

Blended learning: Digital stories a key to success

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Curtin University's Indigenous Tertiary Enabling Course is designed to offer Indigenous students a culturally appropriate alternate entry path way into mainstream university undergraduate courses. Although there is no strong evidence of a specific Indigenous learning style, Indigenous students do have recurrent styles for preferring to learn by observation over verbal instruction, and reflective learning and ways of learning that are both contextualised and decontextualised (Harris, 1980). Research has shown that the sharing of stories from experience helps students see the purpose of learning hypothetical or conceptual content (Bittel & Bettoi, 2014). As such, the key to learning would lie with the choice and design of stories to make sure their connections with real world problems and prior knowledge are prominent. A digital story strategy builds on students' information fluency, towards constructing knowledge based on what they have observed and reflected on, to developing the ability to apply this new knowledge to a problem later. Riesland (2005) wrote that visual literacy education will empower the twenty-first century students with the skill to survive in a dynamic and fast revolving online world as they learn to decipher hypermedia information to develop critical thinking and analytical skills.

This presentation will showcase how we integrate traditional storytelling techniques with technology to develop engaging, multimedia-rich digital stories to capture the attention of students with information (resources), and also to facilitate discussion and reflection activities.

Examples from project based, collaborative learning in engineering programs in Vocational Education and Training (VET) sector

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The practical hands-on holistic style of learning that is contextualised to industry offered by VET providers meets the needs of VET students. Educational research and feedback from students overwhelmingly affirms this as the preferred style of teaching. Traditional lecturing techniques result in passive, shallow learning with one way communication. On the other hand, collaborative project based learning, where students' past experiences are utilised to construct new knowledge, is socially engaging with the learner active in the learning process. The Engineering Portfolio at the Central Institute of Technology (CIT) has created numerous collaborative projects that facilitate collaborative project based learning. This presentation will showcase some examples of hands-on projects from the past few years that have been developed at CIT to facilitate a holistic learning model and have improved student satisfaction with teaching and learning. The three projects that will be presented are: design, construction and testing of an electric car; design, construction and analysis of a Stirling Engine; and reverse engineering a barbeque. The presentation will include the benefits of collaborative learning, as well as some pitfalls, that are relevant to a tertiary education environment.

Turning a new leaf: Integrating *Turnitin* into a large first year Management unit

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Turnitin is a piece of web-based assessment software used globally to support online assignment release, submission, originality checking, marking and the provision of feedback. As part of an initiative to make *Turnitin* available for all students and staff at The University of Western Australia, an institutional *Turnitin* license has been purchased and the *Turnitin* system integrated into the learning management system (LMS). In Semester 2, 2014 the *Turnitin* LMS assignment was adopted in a large first year Management unit. Students were required to submit two pieces of written work, worth 35% of their total unit mark. In this

presentation we will be showcasing the integrated LMS *Turnitin* assignment; highlighting the things that worked, the things that didn't work and the lessons learned.

Introducing *StatHand*: A mobile application supporting students' statistical decision making

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Quantitative research methods play a critical role in the development of professional competence across the health, behavioural and social sciences. They are also an area of weakness for many students. Students particularly struggle to select suitable tests for different data and hypotheses, and this skill is not often practiced in class. Decision trees (or graphic organisers) are known to facilitate this decision making process, but extant trees have a number of limitations. Furthermore, research indicates that students are more likely to access mobile-based material than content delivered via the web or face to face. It is within this context that we have been developing *StatHand*, a cross-platform mobile application designed to support students' statistical decision making. In the current presentation, we will briefly articulate the rationale behind *StatHand*, before providing delegates with a live demonstration of the application. The presentation will conclude by outlining our road map for the ongoing development and evaluation of *StatHand*.

Show me the numbers: Quantitative assessment of laboratory teaching and learning practices

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Undergraduate science laboratories provide an opportunity to acquire and apply a range of generic and scientific skills. Measuring the success of students in employing particular skills would assist in recognising weaknesses in teaching delivery, for ongoing improvement of laboratories and identifying students needing additional assistance. Student marks can be used to provide feedback on student learning achievements. However, in many laboratory courses there is only a grade for a particular laboratory or group of laboratories, which does not provide sufficient information about student acquisition of skills. We have developed a skills-based practical program in a Level 2 Biochemistry and Molecular Biology unit that is designed to be an evidence-based approach to improving student learning. It provides quantitative information on the student learning experience by including quizzes to probe different aspects of student learning (51 assessable items for each student over the course of the semester).

To effectively use these data, they need to be readily interpretable by academics, demonstrators and, where appropriate, students. We found the usual practice of providing averages with standard deviation, or percentage of students achieving a particular grade, was not particularly useful in identifying relationships that could be used to improve a course or student learning. Instead, we have developed an approach using numerical and graphical representations of the marks for the top and bottom 25% of the student cohort. We propose this approach enables ready identification of weaknesses in teaching delivery and/or student understanding, and provides quantitative evidence to guide reflective teaching and learning practices.

Student wellbeing and experiential learning: It's not a science, it's an art

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There is clear evidence of the value of experiential learning and this evidence forms the basis of student placements in many professional disciplines. Placements bring together academic and practical knowledge and are intended to facilitate transformational learning. However student placements are becoming increasingly stressful, for a variety of reasons, and there is clear evidence that too much stress impacts negatively on student's capacity to learn (Bangasser & Shors, 2010). Students on placement are often directed to develop "self-care

strategies” but this implies that the responsibility for ameliorating the stresses lies solely with the individual student.

This research funded by a UWA Teaching Fellowship holds, as its premise, that wellbeing (and this incorporates both mental and physical health) of students on placement is a broader responsibility and that universities and placement agencies have an integral part to play in supporting students so that their stress levels are conducive to learning. With that in mind, this qualitative research project used an action research methodology that focused on listening to the lived experiences of students and field educators to understand what was helpful for promoting students’ wellbeing and what could be improved from an organisational perspective. This presentation provides a summary of the findings of the research and then moves to highlight strategies that can be used to support field educators to be proactive in supporting student wellbeing.

Bangasser, D. A & Shors, T. J. (2010). Critical brain circuits at the intersection between stress and learning. *Neuroscience and Biobehavioral Reviews*, 34(8), 1223-1233. <http://dx.doi.org/10.1016/j.neubiorev.2010.02.002>

55 Minute Workshop

Teaching people as individuals: A workshop for misshapen carrots

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We are fast approaching an education system in which we forget to notice our students as individuals. At a certain point the increase in numbers and our workload becomes such that we realise we no longer know how our students are thinking. We lose the ability to help each of them learn. They become a number.

Some time ago, Elizabeth Dunn (2003) wrote an excellent paper about carrots and quality assurance. She tells us about an advertisement in Poland which presents two carrots, one misshapen and strangely coloured (grown naturally), and one very orange and conventionally carrot-looking (grown under controlled non-organic conditions). Dunn tells us that through the adverts, referring to their pots of carrot baby food, ‘Gerber constitutes itself as an entity which knows about feeding children. It has sixty years of experience where the average mother only has a few months or years of experience in feeding children... Gerber seeks to establish scientific authority and use it to assert that it is better at feeding children than mothers are’ (Dunn, 2003, p133). In exactly the same way, in higher education, we are increasingly led to believe that systems and structures designed to address growing class size can somehow replace the essence of personal contact. Mass systems of measuring students, just like carrots or factory workers, are not only time effective, but we are convinced that they must be the most equitable as everyone is treated the same way. But what do we do with the yellow carrots, the thin carrots, the soft carrots? We throw them away. The same is true of our students.

Instead lets imagine educating all manner of students and not just those that we decide pass the one-size-fits-all quality control mechanisms. But to do so, to care about all enough to help them realise their potential, to celebrate diversity and generate multiple alternative pathways to suit the difference we need in the world, requires a special kind of teaching. That teaching requires us to be present and know who our students are. David Noble (2000) suggested that education is a process that necessarily entails an interpersonal (not merely interactive) relationship between people – student and teacher (and student and student) that aims at individual and collective self knowledge. ‘Whenever people recall their educational experiences they tend to remember... people who changed their minds or their lives...’ (Noble, 2001, p101)

This workshop focuses on those people. The ones who want to make a difference. The ones who have already made a difference, in the lives of others, and as a result, our communities. Those who care for the carrot that doesn’t suit the norms of the system. As such and in present times, the ones who are increasingly becoming misshapen carrots themselves.

This session will allow for time to consider our options and alternative actions, and especially how to support and nurture ourselves, before we become an endangered species.

Uncapped journey: Using data and the student voice to inform and inspire change

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Today, student retention is one of the major issues facing Australian universities. This presentation explores strategies aimed at improving student retention, in particular the use of data and student voice to inspire change. Many universities are implementing learning analytics as a way to monitor and increase understanding of student behavior and to explore the impact of different learning designs and activities can have on students. There is potential to enhance this process when consideration is given to the question, “how can available raw data be converted into actionable knowledge for teachers and learning designers who are not technical experts?” (Gunn 2014). The value of working in partnership with students and using the data obtained from learning analytics as basis for conversations could potentially be an effective way to inspire change and lead to enhanced teaching, enriched learning, improvements in student success and ultimately retention.

Gunn, C. (2014). Defining an agenda for learning analytics. In B. Hegarty, J. McDonald & S.-K. Loke (Eds.), *Rhetoric and reality: Critical perspectives on educational technology*. Proceedings ascilite Dunedin 2014 (pp. 683-687).
<https://app.box.com/s/016cdyv8dq1pp0yhp1vw/2/2704865194/23032568462/1>

Ethnography: Stepping into the field of anthropology and sociology

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Applied anthropology and sociology encouraged early in university studies can be useful in assisting students to understand the theoretical frameworks of these complex disciplines. This paper examines the role of doing ethnography in enhancing the learning experience of first year students of anthropology and sociology at Curtin University. A short ethnographic exercise serves a purposive role in developing writing skills but also as a means of viewing the world from a less ethnocentric lens, along with consideration of the ethical consequences of research and behaviour of the observer and the observed. My observations were conducted over several years of teaching this unit and my findings that this exercise is an integral component of a first year unit offered in the Faculty of Humanities at Curtin University and its learning outcomes lead onto to further research in the second and third year and, indeed, post graduate research. I argue that applying anthropology and sociology is crucial to the enjoyment and learning experience of first year social science students and through this exercise the students become more culturally aware of their intellectual and social environment. Short ethnographic accounts have the potential to become part of a much larger body of work and this practical exercise assists students to understand the complexity of research.

Anywhere, anytime, any device: That's the Curtin Challenge

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As technology and online learning becomes more ubiquitous in Australian universities, students are increasingly using mobile devices such as tablets and smartphones to access learning materials. Curtin University has over 50,000 students spread across national and international campuses, as well as a growing online student population. How do you provide equivalent opportunities for students from multiple campuses to access co-curricular training and services in a scalable format? In order to meet this challenge, Curtin is developing a new online learning platform, *Curtin Challenge*, which aims to provide interactive and flexible e-learning that is available to students anywhere, anytime, and on any device. Game design elements including points and badges reward progress through a series of modules aimed to develop students' leadership, career and employability skills.

The Curtin Leadership Centre and the Curtin Careers and Employment Centre released as a pilot, the first fourteen modules on *Curtin Challenge* in Semester Two 2014 to a targeted selection of students. 257 students completed at least one module. We captured student feedback and engagement using a mixed method approach, including data analytics, focus groups (n=97), and an online survey.

We present a demonstration of *Curtin Challenge* as well as initial findings of the difficulties of creating content in this environment, and how we adapted our curriculum to suit this innovative approach to online learning. Discussion around the experience and lessons from developing *Curtin Challenge* will aid other educators and researchers interested in enhancing student learning in online and scalable environments.

There's more to good writing than grammar: 15 tips in 15 minutes

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There's more to good writing than grammar. Take it from an English language development professional: you don't need much grammar to unpick your writing problems or those of your students. With 15 simple tips and 15 minutes, you can improve how you edit and give feedback. Here are the tips:

1. Start snappy: provide a compelling beginning.
2. Consider your readers: articulate reasons to read.
3. Situate ideas: acknowledge others and show gaps.
4. Take a stance: but remember the Goldilocks rule.
5. Structure ideas: introduce, develop and conclude.
6. State themes: help readers predict what's coming.
7. Signpost ideas: link to previous ideas and signal right.
8. Don't just state; elaborate: try the four 'e-words'.
9. Apply storytelling techniques: keep subjects short.
10. Aim to be active: express important actions as verbs.
11. Write clear sentences: avoid mid-sentence overload.
12. Define sentence boundaries: include full-stops.
13. Stay on topic: stick to what's relevant.
14. Be concise: scrap unnecessary words.
15. Proofread: check for common mistakes.

Come to this session, apply these tips and improve your writing practice!

Sessional team leadership: Enabling moderation and peer review in a very large first year unit

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An essential component of student learning and assessment in higher education is the ongoing challenge of ensuring that all students undertaking studies in a particular unit are provided with the same opportunity for a high quality learning experience and fair assessment, irrespective of what class they attend and who marks their assessment. This is a particular challenge in very large units taught by a large team of sessional tutors, many of whom are new to teaching. This presentation will describe and evaluate an innovative strategy enabling a high level of moderation, staff support and peer review in a very large first year inter-professional health unit which has applications for all large units in higher education. In semester 2, 2014 *Health and Health Behaviour 130* was taught as weekly workshops to over 1800 students by 28 inter-professional teaching staff, teaching in teams of two. With the support of six experienced tutors as sessional team leaders, efficient and effective pre-, intra and post assessment moderation was achieved across all staff within the specified time frame. Sessional team leaders, each supporting a small team of new and more experienced staff, also took a leadership role in a peer review process, involving all members of the teaching team. The peer review process identified strengths of the team, explored and identified areas of professional development that would be of benefit to the entire team, and enabled unit coordinators and team leaders to provide specific support to staff as indicated.

Employability in the spotlight: Are we talking the right language?

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This presentation brings together the findings of two national commissioned projects with a focus on employability, funded by the Australian Government Office for Learning and Teaching. The presenters begin with an overview of their commissioned work, which has involved students, educators, educational leaders, industry stakeholders and graduates. They draw examples from a diverse range of sectors including the humanities, visual and performing arts, life sciences and computer science. They next consider the trends and

characteristics of work and employment in Australia. This is followed with discussion of employability metrics and career development within higher education. The presentation concludes by considering the efficacy and logic of the language surrounding employability, and suggesting ways in which this might be rethought both at the institutional level and in the classroom.

Learning face to face: Exploring the intercultural experiences of Australian exchange students

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Universities today are under increased pressure to ‘internationalise’ the student experience, and study abroad is marketed as one way of achieving this. Recent research has looked at the benefits of sending students abroad, namely the development of intercultural and foreign language skills. However, research in the Australian context is lacking. Students and universities themselves are full of praise for the naturalistic learning opportunities provided by the study abroad experience; however the money and time invested in these programs needs to be justified. The current study will measure the intercultural and foreign language skills of German Studies students from three Australian universities before and after study abroad. Their skills will be compared with a group of students remaining on campus but continuing to study the language. The optimum point for exchange within a students’ language learning career is yet to be determined. Examining students at different proficiency levels will help to pinpoint when students benefit most from exchange, with important implications for program and curriculum design within language departments. The results of this study could have broader application in justifying support for study abroad, and also for informing program design for future study abroad programs.

Promoting teaching excellence: Curtin Academy

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Teaching excellence has always been at the forefront of what universities are trying to achieve, but even more so now with a more competitive and challenging higher education environment. This and academic re-shaping has contributed to substantial organisational change and uncertainty. As result of academic re-shaping at Curtin, new teaching-focused academic roles have been introduced, in addition to teaching-research and research only roles. From a teaching and learning perspective, one of the challenges was how to support staff in teaching roles and enhance opportunities for career progression, academic promotion and recognition of teaching excellence. After an environmental scan, identifying 16 teaching academies across the world, and evaluating the national and global approaches to the recognition of teaching excellence, a model for a teaching academy was developed to align with Curtin’s strategic priorities. The overarching purpose, for the Curtin Academy, is to promote a culture of teaching excellence by engaging outstanding teachers, and encouraging them to provide colleagues the opportunity to learn from their expertise and exceptional pedagogical practice. This presentation provides more about the findings from the environmental scan, the analysis, the journey in the establishment of the Curtin Academy, and appointment of the inaugural 2014 Fellows. People interested in building a culture of teaching excellence and how to recognise outstanding teaching and learning leaders may find this presentation helpful.

Shaping learning and practice in nursing education: An innovative case-based approach

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Case-based learning is an established pedagogical methodology within nursing and health professional education. However, educators often face significant challenges when creating authentic cases within a constructively aligned curriculum. In order to be effective, these cases must link theory to practice, as well as meet the needs and obligations of the unit’s

learning outcomes and graduate attributes. Nursing accreditation standards also mandate the inclusion of national health agendas within curriculum, such as the National Health Priority Areas, the Australian Commission on Safety and Quality in Health Care service standards, and the National Competency Standards for the Registered Nurse. This presentation showcases the construction, implementation, and evaluation of an innovative mental health case study scaffolded across two units in the BSc (Nursing) program at Curtin University. The resulting case meets both units' learning outcomes by embedding the principles described in national and state health policy within a nursing practice decision-making framework. It emphasises the nurse's role in providing evidence-based assessment and intervention for people within their community. Shaping student learning and understanding is essential in fostering a forward-thinking approach for health care and education. This innovative case-based approach has significant potential to shape learning and enhance the student experience. The benefits, challenges, and future directions for this approach will also be discussed.

Unit coordinators' experiences of an inter-faculty Wheatbelt service learning unit

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Three potential limitations of higher education programs are that theory is taught with little apparent relevance to practice; students work in disciplinary silos without developing the skills and understanding necessary to work in inter-disciplinary teams with outside stakeholders; and there is insufficient focus on developing important generic attributes such as civic responsibility. The UWA Interfaculty Wheatbelt Project was undertaken for the first time in second semester 2014 with ambitious intentions including addressing these issues. Arts, engineering, and urban planning students worked in five inter-disciplinary teams on scoping projects for Wheatbelt towns.

In this presentation we will outline the project and explore the experiences of two of the three unit coordinators, within the theoretical framework of possible selves (Markus & Nurius, 1986), with the purpose of exploring and identifying the extent to which effective teaching is linked to a positive experience of selfhood. We therefore identify hopes and fears of the unit coordinators at the start of the project and compare these with the realised experience. Coordinators hoped to mentor students in open-ended interdisciplinary work. Some anxiety was also present, with one unit coordinator expressing some insecurity about the status of her discipline. Unexpected challenges arose for the unit coordinators learning to work across disciplines, and from lack of university systems for interfaculty teaching and learning. Nevertheless, motivation to run the project again is tremendous, because a learning community emerged in which hopes were exceeded, and the complementary value of all disciplines and the rewards of team-teaching were exemplified.

Markus, H. & Nurius, P. (1986). Possible selves. *American Psychologist*, 41(9), 954-969.
<http://psycnet.apa.org/doi/10.1037/0003-066X.41.9.954.search>

Building better universities?

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This presentation suggests that we have reached a key moment for the tertiary education sector, where the services, location, scale, ownership, and distinctiveness of education are being altered dramatically, whether universities and colleges want it or not. Higher education faces many challenges, including marketisation, internationalisation and the impact of new technologies. Most crucially, these shifts are affecting traditional assumptions about the 'proper shape' of higher education institutions, its teaching and learning practices and the roles of – and relationships between – learners, teachers, researchers, managers, businesses, communities and other stakeholders. At the same time, many universities and colleges are looking to improve their educational services through strategic, organisational, technological, curriculum and physical changes. This presentation aims to unravel what we can learn from such initiatives – both large and small – in university and college provision across the globe; what they offer for an 'uncapped' future; and how they can help us think critically, constructively and creatively about alternative learning and teaching frameworks and practices in our own institutions.

Based on research to be published as *Building better universities: Strategies, spaces, technologies* (Routledge, January 2015) this presentation will begin with outlining some current global initiatives, and then go on to discuss the implications. Examples will include

new types of campus-based, online, and hybrid institutions (such as Singularity University, University of the People and University of the Third Horizon); innovative curriculum and assessment structures (e.g. competency-based); and alternative forms of content and delivery (such as MOOCs, OER and flipped classroom models).

Photographs, narrative and reflective learning resource for health professions educators

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Despite evidence of the educational importance of developing reflective practice in health professions students, most educational interventions are theoretically based and few offer rigorous designs that explore and evaluate the use of photographs as a reflective learning tool. In addition, changing professional requirements demand that health professions students are adequately prepared to practice in today's complex health care systems, including responding to changing demographics of population ageing. To counteract a widespread perception of disinterest in caring for older persons, the authors will report on an exploratory, mixed method research study that used photographs, narrative and small group work to enhance medical and nursing students' interprofessional learning experience prior to clinical practice in an aged care setting. An innovative photo-elicitation technique and reflective questioning prompts were used to increase engagement, and challenge students to consider new perspectives by constructing shared storylines. The qualitative findings revealed how photographs, narratives and small group learning provided the space for students to *Pause, Explore and Reflect* on their own personal and professional values, beliefs and perspectives. The students found meaning in their own learning by creating a shared storyline that deepened their perceptions of both older adults and themselves as future health professionals. The findings from this study recommend the use of visual methodologies and shared narratives to complement and enhance the predominantly empirically based health professional curricula. An open-access resource for health professions educators has been developed and evaluated as an outcome of this research and will be launched as part of the presentation.

Graduate voices: Perceptions of assessment

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Assessment is at the core of learning and teaching. This paper presents the results of a survey of Murdoch Business School graduates in relation to their perceptions of the types of assessments they experienced as undergraduates. Each of the main assessment forms was analysed on four dimensions: whether the graduate felt that the assessment was challenging; whether the graduate was engaged by the assessment; whether the graduate felt the assessment was appropriate; and whether the graduate felt the assessment contributed towards their skill development. The results of this survey provide interesting insights into what forms of assessment are valued the most by graduates once they have had post-degree work experience. Given the competitive environment in which universities are now finding themselves, it is imperative that undergraduates are provided with the types of skills required for both the workforce and for lifelong learning. In particular, communication skills need to be embedded in courses and assessed.

Study skills in 30 seconds? STUDYSmarter's '30-Second Academy' and online video resources for academic support

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As current shifts in tertiary education encourage greater focus on the provision of online and digital resources, the need for short, accessible and engaging video content around transition and academic skills is growing. This paper looks at how UWA's Academic Support unit, STUDYSmarter, responded to the need for digital video content by creating a range of short, shareable and visually-engaging online study skill videos called the '30-Second Academy'.

Since these videos were created in April 2014 they have had over 5500 views on *YouTube*, and have been shared on *Facebook* and used in different presentations around the university. Each video is under two minutes, and presents a useful or practical study skill or tip, sometimes tying in to different events such as Science Week, Careers Week and Study Break. Simple software, including *Powerpoint*, *Camtasia Studio* and *VideoScribe* have been used, as well as experimentation with different techniques such as stop-motion photography, live filming, simple animation, and time-lapse. This presentation will outline how these resources were developed and show some examples of the techniques used, as well as discussing some of the pedagogical issues around the creation of digital video content for tertiary teaching and learning.

Can you become strategic by learning from today's news? Student-centred assignments in strategy courses

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The dynamic changes in the business and educational landscape call for continuous innovation in teaching and learning to motivate students' engagement, and emphasise the practical implications of the courses. This study analyses the teaching and learning approach that requires students to illustrate theoretical concepts introduced in classes in strategy courses, using current business events publicised in the media business news. This allows students flexibility to identify their own current news while studying the specified topics of the courses, and also bridges the courses into contemporary practical implications. The core element of this holistic approach to teaching and learning is encouraging students to independently make sense of theoretical concepts and analytical tools, and showing students what can be learnt from various real life situations, including their working places, sporting events, movies, books, etc. At the same time, students learn to look at their experiences outside the class, through strategic lenses. The effectiveness of this approach in achieving learning outcomes of the courses is assessed by using longitudinal qualitative and quantitative data from students' evaluation and students' performance.

Critical Indigenous pedagogy meets transformative education in a third space learning experience

Refereed Professional Practice paper: Full text on website

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This paper explores the philosophical and theoretical foundations of a first year unit in Aboriginal Studies offered at the University of Notre Dame in Fremantle. It explains how the current approach is inclusive of transformative and critical Indigenous pedagogies and taught from an evolving 'third space'. Each philosophical underpinning is considered briefly, with reference to informal feedback received from students in 2014. What is suggested is that AB100 is indeed transformational for students in ways that are potentially ongoing in both professional and personal lives. Given the focus of the University of Notre Dame on training students for the professions this has implications for potential ways of teaching and learning that may require uncapping the usual teaching and learning frameworks to actively incorporate transformative and Indigenous pedagogies. Recommended is the need for further investigation and research into the impact of this approach to learning via an evaluation framework based upon the authors PhD outcomes.

An assessment of the *Language Bonus* as an incentive for second language study in Australian schools and universities

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In this presentation we will report some of the findings of the very first large-scale investigation on the introduction and validity of the bonus for languages other than English (known as *Language Bonus*) at the University of Western Australia (UWA). The bonus is offered to Western Australian Certificate of Education students who study a language other

than English in Year 12. It consists of a ten percent of a student's final scaled score in a WA Curriculum Council approved course in a language other than English (LOTE) added to that student's *Tertiary Entrance Aggregate*. UWA introduced the *Language Bonus* in 2011 as a way of attracting students to this university and as a policy to encourage students to continue studying a language other than English up until their final year of secondary school. The introduction of the *Language Bonus*, in WA as well as in other parts of Australia, must be seen as an attempt to address the striking decline in the number of students studying a language in high school and to support a vision for languages education that, as established by the *Go8 LOTE Incentives Scheme* released in January 2014, proposes "co-operative action between Commonwealth, state and territory governments to achieve a consistent national approach to language education at all levels of the education system". Using data from an online survey administered in May 2014, we consider the significance of the *Language Bonus* in influencing the students' decision to study a language at school and at university, and whether the *Language Bonus* helped students be admitted to their chosen degree at UWA.

Go8 LOTE Incentives Scheme (2014). The Group of Eight Ltd. <https://go8.edu.au/programs-and-fellowships/go8-languages-incentive-schemes>

Teaching how to listen: The integration of online quizzes in first year units of Italian at the University of Western Australia

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This paper explores the integration and effectiveness of blended learning activities in Italian language courses at the University of Western Australia. These activities were specifically designed for the development and assessment of listening skills. The development of oral abilities (listening and speaking) is one of the most challenging and neglected aspects of second language learning. Aural work is particularly crucial for ab-initio language students. While many (language learning) websites now offer materials for learners of Italian that include listening comprehension activities, these materials involving listening are not necessarily graded or linked to a specific syllabus. In 2014 a set of online listening quizzes was created and integrated into two ab-initio Italian courses at the University of Western Australia. The aim was to offer engaging, flexible listening comprehension practice and assessment, which would extend the students' learning experience, enhance their learning motivation, and allow for a better use of face to face teaching in the classroom environment. At the end of their course students were invited to complete an online survey specifically designed to assess the validity of the quizzes as a means for the development of listening skills, and as tools for formative and summative assessment. The 90 surveys collected provide a large amount of data on how students approached and viewed the integration of online listening quizzes into their Italian course.

Listening and the transformative potential of service-learning

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Service learning (SL) is a form of experiential learning in which graduates learn how to use their academic knowledge and skills to create social innovation and change in communities. In 2014, Caspersz, Baillie, Bourgault du Coudray, Playford, Olaru and Stasinska received a seed funding grant from the UWA Educational Strategies Office to assess how listening can enhance the transformative potential of SL. The project sought to (a) develop a conceptualisation about the significance of listening in enhancing the transformative capabilities of SL, and (b) craft an integrated listening model (ILM) (adapted from the work of Thompson et al, 2011) for learning and teaching. We regard listening as pivotal to SL. Listening is an active form of research that 'involves the mindful collection of data to identify inherent characteristics of a community' (Aslam et al, 2013, p 36). Listening is crucial to effectively understanding the social need that SL responds to. While there is some recognition of the importance of listening in SL (see Nyden et al., 2005), there is little that either theorises listening as an individual process or the explicit teaching of listening as the obverse of speaking (Thompson et al, 2011). The aim of this presentation is to discuss the conceptualisation and the ILM for service learning that we have developed to respond to this

gap. The presentation responds to the conference theme as it seeks to nuance our understanding of the learning and teaching of service learning by engaging with the concept of listening.

Aslam, A., Pearson-Beck, M., Boots, R., Mayton, M., Link, S. & Elzey, D. (2013). Effective community listening: A case study on photovoice in rural Nicaragua. *International Journal for Service Learning in Engineering*, 8(1), 36-47.

<http://library.queensu.ca/ojs/index.php/ijse/article/view/4535>

Nyden, P., Benefield, N. & Hellwig, M. (2005). *Who is listening to local communities? Connections between Chicago region community-based organizations and regional, state, and national policy initiatives*. Chicago: Center for Urban Research and Learning, Loyola University. http://www.luc.edu/media/lucedu/curl/pdfs/report_Who_is_Listening_to_Local_Communities.pdf

Thompson, K., Leintz, P., Nevers, B. & Witkowski, S. (2011). The integrative listening model: An approach to teaching and learning listening. In A. D. Wolvin (Ed.), *Listening and human communication in the 21st Century*. Hoboken: Wiley, pp. 448-481.

How to develop social entrepreneurs in higher education? A cross-country comparison

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There is an increased emphasis on improving the ‘student experience’ in higher education, which calls for alternative methods by which teaching and learning are embedded into university programs. Despite substantive scholarship demonstrating the benefits of ‘service-learning’ activities as a way of delivering curriculum and producing well rounded graduates who possess both technical and generic skills, it is less understood why and how these programs are fostering students to become lifelong social entrepreneurs. The aim of this presentation is to discuss research that has sought to identify conditions that the higher education system can offer to create social entrepreneurship experiences for students, so they can become engaged and continue this engagement post-university. Using qualitative and quantitative data from three countries (Australia, 245 students; China, 233 students; and Malaysia, 283 students), this research found differences in the motivations for students to take up social change activities, and differences in the way a student-led activity helped students to develop their desire for becoming lifelong agents for social change.

Given the increasing emphasis on blending academic and practical learning experiences as an approach to improve ‘student experience’, increase employability and create citizenship, this research is both relevant and timely. The results provide understanding of characteristics that students possess for social engagement and will assist to develop tailored teaching and learning resources to foster and support student engagement in social change.

Using open space to promote reflective listening

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While traditionally a management consulting technique, this presentation discusses the use of the *open space* technique in facilitating reflective listening by business and population health students. In an open space discussion, participants work in groups to generate topics in response to a problematic; these topics then become the basis for discussion groups about the problematic. Reflective listening is when students plan to listen in a discussion and then respond appropriately with their own ideas and strategies.

We used the open space discussion technique to promote reflective listening at two sites: at a Business School where the technique was used with a large group (n = 70) to discuss assignments that formed the major continuous assessment component of the unit; and in Population Health with students (n = 17) who discussed their placement experience. Our feedback suggests that this was a positive experience for students. However, we found that when promoting reflective listening using open space, attention has to be paid to how listening filters influence the experience students have. Our work is informed by a conceptualisation about listening as a transformative capability in service learning that we are developing with others (Caspersz, Baillie, Bourgault du Cordray, Olaru, Playford & Stasinska, 2014). The presentation will discuss our experiences of using open space to promote reflective listening. The presentation relates to the conference theme as it is

exploring the relevance of experience in learning; an ‘uncapped’ area given that the boundaries of learning and teaching in this are yet unknown.

Caspersz, D., Baillie, C., Bourgault du Cordray, C., Olaru, D., Playford, D. & Stasinska, A. (2014). Listening and the transformative capability of service learning. Discussion Paper, unpublished.

Articulating critical thinking: How do we promote this fundamental skill within our undergraduate psychology program?

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The ability to exercise critical thinking is a fundamental skill required for domain-specific and lifelong learning. Psychology students are expected to employ critical thinking to evaluate claims, identify assumptions and, ultimately, practise as psychological scientists. We expect that students will develop their critical thinking abilities from one year level to the next, yet, we have little practical understanding of how to best support the development of these abilities. Much of the research literature focuses on method-oriented application of critical thinking, neglecting exploration of critical thinking in process-oriented and reflexive learning environments. There is a need for exploration of what critical thinking is in a practical sense, and how we can best support the development of this skill through teaching and learning practices. Teaching staff and students in undergraduate psychology were engaged in semi-structured interviews to explore their understandings of critical thinking. Several key findings emerged from a causal layered analysis of the data. Critical thinking was conceptualised in various ways; some participants understood critical thinking as a skill, while others considered that it reflects a virtue or quality of the individual. Participants spoke explicitly on tensions inherent to assessing critical thinking in a way which does not undermine the fluid and contextual nature of these abilities. Findings from this research hold implications for the ways in which we articulate what it means to think critically within undergraduate psychology programs, and how we might expect to see evidence of critical thinking represented within students’ academic endeavours.

Case studies in embedding quality teaching criteria

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Rick Cummings, *Murdoch University*

Sue Stoney, *Edith Cowan University*

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Sofia Elliott, *The University of Notre Dame*

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The OLT funded *Australian University Teaching Criteria and Standards* project has made a significant contribution to the higher education sector through its development of a practical and flexible tool for embedding quality teaching criteria in institutional practice. The framework has generated much discussion within and across universities and has been an important catalyst for change. The level of sector-wide interest resulted in an OLT extension grant to conduct a series of workshops designed to support the implementation of quality teaching criteria and standards. The workshops were structured to scaffold the process of review and implementation through staged analysis of each university’s existing systems, policy and culture. Teams from 21 universities participated in workshops held in Melbourne, Sydney, Brisbane, Adelaide and Perth. Participating teams were encouraged to include academic and administrative representation to reflect different stakeholder perspectives. Teams documented their experience in a case study format with the option of publication on the project website. Drawing on the case studies, the project team developed a series of good practice recommendations.

This presentation will report on the case studies highlighting best practice and challenges. The case studies reveal variations in individual university culture, the importance of including representatives from promotions committees and human resources departments in teaching criteria discussions, and the usefulness of generating dialogue across the sector to discuss and define evidence and standards of quality teaching.

Practical sampling exercises for learning statistical concepts

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Students in statistics service courses frequently have difficulties understanding complex processes such as hypothesis testing and confidence intervals. This is partly because their logical structure is based on imagining that the process is repeated many times while, in practice, it is only carried out once. In addition, randomness and the methods we use to describe random behaviour (mean, variance, distribution) are difficult concepts that students have only just been introduced to and these higher level processes rely on them being able to imagine random behaviour in action.

One way to get the logical structure of hypothesis testing across is to apply it repeatedly in a classroom setting. This is not a new teaching method but the literature mostly discusses computer simulation while I use physical sampling from, say, a bowl full of bits of paper. With some careful preparation and the simplest possible test (binomial test for a single proportion), each student collects a sample in class and performs the test. We then examine the results of all students to show that everyone got a different result and some came to different conclusions (reject or retain H_0). This not only demonstrates type 1 error rates but prompts discussion about statistical power. I argue that there are clear advantages to the physical sampling and will demonstrate the technique in this presentation.

The case for face to face: How do we find balance in an uncapped world?

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Within an uncapped university environment how do you provide transformational leadership development opportunities? Whilst there is a need to provide opportunity for many students, it is important to build from what we know works. Face to face interactions are able to provide an opportunity for deep learning, and are valued by students (Ladyszewsky & Taplin, 2013). The John Curtin Leadership Academy (JCLA) is a semester long co-curricular program. Students participate in a residential camp and leadership development workshops, and undertake a group project with a community based partner focussed on social change. Students explore areas that include social responsibility, personal values and effective teamwork.

The impact of JCLA on students' leadership development is measured by a mixed method approach. This involves a pre and post application of the *Socially Responsible Leadership Scale*, followed by a series of interviews with participants. The leadership identity development model (Komives et al, 2006) helps identify the stage of leadership identity students see themselves at and how they have transitioned from one stage to the next during the course of the program. Our results suggest that students develop in confidence and ability as a result of participation in JCLA. Our contribution is to increase understanding of the opportunities co-curricular courses provide for leadership development that are rarely found within curricular courses. We would like this talk to create discussion around how the successful aspects of JCLA could be replicated at a larger scale in other transformational programs.

Komives, S. R., Longenbeam, S. D., Owen, J. E., Mainella, F. C. & Osteen, L. (2006). A leadership identity development model: Applications from a grounded theory. *Journal of College Student Development*, 47(4), 401-418.

<https://nclp.umd.edu/include/pdfs/lidmodel47.4.pdf>

Ladyszewsky, R. K., & Taplin, R. (2013). Factors influencing mode of study preferences in post-graduate business students. *The International Journal of Management Education*, 11(1), 34-43. <http://dx.doi.org/10.1016/j.ijme.2012.12.001>

Could the question 'What am I doing here?' influence engagement and grades?

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Many science programs have poor graduate full time employment rates and high levels of continued post-graduate study. This is indicative of disciplines for which few full time positions exist at graduate level. This presentation shares a two-semester study conducted with first year undergraduates students at an Australian university. The research involved 93 students who were enrolled in one of two semester-long, foundational science units. The unit had a history of low pass rates and high attrition, and the study asked whether engaging students in activities that focused on the value and relevance of their learning might counter these challenges. Students attended one of two workshops designed to foster their ability to imagine and plan for their lives and careers. They completed a number of activities and also pre- and post-unit measures relating to professional identity and sense of community. At the end of the unit, 82% of students agreed or strongly agreed that thinking about their future had helped them to persevere with their studies and 70% reported moving closer to their desired professional self. Despite this, there was little difference in pre- and post-test measures of professional identity or sense of community. The presenters unpack these possibly conflicting results and discuss what else might be done without committing additional curricular time.

Formative testing online: Will students use them, what will they use most, and do they help their success?

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Formative assessment tasks assist student learning and self-regulatory behaviour (Nicol & Macfarlane, 2006) because they provide a safe environment for students to practise and revise. In the health sciences, they focus students on breadth and depth of required concepts and knowledge. At Curtin University, students in several courses in health sciences are required to complete the unit *Integrated Systems A&P (ISAP)*, covering structure and function of human body systems. The unit runs both semesters, with a larger but different cohort in semester 2. Online tests were developed to address gaps in student understanding of key concepts, identified by analysis of examination responses from students. These were made available to students via the learning management system (*Blackboard*) in semester 2, 2013. Access by students was tracked and their usage of tests evaluated. Refinements were made after feedback, and consulting the literature, and separate shorter, more focused tests on concepts and on vocabulary were made available for each of 10 modules in semester 1, 2014. Usage of these tests was tracked and final unit grades were matched to test usage. Longer, less-focused tests were poorly accessed in semester 2, 2013. Earlier module tests in 2014 had greater usage than later modules. All students scoring over 55% for the unit had accessed at least one of the tests and number of tests accessed correlated positively with final grade.

Nicol, D. J. & Macfarlane, D. (2006). Formative assessment and self regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-218. <http://dx.doi.org/10.1080/03075070600572090>

Usable e-learning: Using feedback during the development of flexible learning options for staff

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This presentation discusses the process of developing a multimodal self-paced e-learning tutorial for training staff in the use of the Moodle learning management system (LMS). The Centre for the Advancement of Teaching and Learning (CATL) commenced developing online modes of training at The University of Western Australia (UWA) to provide greater flexibility for busy academic and professional staff. By using the LMS as both the focus of learning and the place of learning, we were aiming to use learning technologies readily available to UWA teaching staff and model the use of active online activities. This learning design included a focus on feedback tools and processes.

We will provide an overview of how feedback was used during the iterative design process by examining evaluation methods applied during design, development and testing. The evaluation of the online tutorial design focused on usability and user engagement. Key features of Jakob Nielsen's (1995) heuristic evaluation method were used for finding usability problems in the user interface design that were then rectified as part of the iterative design process. As well as heuristic evaluation, empirical testing was conducted. The evaluation processes considered are not unique to staff training and can be applied to the development of e-learning or blended learning in other contexts. Details of the methods used, feedback received and changes made to the e-learning tutorial will be discussed.

Naïve vs mature views of the nature of science: Which ones do first year undergraduate students hold?

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Developing mature views of the nature of science (NOS) in the general population is of great importance, due to the wide-ranging and complex nature of scientific questions and problems emerging in the 21st century. Overseas evidence suggests that naïve views of the nature of science are common in school and undergraduate students. The question arises whether the same is true here in Australia. This study therefore explored the levels of sophistication of first year undergraduate science students in their understanding of NOS upon entry at university. In addition it examined whether views on NOS varied between age, gender and disciplinary groups. A modified version of the *Nature of Science* questionnaire VNOS Form C, was used as part of a workshop activity in a Murdoch University first year breadth unit for the Bachelor of Science degree. A total of 320 students, ranging in ages from 17-57 years (median age 20 years) enrolled in 9 majors (IT, Psychology, Biology, Environmental Sciences, Physical Sciences, Mathematics, Exercise Science, Vet/Animal Sciences and Education) participated in this study. Findings indicate that students mostly hold naïve, and sometimes contradictory, views on NOS. Nevertheless, individual students showed little consistency in sophistication across different aspects of NOS. Significant differences were observed between ages, genders and disciplines in the students' understanding of specific aspects of NOS. These findings are broadly consistent with overseas results, but also point to heterogeneity among science students in what they already understand and what they have yet to learn.

Academic integrity policies and procedures in Australian public universities: Their influence on lecturers' responses to student plagiarism

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Although national education policies impact on tertiary institutions and those employed there, the day to day teaching and learning of academic staff working in universities is primarily influenced by policies and procedures mandated at the local, institutional level. This presentation outlines some of the results of a PhD study which sought to explore the perceptions of academic staff of their institution's academic integrity policy and procedures, and also their responses to specific incidences of student plagiarism. The results for this presentation were obtained from over 200 respondents to an online survey administered to all academic staff in the four public Western Australian universities. Preliminary findings suggest that although lecturers are aware of their university's academic integrity policy and procedures and believe they have a good understanding of the documents, their responses to student plagiarism may not always align with those expected from them by their institutions. Possible reasons for such non-alignment will also be explored in the presentation.

Transformation through co-teaching: Perceptions of first year health science students

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Curtin University is committed to transform the design and delivery of education through innovative thinking. Transformation requires a pedagogical shift embracing teaching practices that promote knowledge construction. The challenge is to optimise a student centred approach to learning through the use of innovative teaching practices. Students are required to undertake a proposed activity before coming to the lecture. Thus fitting in the Curtin's flipped classroom strategy, where predominantly lecture driven classroom instruction is transformed to an educational approach that shifts transmissive learning into the online space and reclaims class time for interaction between students and teachers. This approach enables classroom time to be used creatively for active, authentic and collaborative learning that supports students to assimilate and synthesise new knowledge. To enrich student experiences in face to face classes, co-teaching involving two tutors who may have strengths in different fields was adopted for students enrolled in first year health sciences core units.

While recognising the value of co-teaching, its impact in units with large enrolment of students needed to be evaluated. Absence of a valid and reliable instrument for measuring the impact led to the development of *Health Science Co-teaching Instrument* (HSCTI). Reviews of existing literature and many focus group interviews were conducted before developing HSCTI, measuring *Teacher Support, Student Satisfaction, Collaboration, Equity, Involvement* and *Innovation*. Initial analyses of data from 550 students confirmed the sound factor structure and high reliability of the instrument. This presentation will discuss the validation information of the instrument and student perceptions about their satisfaction with co-teaching.

The Indigenous Advancement Strategy and its impact on Indigenous undergraduate students at Curtin University

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On 1 July 2014, the Australian Government announced the introduction of the *Indigenous Advancement Strategy* (IAS) replacing more than 150 individual programs and activities operating in government to fund Aboriginal communities across Australia. Under the strategy there are now five flexible, broad based programs including one relating to education at all stages in an Aboriginal person's life. The Strategy aims to improve the lives of Indigenous Australians including the focus to improve the participation of Aboriginal people in the "economic and social life of the nation". The strategy speaks about the joint development of solutions for the long term with regional or local solutions and where appropriate will fund organisations that work closely with Indigenous communities to design and deliver projects. This \$8.5 billion Indigenous-specific funding strategy directly impacts upon the away-from-base learning for mixed mode delivery for Indigenous people. Indigenous university students who study away from their communities and are required to spend periods of time at institutions now face considerable cuts to their travel and accommodation budgets. This also includes various Aboriginal studies centres within universities across Australia now vying for funding for the Indigenous Support program supporting engagement of Indigenous students in university and the Aboriginal Tutorial Assistance Scheme (ATAS). While the rhetoric from the Australian Government speaks of increasing course completions by Indigenous students in university-level study, the Centre for Aboriginal Studies has had to take measures to limit enrolment of indigenous students to those living in the Perth metropolitan area or those who can pay their own way to enroll in undergraduate courses offered at the centre. This paper discusses how the Centre for Aboriginal Studies has redesigned their course delivery in response to the Indigenous Advancement Strategy and its impact upon students' learning.

Learning for tomorrow: Teaching, learning and the student experience

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Curtin University's vision is to be a recognised international leader in research and education. We will lead in innovative education globally, providing a richly interactive and personalised learning experience with opportunity for graduates, which will equip them with skills for the future. This is *Learning for Tomorrow* and it is our promise to our students and future learners. By 2017 we will engage one million learners globally, sharing the expertise of our teaching academics with the world's learners.

Professional learning designed to promote teaching excellence

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In 2012, the Australian Higher Education sector lifted the caps on student enrolments to support the move to a demand driven environment. With the proposed move to fee deregulation in 2015, access to higher education will become more competitive and potentially more expensive for students. Technology has moved at a significant pace and this means students have unprecedented choice of where and when they study. We must change, as a sector, to remain globally competitive but we must continue to have student learning and the student experience at our heart, as we strive to ensure the highest quality education

possible for students. To meet these changing demands and position ourselves for excellence we have developed a range of strategies to ensure high quality teaching and learning across Curtin University. Our goal is to positively influence one million engaged learners and we intend to do this by leading in innovative education globally, providing a richly interactive and personalised learning experience, and providing opportunity for graduates, equipping them with skills for the future. To achieve these goals and ensure quality we have embedded our initiatives in Curtin's *Teaching Excellence Framework*. This presentation provides an overview of the professional learning strategies aligned to the Framework; in particular, the Peer Review of Teaching and the Curtin Academy. Those interested in leading transformational change and supporting teaching excellence through professional learning would benefit from this presentation.

Lost in transformation: Finding a path through theory to practice of transformative learning

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Mezirow's *Theory of Transformative Education* is one of the most enduring, instrumental theories to shape the discourse of adult education in our times. It has resulted in heated debates and research about what constitutes transformation, how transformation occurs, as well as what is it that is transforming? This research transcends disciplinary boundaries to include philosophy, sociology, psychology (e.g. deep and humanistic), spirituality and more recently, neurobiology. Each discipline has added to our understanding of the complex nature of and processes involved in transformation. Yet so much remains unknown. The challenge for educators is to reconcile and integrate the various existing models into the academic context without compromising the complexity of transformation, the integrity of existing knowledge and more importantly, without compromising the potential for transformation for our students.

Preparing students for the workplace: Can mindfulness help?

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Students undertaking work integrated learning (WIL) within the curriculum can experience high levels of anxiety. This was especially noted in Physiotherapy students during the second year of the program at The University of Notre Dame Australia, prior to undertaking the first of six formal clinical placements, representing the WIL component of the program. Increased levels of anxiety have anecdotally been attributed to the challenges of juggling work, study and full time WIL commitments. The demands of social media driven by technological advances may also play a role in increasing anxiety, creating an environment where multiple tasks are asked of an individual simultaneously. This paper shall introduce *mindfulness* as a growing phenomenon in higher education and present the impact of introducing mindfulness to both students and clinical educators in the Physiotherapy program. Further considerations for its application will be discussed, exploring the relevance and usefulness of mindfulness across broad areas within higher education.

The UWA Education Futures Vision

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The University of Western Australia (UWA) aspires to be a leader in educational experiences. In May 2014, UWA launched the *Education Futures Vision* (EFV). The EFV is presented as seven statements that are consistent with the values embedded in UWA's *New Courses* (2012) and that embrace UWA's Educational Principles with a focus on the practices of learning and teaching across undergraduate and postgraduate courses. Each of the statements begins with a vision and then outlines what the vision means from the perspective of both UWA staff and students.

A leadership team, comprising passionate educators across faculties was selected to translate the EFV into strategies and actions that would assist in the realisation of the vision. The

leadership team has worked together on a suite of strategic projects that seek to move UWA towards achieving the EFV and inculcate innovative learning and teaching practices across UWA. Three of these exciting strategic projects will be launched in 2015. Members of the leadership team will present the UWA Education Futures vision, strategic projects and action plans for 2015.

55 Minute workshop

Unbundling higher education: Implications for assurance of higher education standards

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This workshop will form part of the consultation process sought by the HE Standards Panel on the implications for the Higher Education Standards Framework of emerging models and disaggregated forms of course delivery (for example MOOCs, micro-credentialling, badges). A clear need is emerging in relation to disaggregation of learning experiences and the foreseeable trend towards learner demand for credit of disaggregated and/or informal learning towards formal academic credentials. The variety of models of and purposes for credit disaggregation is considerable and it is unlikely that current institutional methods for credit recognition, credit transfer and recognition of prior learning (RPL) will be sufficiently robust or sophisticated to cope with the likely demand in the medium to long term. While there are well established approaches to quality assurance of higher education in all of its traditional modes of delivery, the central issue that is emerging relates to disaggregation or “unbundling” of aspects of higher education. This trend, while not yet widespread, is gathering momentum globally. For example, some institutions are beginning to explore ways in which content delivery, assessment and credentialing, while still linked in a design sense, could be carried out by different organisations or institutions. Technology is not the cause of this trend but it offers tools which bring it within feasible reach. A number of drivers combine to make such an approach a potentially attractive business model and, for some institutions, it offers potential for realising aspects of their mission more effectively than by traditional on or off campus delivery. Claims about the end of higher education as we know it are probably premature, however, it would be unwise to dismiss the rational base underlying some of the newer developments.

For those engaged in higher education provision and quality assurance it is prudent to pause and consider what implications some of these developments have for our present formulations of higher education standards and QA, and for long held beliefs about issues such as the integrity and coherence of a degree.

The workshop will address some of the questions that arise in this context. The intended audience is academic and other staff involved in academic quality assurance and engagement with TEQSA and other regulatory bodies. Awareness of the Higher Education Standards Framework and the work of HESP and TEQSA is desirable as is familiarity with non-standard or disaggregated forms of program design and RPL. We will:

- Canvass the emerging models of disaggregated learning that are in use or demand in Australian higher education;
- identify approaches to meeting the challenges disaggregated learning poses to quality assurance;
- identify areas in which the Higher Education Standards Framework unnecessarily hinders flexibility and collaboration for disaggregated delivery; and
- identify areas in which future formulations of standards might facilitate effective responses to emerging models

Website: www.hestandards.gov.au/olt-fellow-request-for-information

For those interested in exploring the thinking on this approach googling “unbundling higher education” turns up some interesting reading and useful examples of what this might mean in practice. For example see:

<http://wikieducator.org/OERu/Home>

<http://www.deakindigital.com/>

<http://www.knewton.com/blog/ceo-jose-ferreira/unbundling-higher-education/>

<https://hbr.org/2014/01/the-degree-is-doomed/>

A blend of blended and team based learning

Refereed Research paper: Full text on website

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Blended learning and team based learning are strategies that support student centred learning and active learning. This paper presents outcomes of changing a third year criminology unit to these methodologies. Data was collected as part of standard quality control in Week 5 of Semester 2, 2014 from students who attended class on that day. Twenty three students responded to the survey which included both quantitative and qualitative responses. Seven attending students failed to respond. The data indicated that although students were positive about the unit content in the quantitative data, the qualitative data indicated that they did not like the blended approach nor the team based learning approach to delivery. The paper concludes with some lessons learned and recommendations for the future.

Economic productivity and sustainability: Evidencing the impact of work integrated learning

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Social, cultural, political and economic factors collectively and individually impact on a globally competitive job market. The need for a productive, sustainable and efficient economy where employees are sufficiently skilled to meet the demands of a highly competitive and constantly changing workforce is increasingly important. The recognition that education is fundamental to an accomplished and high-capacity population has resulted in external stakeholders seeking evidence that graduates have acquired the necessary capabilities through-out their studies, to contribute to a buoyant, unpredictable and variable workforce. WIL pedagogy enables the integration of theory and practice, and develops the capacity to think critically, creatively and innovatively. This presentation provides an overview of the rigorous research design and methodology employed in an Office for Learning and Teaching (OLT) project *Assessing the impact of work integrated learning on student work-readiness*. The primary focus of the project was to ascertain an evidence-base for the impact of work integrated learning (WIL) on the development of students' employability capabilities. Emerging evidence supports the concept that student engagement and motivation is enhanced through experiencing real world opportunities and obtaining feedback from industry practitioners. Data were collected from multiple stakeholders enabling triangulated data sets. The presentation highlights preliminary findings emerging from the research and the impact on curriculum design and the student experience. The research highlighted six dimensions of employability that emerged from an extensive literature review which informed the design of data-collecting instruments. The findings from this OLT project provide the basis for leveraging future WIL research and informing resourcing requirements.

Evidencing unpredictable student outcomes: Assessment in a work integrated learning context

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Assessment of student outcomes continues to present challenges for higher education institutions with students and graduates consistently rating this as an area requiring improvement. In addition, responsibilities associated with assessment generate significant workload for teaching staff. The design, integrity and quality of an assessment task, coupled with challenges of catering to increasing student diversity and consistent decision making, are topics of ongoing debate and investigation. Assessment plays a pivotal role in student engagement and motivation, and is an important mechanism for validating student outcomes in a competitive and standards-based regulatory environment. The challenges of rigorous, effective and efficient assessment methods are more pronounced in work integrated learning (WIL) focussed curriculum, where student outcomes are unpredictable, volatile and context-dependent. Workplace learning encompasses a social construct where behaviours and outcomes are influenced by others, culminating in variable learning experiences that neither the student nor university can regulate. Increasingly, WIL features in institutional strategic plans, yet traditional assessment approaches, policies and expectations continue to present obstacles to implementing innovative assessment profiles. Curriculum continues to be content-driven, with compartmentalised subjects incorporating isolated and disconnected assessments, where a grade is allocated to indicate students' proficiency. The presentation provides an overview of critical assessment issues in work-integrated learning, and a special issue of the *Asia-Pacific Journal of Cooperative Education*, which highlight the complexity of assessing WIL outcomes. A selection of authors will share their expertise and experience with contemporary assessment issues.

Complementing clinical placements with teaching clinics: Rural interprofessional paediatric assessment clinics

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Undergraduate and Graduate Entry Masters students on rural, interprofessional clinical placements with the WA Centre of Rural Health (WACRH) complete a range of clinical rotations in the community. To complement and extend learning in key areas, students also participate in simulated learning such as interprofessional student teaching clinics. This presentation will outline the implementation of an ongoing six week program focussing on interprofessional health and developmental assessment of paediatric clients. The Western Australian Centre for Rural Health (WACRH) is a University Department of Rural Health with a focus on education and research to meet workforce needs now and in the future. WACRH runs an EdSIM Centre with clinical demonstration bays and consultation rooms suited to a variety of teaching and learning opportunities, as well as the clinic model of teaching.

The Paediatric Assessment Clinic includes students from allied health and medicine, as a partnership between the Rural Clinical School and WACRH. Students may include occupational therapy, physiotherapy, speech pathology, social work, pharmacy and medicine. The clinics run for a five week period and include a team approach to completing a comprehensive developmental and medical assessment of a child, using interprofessional learning as a foundation. Teams are supported by a clinical mentor and discipline specific clinical advisors. This presentation will describe our journey in developing this clinic model supporting rural clinical placements, and evaluation to date. We will also describe plans for expansion to other types of interprofessional students teaching clinics.

Viva la *evolution: The online Communication and Research Skills unit at UWA

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Tech-savvy but time-poor, today's university entrants vary widely in their academic skills. Some can write, reflect and do research in the ways we expect. They are confident speakers who can contribute well in teams. Others, however, find academic writing torture and independent study anathema. Oral presentations leave them tongue-tied. So how can we help? One way is through *Communication and Research Skills* (CARS), an online unit created by the UWA Library and *STUDYSmarter* team in 2010. Since then, CARS has scaffolded thousands of UWA students through the stages of starting assignments, finding the best evidence, writing assignments, delivering presentations, and working in teams. Although this content is crucial, the e-learning space has been ever-changing: what recently seemed so innovative now feels old-fashioned. We are therefore re-creating CARS: revisiting and re-imagining it in light of new technologies and new student expectations. Supported by an Improving Student Learning grant from UWA's Centre for the Advancement of Teaching and Learning and by Student Services, our new design is flexible, reusable, and engaging, with the potential for modules to be integrated in other learning practices at UWA (<http://www.cars.uwa.edu.au>). In this presentation we discuss our re-envisioning of CARS, which incorporates principles of learner-centred design. We hope to spark conversations about not just the "how" of designing online learning experiences, but also the "why" - the integration of foundational skills at the start and throughout the university journey.

Sparking motivation: Integrated approaches to teaching research and digital literacy skills

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In today's complex information environment, it is essential to facilitate university students' development of skills in finding, evaluating, and using information. However, learning outcomes and assessments that are meant to foster these skills are frequently set with in isolation, with only the final output (i.e., a paper or project) in mind, rather than the learning process (Head & Eisenberg, 2010). This presentation explores how educators, including unit coordinators and librarians, can work collaboratively to support the holistic development of

research and digital literacy skills. A growing body of research evidence makes it clear that embedding or integrating research and digital skills into curriculum design is the most effective way to ensure that students can develop and apply them (e.g., Cope & Sanabria, 2014; Head, 2013; Lloyd, 2010). Therefore, it is essential to provide scaffolding for research and digital literacy skills development in the context of specific disciplines. A “one-shot library vaccine” simply is not effective. In this presentation, a view of undergraduate students’ information behaviour will be offered, as informed by the presenters’ experience and by research in library and information science. We will share best practices for sparking student engagement through the integration of research and digital literacy skills with curriculum design, including assessment and scaffolding of skills, with a focus on holistic collaborations between professors and librarians at UWA in various subject disciplines.

Cope, J. & Sanabria, J. E. (2014). Do we speak the same language?: A study of faculty perceptions of information literacy. *Libraries and the Academy*, 14(4), 475-501.
<http://dx.doi.org/10.1353/pla.2014.0032>

Head, A.J. & Eisenberg, M.B. (2010). *Assigning inquiry: How handouts for research assignments guide today's college students*. Project Information Literacy Progress Report.
<http://projectinfolit.org/publications/>

Head, A.J. (2013). *Learning the ropes: How freshman conduct course research once they enter college*. Project Information Literacy Research Report:
<http://projectinfolit.org/publications/>

Lloyd, A. (2010). *Information literacy landscapes: Information literacy in education, workplace and everyday contexts*. Oxford, UK: Chandos Pub.

Good practice strategies for using the flipped learning model in large classes

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Our OLT project *Flipped learning: Lessons learnt and good practice for large first year health sciences classes* developed and tested flipped learning approaches for novice learners based on the three phase Miri model developed and refined by Curtin staff (HERDSA, 2014).

1. Online - based around challenge testing and short, sharp interactive activities that prepare students for class activities and help them to identify their learning needs
2. Collaboration - in-class challenge testing and group work activities. Allows students and tutors to check understanding of important concepts and respond to areas of difficulty
3. Reflection - student reflection on their learning using post-class online tests, and feedback on group work using SPARKPLUS

The model was tested in semester 2, 2014 in two large first semester (n=587) and second semester (n=1936) generic, non-discipline based units. We developed activities for content areas regarded as being difficult for students. Strategies to engage and motivate students included making activities in the online phase clearly and overtly linked to the in-class collaboration activities, providing estimated timing for activities, making video clips short and sharp and using challenge tests and scenarios in both online and collaboration phases. Students in post-semester surveys (n=294) reported that challenge tests were the most useful resource (69%) in one unit, and case studies and scenarios most useful (63%) in the other unit. Challenge tests were very useful for tutors to guide their preparation, build consistency in a co-teaching environment, and allow flexibility to tailor the collaboration phase to areas of difficulty.

Development of an engagement framework for a first year teacher education program

Refereed Research paper: Full text on website

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This paper describes a research project that investigated first year pre-service teachers' learning experience and developed an engagement framework based upon the "transition pedagogy". Three components were identified in the framework: a) diversity of the first year pre-service teachers and their transition into the teaching profession, b) design of student engagement and assessment in teacher education programs, and c) Perceived Stress Scale (PSS) Screening and Support System. Teacher educators may find this paper useful in providing greater understanding of the learning experience of first year pre-service teachers. It also offers an evidence base for building support systems and strategies to improve retention rates, which can lead to ways of increasing education course completion rates.

The effect of industry professionals as undergraduate university teachers on student learning

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Universities are increasingly emphasising and utilising close ties with industry and industry professionals to keep up with the changing role of universities in society, from centres of learning to centres of training graduates to be job-ready. This case study in an undergraduate forensic science unit examines the notion that tutorials are more beneficial to students' deeper understanding than lectures alone. The unit underwent a change in format, from a seminar series with practising industry professionals, by the addition of tutorials and a focus on five main fields in forensic science. Forty one past students and 179 students from the 2014 class were surveyed to determine their feelings about their learning, engagement and interest in the study of forensic science, and these results compared between cohorts. The results indicated that the implementation of tutorials in forensic science had a positive impact on student experiences, with a more comfortable, engaging and participatory learning environment being fostered. The unit format will develop further in 2015, and a more comprehensive evaluation will be undertaken then. This study has implications for any subject area with close ties to industry, where a seminar series from a diverse range of professionals may be seen as a more desirable way to introduce undergraduate students to the subject area.

Helping Honours and Masters students 'write early and write often'

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Masters and Honours students writing a thesis or dissertation are often told to 'write early and write often,' with many reporting they do not know exactly what this means or how to get started. Taking a more contextual and student-centred approach over the more traditional transmission model of academic writing support (Kamler & Thomson, 2008), this paper reports on how STUDYSmarter's program for UWA coursework research students has started to embed reflective writing activities into its workshops and online materials. The purpose is to encourage students to see and engage in their research as an ongoing cyclical process that includes regular writing, reading, critical thinking, and self-reflective activities. These strategies include encouraging students to sketch out provisional thesis titles and statements, research questions and aims, and using these as the central organising principle for writing research plans, proposals, literature reviews, theses, dissertations and seminar papers. It also looks at a number of practical strategies they might use to get their writing started such as 'blind writing' (Phelps et al., 2007), 'sentence templates' (Cargill & O'Connor, 2009), 'thinking bundles,' (Kamler & Thomson, 2006; Graff & Birkenstein, 2010), and the benefits of keeping a reflective research journal (Jasper, 2005; Ortlipp, 2008).

Teaching evaluations: What else is being assessed?

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Student based teaching evaluations are used by management to reward and discipline staff, however, other factors such as class room provisions and staffing levels may also be influencing the results. A review of the evaluation results from the same staff and study units over eight years suggests that teaching environments and administration systems do have an impact. Some factors such as timetabling are readily apparent to the students, but other

influences such as the time allocated for marking and feedback are less obvious. To close this gap, teaching evaluations need to be complemented with an assessment of the teaching environment to identify both positive and negative influences.

An observational and collaborative learning approach to teaching oral presentation skills

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Good oral presentation skills rank highly in the employability stakes; they are among the most sought-after graduate attributes. They are also an important component of academic literacy. Developing these skills, however, requires not only an informed understanding of what makes an effective presentation but also opportunities to reflect on and implement this understanding through practice and self-assessment. This session outlines a presentation skills workshop delivered as part of the *STUDYSmarter* study skills series at UWA which uses the peer evaluation process developed by Toastmasters International. Students from UWA Toastmasters were involved in the workshop's development, contributing to a series of film clips demonstrating specific presentation skills for workshop participants to discuss and evaluate. These observation and evaluation activities were used as a foundation for workshop participants to deliver short presentations and be evaluated by their peers to assist them in reviewing their skills. It's one thing to tell students the elements of a good presentation; it's another thing to show them. But unless they have a chance to reflect, observe, evaluate, discuss and get feedback, it's all theoretical. This session offers an opportunity to re-examine how we teach presentation skills and support our students to become skilled presenters.

Transcending pedagogies: An innovative model for a globally competitive market

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Universities cannot afford to rest on their laurels. In a changing sociopolitical context university education is a place of competition on a global scale. Conventions are being replaced by innovations and directives by conversations and co-produced learning opportunities, in the pursuit of courses that are attractive to and accessible by today's demanding and heterogeneous student cohorts. As a result, a range of pedagogies that transcend traditions, courses, student groups and barriers is emerging. This paper presents a model of these transcending pedagogies (Higgs, 2014) and recognises the role they play in releasing or "uncapping" learning, re-defining blended learning, claiming multiple learning spaces and satisfying the contemporary need for both technology-enhanced learning and authentic education for practice. The model will be illustrated by examples of good practice and innovations.

Higgs, J. (2014). *The CSU degree: Learning for life and work at home and away*. Occasional Paper 11. Sydney: The Education For Practice Institute, Charles Sturt University.
http://www.csu.edu.au/__data/assets/pdf_file/0010/873118/OP11.pdf

Strengthening pre-service teachers' mathematical content knowledge

Refereed Research paper: Full text on website

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The tertiary training of pre-service teachers is pivotal in their professional preparation and formation as qualified educators. Multiple authors posit that teachers require a development of *pedagogical content knowledge*, or knowing a variety of ways to present mathematical content and to assist students to deepen their understanding (Chick, 2012; Shulman, 1987). Emerick, Hirsch and Berry (2003) argue that high quality teachers must possess appropriate mathematical *content knowledge*, and must also possess considerable background in communicating effectively to students. There are two aims of this educational research. The first is to investigate the self-perceptions of pre-service primary and secondary teachers

enrolled in a mathematics education unit as they engage with and consolidate their mathematics content. The second aim is to explore how these pre-service teachers understand and perceive their 'readiness' to undertake such a task, based on their recent tertiary training. Data were collected from participants through the exercise of pre-unit (Phase 1) and post-unit (Phase 2) surveys. Following the completion of Phase 1, participant self-reflections indicated varying degrees of readiness to teach mathematics to Upper Primary and Lower Secondary students. Less than half of the sampled participants asserted that they felt confident in teaching mathematics, and almost all participants stressed the need to strengthen both their content knowledge and pedagogical content knowledge. This paper will discuss the key findings of Phase 1 in light of the extant literature on the preparation of pre-service mathematics teachers.

Simulations in online and face to face learning: A study of student expectations, motivations and experiences

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An online, team-based simulation was introduced into a fully online marketing management course for MBA students. Usually, online courses benefit from asynchronous delivery and so the course was developed to allow this to occur for teams of students who might be separated by time or distance. At the same time fixed deadlines for decisions periods were used, so that students competed directly against other student teams. Assessment of the simulation was by a series of reflective wiki posts for the online students as well as a *PowerPoint* presentation. Students in the face to face class were assessed by a team presentation. Over a period of 1 year, 6 cohorts of MBA students (3 online and 3 taking face to face classes) were studied. Primary data from both pre and post simulation experiences was gathered. Survey data was collected prior to the simulation being undertaken and focused on capturing students' learning styles, their preferred team styles, as well as their level of competitiveness and expectations or concerns about simulations as mechanism for learning. Once the simulation was over, a second survey captured data on their experiences and learning outcomes. Initial feedback from students was more positive from the online groups than for the face to face groups, with students appreciating the innovative nature of the simulation in online learning.

Working together to achieve improved work integrated learning (WIL) outcomes in WA: Enhancing productivity through better employer involvement

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Many issues impact the implementation of work integrated learning (WIL) in higher education. These include difficulties in effectively engaging with employers when organising WIL opportunities and achieving high student productivity during the WIL experience. This research project is designed to develop and trial effective approaches that will increase employer understanding of, and engagement in, WIL opportunities in WA Business Schools. It is undertaken by an alliance of WA universities for the Australian Collaborative Education Network (ACEN), in association with the Chamber of Commerce and Industry Western Australia (CCIWA). In partnership, the project team will explore approaches to improve employer engagement in WIL; effective support requirements to improve WIL outcomes for all stakeholders; and ways of enhancing productive and mutually beneficial partnerships between industry and universities.

A survey of CCIWA members is currently gathering feedback on their experiences in WIL. Focus groups will further explore employer needs and innovative approaches to delivering WIL in different businesses. Data analysis will determine key issues in improving employer engagement in WIL; partnership models that facilitate employer participation; and inform the design of an employer support/advisory service, trialled by CCIWA during 2015. Data on the volume and nature of support provided to employers through the advisory service, and a final survey among participants, will gauge its impact and usefulness for improving the WIL process. Strategies on setting up an employer support service to improve future WIL outcomes will be identified.

What Apple knows about the new economy: Exploring services science and branding impacts on student learning engagement

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In the new service economy, customers and other stakeholders are mobilised to “co-create” value in the exchange. This co-creation, or what might be called *engagement*, involves various stakeholders sharing resources, skills and competencies to add value in the system. In a learning context, this would involve students and the university undertaking a similar engagement process, involving the sharing of knowledge, skills and competencies via two-way engagement processes. In this abstract presentation, I argue that the traditional ‘knowledge house’ approach to teaching worked well because of debate feedback from students in the predominant lecture theatre environment. The adoption of marketing models in the nineties, based on student satisfaction feedback, did not add significant value to the system because of student’s naivety as amateur teachers and the gamification of the lecture theatre (i.e. the McDonalds model) which was popular in marketing at the time but not an authentic experience. The new model (i.e. the Apple model) is based on authentic brand experiences around platforms for value adding and I discuss the application of this to teaching and learning in an undergraduate environment.

A framework to embed the teaching, learning and assessment of communication skills across the curriculum

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This presentation will report on the development of a university-wide framework to embed communication skills in learning, teaching and assessment at Murdoch University. The framework is based on a multi-layered approach that aims to support both staff and students through an integrated set of services and resources. These include communication skills rubrics, professional development workshops and online resources for staff, and diagnostic assessment and online modules for students. As well as providing sustainable support across the university, the framework aims to develop staff and student capacities in a disciplinary context and to accommodate particular disciplinary priorities and student needs. Therefore, the framework enables flexible use of tools such as rubrics and the provision of both general and discipline-specific resources. An integral part of the framework is collaboration between the disciplines and the university’s Centre for University Teaching and Learning (CUTL). Professional development workshops play a key role by enabling the exchange of knowledge and expertise. For academics in the schools, the workshops provide an opportunity to work with colleagues to clarify communication skills learning outcomes, map assessments across units and levels, and share learning activities. For CUTL staff, they provide an opportunity to promote best practices and to gain understandings of the particular priorities and requirements of different schools and disciplines. As well as promoting communication skills as a core competency and key graduate attribute for all students, the project aims to build a community of practice around the teaching and learning of these skills at the university.

Uncapping the standard flipped classroom approach: Outcomes from an approach designed for the needs of non-standard students

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The phenomenon of a flipped classroom approach to tertiary teaching assumes the capacity of non-standard students to meet the active learning expectations of an in-class experience. This project was designed to investigate the needs of such students – both regional enrolments and those with specific learning difficulties. It involved reconsidering how universal design and reconceiving the nature of flipped classroom could best suit the needs of all students. Underpinning the approach was also the aim to determine a means by which the integrity of the flipped learning approach for a large first year Marketing class could be maintained whilst also meeting the needs of these students, within the workload and both technical and pedagogical capabilities of the academic staff. In TL Forum 2014 we presented the learning design arising from an investigation of the online learning environment, and interview data

from relevant people. In this presentation we will share the findings arising from the implementation of this new design in semester 1, 2014. From analysis of data comprising surveys of all students, interviews with volunteer students and tutors, University evaluation outcomes, and LMS analytics, we found a number of conflicting phenomena, such as improved assessment scores, decreased evaluations, confused preferences, and suggestions for improving the roles and activities of both staff and students in this process.

Uncapping university teaching and learning: UWA's first MOOC implementation

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Massive open online courses (MOOCs) leaped onto the world educational stage as university leaders and academics responded to the potential of uncapping education: uncapping university educational content and making it available to all; uncapping closed university classroom teaching and opening it up to new methods, materials, and learner groups; uncapping the traditional business model and university marketing internationally. The University of Western Australia formally signed a partnership with the *Coursera* platform (<https://www.coursera.org>) to provide MOOCs for strategic reasons: bringing the University profile to the world arena, attracting high quality students, and learning and exploring new pedagogies for a strategic new educational vision toward a blended learning university. To act quickly with a limited time frame, the first MOOC was adapted from a course that was previously developed and offered on an open source platform. This paper overviews the process for developing the MOOC and the implementation experiences, and we address the question – is this MOOC (and subsequently MOOCs internationally) a manifestation of uncapped education?

Perceptions of professional identity and classroom community among first year student engineers

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This study investigated the perceptions of 67 direct- and 82 pathway-entry first-year student engineers in relation to self, the profession, and their classroom community. Professional identity is a continuing, socially constructed process informed by interactions with community and industry. The development of classroom community is another aspect of emerging identity and is also positively related to academic success. Given that students are active agents in this development, it is likely that exposing the relevance of learning to future profession will enhance engagement, identity development and sense of community. This study was located within a common foundation year. The unit included foci on professional identity and teamwork, thus the team was able to employ established pre- and post-test measures to test the efficacy of teaching strategies relating to self and community. A mixed method ANOVA was used to compare pre- and post-test scores for each participant. Preliminary results indicate that the first-year students already identified as professional engineers and considered themselves part of a classroom community. There was no significant difference between pre- and post-measures; however, pathway-students scored significantly lower on the classroom community scale ($F=4.8, p<0.05$). The latter finding indicates that pathway students may need specific support in developing their learning communities. The next phase of research will seek to develop socio-cognitive strategies and intrapersonal skills at the unit level.

Flipped and peer learning in a first-year statistics class: Taking it to another level

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A consequence of technology in higher education is that students no longer have to attend lectures. However, face to face contact still has a lot to offer. Unfortunately, lectures are still used mainly for content delivery, and this is a major reason for low lecture attendance. Flipped classrooms are now well established in some disciplines (Forsy, Low & Glance, 2013). However, implementing such a mode of teaching and learning seems difficult if not impossible in mathematics and statistics. The highly technical nature of the subject makes

online content delivery problematical. Consequently very few if any mathematics and statistics units in higher education are taught using a flipped classroom. I will share my experience with flipped mode delivery and peer learning for a first-year statistics unit. In particular, I will indicate the pitfalls to avoid and the strategy that works. I will also detail my plans for taking this concept to a whole new level next semester.

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<http://dx.doi.org/10.1177/1440783313504059>

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MOOCs for development: Harnessing the potential for massive open online learning in the developing world

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With the initial hype surrounding Massive Open Online Courses (MOOCs) now abating, many proponents point to the enormous potential of such courses to educate students in areas of the world that lack the infrastructure to accommodate growing student numbers. While leaders in the field have pointed to the potential for MOOCs to facilitate the democratisation of knowledge on a global scale, little has thus far been done to enable significant numbers of students in the developing world to learn in MOOC environments. This presentation, based upon the author's PhD candidature in the Department of Anthropology and Sociology, The University of Western Australia, identifies a number of key themes in the debate surrounding the efficacy of MOOCs in the developing world. These include access to the Internet, the need to develop students' digital literacy, and the need to tailor courses to regional and national contexts. The presentation will focus on the case of Timor-Leste, a country with ostensibly limited Internet access, but the potential to benefit from resources to improve students' digital and English language literacies. This could enable them to participate in and benefit from a range of open online educational opportunities.

Using YouTube analytics to improve audience retention in learning videos

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YouTube analytics provide video creators with the opportunity to mine a wealth of data, giving fresh insights into the way audiences respond to video production techniques and strategies. In particular, the ability to analyse audience retention throughout the video enables educators to identify the positive and negative key moments that lead to students replaying parts of the video or stopping watching altogether. Since 2012, collaboration between a Learning Advisor and a Learning Designer at ECU has led to an analysis of differing production styles and their impacts on audience retention. A number of good practice suggestions have been identified as steps educators can take in order to create more effective learning videos, leading to enhanced learning outcomes. This presentation will outline the evolution of the video creation process, informed by the goal of improving audience retention across the length of clips, as well as the key takeaways which can inform best practice for teachers producing videos.

Handwritten lecture notes: Not so outdated?

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In this technological age, the prevalence of mobile devices raises questions about the future worth of handwriting skills. This paper explores the brain activation and subsequent learning influenced by handwriting compared with keyboard typing. It has become the norm for most "gen Y" students to use a mobile device to take notes during lectures. Taking notes fulfils two major functions - to record information and to aid reflection with the aim of encoding the

information. There is substantial literature on the effectiveness of note-taking in educational settings, but it generally predates computer use in classrooms. As most students can type faster than they can write, mobile devices contribute to the practice of taking notes verbatim, which undermines students' ability to grasp the bigger picture, think critically, and engage the concepts rather than the minutiae of capturing content. There has been little research directly addressing potential differences in typing versus longhand note taking, and the existing studies do not allow for natural variation in the amount of verbatim overlap. Brain imaging data provides evidence that handwriting elicits significantly more activity in the hippocampus than typing. The hippocampus is the area important for recalling declarative memory (being long term memory that may be applied later in novel situations). Critical thinking requires declarative memory as well as the integration of associations within the brain linking new and past learning. The motor patterns accompanying handwriting facilitate more connections (or associations) within the brain, thus supplementing understanding and meaning. This ultimately results in greater retention and retrieval of learnt information.

Building resilient teaching-focused academics: Unsettling identities in the new institutional order

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The delineation and specialisation of academic roles is redefining academic identities. Of particular note is the rise in teaching focused (TF) academic positions in Australia, which in 2012 were reported to be almost 10 percent of the academic workforce. As an Office for Learning and Teaching commissioned discussion paper (Probert, 2013) indicates, little is known about the impact of TF positions on teaching quality or the morale of those now narrowly defined as teaching 'specialists' within a culture that privileges research. Furthermore, TF academics are required to engage in the scholarship of teaching and learning activities (SoTL), often finding themselves uneasily outside their core discipline. Other critical challenges include marginalisation due to the status of teaching, identity issues, isolation, and a lack of confidence in, and understanding of, SoTL. In working alongside our colleagues, we have found it necessary to value identity work to deal with this unsettling predicament. To transition to these new roles, TF academics are searching for what they can know (and retain from their core disciplinary formation), how they can be, what they can do to sustain themselves, retain currency in their discipline, and how to build new relationships with colleagues. We contend that focusing on identity work during professional support for TF academics assists them to find ways to make uncertain, ambiguous, unsettling dimensions a productive and creative force. The presentation will draw on recent learnings gained from a session on identity delivered at a two-day retreat to support recently appointed TF academics at Curtin University.

Science teacher capacity building in developing countries: Three case studies

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Understanding the influence of learners' socio-cultural background for effective teaching and learning of science is well documented in literature. Preparing teachers to teach students from diverse socio-cultural backgrounds is one of the most compelling challenges facing educators currently. Irrespective of students' academic ability or linguistic, ethnic, religious or cultural backgrounds, teachers need to be skilful in providing rich learning experiences. Placing poorly prepared teachers in classes where they are not sufficiently skilled or equipped to consider students' cultural backgrounds in their teaching can yield negative educational outcomes. Two of Australia's neighboring countries, India and Indonesia, face this challenge as both these countries have very diverse populations.

Inquiry based teaching methods recognise and value the diversity of students' backgrounds and abilities. Inquiry teaching models such as Roger Bybee's 5Es model of engage, explore, explain, elaborate and evaluate provide opportunities for science students to ask questions and work collaboratively with their peers to generate novel solutions using their science content knowledge. This presentation will discuss the findings of three case studies conducted in India and Indonesia, where at different occasions and in different locations three day long workshops were delivered for in-service high school science teachers. Teachers were introduced to and then engaged in inquiry based teaching methods based on the Australian

Academy of Science, *Science by Doing* materials. Data were generated through pre and post workshop surveys, and informal interviews with some teachers to gain insights into their professional needs. These findings are transferable into higher education sector.

Placebo or cure? Students' perceptions of the efficacy of compulsory Post-Entrance Language Assessment workshops

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All first year students enrolling at The University Notre Dame Australia, Fremantle campus, are required to complete a *Post-Entry Literacy Assessment* (PELA). The test comprises two parts: a reading section and a writing section. It has been established partly as a response to the Australia-wide pressure for a broader range of students to undertake undergraduate studies (Bradley, 2008). This "massification" of higher education may have contributed to higher numbers of students with lower levels of the skills needed for successful tertiary study. Students who do not reach the benchmark level in the writing component of the PELA are required to undertake a writing-skills workshop, and those who do not reach benchmark in the reading component, a reading-skills workshop. In addition, students near the benchmark may receive a strong recommendation to participate in one or other workshop. The workshop goals are not to develop a knowledge of prescriptive grammar, but moreover to develop an understanding of the level of standard academic writing required to be developed to achieve academic success. While the workshops do not culminate in a summative outcome, there is a need to monitor their effectiveness, justifying future innovation and the provision of resources. To inform future innovation, this paper investigates a retrospective pre-testing questionnaire and a direct survey of students to determine the participants' perceptions of the workshops' efficacy.

LACEing together the social and the academic

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LACE (Language and Cultural Exchange) (<http://www.lace.uwa.edu.au>) is an award winning intercultural and intracultural friendship program. It assists postgraduate students and staff at the University of Western Australia, particularly those from overseas, to adjust to the challenges that come with being in a new learning environment. The successful, or otherwise, negotiation of such interactions and challenges can have an impact on students' academic progress. Beginning in 2005 with around forty members, LACE has continued to expand its membership and its range of activities. LACE events are generally social events, however, in recent years some activities have been designed to develop members' academic and work-related skills. This practical presentation will discuss how to set up a similar program, suggest how it helps reduce international students' feelings of dislocation and isolation, and what might lead members to remark, "LACE is invaluable... in international students adjusting to life at UWA, Perth and Australia in general. Without it, many would feel lost and alone".

Forms of interaction and their impact on in-service science teachers' argumentative discourse

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The aim of this study is to examine the forms of interaction by in-service teachers as they worked on the argumentative tasks to apply their medicinal chemistry knowledge in the subject methods course. The in-service teachers discussed their ideas and presented their thoughts in groups with the scaffolds of referred authoritative sources. Learning is viewed from a socio-cultural perspective in this research. The class was taken as a collective group for which audio and video data collected during discussions will form a case. By adopting a grounded theory approach, 15 forms of interaction were found, namely: (1) agreement, (2) claim, (3) clarification, (4) condition, (5) explanation, (6) figuring it out aloud, (7) information sharing, (8) offering alternatives, (9) perspectives, (10) persuasion, (11) presenting disagreements, (12) questioning, (13) referring authoritative sources, (14) stating

assumptions, and (15) strategic or procedural talk. Preliminary analysis suggests that the most dominant two forms of interaction will likely be 'clarification' and 'figuring it out aloud'. A possible explanation could be that the in-service teachers were inexperienced with the concepts of scientific argumentation and its practice. Therefore, they tried to clarify with one another and figure things out aloud since they were uncertain of how they should perform. The findings also revealed that teachers' interaction as a group seemed to be influenced by their educational background and their teaching context. Finally, we discussed how the results of this study might contribute towards teacher developmental programs and science classroom practice.

Using video of student-client interactions to engage students in reflection and peer review

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Reflection on practice is a key skill for allied health professionals but can be difficult for students to learn and develop. Reflection enables students to learn from their clinical experiences and develop goals for their future practice. Researchers are beginning to explore the use of videos of students with clients as a tool for developing reflective practice and clinical skills. In the speech pathology course, third year students were required to bring a video of an interaction with a client for discussion in a peer group of four in a clinical tutorial. The tutorials used a strengths-based format to ensure a safe reflective environment. Twenty students participated in the process. Students were then invited to evaluate their experience of the process by completing questionnaires giving both qualitative and quantitative data. Students were generally positive about participating, learning with each other, and reported increased skills. Students requested a further experience of peer review of videos. The peer review method and the results of the student evaluations will be presented. Discussion of the feedback and recommendations for future use will be given.

OnTrack to university: Understanding mechanisms of student retention and persistence in a pre-university enabling program

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University-based enabling programs have become an important pathway to university for non-traditional students, particularly those in government-targeted equity groups. There is increasing interest in understanding the mechanisms which facilitate the retention and success of students engaged in enabling programs, with the aim of developing effective strategies for maximising opportunities for university access. In the current study, we sort to better understand student retention in *OnTrack*, the principal pre-university enabling course at Murdoch University. Firstly, *OnTrack* retention rates were found to be relatively higher than that reported in the literature for enabling programs. For example, in 2014, *OnTrack* retained 82.5% of all students enrolled on Day 1 and 85.4% of all students still enrolled at census. Subsequently, multivariate regression analysis revealed that persistence during the *OnTrack* course was not significantly influenced by demographic factors like low socio-economic standing, non-English speaking background, or being first in family to attend university. Finally, exit survey analysis suggests that the main reasons for withdrawal are personal/family problems, health-related issues, lack of interest/engagement, or an alternative opportunity presenting. These findings are consistent with those previously reported for enabling programs. Of note, there are many students who experience personal challenges during the enabling course, but are retained anyway. Future efforts should be concentrated, at least in part, on understanding the mechanisms that facilitate student persistence under these conditions. In particular, it is suspected that the development of strong peer and tutor-student relationships in internally-offered, full time and semester-long enabling programs like *OnTrack* are a significant and positive influence on retention and persistence.

Ethics from an entrepreneurial leadership perspective: A challenge for business education

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Business ethics as a teaching subject works with a vision of an enlightened, holistic and long-range thinking, empathetic and responsible business professional, who has the civil courage to follow up such thoughts in practice (Brinkmann, 1998, p. 190).

This paper reviews current pedagogical literature on ethical leadership in business curricula, particularly entrepreneurial leaders. The training of the quality minds and character of students has always been a challenge for higher tertiary education institutions (Hulsart & McCarthy, 2013). Societies look to higher education providers with a high expectation to equip graduates with ethical skills for the workforce. Early research from Ford and Carnegie studies found a mismatch between business curricula and faculty staff (Gordon & Howell in Hulsart & McCarthy, 2013). Sauser and Sims' (2011), 'Experiences in teaching business ethics' supports this concern with practical pedagogical points on the delivery of business ethics. Sauser and Sims (2011) argue that business ethics competence is integral to business professional competence. In contrast, business schools treat ethics as a rhetorical ideal rather than a necessity in the training of the minds and character. Business schools tend to produce graduates with leadership skills embedded with ethics. Hence, the intended learning goals of teaching business ethics form the pedagogical foundation of the curricula. The evolution of business in a changing globalised digital environment dictates the necessity that business curricula and academics align in delivering business ethics to produce ethically competent graduates in leadership roles.

Internship: Practicum interfaces with organisations

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The term internship has been used variously by organisations, laymen, academics, researchers, etc. It is also a term easily confused with industry placements for work experience. According to the publication *Employers' Law* (2011), an internship is referred to as "a period of work experience that allows the intern to work at an organisation for a fixed period of time". From the legal and labour perspective, it provides a basic meaning for the term. At the Australian School of Management, an internship is defined as intern work integrated practical learning experience, in the application of theoretical knowledge and skills in a workplace environment. From an academic point of view, an internship is an experiential learning pedagogy for interns in a workplace environment. Based on this definition, this paper seeks to discuss critical success factors alongside best practices for ASM and host employers enabling the fulfillment of learning outcomes and experiences of the interns. The discussion will also include internal support, which is an integral part of the process translating academic learning from theoretical knowledge into real-life practical applications. From academic point of view, there has been some research in the areas of 'Exploring stakeholder relationships in a university internship program' (Hoyle, 2012), and 'Making the most of an internship' (D'Abate, Youndt & Wenzel, 2009). With globalisation and the rapidity of organisational change in a digital economy, further research effort is required, particularly, in addressing and understanding the cultural adaptation, emotional and psychological stress faced by intern students during their internship attachments.

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Effective feedback and self-regulated learning: An interpretation from a study of vocational business students

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The transition from high school to tertiary education puts many demands on young adults, especially the transition from teacher-directed learning to a learner-centred approach. Educational psychologists and policy makers view self-regulation as a key to successful learning in school and further education; however, agree that most learners struggle to attain this in their methods of study. This presentation examines the findings that have emerged from a phenomenological study of self-regulated learning in a group of eight students, aged 18 and 24, in a Vocational Education and Training business program at a Technical and Further Education College. The study was concerned with understanding self-regulation as it was perceived by the students and their teachers. Semi-structured interviews with participants and teachers were undertaken after submission of a written task. Students' and teachers' constructions of their own reality and the researcher's interpretations were fundamental to answering the research questions. Self-regulated learners are drivers of their own learning, generating and soliciting their own feedback. Findings from this research suggests that practitioners should be encouraged to use feedback strategies that give learners a more central and active role in the feedback process to empower them to monitor and regulate their own performance and to develop self-regulation strategies that help prepare them for lifelong learning.

Exploring techniques to move students with writing immobilisation into action

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This presentation explores when procrastination and perfectionism move from a positive motivational construct to a complete inability to write. Research shows that in the student population there is often an intersection between chronic perfectionism and procrastination, and anxiety and/or depression. There is, however, a gap in the literature, a failure to recognise a subset of students for whom the perfectionism manifests as a complete inability to write, in other words 'writing immobilisation'. In our experience these students can be characterised as high academic achievers, skilled researchers, and individuals who understand the concepts of the assessment but are immobilised when it comes to writing. In this presentation we will share our experiences of assisting such students to progress and explore the experiences and strategies of others in the tertiary field.

The Claassen Institute of Psychiatry for Medical Students: An innovative enrichment program to improve recruitment to psychiatry

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Exposure to psychiatry in most medical courses starts in the preclinical years and progresses to clinical clerkships in later years. However, medical students' attitudes towards psychiatry in general, and to psychiatry as a career are often negative. In order to improve recruitment, psychiatry curricula need to develop innovative teaching and learning strategies to attract more students towards a career in psychiatry. A novel enrichment program, the *Claassen Institute of Psychiatry for Medical Students* was developed by the School of Psychiatry and Clinical Neurosciences at the University of Western Australia. The Institute aims to provide students thinking about psychiatry as a career with the opportunity to learn more about speciality areas of psychiatry.

The Institute is an intensive, week-long program. Interactive seminars cover a range of diverse topics and current contemporary themes. Students also attend elective sessions at community and hospital-based mental health services. There is a student-led debate and interactive stigma discussion. Since 2008, 117 students have attended the Institute. Evaluation conducted each year using questionnaires to assess a number of variables has found significant increases in level of student interest and knowledge in psychiatry at the end of the program compared with baseline. Numbers of students definitely considering psychiatry as a career also increased significantly from 67 at baseline to 90 by the end of the week. We conclude that as an innovative enrichment program the Institute is successful in improving students' attitudes towards psychiatry as a career option.

An introduction to *Mindfulness* for graduate medical students

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Psychological problems among medical students are common. High rates of mental illness and psychological distress are attributed to performance expectations, workload pressures, dealing with death and dying, and financial difficulties. There is increasing recognition that strategies that promote student wellbeing and self-care are important. A two hour *Mindfulness* tutorial was implemented for Year 1 MD medical students at UWA. The aim of this project was to evaluate the effectiveness of the *Mindfulness* tutorial on: (i) student knowledge and interest in *Mindfulness*; and (ii) student practice of *Mindfulness* as a stress reduction strategy. Students were asked to complete questionnaires at the beginning and end of the two hour tutorial. A longer term follow-up questionnaire was administered three months later. The level of knowledge and interest in *Mindfulness* increased significantly by the end of the tutorial (paired t-tests $p=0.001$). On a scale of 1-10, the mean rating for enjoyment of the tutorial was 7.1. At the end of the tutorial, 51% reported that *Mindfulness* could be effective as a stress management technique and 41% were planning to practise *Mindfulness* regularly. Students commented that practising *Mindfulness* activities during the tutorial was the most enjoyable part of the session. Results of the follow-up survey will be reported later. The tutorial raised awareness and interest in *Mindfulness* as a stress reduction strategy. Practising *Mindfulness* activities was the most popular component of the tutorial. We plan to integrate additional *Mindfulness* sessions into the medical curriculum in the future.

Effective teaching in simulation: Culturally and linguistically diverse student's perception of teaching and learning in clinical simulation

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Australia is a country with 24% of its population born overseas, this diversity is now mirrored in Australian universities (Australian Bureau of Statistics, 2008). Therefore, Australia has an increasing number of nursing students from culturally and linguistically ('CALD') diverse backgrounds (Crawford & Candlin, 2013). Due to an increasing focus on high and low fidelity simulation used in nursing education, there is a need to determine how simulated learning environments are perceived by students (Reid-Searl, Happell & Vieth, 2012). The aim of this research is to explore culturally and linguistically diverse nursing students' perceptions of learning in a simulation environment, and whether language communication barriers influence their perception. In simulation, students learn in a realistic learning environment where they practise skills without risk to patients and then apply these skills to clinical practice (Ganley & Kinnard-Palmer, 2012). Faculty staff members often refer to simulation as a safe learning environment, however typically they are referring to safety for the patient, not necessarily safety for the student. In simulation the student and patient are physically safe, however students still face the risk of academic failure, embarrassment, negative judgement from peers and loss of integrity (Ganley & Kinnard-Palmer, 2012). There is little literature exploring CALD student's perceptions of how culturally and psychologically safe the student feels in the simulated environment.

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Reid-Searl, K., Happell, B. & Vieth, L. (2012). High fidelity patient silicone simulation: A qualitative evaluation of nursing students' experiences. *Collegian*, 19, 77-83.

Intensive mode teaching models

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Intensive mode teaching (IMT) is growing in popularity in Australian universities. With IMT, students engage in facilitated learning activities, or classes, intensively over longer than a few hours in a day, and over fewer days than in a traditional course would have classes. IMT is supported by advances in technology that allow information delivery, and interactive learning and assessment online, freeing class-time for interactive learning activities focusing on the most critical and troublesome parts of the curriculum, namely threshold capabilities. Flexibility offered by IMT is becoming increasingly important for students undertaking higher education, who now engage more heavily in paid employment than in the past. IMT has appeal to educators, allowing them time to focus on other demands, and IMT is used by many universities offering offshore programs. Davies (2006) reported that IMT has been used by most Australian business schools on and offshore. This presentation focuses on the first step of a project on student experiences of threshold capability development with IMT. In the presentation we will share a map of IMT models. Models used in engineering and business will be outlined and discussion on other models will follow.

Davies, W. M. (2006). Intensive teaching formats: A review. *Issues in Educational Research*, 16, 1-18. <http://www.iier.org.au/iier16/davies.html>

Gender inclusivity of engineering students' experiences of workplace learning

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To society's detriment, women are still significantly under-represented in engineering in Australia, despite initiatives to improve the recruitment of female engineering students. There is also an acknowledged gap between engineering education and engineering practice, and students are encouraged to gain exposure to practice through workplace learning. Of concern is that studies have found engineering workplaces to be gendered cultures in which women can be marginalised. This presentation reports on a study that surveyed (N=197) and interviewed (N=13) engineering students. We explored the interactions in students' workplace learning experiences, how workplace experiences influenced students' perceptions of possible futures as engineers, and the extent to which experiences were gendered. Most students reported that workplace learning was transformative and an overall positive experience. However, several negative recounts indicate that students are vulnerable. This vulnerability is exacerbated by the imperative to gain experience when there is a shortage of placements. One-third of the survey participants who had workplace experience were unaware of a female professional engineer in their workplace. Students experienced and tolerated marginalising interactions. Female students were more likely to experience assumptions based on their gender, requests based on their gender, and comments that drew attention to their gender. The study highlighted the importance of critical reflection on workplace experiences and the need for students to be adequately prepared. Based on scenarios described in the interviews, we developed and tested workshops to prepare students for engineering workplaces.

Support for this project has been provided by the Australian Government Office for Learning and Teaching.

BRiTE: Building resilience in teacher education

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In recent years, teacher resilience has become an issue of national and international significance, particularly in countries where teaching contexts have become increasingly challenging and high rates of attrition noted. Research has shown that resilient teachers have highly developed social and emotional competencies, as well as adaptive coping strategies for managing challenges. While these skills are acknowledged in the literature, they do not feature in teacher standards, such as the Australian Professional Standards for Teachers, nor in accreditation requirements for initial teacher education programs. This paper reports a project aimed at assisting pre-service teachers build their awareness of the skills and practices that will help facilitate resilience in their teaching career. The BRiTE program has been designed as a result of an extensive review and analysis of the teacher resilience literature, as well as empirical research. The five interactive online learning modules focus on resilience skills and strategies such as building and maintaining relationships, caring for wellbeing, optimistic thinking, problem solving, ongoing professional learning and awareness and management of emotions. Each module has clear learning outcomes and a range of learning activities involving reflection, knowledge building and problem solving. The modules are interactive, personalised, informed by research, and connected to Australian Teaching Standards and professional development materials. This paper presents the findings from the pilot implementation of the modules with a cohort of pre-service teachers in 2014. Future directions for research and teaching and learning in higher education are discussed.

Expanding the reach of the classroom with distributed learning: The student experience

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A key element of the transformational teaching and learning agenda of Curtin University has been the introduction of distributed learning. The learning advantages afforded by distributed learning include the possibility of engaging students in synchronous, face to face, collaborative, group-based learning activities virtually extending the classroom and overcoming the isolation of distance. A pilot project launched in 2013 focused on video conference-based collaborative learning between the city-based University Campus and a class at a remote Pilbara campus in the far north of Western Australia. The aim of the project was to distribute education to nursing students, with the view to broadening this learning approach to a range of health professional students in the future. A comprehensive evaluation was undertaken throughout the pilot with a key focus on the student experience of distributed learning.

In this session, the student experience of the distributed learning model will be highlighted, drawing on student feedback, and the successes, challenges and lessons learnt from this approach by the local and distant students. The innovative model of distributed learning adopted has significant potential to expand the reach of tertiary education into rural and remote Australia, smoothing the transition of regional students to university life and helping to improve ongoing sustainability of the local health workforce, and the wider community.

Uncapping student potential: Re-thinking scaffolding and assessment of oral presentation skills

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Oral presentation skills are highly valued in the job market and are stated graduate learning outcomes for many Australian universities. In a number of degree programs, the ability to voice opinions in class and participate in collaborative learning situations are assessable, and crucial to student success and ultimately employability. The ability to present to an audience is likewise a vital skill in higher education and in later employment, particularly in the areas of business, law and education. Yet up to 75% of the population is so afraid of public speaking that they may not physically or mentally be able to perform such tasks without some form of intervention. Nonetheless, in Australian universities, we tend not to scaffold oral presentation skills, and assessments of the skills are primarily summative. This paper will review the literature surrounding social anxiety and fear of public speaking as it relates to the capacities of students to demonstrate such skills and engage in these forms of assessment. It will then make recommendations from examples of good practice, for example in the United

States, to suggest that if we are indeed to uncap student potential, then we need to reconsider ways of scaffolding and assessing oral presentation skills.

Indigenous perspectives on integrating learning technologies in a tertiary enabling program

Refereed Professional Practice paper: Full text on website

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The Centre for Aboriginal Studies at Curtin University offers an Indigenous Tertiary Enabling Course designed to equip Indigenous students for entry into mainstream university degree programs. While the program is highly regarded, it is argued that opportunities offered by incorporating contemporary learning technologies to allow more effective student engagement can deliver more successful outcomes.

With this in mind the Centre has undertaken to introduce the use of tablet devices (iPad) and notebook computers (MacBook Air), which will enable a strategic shift towards a more student-centred, technology, integrated model of student engagement with anticipated enhanced outcomes. The Centre has undertaken to trial the use of online teaching and learning strategies in semester 1, 2014. At this pre-tertiary level, it is anticipated the advantages of a student-centred experience will become evident as the trial moves through the year. This paper will describe the current conditions and staff perceptions after the first year of implementation as well as to compare outcomes from the most recent ITEC cohort.

55 Minute workshop

What's your *Aura*? Using augmented reality to create engaging learning activities for students

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In the education sphere the use of augmented reality (AR) - technology that layers digital content on top of the physical world - is becoming increasingly popular as a means of introducing interactive and engaging activities into the classroom. As part of its teaching and learning program, Curtin University Library has been using *Aurasma*, a free AR application, to create fun learning activities for students using mobile devices. This workshop will briefly explain how augmented reality has been used more broadly in the education context, and then share the Library's 2014 experiences in designing AR game-like activities for both the LinkUp (AHEAD) program for high school students visiting campus, and as part of an orientation game for new students using the library. The workshop will also outline the particular features and functions of *Aurasma*, and demonstrate how to create an augmented reality experience. Participants will try out some of the Library's AR activities, before designing and creating a simple augmented reality experience and discussing ideas about how AR activities could be integrated into the curriculum. Workshop participants are encouraged to download the free app to their mobile devices prior to the workshop (www.aurasma.com), although *mini-iPads* with the app pre-installed will be available for all attendees.

Writing about writing in higher education: Modelling good practices

Refereed Professional Practice paper: Full text on website

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I write about and model good writing practice for application by higher education teachers and students. My aim is to provide a useful writing resource through modelling what I consider to be good practices. I start with this formally structured Abstract which contains

introduction, methodology, discussion and conclusion components. My methodology utilises literature review and personal views drawn from experience as an academic writer and teacher of writing skills. Key suggestions for effective writing are to develop a main message tailored to the identified audience through a story-telling approach which comprises a 'stand-alone' document that can be comprehended by a lay-person. Creating well structured sections with descriptive headings and supporting text sequentially consistent with the Title and paper aims ensure promises to the reader are upheld. Careful, creative and convincing use of references is vital in argument construction and ensuring credibility. While this paper may serve as a useful writing template within the higher education sector, effective writing requires practice and revision. The art of good writing is a lifelong pursuit. I demonstrate that creative writing can be produced whilst simultaneously adhering to the guidance I advocate.

Empowering young engineers through the nexus of fundamentals in mathematics: Strong links facilitate strong motivation

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Engineering students are required to learn a substantial amount of basic fundamental mathematics in first year. Generally, students struggle with these units and cannot foresee their relevance to future engineering courses they study. Our research aims to strengthen the link between the foundations taught in first year and their applications in engineering units in later years. Despite all efforts, courses in Mathematics and Engineering are at present still perceived as being disjoint and unrelated. Mathematics units lack compelling real world examples, and Engineering units employ mathematical tools without reference to the material learnt in first year. For each of the topics in a first year mathematics unit such as MM2 we propose to find a relevant and important application in a second, third year engineering (ENSC 2001, PETR3512) and Masters of Professional Engineering (MPE) GENG5504 unit. We will present coordinated examples with common notations used in both mathematics and engineering units. This will emphasise the relevance of the material to first year students and enhance understanding of the material for the third year and MPE (fourth and fifth) students as it is directly related to previously learnt material.

Our study follows a cohort of first year students through to their third year and beyond to their fourth and fifth MPE years. Preliminary studies have shown that direct cross-referencing of materials in lectures is helpful to students as well as to lecturers. We will test whether the students are more motivated to work hard to understand the mathematical concepts, and whether they find them easier to comprehend when applied to a relevant problem. We will achieve this by devising a set of relevant questionnaires to ascertain whether the links have an impact on the student cohort we are following. Other outcomes envisaged include improved communication between lecturers for mathematics and engineering courses, and a strong nexus between mathematical fundamentals and their applications in engineering. Further outcomes anticipated are: improved student experience and satisfaction, and potentially improved SPOT and SURF scores.

'Are you having a laugh?' Using humour as a teaching tool

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Our understanding of the word 'uncapped' is now dominated by modern technology. Most of our students have grown up with the ability to passively click and consume information, and this has the potential to have a profound impact on the way they approach their university studies. With technology supporting the recording and electronic distribution of lectures, students can now choose to listen to the material online rather than attend in person. And even when they do show up, the fact that they are becoming increasingly accustomed to instant access of information with minimal effort means they may be less likely to be active participants in their own learning experience. Whilst studies have shown that humour can have a significant positive impact on students' retention of material, the judicious use of appropriate humour is also a way of both attracting students to the classroom and encouraging their active involvement once they are there. Appropriate use of humour creates a comfortable social atmosphere and increases student attention and involvement; far from being a diversion to proper learning, it can actually help foster it. As well as exploring the pedagogical benefits of using 'constructive' humour in class, this paper aims to provide practical guidance to those wishing to introduce more humour into their teaching.

***I*Create: preliminary usability testing of apps for the music technology classroom**

Refereed Research paper: Full text on website

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In the world of music technology where, “music practice is challenged, mediated and redefined through performers’ and composers’ uses of ICT” (Savage, 2005, p. 168), curriculum change is necessary if the world of the classroom is to keep pace with the world outside (Cain, 2004, p. 219). For newcomers to music technology, the glittering array of increasingly sophisticated flashing, emulated, and modulated interfaces can invoke virtual interface dyslexia before giving way to options anxiety. Change is the only constant in the ever-evolving techno-scape of sound and music applications. This paper proposes that the development of an introductory tertiary music technology unit curriculum using loop-based music iPad apps may effectively engage non-traditional music (NTM) students in both music and technology. The course design was underpinned by two intentions. Firstly, the aim was to stimulate student creativity and secondly, to encourage *immersion* (focused attention) in sonic composition (Witmer & Singer, 1998). This paper reports on the preliminary usability testing of five loop-based music iPad applications. It is administered to a sample of one, namely the author, using the System Usability Scale (SUS) (Brooke, 1996) and is guided by the following questions: Would this testing methodology be appropriate? What factors specific to loop-based music app design might be pertinent for educators? Would this testing method indicate the potential for student immersion and creativity? While the pilot study, described here, is conducted solely by the researcher to determine the effectiveness of the method, future research intends the study to be administered to a small classroom group if determined appropriate.

The journey toward 21st Century teaching starts with one transformation at a time

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The “Transforming Teaching with Technology” project was established to provide academics in the School of Electrical Engineering and Computing, Curtin University, with opportunities and experiences that would foster technology-enhanced teaching practice. This professional development initiative was designed in a way that empowered academics to take ownership of their learning and how they transformed their teaching. Academics participated in workshops, one-on-one consultations, tutorials and online collaboration to learn about various educational technologies. To keep the transformational process manageable, participants were asked to work on one aspect of their teaching only. Pre- and post-questionnaires were used to capture participants’ perceptions about their transformational journey. Results were summarised in eight take-home messages that may inform the design and planning of future professional development programs. According to our findings, academics have a better chance of achieving their transformational goals in an environment that is collaborative, academic-centred, work-integrated, and offers freedom of choice.

***Volunteering to Learn* in universities: Some stories from the field**

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This paper will present some of the stories gathered to date from a two year project examining student volunteering in universities. *Volunteering to Learn* is an Office for Learning and Teaching funded project involving four WA universities and Macquarie University which has been gathering data over the past 18 months about the volunteering experiences of students, the requirements and guidelines of host organisations and university management systems. During that time the project team has undertaken a desk audit of volunteering in universities

around Australia, conducted a literature review, interviewed key stakeholders and run several workshops and presented at conferences and other gatherings to elicit information about the student and university volunteering experience in order to understand better what relationship volunteering has to student learning. Universities across Australia have variously embraced the idea and practice of student volunteering in a variety of ways, but little is known about the learning outcomes for students. While this project is not evaluative it has revealed so far some interesting insights about why students volunteer, what they hope to achieve from doing so, what assists the volunteering process and what needs further attention. This presentation will share some of the stories gathered so far about these experiences prior to the next phase of the project which is to run a series of workshops across Australia to seek feedback on the *Good Practice Guides* which are being developed for students, hosts, employers and university management.

55 Minute Workshop **Recognising and valuing the leadership role of unit coordinators**

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This workshop is planned to facilitate discussion around recognising and valuing the leadership role unit coordinators play in learning and teaching to improve the student learning experience in higher education. The focus of activity is to share materials focused on the work of unit coordinators from data gathered during the ‘just in time-just for me’ project funded by the Office for Learning and Teaching. Unit coordinators across Australia described their experiences of learning and teaching to highlight the opportunities and challenges they face now and in the future. Both experienced unit coordinators and newer academics provided data for the research, and almost without exception spoke of the challenges they faced in their role, which in the main, they described as enjoyable. The majority of participants stated their appreciation for the listening time and confidentiality our presence offered them, in addition to our efforts to recognise and value their role. Few participants perceived themselves as strong leaders of learning while appreciating the scope for such leadership and similarly, few described strong institutional support for the complexity of their role in their university. Workshop discussion is intended to disseminate final project information, honour the significant role unit coordinators play in ensuring excellence in learning and teaching in higher education while also striving to raise the profile of the scholarship of teaching and learning.

The objectives of the workshop include firstly, raising the profile and leadership potential of unit coordinators, secondly, publicly acknowledging the contribution made by unit coordinators to excellence in university teaching and thirdly, providing an opportunity to honour those original participants of the ‘just in time-just for me’ project. Our plan for the workshop is to:

1. Briefly introduce the ‘Just in time-just for me’ project to participants
2. Invite participants to work in small groups of four or five to share their own experiences of unit coordination
3. Provide sets of five batched narratives crafted from data collected during the project for small group reading followed by discussion
4. Shared and structured discussion among the larger group around information in the narratives
5. Wrap up

A three-year evaluation of *UniPASS*: A peer-led academic support program at Curtin University

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UniPASS is an accredited, peer-led academic support program at Curtin University currently supporting 37 units with a history of difficulty. A typical *UniPASS* session is facilitated by a trained peer educator who models and guides collaborative learning in a safe, non-hierarchical learning environment. Sessions are voluntary, open to all students in the unit, and non-remedial. Bivariate analyses suggest that regular *UniPASS* participation is associated with substantially higher grades and pass rates. However, such analyses do not account for the possibility that regular *UniPASS* participants out-perform their non-regular peers simply

because they are more capable and/or motivated to begin with. In the current research, this limitation, along with several others which pervade the peer assisted study session (PASS) literature, is addressed. We used *UniPASS* participation in a series of Generalised Linear Mixed Models (GLMMs) to predict the unit grades and pass rates for the population of students enrolled in *UniPASS* supported units in second semester 2012, 2013 and 2014, after controlling for university entrance rank, first semester performance and *UniPASS* participation, and a range of demographic factors. GLMM is preferable to ordinary least squares and logistic regression as it can account for dependencies arising from nested data structures (e.g., students nested within classes), repeated observations of the same subjects, and can also handle both normal and non-normal outcomes. Results indicated a robust and meaningful *UniPASS* effect on both unit grades and pass rates, which persisted after controlling for pre-existing differences in ability, motivation and demographics.

Beneath the surface: Evaluating student perceptions of soft skills developed in a German theatre course

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According to UWA's description of a Bachelor of Arts, an "Arts degree helps you develop highly sought-after skills such as critical thinking, communication, reasoning ability and problem solving" (2014). These so-called 'soft outcomes' differ considerably from what Zepke and Leach (2010) term 'hard' quantifiable outcomes including "how well students have been retained, how many completed their courses, and work-related outcomes" (p. 662). For this project, I have created a survey to ascertain student perceptions on what 'soft' learning outcomes they have experienced in a university course on German theatre. I asked students to indicate a variety of options of what they might or might not have improved in over the semester, as well as providing them with the opportunity to elaborate in short answer form. In this presentation I discuss my findings that students did indeed perceive that skills such as the ability to work in teams, oral communication and general analytical ability, among other aspects, had improved. As Zepke and Leach (2010) write, "gauging student success using 'soft' learning outcomes validates student experiences" (p. 663). These results are relevant in terms of students' overall perceived usefulness of an arts/humanities degree to their future career goals or life prospects.

The University of Western Australia (2014). Bachelor of Arts (BA). The University of Western Australia. <http://www.studyat.uwa.edu.au/courses-and-careers/undergraduate/arts>
Zepke, N. & Linda L. (2010). Beyond hard outcomes: 'Soft' outcomes and engagement as student success. *Teaching in Higher Education*, 15(6), 661-673.
<http://dx.doi.org/10.1080/13562517.2010.522084>

How work integrated learning can assist in developing graduate attributes and professional outcomes: A case study

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Students completing an Education degree at the University of Notre Dame complete twenty seven weeks practicum placement in schools. In addition, students undertaking the Health & Physical Education degree complete a variety of work integrated learning (WIL) experiences with community partners which are embedded in the curriculum. This presentation will demonstrate how these WILs can play a vital role in ensuring that students meet the graduate attributes and professional outcomes outlined by the University which enhance employability. In addition, these experiences also assist in ensuring that student teachers meet the "Australian Professional Standards for Teachers" as outlined by the Australian Institute for Teaching and School Leadership (AITSL). This presentation will give examples of specific WIL tasks that students undertake as part of the degree. Furthermore, examples of how tasks are assessed and how they relate to graduate attributes and professional outcomes will be presented. The presentation will also outline some of the specific challenges that have arisen with regard to the WILs and embedding these into units.

Living Anatomy: A dynamic and innovative learning tool to facilitate understanding of anatomy, physiology and pathophysiology

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An understanding of human anatomy and physiology is fundamental to medical education, yet traditional undergraduate medical school teaching involves cadavers and static models, and little direct demonstration of anatomy or physiology using imaging. Our teaching initiative, entitled *Living Anatomy*, introduces new modes of anatomy and physiology teaching using online multimedia presentations, lectures and bedside tutorials using ultrasound. Each modality of teaching was focussed on the use of imaging to demonstrate both anatomy and physiology, with strong content parallels across multimedia presentations, lectures and bedside ultrasound tutorials. Our new method has offered innovative opportunities to actively engage medical students in acquiring anatomy, physiology and pathophysiology knowledge. The ability to conduct in vivo real-time ultrasound imaging allows clinical teachers to share directly with a student audience. Knowledge gained from the living anatomy program from first year is expanded in second year to include pathophysiology and pathology, and integrated into clinical skills training for third and fourth years. The use of imaging in this manner therefore serves two purposes based on sound pedagogic principles: First to teach anatomy, physiology and pathophysiology in an integrated, engaging and innovative format, grounded in educational construct; Second to create the building blocks for their future, creating a deeper understanding of, and ability to interpret, the imaging that will form a daily part of their clinical practice in the future. We have found active learning using imaging, in a real time learning environment, is both embraced by medical students and highly relevant to their future work as clinicians.

A demonstration and preliminary evaluation of Jim, the virtual empathy simulator

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Simulations provide safe, standardised environments for clinical training, and are a promising alternative and/or supplement to traditional placements in an era of rising student numbers and limited resources. 'Jim' is an award-winning, computed-based, simulated elderly person built to provide allied health students with opportunities to develop and practise basic rapport building and communication skills. In this presentation, we will demonstrate Jim from the perspectives of both the trainee and the clinical educator, before outlining the results of a preliminary evaluation of his effectiveness as a training tool in the context of speech pathology education. These results indicate that students randomised to conversationally engage with Jim (n = 19) reported the same benefits vis-à-vis the development of knowledge, skills and confidence as students randomised to either a nursing home resident (n = 21) or a trained patient actor (n = 22; median d = .58). Furthermore, although the students found conversing with Jim to be more challenging, less enjoyable and less 'real' compared to conversing with a nursing home patient or actor, they appeared to gain just as much from this experience. Considering the opportunities that simulation can offer, we argue that training tools like Jim can play a valuable role in clinical education across a wide range of contexts. The presentation will conclude by outlining our road-map for the ongoing development of Jim, the virtual Empathy Simulator.

An agile approach to ed-tech innovation: Developing *Curtin Challenge*

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Sustaining educational technology innovations is a known and persistent problem in the university context. Whilst software projects driven by teaching and learning departments may be more in-tune with educational needs, they often result in legacy systems never fully operationalised due to cessation of funding, inability to scale, or breakdown in intra-

departmental collaboration. Universities are one of numerous entities in a rapidly changing ed-tech market. Entrepreneurial start-up companies are obtaining unprecedented amounts of venture capital that far exceeds any capital investment universities can offer or can obtain for its entrepreneurs. Therefore, role of universities as the traditional drivers of ed-tech offerings is being challenged by this emergent entrepreneurial approach.

Using the example of the *Curtin Challenge Platform* project, this paper examines the critical success factors in creating sustainable educational technology innovations. It examines how Curtin Teaching and Learning's *Innovation Studio* has embraced start-up culture and used the agile development approach to enable greater responsiveness to changing market and business needs. This approach acknowledges that universities often do not have the structures to allow for development agility in terms of funding, procurement and governance. However, opportunities exist for commercial and intellectual partnerships that support operationalisation and commercialisation. This paper shows the efficacy of the agile approach on the evolution of the *Curtin Challenge* project, and demonstrates the viability and suitability of this method as a key factor in maintaining the university role as a driver of ed-tech innovation.

Found in translation: Taking English language development from policy to practice

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The Higher Education Threshold standards outline the responsibility of providers with respect to the English language proficiency (ELP) development of enrolled students. Specific mention is made of applying minimum levels of English proficiency to all commencing students, and ensuring that course design leads to the development and achievement of key graduate capabilities, including ELP. At Curtin University, there has been significant attention given in the past two years to addressing the ELP development of enrolled students. In 2012, the executive agreed to raise the minimum English language proficiency for entry to Curtin coursework degrees and in 2013 the English Language and Learning (ELL) policy was established. The ELL policy outlines Curtin's commitments with respect to meeting the Threshold Standards for Higher Education, and the aspirations of the Curtin Graduate Capabilities. The policy presents a vision for English language development at the university and commits to offering a range of English language development programs and opportunities to all students; however, the implementation of the policy is fraught with challenges, and effective translation of policy into practice requires the participation and commitment of all stakeholders. This presentation will explore how the Faculty of Science and Engineering has responded to the aspirations of the ELL policy, focusing on key initiatives in Foundation year programs.

Using digital technologies to teach research writing in science and engineering

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Research writing is a complex process that requires the author to not only demonstrate competency in disciplinary knowledge but also to engage in disciplinary ways of articulating that knowledge. Despite this complexity, research writing is often not addressed explicitly in higher degree by research curricula. Students are often left to develop research writing skills on their own as a by-product of their reading and the supervision process. This is more prevalent in positivistic scientific disciplines where the writing component of research is perceived to be extraneous to the research process and is frequently left to the very last. In order to address the issue, an online, interactive, teaching and learning resource was proposed to meet student needs in the Faculty of Science and Engineering, at Curtin University. The resource is specifically designed to enable students to discover the dialogic nature of research writing through completion of twelve self-paced lessons, and is intended to be an element of a blended learning approach to teach research writing skills. This presentation will discuss the process and challenges of developing the teaching and learning resource. It will describe briefly the content of the program, the interactive exercises embedded in the lessons, and the challenges involved in using *Articulate Storyline* software to create the resource. Future research objectives with respect to the efficacy of the program will also be discussed.

Evaluating student learning in an adjunct English language development program

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The preferred model of English language development provision is integration of language into content units; however, this model is only possible with the commitment of stakeholders. In some particular disciplines, especially the 'hard' sciences, this buy-in is still forthcoming. In the interim there is still a necessity for an adjunct model. Given the short period of time allocated to the delivery of the adjunct model, it is often difficult to evaluate the efficacy of such a model. At the faculty of Science and Engineering at Curtin University, in response to the English Language and Learning policy (ELL), an adjunct English language development program has been in place to service new to university students. The program is designed to be student centred and includes eight hours of face to face tuition over a semester. This presentation will address student learning in the adjunct English language development program delivered in the faculty of Science and Engineering. Issues such appropriate methods of evaluation in light of the developmental nature of English language learning will be discussed.

An analysis of the blended learning approach to the teaching of management in the 21st Century

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Increasing use of technology in the higher education sector has seen the term *blended learning* gaining prominence. Blended learning is a way of optimising face to face and online delivery of learning material. In Semester 2, 2014, a Business & Law Faculty lecturer worked with a learning designer to trial a partially blended learning model of delivery in a first year management unit, that developed online learning materials for 3 weeks across a 12 week program for the on-campus cohort. These materials consisted of a 'lecture snapshot video' and pre-tutorial activities that replaced the student requirement to attend a live lecture. During the semester, student surveys were conducted to capture student responses to this initiative. Reflection and analysis of the students' responses and staff members' experience of blended learning are discussed in this presentation.

Indigenous ways of knowing: The iDEO LOCI 1+2 Project

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This presentation investigates an active case study of transformative Indigenous teaching practices within UWA's School of Indigenous Studies. The undergraduate teaching unit *Indigenous Ways of Knowing* (INDG3800) requires students to travel abroad to research and present information with an aim of facilitating critical discussions in which Global Aboriginality and shared substantive cultural knowledge are central to its pedagogies. In late 2014, the unit includes intensive field trips to Indigenous loci in Chile and the USA, with the enrolment being divided into two UWA student and staff cohorts. The project identifies a need for students to be able to maintain a learning community across and in-between the unit, notwithstanding the remoteness of the cohorts during the international travel and fieldwork component. The ability to enable and access peer critique and support from both cohorts whilst in the field is an important resource for students in shaping their perceptions and reflections, and corresponds to the unit concepts of *Indigenous Ways of Learning*. By leveraging the Open University blog activity in *Moodle*, we are attempting to provide a cultural space for the online learning community to flourish during the travel and fieldwork, enabling access and participation for all colleagues, and to encourage further concepts of 'travelling by learning'. This activity facilitates digital storytelling and Indigenous performative practices as a pedagogy to both decolonise the experiential learning spaces and to allow Indigenous students to playback and critique the first-hand experiences of 'other' unique Indigenous cultural immersions and environments of protocol, ceremony, representation and learning.

This presentation will be part of a series of future iDEO LOCI presentations that will report on the learning and teaching achievements of these 'once-in-a-lifetime' expeditions in order to

develop stronger Indigenous ways of learning, as well as complementing an international Indigenous community of practice for SIS and activating other study abroad opportunities for future UWA Indigenous students and staff.

The real deal: anatomy uncapped

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This is a report of our attempts to produce equitable and useful outcomes in a third year dissection-based anatomy unit in which student numbers rose from approximately 60 to 160 in a single year, and the proportion of students with the usual prerequisites fell from near 100% to 46%. The heterogeneity of student backgrounds was addressed by making available all material from the old prerequisite unit, rewriting all of the lectures in plainer speech and introducing an extra weekly lecture explicitly addressing the concepts underlying the content of our unit. Logistic and resource constraints reduced the amount of time each student undertook traditional medical-style, guided dissection to half the semester, the other half being occupied by a scientific enquiry. All students were required to produce weekly accounts of the progress of the human dissections, whether dissecting or not. Students without the previous prerequisite study were shown to be significantly disadvantaged in the mid-semester assessments. However, this disadvantage was least in the group which had undertaken the guided dissection and greatest for those who had not dissected at all. It had not entirely vanished by the end of semester. Providing students with this 'real' task enhanced their engagement and improved their outcomes. We believe this demonstrates the ability of the authentic experience of dissecting to 'bootstrap' students suffering the effects of a lack of prior study, which has implications for other higher level units attempting to maintain accreditation-level standards in the uncapped university.

Tertiary teacher education online: Teaching with the tools with which we are teaching

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In recent times the higher education sector has identified online learning and its various guises (flipped classrooms, blended learning, MOOCs) as the new frontier of tertiary learning and teaching (Reeves & Reeves, 2012). This case study involves postgraduate students who also happen to be University staff, enrolled in the University's Graduate Certificate in University Teaching (GCUT) course. GCUT was recently shifted to online delivery mode for at least 75% of the offering. The online component, delivered via the University's learning management system (LMS) [in this case *Blackboard Learn*], places staff on the other side of the screen, actively participating in a learning experience their students will to some extent mirror when they come to engage in online learning created by this same staff in their capacity as lecturers. The question posed here is whether, by engaging in the development of tertiary teaching skills using the online mode they in turn use to present materials to their own students, staff develop a deeper appreciation for students' successes and challenges in the online mode. Further, it seeks to interrogate whether training in the mode in which future (or even current) teaching is to be undertaken improves their ability to adapt materials to enhance student learning, and encourages their embracing of concepts like "teacher presence" more readily in their own online delivery.

Industry-driven criteria development of work-ready graduates in Spatial Sciences

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Work integrated learning (WIL) programs are being built into all Curtin University courses by 2016 and are becoming progressively more common in other tertiary institutions throughout Australia and elsewhere. To ensure they are effective at developing more employable, work-ready graduates, they will need to be tailored to industry requirements and expectations. To this end, the criteria of a work-ready graduate were identified from over 40 participants within industry for two closely related disciplines in the Department of Spatial Sciences (Surveying and Geographic Information Science - GISc). A modified Delphi process was subsequently

used to test for consensus and eliminate poorly represented criteria. Preliminary results were analysed and differences between the disciplines were explored. The perceived skill-levels of a cohort of students were also analysed, based on online gathering of their reflection, before, during and at the end of their WIL program. These results were compared with judgments made by their work-place supervisors. Findings are used for a better design of WIL programs, including learning activities and assessment practices that address industry requirements and improve student satisfaction.

Shared access to computers promotes group interaction in an active learning classroom

Refereed Research paper: Full text on website

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Active, collaborative learning offers advantages over traditional instruction across a broad range of disciplines. Recently classrooms have been redesigned in order to better promote group interaction and discussion, with de-emphasis of the front of the classroom, students being arranged in small groups, and ubiquitous presence of technology. Student tutorials were held in an active learning space designed for students studying biomedical science. A unique feature of the space was that it had two computer configurations installed: some desks were configured with one computer per student while others had a shared configuration of one computer per three students. The presence of two different configurations in the same space allowed a single cohort of students all learning the same material and with the same teachers to experience both configurations and make direct comparisons. Staff and student opinions were gathered by anonymous survey.

Student preferences for computing configuration were divided. Students who preferred one computer per student reported that this enabled faster completion of set class activities. Students who preferred the shared computer configuration stated improved learning, better engagement and more group cohesion. Overall, both teachers and students found that the active learning classroom promoted engagement and group interaction. These observations support previous studies that found active learning classrooms and computer sharing among students leads to better group interaction and outcomes. Shared computer facilities can promote group interaction and may lead to better outcomes for learners. These results may be of interest to universities or schools designing educational facilities to promote group learning.

55 Minute workshop Preparing a MOOC: An induction workshop

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In 2013, The University of Western Australia (UWA) signed with the Coursera Massive Open Online Course (MOOC) platform (www.coursera.org) to provide massive open online courses to an international cohort. The purpose for engaging with MOOCs was to profile unique areas of expertise in the university, as well as to learn about online teaching and learning and so inform an Education Futures vision.

The aim of this workshop is to lead participants through critical considerations in preparing a quality MOOC and reflect on the application of these lessons to teaching and learning in general. The workshop arises from lessons learned during the development of the first two official Coursera MOOCs at UWA and experiences other institutions have shared. A similar workshop was used at UWA to initiate the development process for the intended 2015 MOOCs.

The objectives of the workshop are to:

1. Share lessons learned from UWA's experiences in the MOOC environment
2. Develop participant understanding of unique factors in MOOC development compared with conventional teaching contexts
3. Collaborate on developing concepts, understandings of process, and on extending learning to create a blueprint for a potential MOOC.

During this workshop, participants will:

- Discuss / share their own experiences with MOOCs
- Lessons learned from past experiences
 - hear the experiences of staff previously engaged in the processes and lessons learned
 - collaboratively develop a list of hints and tips

- Copyright challenges
 - discuss copyright challenges in an open learning environment
 - consider alternative resources to copyright materials and create a list collaboratively
 - Innovation in MOOCs
 - Consider a topic they teach consider ways to be innovative in a MOOC context
- Throughout these activities, the presenters will share related knowledge, experiences and ideas.

What makes the 3MT talk special?

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The three minute thesis ('3MT') talks started in 2008 as an initiative of the University of Queensland in Australia. By 2014, the Trans-Tasman final of the event had participants from 48 universities: from around Australia, and from New Zealand and Asia. The objective of the three minute thesis talk is to engage and inform an audience of diverse listeners with the essence of the speaker's research, and to do so in just three minutes using only one visual image. This type of presentation is different to the traditional academic talk that PhD students have experienced as part of their candidatures, which typically includes progress talks, departmental seminars, conference talks, etc. And whilst other popular genres have emerged for presenting to peers, like the poster talk and the PechaKucha, the 3MT has seen a particularly rapid rise in popularity across many universities around the world. In this conference presentation, the distinctive nature of the 3MT talk will be explored and related to the methodology for a study that is currently underway on the structure and function of the language of the 3MT talk. The aim of the study is to inform evidence-based practice for preparing PhD students who are thinking of competing. The current data comes from two years of finalists at one Victorian university. In this talk we will look at the analytical tools being used in this study, both their benefits and their limitations. And we will put forward the idea of extending the study to other universities.

Analysing student perceptions and measures of learning in a Master's level peer review feedback process

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Peer review feedback was added to a group report in a master's level climate change policy and planning unit. The peer review process was introduced to assist students with increasing the quality of group reports and to develop peer review skills. The task was established as an assignment, contributing to the final unit grade, to encourage students to provide quality feedback. A pre-review presentation explaining the peer review process was delivered. The peer review was undertaken using feedback templates expanded from the group report marking rubric. The peer review process was critically examined to determine whether it proved a worthwhile learning experience. Pre- (27 responses) and post- (24 responses) surveys were conducted to determine whether students found the process a valuable learning opportunity. Results from the survey, analysis of the peer feedback, and draft versus final reports generally reflected existing academic literature on peer review processes. Students viewed the peer review feedback process positively and believed it contributed to their learning experience. There was no statistically significant difference in responses depending on whether students had previously undertaken peer reviews or not, demonstrating the pre-peer review presentation was effective in highlighting the benefits of peer review. Seven out of eight groups improved between draft and final report, with all groups responding to peer review feedback. Consistent with the literature on peer review, there was a higher focus on style and presentation as opposed to content in the feedback. Findings indicate the peer review process is a worthwhile addition to the unit.

Smart casual: Effective development programs for sessional staff in law

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As casualisation increases across the Australian tertiary education sector, sessional staff have become the most visible teachers for many law students. The quality of sessional teaching is therefore critical to law students' learning and progression through their degree. However, many sessional teachers in law have limited teaching qualifications and little teaching experience. Added to this, few law schools have the institutional capacity to develop effective development programs for these teachers. This paper examines the Australian Government's Office for Learning and Teaching project grant 'Smart casual: Towards excellence in legal education', that seeks to assist the legal academy address this problem through the development of discipline-specific development resources.

Gauging 'drop-ins' as an alternative to individual appointments: One learning advisor's perspective

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This presentation details the initiation and implementation of 'drop-in' sessions facilitated by a team of learning advisors (including the researcher) within Edith Cowan University's Faculty of Education and Arts (FEA). In particular, the presentation gauges the usefulness of scheduled 'drop-in sessions' as a flexible and dynamic way for learning advisors to provide support and assistance to university students (both undergraduate and postgraduate). The study contemplates the functionality of 'drop-ins' as a primary mode of student consultation, positioned in contrast to the established model of 'one-on-one' or individual appointments. This presentation outlines the major advantages and disadvantages of advising students via 'drop-ins', considering the effectiveness of this method of service, and advancing suggestions for future implementation.

Prudentia©: An outcomes-based curriculum mapping system

Refereed Professional Practice paper: Full text on website

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The School of Medicine (SoM) at the University of Notre Dame Australia has developed a curriculum mapping system called Prudentia©. This web-based application allows users to explore curriculum across all four years of the MBBS to determine what and when students are expected to learn, and if there are any anomalies evident within this data. A five-level hierarchical, outcomes-based curriculum framework underpins Prudentia© ranging from the macro Australian Medical Council (AMC) Student Outcomes Statements to the micro daily learning objectives. Data in all five levels of the framework can be mapped and constructive alignment between the outcomes, instructional and assessment methods can also be investigated. While Prudentia© is a user-friendly application, it is only as good as the curriculum framework which underpins it. This paper discusses the critical questions that were pivotal in developing the SoM's curriculum framework, upon which a robust curriculum mapping system was eventually built.

Capstones uncapped

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As the recipients of an OLT Extension Grant, our objective has been to facilitate the development of capstone units for each major within the School of Arts at Murdoch University. To this end, national teaching fellows with expertise in developing capstone units were invited to give workshops for staff and one-on-one meetings were held with the academic chairs of each discipline group. The diversity of majors within the School (which embraces media, communications and creative arts as well as the traditional humanities) has meant that there is no 'one-size-fits-all' template. Instead our experience suggests a range of alternatives for content and assessment, while maintaining certain core objectives for all capstone units within the School of Arts. We will discuss some of the models for disciplinary capstones, including the possibility of students from different disciplines working on a common project.

Integrated pharmacology in an undergraduate nursing curriculum: Students' perceptions of readiness for clinical placement

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Pharmacology is a key area of study in the undergraduate nursing curriculum. The delivery of pharmacology content across undergraduate nursing curricula historically takes one of two forms: either specific units in pharmacology or through an integrated or embedded approach, where pharmacology content is addressed across several course units. The integrated curricula delivery method is relatively new within undergraduate nursing courses.

The aim of this research project is to determine the effectiveness of integrated pharmacology curriculum in meeting student's perceptions and expectations of the pharmacology knowledge required to support their readiness for clinical placement. The project will involve curriculum document analysis and content mapping to explore pharmacology content currently provided in the integrated model. This information will guide the development of a quantitative online survey for students to complete. The online survey will consist of a 5 point Likert rating scale to explore the student's perceptions of how effectively the pharmacology content provided meets their needs for clinical placement. Exploring this topic from the student's perspective will add to the existing body of knowledge in an Australian context, and identify ways to improve student's readiness for clinical placement through the effective delivery of pharmacology content within an integrated curricula model.

Supporting integration of Pen and Tablet PC technologies through a community of practice

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Recent advancements in Pen and Tablet PC technology (PnTT) have the potential to transform passive presentations into media rich, collaborative and engaging learning experiences. This is stimulating considerable academic interest but raises the question of how a university responds to the procurement and support of the technology as well as providing professional development for effective teaching. In order to support integration of Pen and Tablet technologies into faculty teaching, a community of practice (CoP) was established to bring interested academic and professional staff together. A CoP was seen to be the most appropriate framework to facilitate discourse around the use of PnTT to address teaching and learning needs; as well as to provide a supportive environment to trial and problem solve PnTT enabled teaching and learning strategies. This presentation will showcase the various activities and strategies used to facilitate an active and engaged CoP, and highlight the preliminary findings from our investigation into the success factors and limitations of integrating PnTT into teaching at Curtin University.

A framework to integrate genomics from a research laboratory into an undergraduate teaching curriculum

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A key aspect of our strategy is to inspire and motivate students by assimilating our own current research with teaching. We research to define the mechanisms that enable root nodule bacteria (RNB) to establish successful symbioses with legume hosts. To understand the genetic basis of such interactions, we have sequenced the genomes of 114 RNB. The wealth of RNB genome data requires a coordinated approach to identify the role of many genes with unknown function. We have therefore extended our current research into the undergraduate teaching units *Molecular Genetics* (BIO316) and *Microbiology II* (BIO364) to inspire students to learn vital concepts in the biological processes and also to contribute to the research effort. The approach adopted consists of two phases; in BIO316, students target genes and create gene inactivation vectors, and then, by extension, students in BIO364 use these inactivation vectors to construct gene knockouts in desired strains. In this way, research benefits by the acquisition of new mutant lines while the undergraduate students gain knowledge and develop necessary skills in structural, comparative and functional genomics, molecular biology and microbiology. The coordinated approach integrates the different

disciplines and provides a stimulating environment for the students in which they can learn and contribute to “real life” science. In this way, we have been able to inspire and motivate students into higher degrees and science careers.

Academic job satisfaction and transnational education

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Australian universities’ involvement in transnational education (TNE) continues to grow. A result of this growth is an increased requirement for academics’ involvement. While TNE is a significant source of income, it comes with potentially significant commercial and reputational risks. Strong participation and support from academics at both the home and TNE campus is an important element in mitigating some of this risk. At best, from the perspective of the academic, involvement in TNE can be a transforming and empowering experience. At worst, it is seen as an additional administrative burden for which the academic receives little or no additional reward of any kind. Impacting on academics’ willingness to be positively involved in TNE is the satisfaction they gain from their participation in it. Aspects of academic work more generally that are seen to impact on satisfaction include the opportunities for interaction with students and colleagues, to conduct research, and the high degree of control over their work life they are able to exercise. The impact of these factors in the context of TNE will differ depending on the chosen method of operationalisation of TNE. This presentation will discuss an ongoing project that is examining the relationship between the ways in which TNE is “delivered” and the satisfaction of the academics involved.

Role of an experiential field trip in a first year unit in urban and regional planning

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This paper reports on strategies to reorganise a first year undergraduate unit around the principles of Dale’s ‘cone of experience’ (1946) and Gardner’s (1983) ‘multiple intelligences’. Modifications were designed to improve the content and delivery of *Suburban Analysis*, a unit in the Urban and Regional Planning degree. This was directed at enhancing the teaching of this unit and increasing student satisfaction and retention rates. The authors drew on the inter-related and shared principles of planning good suburbs and of delivering good teaching, such as considering and promoting diversity, inclusion and participation. Using several key educational theories, classes were delivered using a combination of traditional didactic methods and kinesthetic learning styles. The unit content and assessments were streamlined and inter-connected through the use of short lectures, weekly reading / discussions, videos and music, the analysis of census data and an experiential fieldtrip. This field trip was a crucial component to the unit and was designed to encourage ‘learning by doing’, to ground theory and concepts, and to nurture social capital within the class. Students’ evaluation and satisfaction associated with the unit are presented as evidence of the success of this redesign over a period of five years.

Project-based learning: An initiative to enliven a first year unit urban and regional planning

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This study is about a project-based learning (PBL) initiative designed to enliven the teaching program for a first year unit in an Urban and Regional Planning course. The initiative used a humanistic and experiential pedagogy in an attempt to more deeply engage the enthusiasm, emotion, values and intellect of first year students. In tying the teaching program to the production of field based research for a local redevelopment authority, students were enlisted in the analysis of industry documents, field survey development and implementation, and data interpretation. They presented their findings to the redevelopment authority as both a seminar and an industry-quality written report. Through interviews with the students, academics and industry professionals involved in the initiative, along with student feedback data, this study considers the successes and challenges involved in implementing PBL in the context of Urban and Regional Planning. Further, it seeks to understand how humanistic and cognitive learning

processes were activated through the project. Finally, an evaluation of the potential for PBL to invigorate teaching and learning within the first year of university is given.

Why wasn't I told? The liminal experience of Australian shared history of non-Indigenous educators

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Increasingly, non-Indigenous educators are being placed in positions where they are required to support non-Indigenous students encountering silenced Australian history, such as colonisation, the 1905 Act, and the stolen generation for the first time. In order for educators to be successful facilitators of what Deborah Britzman calls 'difficult knowledge', non-Indigenous educators must interrogate their own underlying fears and concerns surrounding difficult colonial knowledge. This paper examines undergraduate students' confrontation with silenced Australian history from the perspective of the tutor in an introductory Aboriginal Studies unit at The University of Notre Dame, Fremantle. Insights shared by students in these tutorials are addressed using Victor Turner's three-stage concept of liminality as a framework. Examining the student's experience through the three stage process of separation from the previously known (and unknown), liminality, the experience of a state of being 'betwixt-and-between' knowledges and re-integration, into everyday life provide a grounding to discuss tools the educator needs to best support the students in each stage of this journey. Given the implications of changing policies and best practice for teachers within the Australian curriculum, this paper aims to act as a catalyst to future discussions for educators to confidently create a classroom environment that is both critical and engaging.

Appreciative inquiry as a process to activate leadership in teaching

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An appreciative inquiry (AI) model is a strengths-based change model which seeks the best in people, organisations and the context in which they exist, through inquiry. The act of asking guided questions to capture a person's thinking, experiences and aspirations are an enlightening and awakening process for individuals of any level and in any organisation. Appreciative inquiry has been used extensively in education internationally (e.g. to develop a vision and team development). The presenter is an accredited appreciative inquiry facilitator who has used the process successfully with educators for the past five years to enable them to seek the answers they want. AI is well researched and published and has contributed to organisational change as a highly effective model. The presentation will outline the process and how it might be utilised as a process in higher education, and provide illustrative examples of its use and its outcomes.

Innovative teaching and learning practices in physiotherapy education: Peer learning

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Physiotherapy is an interactive and hands-on profession with a need for students to develop high level communication skills as well as practical and academic knowledge. Over the last two years, Curtin University's physiotherapy school has run an award winning peer learning program to support first year students in learning one of the fundamental foundation areas of the profession: studies in anatomy. The peer education model implemented is highly innovative in its approach to learning at the tertiary level. The program has delivered consistent strong increases in student grades, pass rates and development of students' anatomy knowledge and professional communication skills. This presentation explores the peer learning principles and practical design strategies used to run successful collaborative activities in the classroom. Case studies will be presented of activities designed to maximise: student centred peer to peer education through information sharing; active learning considerations; student awareness of their own learning abilities and needs; and learning through application of knowledge in different practical contexts. Qualitative and quantitative

results from the anatomy peer learning program will be presented to demonstrate the success of the peer education model as an adjunct to traditional teaching methods in the physiotherapy school.

Wireless Internet access

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

- The University Club's *Unify Guest* 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.

Unify Guest network

We have arranged with the University Club wireless access through their *Unify Guest* network. They will generate usernames and passwords for all registered delegates attending the forum, which will be printed on cards and placed in the delegate bags. Access will be available for both days of the forum.

Eduroam

Eduroam, or **education roaming**, allows staff and students from participating universities to access the local institution's wireless network access and the internet using their standard username and password just as they do at their home institution. A wireless-enabled device, such as a laptop computer or a smart phone, is required.

UWA staff and students

Eduroam allows UWA staff and students, when visiting participating institutions worldwide, to use their UWA PHEME credentials to access the internet and connect to resources at UWA. *eduroam* does not function for UWA staff and students while they are physically located on a UWA campus.

Visiting staff and students

Staff and students visiting from participating institutions are able to connect via UWA's wireless network to the internet using their credentials from their home institution, without needing to obtain a UWA account.

Details for previous conferences may be obtained from the TL Forum proceedings website
<http://otl.curtin.edu.au/events/conferences/tlf/tlf-pubs.cfm>