students who embark on a Health Science course either had chosen not to study mathematics at year 11 or 12, or if they did choose a math's course, it was at Stage 1 or 2. For those students who studied Stage1 or Stage2 mathematics at High School just 2/49 (4%) met the benchmark score of 65% in the PENA test. More concerning was that none of the 22 commencing students from a Certificate IV entry pathway achieved the benchmark score in the PENA. Therefore recent graduates from High School or Colleges of Technical and Further Education (TAFE) display a significant deficiency in basic mathematical skills that are likely to hinder their performance in a Health Science course. Furthermore, we found that 21/29 (72%) students who were identified as below the benchmark score in PENA subsequently failed a semester long foundation mathematics unit. The results highlight that many Health Science students appear to be unaware of the pervasive nature of mathematical processes within their units and their course of study. A confounding issue regarding student support is that many Health Science students are reluctant to voluntarily attend academic support courses.

When PELA results are dismissed: Addressing the implications of students' inaccurate perceptions of skill levels

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Undergraduate entrants at the University of Notre Dame Australia, Fremantle campus, have completed a Post Entrance Literacy Assessment (PELA) since semester 2, 2010. The PELA includes a reading comprehension task, and a writing task; in both, the students are identified at either 'below benchmark' or 'at/above benchmark'. The semester 1, 2011, School of Business cohort was identified as particularly weak based on its PELA results, and yet not one student in the cohort engaged with the (then optional) support courses on offer. In attempting to seek explanation for this lack of engagement, audit data collected at the time of PELA administration were analysed. Students 'below benchmark' (BB) in both reading and writing tasks were compared to all the other students tested, using a variety of mechanisms. The analysis showed that students BB in both PELA tests identified their skill set, both literacy-related skills and all skills overall, to be at a higher level than the other students. This was statistically significant at a 90% confidence level. This indicated a clear mismatch between the students' self perception and the PELA results. If this perceived mismatch and actual literacy skills are not peculiar to this cohort of students, at this University, then it creates a need to question the usefulness of PELA without compulsory follow-up. It is likely that the students deemed to be at risk, who would not consider themselves to be at risk, would therefore not engage in support. The implications of the mismatch between student self perception and PELA processes led to significant changes to practices in 2012, and to the redevelopment of the core literacy unit offered in the School of Business.

The developing narrative of the BPhil (Hons) online Centre for Undergraduate Research and the design behind its *Moodle* unit

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The introduction of *New Courses 2012* at the University of Western Australia heralded a first-time degree: Bachelor of Philosophy (Honours) for the top 40 first year applicants. This new degree exists outside the Faculty structure, and as such is without a "home". To support this degree and develop a home, the BPhil (Hons) Academic Coordinator in collaboration with the Centre for the Advancement of Teaching and Learning at UWA is creating a suite of LMS (*Moodle*) units. The unit discussed in this presentation aims to span the community of BPhil learners across their degree study and across all students in all years of the program. This purpose-built LMS unit has been designed to support teaching and learning, community building and researcher development objectives. It denotes the evolving narrative of the student's journey throughout the degree as an undergraduate researcher.
This presentation focuses on the development of the BPhil (Hons) online *Centre for Undergraduate Research* community unit within the UWA learning management system. We look at the story so far to see what potential narratives are emerging and speculate on how they might be developed. For BPhil (Hons) students, the point of the story is to "learn to think like a researcher", but how does this story begin? What happens along the way? Who is the narrative guide?

Increasing environmental engagement through the use of a citizen science program in undergraduate biology

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Inquiry based learning techniques may increase student engagement and understanding of concepts beyond the active learning techniques typically used in science laboratories. In our

study, a citizen science assignment, using *ClimateWatch*, was introduced in two undergraduate biology units in 2011 and 2012. In 2011, students collected and entered phenological observations, and in 2012, students collected and analysed previously collected data and wrote journal articles pertaining either to climate change or to the reliability of citizen science datasets. Surveys of students showed their interest and engagement with the environment increased after the assignment(s) in both years. Therefore, the addition of the inquiry based learning (analysis and report writing) challenged students to think in depth about the species observed, about phenological data, and about climate change, but it did not decrease their overall interest or level of engagement. Additionally, students in both years reported continued participation with and introduced others to *ClimateWatch*, suggesting they found the program useful and interesting. In 2012, students were more concerned with the reliability of data collected by citizen scientists than in 2011. This is likely due to the unvalidated data they analysed; therefore, the data validation process should be more clearly explained in future labs. Overall, the citizen science assignment was a valuable addition to the units as it enhanced students' environmental awareness and engagement and potentially increased their likelihood to participate in citizen science programs. Additionally, it showed that inquiry based learning techniques challenge students while maintaining a positive outcome, which provides support for incorporating such initiatives into other laboratory-based units.

Engaging students in peer review: Feedback as learning
Refereed Research paper: Full text on website

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There is a growing interest in tertiary education in Australia in developing the capacity of learners to evaluate and improve both their own work and that of others (Boud & Falchikov, 2006; Oliver, 2011). In order to successfully direct their own learning beyond university (and engage in lifelong learning), students need to be able to evaluate their performance in relation to a standard, identify gaps and determine how to bridge them in order to achieve the desired standard. One strategy that can be employed to achieve this is that of engaging students actively in the feedback process, so that feedback becomes an integral part of learning. In this paper the authors define feedback as a loop, meaning that feedback can only be said to have occurred when there is some identifiable influence on the recipient of the feedback (Boud & Molloy, 2012). When feedback results in improved performance we can say that learning has occurred. This paper describes how peer feedback was embedded in the teaching, learning and assessment cycle of a third year social studies unit. Pre and post surveys of students reveal their response to the requirement that they actively engage in evaluation and feedback. This paper explores how engaging students in peer review as part of a major assessment task affected their learning, their capacity to direct their learning, and their self-efficacy in relation to academic and real-world tasks.

Subject-centred learning enables effective tertiary teaching
Refereed Research paper: Full text on website

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The measurement of quality in tertiary teaching is a contested concept and different definitions emerge in relation to shifting social, economic and political contexts and different stakeholders. We suggest that following the work of Parker Palmer (1998) quality tertiary teaching is effective when it places the subject at the centre of the teaching and learning experience. Through literature review and personal accounts arising from our own reflections as teachers, we explain the principles and benefits of subject-centred learning. We contrast this approach to student-centred learning which we argue too easily slips into "student-centred teaching" in which academics are held to ransom by multiple needs of students, many of whom will shy away from the inevitable pain associated with learning unless inspired to by the teacher. We suggest that disciplinary academics can find their ways through the maze of teaching and learning scholarship by listening for and to the voice of their subject as a guide to effective quality subject-centred learning. Whilst we acknowledge that teaching is necessarily highly personal and individual, we argue that it should not be focused primarily on

either the needs of teachers or students. Rather learning needs are transformed through a disciplining to the higher needs of the subject.

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55 Minute Symposium
The nuts and bolts of evaluations: A practitioner's perception

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The student voice is without doubt an important indicator for institutions of higher education in terms of engagement and quality. In Australia, the government plans to use student feedback collected by the Australian Graduate Survey (AGS) and the new University Experience Survey (UES) to measure student experience and possibly reward universities. In addition, the survey data will be made available on the *My University* website so that all stakeholders can view institutional quality and institutional performance.

The notion of students having a voice and giving feedback on their teachers is not new. Traditionally, evaluation systems were more commonly used for formative evaluation, for the purpose of improving teaching and learning. However the more recent focus on quality assurance, and requirement for teaching to become a more publicly visible activity has seen a shift to using evaluations systems for summative evaluation, for accountability purposes including the allocation of funding, promotions and teaching awards as well as for formative purposes. Institutions in Australia collect student feedback using a number of institutional surveys which include teacher evaluations, unit or subject evaluations, student experience surveys, exit surveys to name a few.

A recent analysis of institutional plans indicate around 81% of Australian universities have articulated the importance of student experience in their strategic plans. The main drivers for this higher level of engagement with the student experience have been the Bradley report, *My University* website, and the possibility of rewards associated to performance.

Though there is importance placed in numerous corners of an institution on the need for student voice, there is clearly a need to understand the dynamics of surveys within the institutional framework. Whilst there is plethora of literature about students' rating systems and an abundance of research into, for example, student evaluation of teaching effectiveness, dimensions of teaching effectiveness, issues of reliability, validity, student and teacher bias and usefulness of feedback instruments, very little has been written on practitioners' viewpoint of collecting, reporting and using student feedback in universities (e.g. Harvey, 2003; Marsh, 2007).

In this symposium the themes and questions will include:

- The functioning of an evaluation unit
- What goes into the design of a survey
- What factors need to be considered for administration
- What practical limitations are there in survey administration
- The decision making process
- Reporting and interpretation of data and the use
- Closing the loop
- Discuss the role of evaluations in quality assurance and/or quality improvement

This symposium will offer, participants the opportunity to work with evaluation survey managers to explore the complexities in the gathering and reporting of student feedback, discuss the issues of current concern with the use of student feedback both nationally and at an institutional level and consider ways to foster and enhance best practice within universities.

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The transition of Aboriginal and Torres Strait Islander students into higher education

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In this talk we will present the findings of our research into the transition of Aboriginal and Torres Strait Islander students into higher education undertaken with funding from OLT (previously ALTC). The research design was mixed methods, based on qualitative and quantitative data collection. Specifically, qualitative data was collected from four Australian universities by way of interviews with students and staff and through reviews of secondary documentation such as curricula, resources and orientation programs. Case studies on individual learners and their tertiary education experiences were developed to illustrate the range of responses that emerged from this data. Additionally, to capture a broader spectrum of Aboriginal tertiary experience, an online survey was developed based on this qualitative data. A variety of closed, multi-choice and open ended questions were designed, first being vetted by representatives from the partner universities to ensure cultural appropriateness. Together all the data has been examined for evidence regarding the efficacy (or otherwise) of different strategies, approaches and situations for Indigenous higher education students.

Low cost educational video for first year undergraduate students using oscilloscopes
Refereed Professional Practice paper: Full text on website

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In this paper, we report the development and application of a multimedia resource designed to complement learning activities in undergraduate engineering and physics laboratories on the setup and operation of a digital storage oscilloscope. The development and design of this resource was kept as simple as possible. Cognitive load theory, in which the learning tool was designed to minimise extraneous cognitive load in students, was used as the guiding design framework. This resource has demonstrated a significant improvement in students' understanding and confidence in the use of the digital storage oscilloscope and associated test equipment. Student feedback has indicated areas of improvement required, such as in text-to-speech quality.

Evaluating the impact of the learning centre on student learning and satisfaction
Refereed Research paper: Full text on website

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This paper discusses the importance of evaluating the impact of the learning centre on student learning and satisfaction at a regional university with a significant online presence. The foci of this article are the aspiration and challenges in creating a database to begin a formal self-evaluation process to help determine the benefits that student learning support programs have on student learning accomplishments in academic programs. An argument is made for how to evaluate a mature student learning support program in an era of change and high accountability expectations and how this framework will shape the creation and use of a database using existing data heretofore not collected, with potential capacity for linkages to other campus student record databases.

Under the hood: How an authentic online course was designed, delivered and evaluated

Refereed Research paper: Full text on website

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A key challenge for university professionals is to identify how to construct more interactive, engaging and student-centred environments that promote 21st century skills and encourage self-directed learning. Existing research suggests the use of real-life tasks supported by new technologies, together with access to the vast array of open educational resources on the Internet, have the potential to improve the quality of online learning. This paper describes how an authentic online professional development course for higher education practitioners was designed and implemented using a learning management system (LMS) and an open companion website. It also briefly discusses how the initial iteration was evaluated and identifies recommendations for improving future iterations of the course.

Developing and evaluating a voluntary peer learning support program: A case study

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TEQSA (section 6.5) has clearly mandated the requirement for a range of academic supports for university students. One support initiative widely used is peer learning. This presentation uses the Curtin University peer learning program (*UniPASS:* http://unilife.curtin.edu.au/learning_support/unipass_program.htm) as a case study to explore the development and evaluation of such programs. UniPASS is based on the *Supplemental Instruction* model (University of Missouri-Kansas City) and has many characteristics in common with other forms of learning support: it is voluntary; non-remedial; collaborative; peer led; has equity targets; and has retention and student experience goals. Participants are invited to reflect upon and share insights related to the design, development and evaluation of UniPASS and similar programs.

Embedding Open Education at universities: Issues to resolve

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Universities have a long tradition of sharing information and knowledge, through books, journals and conferences. Recently, various 'open' initiatives have emerged to extend this sharing to teaching materials, in what we broadly call *Open Education*. This presentation will unpack some of the concepts involved in Open Education, including *Open Content*, (an overarching term encompassing Open Educational Resources, OER; Open Textbooks; and Open Courseware), and *Open Courses*. We will discuss various elements of open content, exploring their emerging use at Murdoch University. Apart from some human factors, the major barriers to the use and production of open content are:

- Intellectual property (IP) legislation and regulations, which assert the University's ownership of IP embodied in teaching materials, and impede the ability of staff to freely share content.
- Transnational education (TNE) business models, in which the University licenses access to the content of a unit to another entity.

The presentation will discuss the use of Creative Commons licensing to protect the rights of both the university and the individual creator, while still allowing use and repurposing by others. It will also explore the idea of licensing certification for passing a unit rather than

licensing access to content. It will then turn to the concept of Open Courses, which complement open content by adding learning tasks and teacher support, either implicitly or explicitly. The conversation will continue with a critique of the evolving, and much-hyped, *Massively Open Online Course* (MOOC) concept, analysing the pros and cons of open access to a largely teacher-free learning environment from a pedagogical perspective and the nature of students who might successfully engage with it. The presentation will conclude with an analysis of the institutional factors involved in contributing to Open Education. We argue that a considered approach to Open Education can provide benefits to students, staff and the institution, but that a wholesale adoption of the MOOC approach may be costly, with insufficient return on investment.

Principles and standards for modern learning space design

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The Learning and Teaching Venues Committee at Murdoch University was tasked with developing "standards for the design of, and facilities in, existing and new learning and teaching venues, which meet the needs of a 'contemporary learning environment'". The committee was established following several years when little attention was directed at teaching spaces, and facilities were becoming shabby. A further context for this work is a university-wide curriculum renewal aimed at reducing the number of courses and units offered. While this will result in larger class sizes, the central vision is to offer units which have more emphasis on active learning and interaction, as well as increased use of educational technology. This presentation will describe the role of the committee in developing those standards. First, we defined some general principles about modern learning and teaching spaces:

- Facilities and furniture should enable spaces to be used in flexible ways for multiple teaching approaches;
- Teaching Spaces should be designed for interaction and collaboration;
- Tiered spaces should have wide tiers so students can collaborate eye-to-eye;
- Lecterns in all spaces should have a range of movement to allow different uses of space.
- Lecterns should be height adjustable to suit people of all sizes.
- There will be consultation with, and engagement with, all stakeholders in the design of spaces;
- The design of spaces sends a message to teachers about how these spaces can be used;
- Ensure professional development occurs before staff start using a new space;
- All spaces should have easy-to-use instructions for all equipment;
- Use existing surfaces (walls, windows, tables) for writing, rather than whiteboards;

Different equipment and furniture is needed for different sized rooms. We distinguished between Lecture Theatres (with tiered seating); Tutorial rooms (<25 students); Workshop rooms (26-50 students); Seminar rooms (51-100 students); and various laboratories. The facilities in these spaces need to be able to be used in flexible ways for different purposes. For example, the same space may be used for interactive tutorials, group work or lectures in low-enrolment units. These may require different seating arrangements: U-shaped, in clusters or theatre style. The 800x600mm 'exam tables' and plastic chairs in existing spaces were unsuitable for this purpose, and the committee recommended that tables should be larger, and on casters for easy movement. Chairs should have ergonomic functions, and be on wheels. The committee spent much time considering how best to provide computer control facilities – lecterns. Different sized lecterns are envisaged in the different room types. Lecture Theatre lecterns are widely used and well-understood, as long as they enable height-challenged presenters to be seen. These are usually fixed. However, in smaller spaces, lecterns require a range of movement to allow different uses of space. In seminar rooms, lecterns should be configured for a standing presenter, but in smaller rooms, it is more appropriate for a presenter to be seated. In any case, some height adjustability is required to accommodate different body shapes and people with disabilities. This presentation will describe the current state of play in the emerging learning and teaching space standards at Murdoch University, and engage the audience in conversation about what they think should be in a modern classroom.

Weaving a teaching and learning tapestry: Using the power of the humble hyperlink in *Moodle*

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The *Moodle* learning management system is built on a database. Every activity, resource, image, forum post, book page, in fact just about every thing in *Moodle* occupies its own little niche with its own unique identifier or URL. Knowing this, it is then possible to imagine interwoven threads of learning that might potentially form a rich and colourful tapestry; a guided, sequenced approach to learning design that challenges the notion of linear, content-centric teaching and learning, and employs, instead, a more engaging, dynamic and interactive methodology. This practical presentation examines the power of the humble hyperlink to sequence learning in the *Moodle* learning management system. By stimulating curiosity and inviting opportunities for collaboration, contribution and reflection a student can enjoy a more immersive learning experience.

Teaching computer-assisted qualitative data analysis to a large cohort of undergraduate students: An evaluation

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Qualitative research is increasingly conducted with the support of computer-assisted qualitative data analysis software (CAQDAS), yet limited research has investigated the teaching of CAQDAS packages within qualitative methods university units. Existing research typically focuses on teaching *NVivo* to small groups of postgraduate (primarily doctoral) students and mostly take the form of reflections of the trainers. In 2011, we implemented the teaching and use of a CAQDAS package, *NVivo*, within a large third-year undergraduate psychology research methods unit. In this presentation we describe the development of the unit materials and present quantitative and qualitative findings related to students' perceptions of the resources provided, their confidence in using *NVivo*, their satisfaction with the teaching and their intentions to use CAQDAS in the future. Student evaluations were generally positive, but highlighted the need for both increased class time and greater access to the CAQDAS program outside of class time to enhance opportunities for learning.

E-portfolios and transformative learning

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As educators we value the concept of transformation in learning. We strive for it in our practice, and although it may be difficult to define, when it occurs, it is easy to recognise in our students and within ourselves. In this paper, we look at instances of self-reported transformation as a result of introducing an e-portfolio within the higher educational curriculum. We argue that transformative learning occurs when learners (instructors and students alike) are inspired, challenged and encouraged to explore their "own values, meanings and purposes" (Mezirow, 1997, p. 11). Values are often underestimated with respect to their formative and emotional importance, and we use examples from motivational interviewing to help the process of values clarification. This process can then be used to integrate and give meaning to learning, both in life-wide and life-long applications. Inspiration comes from seeing what others may achieve with an e-portfolio, and challenge and encouragement is provided when peer discussion and debate is fostered together with the creation of specific assessments designed to exercise the skills required in constructing an ePortfolio within an academic program. We report practice examples and strategies developed for a capstone unit and from our experience in rolling out an e-portfolio platform within the university. We conclude that although there are many reasons to implement e-portfolios, the most important is the opportunity to enable transformative learning. Tangible evidence of transformative learning allows for further support and impetus from key stakeholders within the university, which include the instructors and the students themselves.

Training scientists for 21st century careers

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An audit of practical laboratories in the School of Pathology and Laboratory Medicine found that many of the skills we teach our undergraduates are not relevant to modern careers in biological sciences. Likewise, many of the skills needed in the workforce are not included in our undergraduate curriculum. *New Approaches to Teaching*, an $8 million initiative funded by UWA, is a project to re-design our curriculum to include next generation whole genome and exome sequencing, bioinformatics, microarrays, proteomics, analytical cell biology, fluorescence microscopy, tissue microarrays, virtual microscopy and other cutting edge technologies. The course will also incorporate scientific communication, in the form of research proposals, ethics applications, communication suitable for public media (lay descriptions) and scientific publication. Complex analytical and interpretative tasks will be complemented by wet labs that focus on fundamental skills (accurate preparation of buffers and sample reactions). This approach will produce graduates who are equipped to use a broad range of current and cutting edge protocols in clinical and life sciences.

Working together: Indigenous and non-Indigenous health educators as intercultural leaders for change

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Curtin University was the first Australian University to implement a *Reconciliation Action Plan* (RAP) committed to reducing health disparities between Indigenous and non-Indigenous Australians, of which the implementation of a compulsory core unit on *Indigenous Culture and Health* (ICH) to all inter-professional health science students has been instrumental. However, while the cultural content of ICH meets a critical need, the intercultural context driving the conception and delivery of the unit through a partnership between Indigenous and non-Indigenous educators, offers a unique approach to not only building cultural competency in non-Indigenous health graduates, but going beyond the historically polemic Indigenous/non-Indigenous space towards one that is a more inclusive and intercultural. This presentation offers an overview of the 'Working Together' intervention underpinning the delivery of ICH, including an *Intercultural Academic Leadership Program* (IALP) that was developed and delivered to Indigenous and non-Indigenous ICH educators. The IALP, underpinned by the Working Together framework, develops the teaching capacity of ICH educators to work reflexively to deliver Indigenous-based content that invites and supports students to critically examine their own positioning and engagement with racial narratives. It also supports educators to develop Intercultural Leadership capabilities to improve health education, practice, and advocate for system change. The Working Together framework provides an innovative approach to not only develop cultural competency in health graduates to work more effectively with Indigenous people, but build capacity in educators to contribute to meaningful, institutional and curriculum change.

Environmental and conservation volunteering as workplace integrated learning
Refereed Research paper: Full text on website

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This research paper introduces the concept and practice of tertiary sciences students doing environmental volunteering, otherwise known as conservation volunteering, as a core part of their course. First year Natural Sciences students at Edith Cowan University do five days environmental volunteer work with community groups as practicum, currently known as Workplace Integrated Learning (WIL). Initial research data displays the number of volunteer hours done by students in various types of activities, locations and organisations. Qualitative comments demonstrate students' attitudes about their volunteering. Definitions and classifications of volunteering and WIL from current literature are discussed as part of the curriculum design review process. Initial data from host organisations and students suggests that volunteering, and environmental volunteering in particular, can be a useful mechanism to enhance employability skills. Students learn about potential careers and the environment industry's reliance on volunteers. Students learn and practise specific skills (e.g. animal handling) and contribute to communities and the environment.

Developing tertiary multiculturalism: Integrating the performance arts through embodied teaching and learning

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This presentation discusses the varied approaches that inform the pedagogical practices of teaching artists. Using examples from lectures I have provided in the School of Music at UWA on Indonesian popular music and 'music and identity,' the paper investigates the unique challenges facing artists who identify first as performers and second as teachers. The lectures were informed by my practice as a multicultural performing artist and Doctor of Musical Arts candidate in the School of Music. The subjects of my research and much of my teaching – Indonesian classical and popular music, dance and theatre -- are often difficult for Western arts students to access. The reason for this is that the traditions that inform them and the languages in which Indonesian songs and lyrics are sung make them difficult for students to understand, and require unique initiatives on the part of the lecturer that offer access to the student of music, dance and theatre styles with which they have had no prior experience. Extensive research into secondary sources may provide significant foundational grounding. By substantiating and supporting this research with appropriate performance elements, however, I have developed an effective pedagogical practice. The incorporation of facets of the performing arts into the practical teaching infuses each lecture with the authority of long-term and embodied cultural knowledge. Disparate and potentially inaccessible topics covered in the lecture are grounded through the provision of significant examples of different musical and dance styles, most particurly those from my own live performance practice.

Industry visit beneficial for student's learning in *Process Instrumentation and Control* unit

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The objective of this plant visit is to help students gain first-hand information regarding application of instrumentation and control in process industry. The author presents the effectiveness of an industry visit incorporated into *Process Instrumentation and Control*, a third year undergraduate Chemical Engineering core unit at Curtin University. This also demonstrated that the industrial visit is an integral part of this unit to achieve the learning outcomes. The unit is divided into lecture class, laboratory, mini-project and a site visit. Due to the large enrolment in this unit and also due to limitation of the plant's capacity, the two different plant visits were conducted by three afternoon sessions. The plants were (1) Alcoa Kwinana Refinery and (2) Coogee Chlor-Alkali Pty Ltd, Kwinana, WA. These plants were chosen because both are dealing with large processes with various automatic control systems and also location wise they are closr to Curtin University. Three guides from each plant explained the various process sections of plant including the control room. In a week after the visit, an anonymous questionnaire survey was conducted where they were asked to put their level of agreement with statement about (i) motivation, (ii) role of process control engineer, (iii) effective unit learning through plant visit, (iv), coordination of the site visit, (v) resources and (vi) overall satisfaction. The survey results indicated that the percentage of agreement on overall learning unit outcomes through integral plant visit was 87%. The average agreement

for all the items was found as 74%. The percentage agreement on all items varied from 62% to 89% which indicate overall student's positive learning experience at the end of plant visit and this activity should be retained with the unit learning outcomes.

Action-learning projects to build leadership capacity and communities of practice: SaMnet update

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One-hundred leaders of change are being developed by the Science and Mathematics network of Australian university educators (SaMnet – www.samnet.edu.au). Funded by the ALTC/OLT, SaMnet was launched in 2011. We are cultivating leaders in university science and mathematics teaching by (1) engaging them in a set of 25 action-learning projects and (2) incorporating them into national communities of practice on standards, inquiry learning, and digital media. These 'SaMnet Scholars' are to enhance their teaching, pursue SoTL, and influence policy and practices within their schools, faculties, institutions, and disciplines. SaMnet provides workshops, *Skype* meetings, critical friends, newsletters, and political support, such as letters to deans of science endorsing SaMnet projects. Our Scholars are being taught how to foster agreement among colleagues and how to frame their worthy efforts in terms of key performance indicators of deputy vice-chancellors.

SaMnet Scholars are faced with redefining their academic roles to include 'distributed' and 'transformational' leadership. They are learning to drive a shift in university teaching in science and mathematics away from didactic, content-heavy delivery toward active and inquiry-based learning. Their projects address topics such as the second-year slump among university science students, identifying where 'Threshold Learning Outcomes' need attention, and student creation of animations on health literacy topics. Expertise in the SaMnet community supports our steering committee in influencing the establishment of standards in teaching and learning to be enforced by government. Our conference presentation will enable delegates to see how they can join this effort or launch something similar in their discipline.

Storytelling, the student experience and a smart phone

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The accessibility of video recording equipment and editing software provides an interesting avenue to explore student engagement. The Faculty of Law at the University of Western Australia has undertaken several initiatives, to spark discussion regarding student experience and strategies for academic success, using video technology. In 2012, several students were filmed giving the advice they wish they had been given at the beginning of their studies to future students. Their answers were published on the Faculty's website with supporting learning resources and links to related on-campus learning utilities. Topics raised address a variety of themes including tips on assessment tasks and the importance of getting involved on campus.

Participation in these videos provides students with the opportunity to develop self-reflection and critical thinking skills as well as contemporary communication skills. Speaking for a

camera requires a different set of skills than traditional oral presentations and is becoming an increasingly valuable tool in the workforce. This exercise develops students' understanding of media consciousness at a participatory level, utilising unconventional forms of personal marketing skills. Positive repercussions include a sense of empowerment, for students identifying with the videos and for students in the videos, who take on the role of the knowledgeable senior students. The Faculty of Law will continue to use these mediums to engage postgraduate students in 2013. In addition to the benefits already identified, this task also aims to provoke goal setting, teamwork, stress management and will encourage students to take an active role in defining their student experience.

Learning from evaluations: Probing the reality
Refereed Research paper: Full text on website

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This paper reports on findings from a major New Zealand research project around staff perceptions of student evaluations of teaching. The main focus of this discussion is the insights that the research afforded into staff engagement with and use of student evaluations to inform their teaching practice and to improve student learning. The research data indicates that there is a gap between academics' relatively positive views of evaluation and their actual engagement with the process. A high percentage of academics, particularly at NZ universities, do not report engagement in dialogue or professional development activities around student evaluation. The use of evaluations in teaching tends to be individual, often isolated and unsystematic. This paper recommends some ideas for moving forward and argues for a cultural change that endorses, supports and rewards the systematic integration of student evaluations into teaching practice.

55 Minute Workshop
Making it real: Pathways from student evaluations to professional development

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In this collaborative workshop, the facilitators will work with participants to discuss and recommend strategies and processes which can ensure that systematic links between student evaluations and professional development are embedded into teaching and learning conversations at all levels of higher education institutions. Areas to be explored will include institutional requirements, rewards, resourcing, faculty and department cultures and practices, program and course review systems, and communication with learners. The facilitators will initiate discussion by outlining some of their own recommendations for improved pathways between student evaluations and teacher professional development. Participants will then be invited to contribute to the design of systemic changes at all levels that will help to build these pathways into institutional expectations and processes. Participants will be asked to consolidate these ideas in a visual model which depicts the proposed systemic changes and the attendant necessary communication strategies.

The impetus for this workshop is a New Zealand research study on tertiary teachers' perceptions of and engagement with student evaluation feedback. While the findings of this study indicate relatively positive dispositions towards student evaluations, the links to changes in practice and feedback to students were often weak and tended to rely on individual behaviours as opposed to systemic frameworks and institutional perspectives. This workshop ask questions about how tertiary institutions can establish processes that begin to align evaluations and professional development more systematically, effectively and consistently.

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Stein, S.J. Spiller, D., Terry, S., Deaker, L., Harris, T.K. & Kennedy, J. (2012). *Using student evaluations to enhance teaching practice: Closing the loop*. Ako Aotearoa: New Zealand.

Supervising international student group projects in Asia: Towards intercultural engagement

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This abstract examines the notion of 'intercultural' communication (Martin & Nakayama, 2012; Holliday, 2011; Piller, 2011) and the emerging role it serves in engaging students within contemporary University environments. It proposes communications that can be applied in a variety of ways; in particular, as means of engaging both local and international students to become involved and mobilised in University initiatives. This mode of engagement within international education is detailed through a case study from Asia (Ming Chuan University in Taiwan), where a recent extracurricular project focused on intercultural engagement led to increased involvement and interaction amongst students. This in turn led to an enhanced and unified sense of identity within Ming Chuan's academic environment, where local and international students were actively engaged and participated within the program. This presentation analyses findings from this case study project (which was supervised by the presenter), raising potential techniques for engagement and interaction that are transferable from Asian contexts to the Australian higher education sector.

Reducing the prevalence of plagiarism: A model for staff, students and universities
Refereed Professional Practice paper: Full text on website

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The incidence of plagiarism, according to the literature, is increasing. But why do students plagiarise and why the increase? Is it due to laziness, opportunity, ignorance, fear or ambivalence? Or do they know that there is little chance of any significant penalty? The literature suggests that all of these apply. Given this, are universities and, by implication, staff, rather than students culpable for such attitudes and are they guilty for the "soft" consequences? This paper addresses the question of student *and staff* attitudes towards plagiarism and suggests that if the teaching faculty view plagiarism as a serious problem, they have an obligation to actively change student attitudes by demanding system wide support. The authors argue that exhorting students not to plagiarise and appealing to their moral compass are not sufficient to reduce the frequency of plagiarism and neither are these enough to change their attitudes. Instead, active education is required leading to a situation whereby students are taught, in the most practical sense, the skills expected of them when submitting academic writing. Equally, staff need adequate understanding of what might be happening when plagiarism occurs, and to be able to address the issue consistently in a supported, non-threatening institutional environment. To achieve this, a gradual release model is proposed as a path to a convergent approach to plagiarism.

Does the unit development process work?

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Ensuring the quality of units and unit materials and meeting the learning outcomes for a unit have become more important as universities consider the requirements for TEQSA and meeting minimum standards. A unit development process, which focuses on a model of aligned curriculum, was introduced as one method of improving unit quality at Murdoch University. The process involves documenting learning outcomes, assessments, learning activities and topics. The learning outcomes for the unit are reviewed to check whether they are phrased in a way that allows students' learning to be measured. A matrix showing the associated assessments, learning activities and topics is completed and checked to ensure that the unit's curriculum is aligned. An additional benefit of the process has been the opportunity

to explain the use of different educational technologies, which are available at Murdoch, and consider how they could be used to improve teaching and learning in a unit. During this presentation examples of the unit development process will be provided and comments received from Unit Coordinators will be shared. Participants' feedback on the process will be sought.

55 Minute Workshop
Improving teaching and learning through action learning

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Action learning is a well-established on-going practical improvement cycle related to reflective practice and action research. In the tertiary teaching situation it is an approach to professional and institutional development, in which participants continually make and evaluate frequent, small-scale innovative improvements in their professional work, learning from and about their practice in the process. Critical incident analysis is becoming widely used as a way to learn from practice. In this workshop it is used to help participants identify a starting point for entering an action learning improvement cycle.

The workshop aims to be useful to anyone involved in student teaching and learning or staff professional development. The main outcomes will be a basic understanding of action learning and critical incident analysis, and completion of the planning stage of a *4-Step Action Learning Cycle* that participants can use to improve an aspect of their teaching practice. Subsequent to the workshop, on-going support for implementation or facilitation of action learning can be arranged.

Workshop outline
1. General introduction to action learning;
2. Development of a project focus by using a critical incident analysis process;
3. Outline plan of a strategy to improve teaching and learning outcomes;
4. Outline plan for an evaluation of the changed practice;
5. Implementation;
6. Review.

References
1. Action learning template designed for the 2010 Murdoch University Tertiary Teaching Course. http://otl.curtin.edu.au/professional_development/conferences/tlf/tlf2012/supp-files/tripp-workshop1.html
2. Connections between action research, critical incidents and reflective practice.
3. An overview of action inquiry methods.

The impact of feedback on students' written assignments

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Feedback is one of the most powerful ways to improve student achievement. But how does feedback actually affect what students do? This presentation reports on an in-depth study which investigated the types of changes that third year university students made to their written assignments in response to feedback. It examines how different types of written feedback changed the research, content, analysis and expression in students' assignments. It shows how and why some feedback can result in positive changes, some can result in negative changes and some can result in no change at all. Increase your students' learning and satisfaction. Come along and find out how you can use feedback to influence positive change in breadth and depth of understanding, ability to critically analyse and evaluate information, and ability to express that understanding clearly and coherently.

The rise of online education and its potential impact on international student inflow to Australian universities

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The rise of high quality online education has been described as a paradigm shift in higher education and this study examines the relationship between the new disruptive technology and international student mobility to Australian universities. The growing access and availability of online education presents a low-cost alternative for prospective foreign students and consequently, it may reduce the incentive for them to travel abroad to seek an on-campus Australian education. Individual interviews were conducted with staff and international students at one Australian university to explore the motivations behind foreign students' choice to study in Australia and how these might be affected by the rise of online courses. On completing the interviews, an online questionnaire was distributed and completed by 502 international students. By elucidating international students' motivations for studying in Australia, this study provides some insight into the future potential implications of online education, providing Australian universities with greater knowledge to adapt to the changing market. An understanding of the impact of new online courses is crucial in meeting the future challenges, as it helps to inform the strategies of Australian universities as they move rapidly into the 'Digital Age'.

Engaging and supporting academic staff with teaching

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Universities in Australia and internationally, offer higher education teaching programs to academic staff with the aim of improving teaching practices. The current small-scale study examined factors associated with academic teaching staff experiences and perceptions with higher education programs. Specifically, the study focused on their ability to access the program, apply new knowledge, share with colleagues, be supported by senior leadership, and maintain the new learning long-term beyond the program. Each academic was interviewed about their experiences of the aspects related to their involvement in the teaching program to gain insights into their views about aspects that have enabled or have been obstacles. Data is represented through narratives to capture the personal experiences prior, during and beyond the teaching program attendance. The study revealed a number of factors supported by the literature that aid in the positive experiences for academics such as: support by all faculty staff, a culture that is open to teaching, being an active member of a teaching community of practice and regular application and reflective practice of new knowledge.

The MOOC disruption: What are massive open online courses and why you should care

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Massive Open Online Courses (MOOC) have begun to disrupt education as we know it. Currently hundreds of thousands of people around the globe participate in free educational offers. New online platforms, several instructors, and the open education movement more generally receive overwhelming media attention. Existing tertiary institutions are challenged as new educational business models are being tested. Arguments that MOOCs can finally free the world's knowledge and bring the democratisation of education are opposed by claims that it is only old wine in new bottles. While momentum is growing, the jury is still out on what exactly will change and who is affected most.

This session will give an overview of the MOOC phenomenon, summarise recent developments, and pose important questions relating to pedagogy, technology, and economic drivers. More specifically, what are key characteristics of MOOCs and how are they different to existing educational offers? Are MOOCs a game changer and who might become the dominant players? How do MOOCs fit into the future shape of higher education, in terms of learning outcomes, credits and accreditation, epistemology, and costs? Which roles have contemporary pedagogy and learning theories in this brave new world? Integrating a range of concepts, anecdotal evidence, and different viewpoints enables to explore and hypothesise opportunities, challenges, and risks of MOOCs so as to inform and spark debate about the changing educational landscape.

The key to productive online collaboration: Students' perspective on effective teamwork tools

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Collaborative work is an important part of tertiary education. However, as students spend less time on campus and institutions increasingly cater towards online and external studies, teamwork has gradually shifted into the online learning environment. This change is reflected in the business environment, where graduates are already working as part of progressively more dispersed, often even global, teams.

Online collaboration provides both advantages and challenges, much of which depends on the ability to select appropriate teamwork tools. Scholars have traditionally focused on investigating the collaborative benefits and associated shortcomings of one particular tool, such as wikis (e.g. Elg, Ghauri & Tarnovskaya, 2008) or blogs (e.g. Luca & McLoughlin, 2005; Wolf, 2008). This study takes a close look at the full suite of online tools as selected by students. Project participants were provided with some initial guidance and a brief introduction to online tools, but in the end selected those media that they perceived as most suitable for their teams' requirements. An additional challenge in the context of this study was the geographically dispersed nature of team members, which put an additional emphasis on cultural inclusivity. As students explored the online environment, not a single tool stood out. Instead, the authors found that the most effective teams had chosen a toolbox, consisting of traditional communication channels such as emails, but also file sharing, direct messaging and social media. We conclude that existing familiarity and access are particularly important in the context of short term projects, such as university assignments.

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Managing ambiguity: A critical reflection on a truly global learning experience
Refereed Research paper: Full text on website

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Almost four decades ago internationally renowned academic and author on business and management Henry Mintzberg (1976) argued that the ability to manage and even embrace "ambiguity" and complex environments is a key to a successful career in business. This level of complexity has not decreased in today's business environments. However, ambiguity is not only difficult to teach in a traditional classroom environment, uncertainty and lack of structure are also not particularly popular with students. This paper provides insight into the benefits and associated challenges of an international communications challenge, run across five continents in cooperation with twelve universities in twelve different countries. The authors conclude that experiential learning opportunities like this real life client project may not necessarily be popular amongst the wider student cohort. However, they provide a number of benefits, in particular in the context of capstone units that set out to prepare business students for a diverse career in an increasingly global, multicultural and complex field.

Wireless Internet access

Two types of wireless access will be available during the Teaching and Learning Forum:

- Our own specific **(SSID) wireless network**
- **Eduroam** (education roaming) is the secure, world-wide roaming access service developed for the international research and education community.   Eduroam allows students, researchers and staff from participating institutions to obtain Internet connectivity across Campus and when visiting other participating institutions. You need to be set up for eduroam at your home institution.

SSID network

Your device should locate a network called *Murdoch_Conference_Guests*.
When you enter this network, the password is *tlf2013*

Eduroam

If you are already set up for this, you can access the eduroam network in all venues. Those of you with university-provided smart devices should connect automatically. For laptops, you need to enter login details in the format: username@institution.edu.au

For example, if your Login name is **jsmith9** and you are from Curtin then you would type **jsmith9@curtin.edu.au.** You use your normal university password.

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