

Abstracts

55 Minute Workshop

Carpe Diem: Seize the day and transform learning

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This workshop will showcase the *Carpe Diem* approach to learning design, including the six-step process that makes up a standard one and a half day Carpe Diem workshop. With guidance from a facilitator and two learning technologists, participants will be given the opportunity to actively experience the “Storyboard” element of Carpe Diem.

Carpe Diem is an intense, team-based, outcomes-driven approach to learning design developed by Professor Gilly Salmon, based on 15 years of research and prototyping, embedded in well-respected pedagogical principles (Salmon, 2015; Salmon & Wright, 2014). Carpe Diem provides educators with the opportunity to completely redesign their programs, where they are guided through a structured program of activities and work collaboratively within multidisciplinary teams. Carpe Diem differs from traditional approaches to learning design support as it focuses on specific program needs, therefore producing a more authentic and relevant experience for participants. As a process, it focuses on effective learning design where learning outcomes are scaffolded and aligned to content, activities, assessment, and feedback, along with the embedding of innovative teaching practices and digital technologies.

The University of Western Australia started offering Carpe Diem Workshops in October 2014; since then approximately 33 workshops have been conducted involving 209 units and 380 teaching staff. Preliminary data indicates that 82-85% of participants agreed that the workshop effectively supported the innovative redesign of their units, 76-85% have recommended the workshop to colleagues, and 79% immediately implemented changes to their teaching units.

The Carpe Diem design process is fully documented in the *Carpe Diem Planning Process Workbook* (2015), an open source PDF that has been published for others to adopt through a Creative Commons License.

References

- Salmon, G. (2015). *Carpe Diem Planning Process Workbook* (2015).
http://www.gillysalmon.com/uploads/1/6/0/5/16055858/carpe_diem_planning_process_workbook_v17-january_2015.pdf
- Salmon, G. (2015). Carpe Diem - A team based approach to learning design.
<http://www.gillysalmon.com/carpe-diem.html>
- Salmon, G. & Wright, P. (2014). Transforming future teaching through ‘Carpe Diem’ learning design. *Education Sciences*, 4(1), 52-63. <http://dx.doi.org/10.3390/educsci4010052>

StatHand: A mobile application supporting students’ statistical decision making

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Quantitative research methods underpin professional competence in many disciplines. They are also an area of weakness for many students. Students struggle particularly with selecting quantitative analyses appropriate for common research questions, hypotheses and data types. Such ‘selection skills’ are not often practised in class, but can be trained, and appear supported by ‘structural awareness’, or an ability to disregard the surface features of a research scenario, and instead focus on its structural features and the relations between them. Decision trees can aid statistical decision making and the development of structural awareness, and are also popular with students. However, traditional (paper) decision trees have limitations. Web-based trees overcome many of these, but require a constant Internet connection. Conversely, mobile applications can maintain all/most functionality without an

Internet connection. Furthermore, smart device penetration is near ubiquitous amongst higher education students, who express preferences for learning using these devices. Within this context, and with Australian Government Office for Learning and Teaching support, we have developed *StatHand* (<https://stathand.net>), a free, cross-platform application which aids the process of selecting appropriate statistical analyses for a wide range of circumstances by prompting the user to focus systematically on each structural feature of their research problem. In this presentation, we will outline the rationale behind *StatHand*, demonstrate its current feature set, and present findings from our initial experimental evaluation. This evaluation (with N = 215) suggests that the application promotes greater decision making accuracy, and is instructionally efficient, relative to more traditional statistical decision making aids.

Self-organising map analysis of university student retention

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Student retention is an increasingly important yet complex issue facing universities. Improving retention performance is part of a multidimensional and deeply nested system of relationships with multiple hypothesised drivers of attrition at various sample sizes, population clusters and timescales. This paper reports on the use of a self-organising data technique, Kohonen's *Self Organising Map*, to explore the potential retention drivers in a large undergraduate student population in Western Australia, over a six-year period. The research questions were twofold: whether within the student population there are identifiable sub-populations where historical rates of attrition are high which do not conform to 'typical' at-risk profiles, and, if so, could these profiles be used predictively? The study applied the self-organising method to two point-in-time data sets separated by 18 months and was able to identify a number of distinct attrition behaviour profiles appropriate for creating new tailored interventions.

Assessing and developing English Language Proficiency: A pilot project at Curtin University Sydney

Refereed Research paper: Full text on website

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Driven by perceptions in the community that Australian graduates are lacking the levels of English Language Proficiency (ELP) required for employment, universities are exploring ways of integrating ELP strategies within disciplinary curricula. However, without a standardised measure of the outcomes of ELP strategies, there are limited incentives for lecturers and tutors to redeploy their time from activities that are more readily measureable, such as research. Furthermore, students have less of an incentive to engage in ELP activities or take a developmental approach if prospective employers cannot request a transcript of their progress in ELP. A simple, non-intrusive and efficient way of measuring ELP that is independent of the commitment of lecturers and tutors, or even the interest level of students, is to have English language experts assess existing assignments for ELP with the results and feedback carried forward to benchmark future assignments. This would provide a foundation for measuring the impact of ELP strategies as well as encouraging students to take an interest in their ELP from entry to exit. In this paper we report results from a pilot project to assess the first leg of such an approach. The ELP of 27 students across three units (postgraduate and undergraduate) is assessed using the IELTS writing assessment criteria. While students are able to accurately assess themselves overall, they significantly under-estimate their lexical resources while significantly over-estimating their grammatical range and accuracy. Student evaluations of the exercise indicated improved awareness of ELP proficiency and support for using a unit assignment to assess their ELP.

Benchmarking syllabus and assessment of an interprofessional first year human biology unit: Too hard, too easy, just right?

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Designing curriculum and assessment in first year units that are taught across large and diverse cohorts of students can be a significant challenge. This paper reports on the processes and outcomes of an external benchmarking exercise for a first year human biology unit taught to students from 23 undergraduate courses. The benchmarking was undertaken to assist with the review and ongoing development of the unit following feedback from students and staff over eight semesters, that has ranged from views that the unit does not extend students sufficiently beyond high school human biology and does not prepare students for subsequent units, to views that the content is too complex and the demands on students are too high. The benchmarking exercise collected detailed feedback about the unit's syllabus and assessment, from academic coordinators of comparable first year human biology units at three other Australian universities. Lessons learned from the benchmarking process, and future plans for working with stakeholders to ensure the unit meets students' needs, will be discussed.

Architecture it grows: Reflections on a work integrated research and learning landscape

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In *Architecture it grows* a Master of Architecture design studio (semester 1, 2015) students responded to a real project, a real client group, and a real project team of professionals (including landscape architects, quantity surveyors, industry partners, and a research centre). The interdisciplinary teaching team shares a transformative learning philosophy that underpins their approach to work integrated learning (WIL) and research integrated learning. Students worked rigorously, in what Barnett (2000) would describe as a super-complex setting, to find new ways of being an architect in a landscape where designing a building was not the only, nor the most appropriate, response. Students considered the macro scale of the surrounding urban fabric and the micro scale of the immediate environment and landscape, and considered activating the space through the relational study of body, garden and community.

The poetics of Isagami's (2013) descriptions of the "feeling of a landscape extending seemingly forever, the vastness of the sky, the lightness of a cloud, the fineness of raindrops" was starkly and consciously juxtaposed to the realities of getting a project out of the ground - including programmatic briefs, development applications, building permit submissions and cost plans. Students stretched themselves in many directions and the resultant richness is evident in the design propositions for the community garden.

An integrated workshop program to develop students' skills in participatory urban planning

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The discipline of urban planning has evolved over the past decades, requiring professional planners to be skilled in a range of communicative practices. The refocusing on communicative practice as a core component of urban planning provides challenges for planning educators. The skills required of participatory planners – listening, deliberation, facilitation and negotiation – require innovative teaching and learning strategies. This presentation reports on an integrated workshop program, which was used to model participatory planning techniques and enable students to learn and demonstrate communicative skills relevant to urban planning. The exercise had three objectives – to introduce students to a number of participatory techniques; to enable students to embody different roles within the participatory process; and to provide opportunities for students to reflect on the capacity for participatory programs to address urban planning issues.

Engaging the student to engage using an Interactive Learning Activity

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The challenge of engaging students is well documented and yet still remains just that, ‘a challenge’. Attendance at tutorials and clinical placements for the clinical nursing units in the Edith Cowan University undergraduate nursing program is mandatory. However whilst educators can enforce attendance, they cannot enforce the student to access the resources nor to accommodate the information provided in order to increase their knowledge base, and to be prepared to participate in classroom and placement activities. Such information can be critical when providing care to health service consumers and therefore is an important component of building graduate competency. In an attempt to address some of those issues, an online *Interactive Learning Activity* (ILA) was developed using *Camtasia* software. ILA provides a ‘one stop shop’ for information more traditionally provided in the form of a lecture, but additionally incorporates supporting resources. These include, but are not limited to, links which directly connect with the resources available on *Blackboard*, in industry and externally, plus activities including quizzes and scenario based activities, and really do have the potential for much more. Whilst ILA has not yet been implemented, it has the potential to engage and motivate students in preparation for their engagement in clinical activities.

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Bringing experience into the classroom: Facilitating experiential learning activities

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Experiential activities enable students to link their experience with theory to enhance their learning experience (Kolb & Kolb, 2012). It can also help to engage students, particularly in the co-curricular setting where engagement is optional and competing time pressures may be high. The Curtin Leadership Centre (CLC) offers voluntary, co-curricular ‘lectures’ that average over 70 students per session, and incorporate a number of experiential learning activities to increase student participation. Finding appropriate experiential activities for leadership development has been an ongoing focus of program development within the CLC. Constraints include the length of time available within the session, the classroom format, which is usually a tiered lecture theatre not designed for the facilitation of group based activities, and the need to link the activity to a guest speaker’s presentation.

The aim of this workshop is to provide the opportunity for participants to experience a leadership development activity, to reflect on the techniques that are required to facilitate it, and to discuss how experiential activities can be incorporated into existing curriculum. Participants will initially work in groups to undertake a nominated learning challenge. Following completion of the learning challenge participants will be invited to reflect on the experience from the perspective of a participant (i.e. student) as well as on the facilitation techniques used to maximise engagement.

A mini showcase of other experiential and collaborative learning activities used by the CLC will provide the opportunity to learn about other activities and how these are embedded within the CLC workshops. Participants will be invited to share experiential activities they have utilised that have been highly successful as well as those that haven’t worked as well as planned. An opportunity will be provided for participants to share ideas and to design or adapt activities for a unit or co-curricular they teach.

Reference

Kolb, A. Y. & Kolb, D. A. (2012). Experiential learning theory. In N. M. Seel (Ed.), *Encyclopedia of the sciences of learning* (pp. 1215-1219). Springer US.

Ghost writing and ghost busting: Essay mills, assignment acquisition and contract cheating

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Fair, ethical, honest and scholarly: these are values we espouse at Australian universities. They are values we – as purveyors of fine learning in higher education – embed in our policies and processes. These values symbolise our commitment to academic integrity. This commitment, in turn, has spawned a plethora of fact sheets, videos, interactive modules, MOOCs and apps, all devoted to promoting ethical behaviour and educating the educable about how to cite right. These same values have also stimulated unprecedented spending on

technological solutions to plagiarism problems. Text-matching software has made it easy to detect 'cookie-cutter' composition, enabling us to name, shame and, we hope, reclaim plagiarism perpetrators, thus deterring future transgressions. But do the steps we've taken ensure that students abide by our moral code and play by our rules? It would appear not. Some simple detective work, described in this session, indicates that digital ghost writing services are burgeoning; contract cheating is on the rise; plagiarism prostitution is rife. Our increased vigilance has not, in other words, had its intended effect. Rather than eradicating academic misconduct, it has driven it underground, or rather, to online 'essay mills'. For student users of such services, it's never been easier or more affordable to acquire assignments, 'plagiarism free'. For university staff, on the other hand, safeguarding academic standards has never been more challenging, despite technological advances. This session explores what else can be done to assure educational integrity, evaluating 'ghost busting' amongst a range of other options.

Utilising *SPARKPLUS* for the assessment of inter-professional capabilities of second and third year Health Science students

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The Faculty of Health Science's *Inter-professional Capability Framework* identifies communication, team functioning, role clarification, conflict resolution and reflection as the five collaborative practice capabilities for effective client centred service. These capabilities can be developed through inter-professional group assessment. Ensuring a positive student experience with quality feedback in group assessment can present challenges, however the use of an online self and peer assessment program has potential to provide a flexible, efficient and confidential process for students and enable staff to monitor and respond. The aim of this project was to use *SPARKPLUS*, an online self and peer assessment program, to facilitate students in the second and third year of their courses, in the School of Public Health, to self-assess the development of their inter-professional capabilities as well their own and peer contribution to a group assessment. 201 internal and external undergraduate students used *SPARKPLUS* at the middle and end of semester. Students were then invited to complete an online survey which evaluated the effectiveness of the peer review process using *SPARKPLUS*, investigated student engagement with group assessment, and with the inter-professional capability framework. A total of eleven questions were asked which used Likert scales and one free response question. The results from the survey were analysed to investigate similarities and differences in responses between course years. The use of *SPARKPLUS* enhanced teaching quality by incorporating an effective and sustainable self and peer assessment program into two School of Public Health units that contain inter-professional group assessments at a second and third year level.

55 Minute Workshop International students and the challenges of work placement: a workshop for academic staff

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This practical and engaging workshop will draw from the literature and the current study to introduce challenges faced by international students in the workplace. Role-play scenarios in which participants take on the roles of students, employers and other workplace personnel will follow this. The scenarios, drawn from real-life experiences of international students, highlight common challenges and crucial coping strategies, and are designed to prompt discussion and sharing. The scenarios and strategies for addressing the challenges will be shared with participants for applying in their own practice. The session will culminate with facilitators sharing approaches for incorporating strategies into the curriculum to optimise learning outcomes for international students.

Workshop participants will gain the knowledge, resources, and skills required to support international students on work integrated learning (WIL) placements in an Australian context. The rationale for the workshop is that WIL is a complex and multi-faceted construct requiring flexibility and a personalised approach, and yet general understanding of WIL is simplistic, focusing on formal internships and work placements. Given that student outcomes are inherently unpredictable, unique and socially dependent, successful skill development is reliant on the blend of functional and cognitive aspects of employability. It follows that higher

education has to integrate the practicalities of gaining employment and the mindset required to navigate the complexities of establishing a professional identity. Intellectual capacity, then, underpins the successful enactment of employability capabilities. In the contemporary higher education environment, graduate employability - and WIL, as a strategy to achieve this - emerges as a critical focus for all stakeholders including government and industry partners globally.

According to the OECD (oecd.org, 2015), the number of students enrolled in tertiary education outside their country of citizenship increased more than threefold over the two decades to 2011, at which time international students numbered almost 4.3 million. These students are known to experience particular challenges such as the loss of personal support structures, homesickness, differences in culture, language and social environment, and the demands of negotiating a new educational system.

An added concern is the difference in learning contexts experienced at school and university. Whilst higher education students in general report problems in this regard, international students in particular feel the differences between the expectations and realities of university life. The identity uncertainty that results from these different schemas is also more problematic for international students, who tend not to have the cultural capital that provides some sense of university life and the expectations of study. Indeed, this cultural capital is more established in students from higher socio-economic backgrounds, those who are not the first in their family to attend university, and those who attend university in a local or familiar setting. These issues highlight considerable challenges for all stakeholders and are exacerbated by the difficulties of securing WIL opportunities for international students.

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A hands-on workshop for the design and implementation of digital portfolios that enhance employability

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Workshop cancelled after the Program Booklet went to the printer.

Teaching students the value of laboratory safety, both while studying and in the workforce

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Laboratory methods may change from lab to lab, but laboratory safety protocols are fairly standard across a variety of industries. Despite this, students often fail to grasp the importance of lab safety as it applies to them, either whilst at university or in the broader context of the workforce. In an attempt to highlight the importance of lab safety, and the portability of safety procedures from workplace to workplace, this year we implemented a short, multiple-choice test on laboratory safety requirements, which accounted for 5% of the students' final mark. Overall there was a general improvement in laboratory safety practices, and a student survey showed that most students paid more attention to lab safety practices knowing there was a test involved. A multiple choice test is not intended as the method of choice for developing the students' understanding of how safety impacts them during their university careers and into the future, but it provides a good starting point that we can build on in the future.

Promoting student engagement and employability through a skills-based psychology curriculum

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The majority of psychology graduates enter the workforce upon completion of undergraduate studies. While work-integrated learning aims to promote readiness upon graduation, current psychology accreditation guidelines prevent the inclusion of practicum placement opportunities in undergraduate courses. The biggest criticism of psychology undergraduate programs tends to be the absence of practicum experiences, and students often report that they lack professional and practical skills after completing their undergraduate degree. Similarly, employers and postgraduate placement supervisors comment on the limited practical skills of students. We developed an online questionnaire to survey recent graduates of Curtin's undergraduate psychology programs (up to 5 years post-graduation) to ask about the knowledge and skills (generic, core, and psychological) developed in their undergraduate course that are relevant to their current employment, and what they didn't learn that would have been helpful. Items were based upon Curtin psychology graduate attributes, the attributes and skills that may be expected of a psychology graduate (Cranney et al., 2008) and professional capabilities (Scott & Yates, 2002). To date, 57 students have completed the questionnaire and we will present the preliminary findings. We hope the findings will contribute to the development of a skills-based psychology curriculum that promotes student engagement and better learning experiences for students. We will use the findings to developing activities demonstrating more explicitly the links between course content and vocational outcomes.

Facilitating the transition to postgraduate studies: Applying the lessons from the First Year Experience

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Postgraduate coursework students are an important source of revenue for Australian universities and the expansion of international markets and non-standard entry pathways,

together with the proliferation of courses on offer, has resulted in an unprecedented diversity of students enrolling in these courses. As a consequence, historical assumptions about the prior knowledge and skills of postgraduate students are no longer appropriate, and this raises significant challenges from a teaching and learning perspective.

This paper takes a case study approach, presenting the author's experiences as a Learning Advisor working on the Master of Professional Accounting and the Master of Public Health programs at Edith Cowan University, describing two different approaches to providing academic support. The two approaches are evaluated and I draw on these experiences as well as prior research to present strategies designed to improve the learning outcomes of postgraduate students enrolled in similar courses. I argue that the discourse around the first year experience should be extended to the postgraduate domain and the concept of a postgraduate transitional pedagogy explored. The solution to filling the competency gap in academic skills faced by many postgraduate students may lie in the delivery of a curriculum based on many of the principles and strategies which have been successful in first year transitional programs. There are, however, a number of factors complicating the adoption of a transitional pedagogy at postgraduate level which will need to be considered with this new approach to developing postgraduate curricula.

Taking pharmacology to the masses with e-learning tools and strategies

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The discipline that promotes the rational and ethical use of medicines, pharmacology is conventionally restricted to the curriculum studied by science, medical and pharmacy students as well as those in allied fields such as nursing and podiatry. Thus despite broad interest in health and pharmaceuticals within the general populace and across the undergraduate body, tertiary pharmacology offerings often provide few opportunities for students in the humanities to explore the fascinating scientific, ethical, historical and human dimensions of the modern pharmaceutical innovation enterprise. An opportunity to redress this situation arose when UWA called for the development of "Broadening Units" during the modernisation of its curriculum in the "New Courses 2012" initiative. Our first year unit *PHAR1101: Drugs that Changed the World* was developed via collaboration between pharmacologists, toxicologists, clinicians, historians and lawyers. PHAR1101 proved popular from the outset and in gratifying concurrence with its primary objectives now attracts enrolments from across the student body. Strongly rising enrolments soon necessitated the development of online modules to supplement lecture-based delivery, and in 2015 the implementation of innovative "PHAR1101 eTutorials" became possible following the installation of *Blackboard* as the LMS at UWA. This talk will explore the opportunities, challenges and learning outcomes accompanying the development of engaging e-learning materials using powerful creative tools such as *Adobe Illustrator* and *Articulate Storyline 2*.

How can we improve second and third year students understanding of electromagnetism?

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Electromagnetism is a very important discipline in the physics course. However, the level of complexity and calculus knowledge required has been negatively reflected in student performance. For this reason, it is necessary to review teaching methods for this topic. Weekly tutorials appear to be an interesting way to reinforce the basics concepts necessary to the understanding of the lecture content. Additionally, such sessions may benefit students with a more participative class environment. In order to evaluate the impact of the tutorials in the learning process and to investigate student perceptions of this new approach, second and third year lectures taught, respectively in the first and second semesters of 2015, were combined with weekly tutorials. A comparison was made between students who had or had not attended the tutorials sessions. Their performances in the final exams were analysed and their feedback was collected. Also, two different tutorial structures were investigated. At the end, the analysis of the tutorial attendance pointed out that students with different levels of knowledge in electromagnetism can demonstrate similar and good performances with the aid of tutorials and, moreover, according to the students, group work and problem-solving are desirable teaching methods.

Predicting the risk of attrition for undergraduate students with time based modelling

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Improving student retention is an important and challenging problem for universities. This paper reports on the development of a student attrition model for predicting which first year students are most at-risk of leaving at various points in time during their first semester of study. The objective of developing such a model is to assist universities by proactively supporting and retaining these students as their situations and risk change over time. The study evaluated different models for predicting student attrition at four different time periods throughout a semester study period: pre-enrolment, enrolment, in-semester and end-of-semester models. A dataset of 23,291 students who enrolled in their first semester between 2011-2013 was extracted from various data sources. Three supervised machine-learning techniques were tested to develop the predictive models: logistic regression, decision trees and random forests. The performance of the models was evaluated using the precision and recall metrics. The model with the best performance and user utility used logistic regression (67% precision, 29% recall). A web application was developed for users to visualise and interact with the model results to assist in the targeting of student intervention responses and programs.

Peer review of teaching: Who determines the process, criteria and standards?

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This presentation will explore models and processes for peer review of teaching carried out by people internal and external to the university. One idea for external review is that of a 'College of Peers' proposed by Paul Ramsden in 2008 and further developed by William Lock (2014) and Chris Rust (2014). Other external models include learned academies, professional membership bodies, registries of experts, the Peer Review of Assessment Network (PRAN) and the assessment for HEA Fellowship.

The ways in which these external models might inform the development of a peer review of teaching network that could be involved in the assessment of portfolios for promotion, review of various dimensions of teaching for development or inclusion into portfolios, mentoring, and reviewing against external criteria of quality are ideas that will be canvassed for discussion. Part of the discussion will concern whose criteria and standards should apply when reviewing teachers both within their institution and external to the institution.

Using preparatory materials to facilitate fine learning and transition of postgraduate coursework students

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The increased research component in Masters by coursework degrees has meant that most contain research statistics as a core unit, and a degree of trepidation towards this is often witnessed at the beginning of semester, especially among fully online students (Chih, 2013). Students who lack confidence during this transitional period tend to withdraw from or not perform well in the unit, and so a project was undertaken to equip students enrolled in *STAT6000 Health Research Methods* with adequate statistical skills early in order to assist their confidence building, learning and transition. Students were asked during Orientation week to attempt a diagnostic quiz which was set at a level equivalent to completion of an undergraduate applied statistics unit. Students were then asked to attend preparatory workshops by the end of Week 2 (or to access material and workshop recordings online), which covered descriptive statistics and the normal distribution together with an introduction to inferential statistics and *STATA* (a statistical software program). The materials were integrated into the unit via the learning management system (*Blackboard*) since Orientation week. Students were later invited to evaluate the materials using an online, anonymous 11-item survey, with a Likert scale ranging from one (strongly disagree/poor) to five (strongly

agree/outstanding). This was followed by open-ended questions on the most/least useful aspects of the materials and on where improvements to the material could be made. This presentation will demonstrate the effectiveness of the preparatory materials in facilitating confidence building, fine learning and transition of these postgraduate students.

Reference

Chih, H. J. (2013). Reflecting on postgraduate students' reflective comments for effective unit design and delivery. In *Design, develop, evaluate: The core of the learning environment. Proceedings of the 22nd Annual Teaching Learning Forum*, 7-8 February 2013. Perth: Murdoch University.
<http://ctl.curtin.edu.au/events/conferences/tlf/tlf2013/abstracts.html#chih>

Short videos to support maths and stats learning

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Video as a teaching and support tool for mathematics and statistics learning is a well established, innovative and growing area. In this presentation I will discuss the development of some short support videos (less than 3 minutes) for mathematics and statistics topics. Quantitative concepts take time to develop, so most video material is longer (10 minutes or more), but I argue that it is possible to provide useful content in a shorter time. Rather than focus on developing a whole topic, these videos assume some exposure to the topic and aim to

- a. highlight a core element of it
- b. use the dynamic nature of video to animate features where appropriate
- c. demonstrate good practice in learning
- d. provide leads into a deeper understanding that the viewer can use later.

The technical aspects of video production will be discussed along with examples of short videos.

Getting lost in translation? A map for contextualising and participating in an international study

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Leadership programs have always been considered notoriously difficult to evaluate (Rosch & Schwartz, 2009). Adding to this issue is the diversity of leadership development programs offered to students at universities, compounding the challenge of comparing programs across institutions. Yet increasingly we're asked to provide comparative data and to benchmark our programs internationally. The *Multi-institutional Study of Leadership (MSL)* was developed in the US and is designed to assess the influence of "higher education in shaping socially responsible leadership capacity and other leadership related outcomes". Since the survey's inception in 2006 more than 250 higher education institutions, primarily in North America, have participated and there is now a database of some 300,000 student participant responses (<http://leadershipstudy.net/>).

As part of the evaluation strategy for its programs, the Curtin Leadership Centre (CLC) participated in the 2015 MSL survey. In order to ensure Curtin's results could be benchmarked against other participating universities it was necessary to customise the survey to the Australian context. This was more challenging than anticipated, including the simple act of 'translating' common US concepts that had little or no relevance in the Australian context. We also uncovered issues related to the ethical and legal requirements of cross-country and cross-university collaboration. We share our initial results and experience of being the first Australian university to participate in the MSL. We hope this story will encourage others to participate in large benchmarking studies, even if it means working through the process to ensure nothing is lost in translation.

Reference

Rosch, D. M. & L. M. Schwartz (2009). Potential issues and pitfalls in outcomes assessment in leadership education. *Journal of Leadership Education*, 8(1), 177-194.
http://www.journalofleadershiped.org/attachments/article/196/JOLE_8_1_Rosch_Schwartz.pdf

Addressing online harassment through feminist pedagogies

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Online harassment is increasingly recognised as a significant issue. A 2014 study by the Pew Research Center found that 40 per cent of Internet users have experienced online harassment, while 45 per cent of these have experienced “more severe experiences such as being the target of physical threats, harassment over a sustained period of time, stalking, and sexual harassment.” Understanding online harassment is therefore becoming a vital part of digital literacy, but it has not received significant attention in teaching and learning scholarship.

Some resources do exist for those facing online harassment. However, few of these resources address the Australian context, and there are no pedagogical models for incorporating these within relevant tertiary courses, such as communications, journalism, and web design. There is also a need, as Henry and Powell (2015) argued, to understand online harassment not as a matter of user naiveté, but as part of broader patterns of structural violence. This presentation proposes a model for incorporating feminist pedagogies into relevant teaching areas in order to give those at risk tools to protect themselves, while also understanding the problem as a structural issue which needs to be addressed through institutional frameworks, platform design, and legal responses.

References

Henry, N. & Powell, A. (2015). Beyond the 'sext': Technology-facilitated sexual violence and harassment against adult women. *Australian & New Zealand Journal of Criminology*, 48(1), 104-118. <http://dx.doi.org/10.1177/0004865814524218>

Pew Research Center. (2014). *Online harassment*. <http://www.pewinternet.org/2014/10/22/online-harassment/>

Is co-teaching just load-sharing or can it provide opportunity for peer review?

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Peer review of teaching improves teaching pedagogy, engagement in SoTL and the collegiality of both reviewer and the reviewee (Barnard et al., 2011), but most peer review processes assume a single teacher scenario. However, in large tertiary classes two co-tutors, who assume equal responsibility for student learning, are used. This scenario provides an ideal opportunity for peer review.

Effective co-teaching strategy guidelines that could be applied to the tertiary co-teaching situation were identified from the literature (Bacharach, Heck & Dahlberg, 2008; Murawski, 2003). These were then developed into a tool, the *Co-generative Dialogue* tool, to facilitate reflection on the amount and type of consultation between co-tutors:

- a. at the commencement of the semester,
- b. prior to each class, and
- c. after each class.

This tool includes a list of behaviours observed in an effective co-teaching classroom, was trialled in co-taught classes during 2015. The *Co-generative Dialogue* tool allowed co-tutors to critically evaluate and reflect on videos of their co-teaching, facilitated discussion between the co-teachers, and provided a framework to reflect on the peer review of their co-teaching. The *Co-generative Dialogue* tool also provided a structure for sharing and modelling of best co-teaching practices amongst co-tutors. This presentation reviews the development, trial and evaluation of peer review of co-teaching in a tertiary setting using the *Co-generative Dialogue* tool.

Local community engagement: A pilot project that promotes better understanding of diseases

Refereed Research paper: Full text on website

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Universities in Australia increasingly stress the need for tertiary teachers and researchers to engage more with their local communities. This research paper describes how this has worked with a pilot project in Western Australia (WA) that aims to empower people who live with HIV (Human Immunodeficiency Virus) or who work for HIV organisations, to be proactive and share their personal stories and experiences of HIV in the media. Research has shown that, if used effectively, the media can lessen fear and stigma of diseases like HIV, which are the biggest obstacles to seeking information and treatment about diseases. Participants completed media education and training sessions run by journalism staff at Edith Cowan University. This paper reflects on the overall process and initial outcomes. Also, the framework of community and media engagement that underpinned this pilot project has much broader applicability for other health promotion and disease prevention initiatives. This could include university journalism programs using their staff and resources to train people to share personal health stories in the media about more common diseases such as diabetes, drug addiction and depression.

Rethinking effective teaching in higher education

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Understanding what constitutes effective teaching is an important issue across the higher education sector. Criteria for and standards of teaching effectiveness are contested and vary across institutions and regions. The desire to more accurately measure effective teaching for both development and promotion purposes, and the increase in global benchmarking for quality and effectiveness in universities, has created the development of explicit and consistent teaching standards as a priority for both academics and institutions. In this session we detail and discuss the findings of a collaborative research project between the Innovative Research Universities (5) and Malaysian Research Universities (7) networks. Utilising the seven indicative criterion within the Australian University Teaching Criteria and Standards Framework (<http://uniteachingcriteria.edu.au>), we surveyed key stakeholders involved in the performance and development, and probation and promotion processes in each of the institutions to identify the most relevant teaching criteria and standards. The session will present the findings of this survey, highlighting similarities and differences between universities and countries. The session concludes with an examination of the links between teaching standards, probation and promotion, in the context of the professionalism of teaching. The audience will be invited to contribute their views and experiences on this topic.

Plagiarism is not a 'black and white' issue

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Research and practice has shown that evaluating an excerpt of academic writing to evaluate whether it may be plagiarised involves a subjective judgement by the academic. Despite academics' general consensus about the definition of plagiarism, inter-marker variability exists. This session will present results from a pilot study involving eight academics who specialise in teaching academic writing making judgements about plagiarism, from case-study based scenarios and samples of hypothetical student work. The lack of agreement between respondents highlighted the role of expectations and interpretations in making judgements about plagiarism, even when objective information such as text-matches to published sources is available. Participants in this session will have the opportunity to provide their views on the same scenarios through the use of an audience-response system and to engage in a discussion about how academics and students may come to a common understanding about acceptable and unacceptable practices related to plagiarism.

Engaging students with industry and community to enhance employability

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Providing a multi-disciplinary, flexible approach to engage students with industry and community is a national priority to create a workforce for a sustainable Australian economy, and to enhance international competitiveness. The *Work Integrated Learning (WIL) Strategic Project* at Curtin University has developed two units, entitled “Engaging with Industry” and “Engaging with Community” which include a 100 hour work placement and theoretical background. The delivery of these units enhances the student experience, increases professional capacity, and improves work readiness and employability. Internal and external partnerships are developed with host sites, supported by a strict governance process clearly articulating the roles and responsibilities of both students and host partners, along with mitigating risks to all stakeholders. Embedded curriculum provides students with insight into: theoretical frameworks and the evolving and changing needs of industry and community partners; workplace culture; culture shock; the development of workplace confidence; and methods for identifying and articulating employability skills. Authentic assessment allows students to: develop a deeper understanding of their work placement; report on their progress; identify constraints or limitations; engage in self-assessment approaches; reflect on learning outcomes; and share experiences with peers. Students who engage in this curriculum embedded model of WIL not only make a valuable contribution to their WIL host site, but also develop enhanced, work-based skill level and increased employability prospects.

Introducing simulation learning activities to undergraduate musculoskeletal physiotherapy course curricula

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The primary aim of this study was to develop and introduce a simulation activity into a second year undergraduate musculoskeletal physiotherapy unit at Curtin University and evaluate students’ perception and motivation to learn. This was part of a larger simulation project where simulated learning activities were introduced across a number of first and second year units and the students’ perception of their value was then evaluated. In groups of four, students reviewed a short case study, then assessed and treated a simulated patient with chronic degenerative Achilles tendinopathy. During a debrief all students self-marked and peer marked their recorded performance using specific marking criteria, then took part in a tutor facilitated discussion on their performance. After completing the simulation based learning (SBL) activity, the students’ perception and motivation were evaluated using the *Instructional Materials Motivation Scale (IMMS)*.

During 2014, 147 second year physiotherapy students at Curtin University participated in this SBL activity of which 41 students completed the IMMS questionnaire. Total scores for the unit indicate that overall, students found the SBL activity motivating. The unit had mean scores of 4 and above for three of the four IMMS subscales (attention, relevance and confidence) and mean scores for the attention and relevance subscales were highest. This study has demonstrated that undergraduate second year physiotherapy students value and are able to engage in SBL activities. As motivation entices people to learn and complete activities, there is great potential for improved learning outcomes using SBL in physiotherapy courses.

Enhancing quality learning in higher education through peer review of teaching

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Peer review of teaching is a process that provides feedback on teaching and learning activities in higher education. The scholarship of teaching has come to the forefront over recent years as student diversity, high student fees, and institutional expectations have placed demands on academics to be more accountable with respect to teaching practice. Scholarship of teaching implies that there is critical review, evaluation and an exchange of information that takes place to improve, develop and build on teaching and learning. This research aimed to examine the beliefs, attitudes and expectations of the peer review of teaching process with a sample comprising ten academics at Curtin University. Data were collected in 2015 via semi-structured interviews and the teaching staff were from a number of faculties including Health Sciences, Humanities, Science and Engineering, and Business. The interview data were subjected to a content analysis and the findings from the research indicated that peer review, whether formal or informal, formative or summative needs to be embedded in university

culture. The sample believed that there should be clearly defined structures which encourage recognition of quality teaching and that promotional pathways need to be developed to support and reflect this. Staff also felt that rising accountability regarding teaching in higher education needs to be coupled with genuine discourse which assists in skill development and that teaching excellence needs to be the defining feature of 'professionalism' in higher education.

***ilectures* (podcasts) as a learning tool in universities: Experiences of students and lecturers at Curtin University**

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Technology-enhanced learning has become almost ubiquitous in higher education. It has been driven by expectations that universities need to be up to date, competitive and responsive to students' needs. One teaching and learning tool that has become common place in many universities is the use of podcasts or what Curtin University calls *ilectures*. The downloading of *ilectures* by students can be popular and students may rate this medium more highly than traditional print materials for usefulness but, for various reasons *ilectures* (or podcasts) can also be under-utilised in some instances and less popular with students than traditional face to face lessons. Moreover, students and lecturers may feel uncomfortable or behave differently in sessions which are being recorded.

This presentation reports on a Curtin University funded seed grant project (TASS) carried out at Curtin University Bentley campus which investigated 1) whether students on-campus and online are utilising Curtin *ilectures*; 2) whether on-campus students still attend lectures on campus even when *ilectures* are provided; 3) how students and lecturers in recorded sessions feel about being recorded; 4) whether students feel that *ilecture* recordings affect their classroom behaviour and that of the lecturer; and 5) what ideas students and lecturers have for better utilisation of the *ilecture* resource. Feedback and discussion on the use of *ilectures* will be encouraged in the session.

Teaching scientific inquiry in human reproductive biology through use of animal models: *In vivo* vs video

Refereed Research paper: Full text on website

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Scientific inquiry (SI) refers to the process practiced by researchers to develop scientific knowledge. A sound understanding of SI is considered essential to achieve scientific literacy. In biomedical professions, it is also important to develop an appreciation for the necessity and value of animal-based research. This study describes the introduction of a laboratory-associated assignment to encourage undergraduate students studying 'Human Reproduction' to develop a deeper understanding of SI, and enhance their awareness of animal-based research. We also investigated the effectiveness of online video resources to deliver part of the laboratory content, thereby introducing a blended learning experience. An assignment was designed in 2011 to complement a pre-existing pregnant rat dissection laboratory, and online video resources were introduced in 2013. Both student cohorts achieved similar grades for the assignment overall. Interestingly, students achieved significantly lower grades for the 'Results' section of the assignment compared to all other criterion (both cohorts $P < 0.05$) which may reflect difficulty in the data analysis component of SI. Student perception data, gathered by questionnaire, demonstrated that the students found the assignment interesting (2011: 95% in agreement; 2013: 94%), and intellectually stimulating (89 and 100% respectively). 62% of students revisited the videos to revise laboratory content. Overall, this study suggests that introducing the laboratory-associated assignment led to a deeper understanding of SI, and enhanced student awareness of animal-based research. Furthermore, delivering part of the laboratory content by online videos did not compromise student achievement or engagement, and provided students with a useful revision tool.

The Learning Design Canvas

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Creating and building learning content for a new or existing course can sometimes be an overwhelming task. Perhaps you have been asked to increase student engagement through improved learning activities or you need to embed the current new strategy being pushed by your university. Much has to be considered: course learning outcomes, assessment, resources, technology, student feedback, student cohort, cultural issues, teaching team competency, and operational plans (just to mention a few).

Whether you are a learning designer, educational developer, lecturer, course coordinator or head of school, you can benefit from using the *Learning Design Canvas*. The *Canvas* is a process that helps identify the things you already know and highlights things for improvement. It can be used with individuals or in groups for planning days, designing learning outcomes or identifying professional development for lecturers and teaching teams. The *Learning Design Canvas* gets individuals and teams collaborating and working smarter to identify and prioritise actions for course delivery and can be used at a school/program or course/unit level. The *Canvas* provides the necessary visual cues such as 'student personas' to get you thinking about who your students are, what they need and how to engage them. The process within the *Canvas* enables an agile approach to change. The *Learning Design Canvas* acts as a great way to start and capture conversations about the design and process of learning and teaching.

Student participation and progress: Capacity building for industry and community partners

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Recently published reports have highlighted the need for improved partnerships between industry and universities to inform curriculum and provide quality, real-world learning experiences for students. Improved support mechanisms for industry will strengthen partnerships and facilitate the development of students' professional capabilities through more robust industry feedback on performance. The deliverables of this research aim to enhance the capacity of industry to play a pivotal role in the student experience, through working collaboratively to develop industry-specific resources and facilitate engagement in work integrated learning (WIL) initiatives. Consultation with employers and WIL practitioners has been undertaken to inform research findings leading to the development of user-friendly resources that meet the needs of industry partners. The research will strengthen partnerships between universities and industry with the ultimate intention of improving the WIL experience for students, which in turn benefits employers, business, industry and the Australian economy. This Office of Learning and Teaching (OLT) project adopts an action research methodology as it builds on previous research to identify a need which is clarified and contextualised through stakeholder consultations.

This presentation will highlight findings from contemporary national research compiled by both industry organisations and the OLT that identify the key challenges, barriers and enablers encountered when brokering and maintaining partnerships between universities and employers. Feedback will be sought on resources that will assist industry partners to provide suitable workplace opportunities for students, provide constructive feedback to assist students' growth and development, and clarify the role of industry partners. In addition, a WIL curriculum framework underpinned by industry engagement will be discussed.

Professional development for work integrated learning practitioners: A global perspective

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Professional development is of increasing concern to teaching staff with larger class sizes, diversity of students, and an expectation that learning experiences will encompass real-world learning. These contemporary challenges are time intensive, leaving little time for personal skill development. With the national work integrated learning (WIL) agenda, there is a growing need to encourage practitioners to advance their best practice of WIL. To address this challenge and align to priorities in the National WIL Strategy, a group of established WIL practitioners from Australia, Canada, New Zealand, and Sweden, through their respective national associations (ACEN, CAFCE, NZACE, and VILAR) developed an online module titled *Global Perspectives in WIL*. The module provided an international perspective of models of WIL and linked relevant learning theories to the practice of WIL. The online mode of delivery enabled convenient access to geographically dispersed participants and provided a platform that encouraged interactions between colleagues. Registrations were limited to 35 participants, however, expressions of interest exceeded this limit threefold, an indication of the interest in WIL professional development opportunities.

Participation encompassed 10 hours including interaction with the module conveners and other participants. The pre-module survey indicated that the participants held varying levels of familiarity of learning theories relevant to WIL and of different models of WIL. The post-module survey showed shifts in the level of understanding of learning theories and revealed participants' views on how these shifts in understanding would inform and potentially change their practice. The experiences outlined in this presentation will inform the approaches for professional development to enable and empower the next generation of WIL practitioners.

Transforming Curtin's information technology with advanced analytics

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Curtin University has embarked on a major planning project to modernise its information technology base around key business goals of improving teaching, learning and research. Key to the transformation is an infrastructure for advanced analytics capable of finding patterns and making inferences from big data, aiming to:

- attract more learners with increasing engagement, effectiveness and scale
- effectively deliver learning to more learners with fewer Curtin resources per learner
- increase learner satisfaction with digital learning
- increase graduation rates
- increase employability, loyalty and advocacy
- strengthen the research intensive university
- create effective and efficient access to timely and relevant information and functionality to support work activities.

This talk will present the main outlines and objectives of the advanced analytics infrastructure (e.g. hardware, people, and processes) and the goals and approaches for building the capability of the university into the future.

Applying excellence standards of online education to online learning and student engagement

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The authors are investigating the use the *Standards of Online Education* (SOE) and the associated *Re-constructivist Online Community of Inquiry* (ROCE) model (Nicolson & Parsell, 2012) to guide the re-design of the online version of two undergraduate units currently offered in the School of Public Health at Curtin University. The selected units present different challenges in terms of content and delivery: one is a workshop based health promotion unit and the other is an environmental systems unit that has a significant practical and fieldwork component. Parsell's SOE includes standards that focus on student engagement attributes and articulates the requirements for achieving either a 'threshold' or 'good' level, leaving the definition of 'excellent' to each target organisation.

The authors have, vis-à-vis literature and professional experience, defined what is meant by 'excellent' as it applies to the level of achievement for the student engagement focused standards which address curriculum, learning activities, assessment, feedback, peer and staff interaction, and learning and technological support. An international external reviewer with expertise in online learning assessed the 'excellent' standards, which were incorporated into the final set of standards to be presented. The two units outlined have been redesigned to ensure they meet the 'excellent' level of achievement in each of the standards, utilising innovations in online educational practices. Examples of planned curricular changes will also be presented. Finally, authors will present lessons learned from the experience of external peer review.

Considerations for teaching the transmedial learner

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The shift in educational technology is away from LMS and operating systems, and learners start becoming something like the 'cyborg' of speculative fiction; the learner becomes the platform as their learning behaviours embrace their roles as data generator, data collector, data analyst and data visualiser. These 'cyborg-like' percipients increasingly use portable, mobile and wearable technologies to participate in a connected and transmedial systems. The learning context is one that is nested within a larger, transmediated ecosystem and this has changed the landscape in which education is being delivered. This idea of a nested transmediated ecosystem is influential, as increasingly the purposeful technology moment of the past has disappeared, the wearability and mobility of our devices has removed this cognitive imperative to act or do. In a transmediated ecosystem, the 'Internet of Things' is enacted, it is no longer a simple experience, its rich, complex, involves multiple technologies and devices synchronously and asynchronously.

This paper proposes a model for reconsidering the learner as *transmedial* and suggests that the influences of being "always on", always connected, networked, engaging in augmented cognition, constant data generators, analysts and visualisers and other defining features of the *transmedial learner* fundamentally impact upon the ways in which we as educators approach teaching and learning.

Games and gamification for university outreach

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The role of the contemporary university in the broader community is multifaceted and increasingly there are expectations that universities will engage more directly with teaching and learning practices across all levels and sectors of education. Curtin University Learning Engagement Team are involved with several projects that explore how games and gamification can enhance learner engagement and how to apply/implement a gamified approach to student learning. This paper focuses on how games and gamification can transform and enhance student engagement beyond the university context. Serious games can

be utilised across many areas to build a safe, yet authentic learning environment for enhanced engagement.

Gamification of teaching and learning focuses on developing a more functional awareness of the skills and behaviours that motivate learners and result in more engaged learning. Gamification is not simply a token reward system; it is a systematic activation of learning skills; it takes certain aspects of game-like activity to build awareness of learning, to personalise engagement and to provide contextual feedback. The paper will also explore how games can serve many purposes in a well-designed program for learning, to simultaneously provide both context and content; deliver instant feedback on engagement with content; they can raise the level of engagement from simple recognition and recall, to include synthesis and application in an instant; they can serve as a critical framework for engaging with knowledge, skills and beliefs.

Pedagogy in creative disciplines: Considerations for learning space design

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The importance of creativity as an attribute of the 21st Century learner is now widely acknowledged as a global trend across all disciplines. To meet both current and future needs of both students and society, a university education must develop and support creativity in learners. This paper was developed to outline the range of creative disciplines, the diversity and interconnectedness of the disciplines, and how this is reflected in the needs for appropriate pedagogical models and consequently spaces for learning, both formal and informal. A number of pedagogical models focused on supporting and encouraging creativity are currently in practice. However, new models are emerging as creative disciplines are becoming augmented with new and innovative technologies, including biotechnologies, and the vast possibilities of contemporary creative media. This paper addresses the creative disciplines of visual arts, performing arts, design arts, media arts, literary arts and hybrid arts, and explains the need for creative curricula. Creative disciplines are diverse yet interconnected and whilst individually unique, they are essentially interdisciplinary and linked to needs of cultural and social contexts and professional practice.

Engaging students in creative disciplines is linked to the learners through the affective dimensions of the curriculum and motivational factors, and involves experiential learning situated in authentic learning contexts. Design considerations for spaces for learning in creative disciplines must focus beyond contemporary requirements and allow for future expansion or rearrangement depending on needs and areas of development.

Two birds with one stone: Using Pecha Kucha presentations in the assessment and teaching of a Translation Studies unit

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This paper presents the results of a case study run at The University of Western Australia in 2015 on the use of *Pecha Kucha* in the assessment of the unit *Translation Localisation*. Pecha Kucha is a fast-paced visual presentation format consisting in 20 slides set to proceed automatically every 20 seconds, for a total of 6.40 minutes. It was devised in 2003 by architects Klein and Dytham in order to shorten and enliven presentations in the field of architecture. Since its birth, Pecha Kucha has been used in large conferences to allow more speakers to present. In more recent years it has also been introduced in the classroom, particularly in business and English for Academic Purposes (EAP).

Pecha Kucha was used to assess students of *Translation Localisation* for two reasons: it is a time-effective method to assess a large number of students in a short time, and it has the potential to teach students while assessing them. Recent studies show that the Pecha Kucha style can improve presenting skills and English speaking skills in general. This has particular relevance when teaching international students, such as in *Translation Localisation*, where 84% of students did not speak English as their first language. Pecha Kucha has also been proved to increase students' awareness of the role of timing and delivery in giving a successful presentation.

Blended learning in a converged model of university transformation

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The implementation of blended learning requires a major shift in teaching practice and propagates implications across many core services of a university, namely the content, learning interactions, assessment, credentialing, student support, and technology. This shift requires the role of the instructor and student to be redefined and responsibility of learning is renegotiated. The impact of blended learning implementation across the system as a whole can be viewed as integral to and inseparable from other key drivers of a vision of the future university. This presentation describes how student support and blended learning are empowered by a university-wide ecosystem for the transformation of teaching and learning, known as *Curtin Converged*, which has been implemented in the largest university in Western Australia. The narrative will describe the four principles of the model and illustrate how these are embedded in an ecosystem of policies and practices, how they support blended learning and the student experience. A particular focus on student support is used as a case profile of the application of the converged model in the context of whole-of-institution change.

Badging learning journeys in higher education: Designing digital pathways for learning, motivation and assessment

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Digital badges bring visibility and transparency to learning, teaching and assessment. Educators worldwide are now witnessing a change in thinking driven by digital badging as a new approach that alters how people make evidence-based claims about learning. Badges can reveal meaningful, identifiable and detailed aspects of learning for all stakeholders and provide a new mechanism to recognise skills, experience and knowledge. New flexible learning pathways for the journey through higher education are thus arising that utilise the new approach. This presentation describes how digital badges can assist the higher education learning journey in three phases: 'paths into learning', 'paths during learning', and 'lifelong learning pathways'. A national study of micro-credentialing in Australia provides a backdrop of case examples to discuss team-based development processes and design decisions for creating digital badge systems. Key aspects of design include integration of recognition into learning processes, using badges in electronic portfolios, helping students develop autonomy and self-regulation, and planning for badges as internal and open external symbols of accomplishment.

Analysis of student responses and participation in observation diaries for introductory astronomy

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Students in a popular introductory astronomy broadening course, (enrolment around 150 students per semester) with about 45% non-STEM majors, were required to maintain diaries of their own astronomical observations for 12 weeks during the second semester of 2014 and 2015. Students were required to plan, conduct, analyse and discuss their own naked-eye and telescope observations. Guidance was provided by lecturers throughout the semester, but only one formal astronomy night directed by lecturers was conducted. The contribution of the observation diaries to students' synthesis and analysis of, and ability to apply, astronomy concepts was assessed using a conceptually-based, multiple-choice *Astronomy Diagnostic Test*, adapted for use in the southern hemisphere from that designed by Zeilik and colleagues, given at the start and end of the course. The students' diaries were assessed in order to provide a qualitative evaluation of students' increasing knowledge and understanding of astronomical phenomena and concepts, as well as their level of enthusiasm, creativity and engagement with the observing project and the course material. Student attitudes towards astronomy and science were also analysed using the *Survey of Attitudes Toward Astronomy*,

designed by Zeilik, Schau and Mattern, conducted at the start and end of the astronomy course. The observing diaries were shown to be an effective learning tool, and a very positive learning experience for over 70% of students. Observing diaries aid student learning of the course content, reinforce links to science concepts, and provide students with an opportunity for creativity not normally open to them in exams and reports.

SMART BHAGS: Reflective goal setting in assessment

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What happens when students articulate "what do I want to get out of this unit?", then reflect on this during the unit and finally consider whether this has been achieved at the end? This session discusses the motivations and outcomes for tutors and students in using reflective goal-setting in assessment in Information Studies units. Creating a formal, written goal involves more precise consideration of learning outcomes and the student's own reasons for studying than is usual for most students. Specific and measurable goals give students a touchstone to monitor their own progress, and can help a unit coordinator understand student motivations and track their growth.

Session participants will "get their hands dirty" exploring two types of scaffolding that can be provided to students to help develop effective goal setting; the what and why of *BHAGS* (big hairy audacious goals) and setting goals that are *SMART* (specific, measurable, achievable, realistic and time-bound).

Addressing academic 'culture shock': Bridging the distance with international students

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International students frequently struggle to navigate the distance between the academic culture of their country of origin and their host country. Differences in academic expectations and requirements, learning practices and forms of assessment can present a significant challenge for many students. The role of academic support programs in mediating these differences is a vital one; the provision of academic skill training and ongoing support assists students in bridging the distance and enabling them to succeed in their academic environment.

55 Minute Workshop

Blog your way to digital mobility in teaching and learning

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I was sceptical about this blogging assignment first. But then the blog turned out to be so easy to use and it actually became real fun when the interactions with other students started. Weird...cause I never thought I would like an assignment so much. Writing posts and checking comments became this engaging addiction.

I was never so engaged in a unit as with our blogs. This was the first time in four years since I am at this university when I could express what I really think and be critical instead of repeating what others have told me. This was a truly empowering and freeing experience.

[Selected student feedback from survey on blogging assignments in *EMPL3301 Globalisation and Work* and *EMPL3241 International Employment Relations*, UWA, 2015. Further student feedback on blogging assignments available on 'The Impact of Blogging': <http://blogs.uwa.edu.au/>]

Blogs have been used successfully in education for over a decade and, with the gradual switch towards digital mobile education, they are becoming an even more popular form of blended learning. Blogs are an ideal tool to boost student engagement, collaboration, creativity, critical

thinking and to enhance their digital literacy. Blogs are also a proven tool to improve teacher communication with students and to improve teaching evaluation outcomes. However, blogging has not always been fully embraced by educators for two main reasons: dull and limited blogging tools (*Blackboard* and *Moodle*) and a lack of effective blogging skills and fear of experimenting with blogging technology.

This hands-on workshop addresses these issues and makes blogging simple and fun for everyone. No previous blogging experience is required. You will learn how to set up and run a state-of-the-art professional blog in minutes. This is an ideal workshop for those wishing to use blogs for teaching and learning (e.g. as an assessment tool) or for professional communication in individual projects.

No special equipment is needed. There are 14 computers in our lab and we will use the leading *WordPress* blogging platform provided by CampusPress (the first choice for blogging in top universities worldwide) to set up your blog(s). In this workshop you will:

- learn about the choice of blogging platforms available for education
- appreciate the benefits of using blogs for learning/teaching and personal communication (e.g. own research, community projects)
- learn how to set up your blog in minutes using CampusPress *WordPress*
- learn how to use basic blogging functions (blogging theme, posting, commenting, adding multimedia).

Places are limited (14 active users plus up to 14 observers). If possible, please confirm your participation by emailing andrzej.gwizdalski@uwa.edu.au by 27 January 2016 so we can plan ahead (see also Andrzej Gwizdalski's 25 minute presentation, 'Designing successful blogging assignments').

Designing successful blogging assignments

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What are the key elements of a successful blogging assignment? Grounded in literature and supported by original empirical data, this study evaluates the challenges and benefits of the increasingly popular use of blogs for teaching and learning in tertiary education. The presentation highlights practical and easy-to-follow steps to choose the most effective blogging platform, setting up different blogging tasks, and selecting assessment strategies that work. These steps have shown a positive impact on improving student engagement, critical thinking, collaborative learning, writing skills and digital literacy. The results stem from surveys, individual and focus group interviews with students and staff in the Business School at The University of Western Australia. The blogging assignment is part of a grant-winning project ('UWA Blogs') that experimentally introduced blogs into selected units at the UWA Business School. Over the course of four semesters, the project has successfully tested various blogging assignment options. The new knowledge generated in this project is currently prepared for implementation in other UWA units and for dissemination in relevant teaching and learning publications among the broader academic community (see also Andrzej Gwizdalski's 55 minute workshop, 'Blog your way to digital mobility in teaching and learning').

(When) will digital videos replace the written assignment?

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This empirical study critically evaluates the use of video as an assignment tool. In recent years the use of digital video has become ubiquitous in education. The shift towards blended learning and the flipped classroom in tertiary education makes video a particularly attractive teaching and learning tool. Leading universities invest in multiple video production studios (e.g. *One Button Studio*) to be used by staff and students; video-based MOOC courses and instructional material (e.g. *Academic Earth*, *Kaltura*, *Lynda*) are replacing traditional lectures; and more and more student-centred learning activities ('e-tivities') make use of digital video. The general excitement with these 'new' digital technologies is often based on the assumption that they offer the most effective way of engaging 'digital natives' in learning because this is

their natural mode of communication. Given this, the question to ask is not 'if' but rather 'when' digital multimedia will replace written assignments.

Based on a survey with 180 undergraduate students enrolled in majors as diverse as linguistics, engineering and business at The University of Western Australia, this study challenges the assumption that the current generation of undergraduate students (so-called 'digital natives') unanimously embrace digital video production as an assignment type. While the majority of respondents find the idea of producing video assignments attractive, most also admit they lack the skills and knowledge needed for producing this type of assignment successfully. Remarkably, over one third of students showed a preference for the traditional written assignment format.

Enhancing the cultural capacity of staff and students in the creative arts

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The approach as to how to internationalise and enculturate students and staff is something that the higher education sector and our societies in general have been seeking to improve. It can take many forms, however this approach of taking students into the field has many advantages over learning from an 'outside' perspective. The ability to form relationships with a place and people is something that can improve one's ability to appreciate, navigate, respect and to be able to work within the world of cultural difference. The concept is common in the English as a Second Language (ESL) classroom, that immersion in the language and culture can facilitate and even fast track learning. This approach takes the concept of immersion and utilises it in the field of the visual arts where there is a visual research phase to many projects. In 2014 we were able to trial the first of a series of small scale 10 day study tours to Japan. On this trip, which acts as a case study for this presentation, there were 6 students from a variety of majors. This allowed for a more intimate experience giving the students time to look, visually document in relation to their discipline field and the culture, and produce very unique and personal yet universal pieces of design.

Use of QR Codes to enhance student preparation, participation and learning in Anatomy and Human Biology

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Quick response (QR) codes are two dimensional bar codes that can be deciphered by an app downloaded to smartphones or tablets with a built in camera. These optical tags have been used in level 1 Anatomy and Human Biology at UWA to provide functional improvements in some learning tasks and to re-shape student behaviour in weekly small group tutorial sessions. QR codes embedded into the student manual facilitate access to online material in the immediate vicinity of the printed manual in any location at any time bypassing the need for typing or copying and pasting in a lengthy URL. Student manual QR codes link to video and other visual resources targeted to areas of known difficulty in learning, such as visualising embryonic folding.

QR codes were used in tutorials to guide students in how they need to apply knowledge, to help them identify gaps in their knowledge, and to orchestrate more opportunities for discussion and peer learning in the form of extension exercises for small groups. They were also used with complex anatomical models to encourage students to think about anatomy in terms of structure and function. Strategically placed, QR codes can be used to reveal a sequence of focus questions designed to guide students to navigate meaningfully and collaboratively through anatomical models and instil an analytical approach that can be subsequently applied to other anatomical systems. Technical considerations and the benefits and pitfalls of this approach from both the student and tutor perspectives are discussed.

Engaging a diverse cohort: Strategies employed in a mathematics enabling unit

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The *UniReady Enabling Program* is an alternative pathway for students to gain entry into Curtin University. One of the optional units in the program is a mathematics unit, which many students choose as part of their studies. These students are a diverse cohort, ranging from those who have recently completed or attempted a mathematics course at senior secondary level, to those who have not progressed beyond lower secondary level or have not studied mathematics in decades. Furthermore, many of these students appear anxious about mathematics, have low levels of confidence, and/or perceive the subject to lack real-world relevance. This combination of factors can make it difficult to provide a mathematics unit that is engaging and accessible for all students, while best preparing them for undergraduate studies.

This presentation explores two key changes that were made to the *UniReady Applying Mathematics* unit in 2015 in order to address these challenges. The first of these changes involved the implementation of a diagnostic test and associated preparatory materials, in an attempt to ensure all students had a fundamental set of numerical skills at the outset, without compromising the standard of course content. The second of these changes involved giving the course material more real-world relevance, by ensuring it was set in the context of students' prospective future undergraduate degrees; in particular, in Health Sciences and Business. This presentation will detail and reflect on these strategies, and will be of particular interest to those seeking to provide relevant, engaging material for a diverse cohort.

55 Minute Workshop

Using origami to demonstrate effectiveness of the peer, self, tutor feedback cycle

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The intended audience for this workshop is educators who wish to use effective feedback strategies in order to achieve complex learning in their students. The principal purpose of the workshop is to enable participants to learn ways of combining feedback from different sources to enhance student learning. The workshop mimics a successful learning strategy implemented in a foundation engineering communications unit at our university. It involves participant engagement with an increasingly complex unit origami task (Franco & Varner, 1999) through a 'feedback cycle' (Vardi, 2012, p. 22). The cycle involves peer-evaluation and feedback (Price & O'Donovan, 2006), followed by self-assessment (Taras, 2010), and then tutor feedback (Price et al., 2011).

All materials are provided: each team (2-3 participants) receives a sample (a pre-made model) of an origami cube, a copy each of instructions and marking criteria for the origami task, and nine sheets of origami paper. The first 10 minutes of the workshop are used to introduce the workshop. The rest of the workshop runs in three phases of approximately 15 minutes each. In phase 1, each team builds a unit origami cube using the written instructions and by referring to the marking criteria and the sample cube.

In phase 2, using the marking criteria, each team evaluates another team's cube and gives feedback to the relevant team. Each team then evaluates their own cube. The facilitators then guide a discussion, involving all participants, on common errors and ways to rectify them. In phase 3, each team is directed to build a cube afresh. Facilitators then lead the whole session in evaluating how well the purpose of the workshop has been achieved, and if, how and why participants engaged with feedback from the different sources. To conclude, participants give their feedback on the possible applicability of the 'feedback cycle' to their own teaching practice.

References

- Franco, B. & Varner, D. (1999). *Unfolding mathematics with unit origami*. Emeryville, USA: Key Curriculum Press.
- Vardi, I. (2012). *Effective feedback for student learning in higher education*. HERDSA guide. Milperra, Australia: HERDSA.
- Price, M. & O'Donovan, B. (2006). Improving performance through enhancing student understanding of criteria and feedback. In C. Bryan & K. Clegg (Eds), *Innovative assessment in higher education* (pp. 100-109). Oxford, UK: Routledge.
- Taras, M. (2010). Student self-assessment: Processes and consequences. *Teaching in Higher Education*, 15(2), 199-209. <http://dx.doi.org/10.1080/13562511003620027>
- Price, M., Handley, K. & Millar, J. (2011). Feedback: Focussing attention on engagement. *Studies in Higher Education*, 36(8), 879-896. <http://dx.doi.org/10.1080/03075079.2010.483513>

Promoting quality assurance by benchmarking online units

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The number of students taking online units has increased markedly, especially with the introduction of MOOCs. Online delivery is recognised for its potential to enhance learning and to increase student accessibility to higher education. The Tertiary Education Quality and Standards Agency (TEQSA) requires online units to meet the same standards of educational quality as those delivered in a face to face mode. Universities are accountable for quality of their online offerings and need to demonstrate this quality empirically.

Shelton (2011), after reviewing paradigms for evaluating the quality of online education programs, concluded that there needs to be a common method for measuring quality and that at the same time recommends strategies for improvement. The aim of this project was to develop criteria to assess quality of delivery of online units, to apply these criteria to four units, and then to recommend criteria for future developments. A review of available benchmarking tools revealed that none were entirely suitable, so a tool was developed based on previous literature. The four units on which the benchmarking was conducted were situated across four courses to ensure transferability of the tool. This presentation will detail early findings from this project.

Authentic learning activities that guide students through the clinical reasoning process

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It is widely recognised that critical reasoning is a core skill for health care practitioners. The process of clinical reasoning involves collecting and processing information that is used to determine a client's diagnosis and appropriate management (Doody & McAteer, 2002; Higgs, 2008; Kassirer, 2010). Reflecting on outcomes and using this information to make appropriate changes to ensure maximum patient/client care is also an important component of clinical reasoning (Simmons, 2010). Students were encouraged to practise clinical reasoning skills through an engaging, interactive and authentic learning experience, which also provided students with timely formative feedback regarding these skills. Students then reflected on their learning and rated how well the activity supported their learning of clinical reasoning skills. This presentation will discuss the development of two online learning packages created with *Udutu Authoring Tool* software. Preliminary analysis indicates that of the 340 students enrolled, 215 (63%) engaged in the learning activities and the 37% who responded to the questionnaire on average rated the value of the learning activity 4.51 out of a possible 5. Student comments reflect positively on the tool as an effective exercise to consolidate and practise their clinical reasoning skills.

References

- Doody, C. & McAteer, M. (2002). Clinical reasoning of expert and novice physiotherapists in an outpatient orthopaedic setting. *Physiotherapy*, 88(5), 258-268. [http://dx.doi.org/10.1016/S0031-9406\(05\)61417-4](http://dx.doi.org/10.1016/S0031-9406(05)61417-4)
- Higgs, J. (2008). *Clinical reasoning in the health professions*. Elsevier Health Sciences.
- Kassirer, J. P. (2010). Teaching clinical reasoning: Case-based and coached. *Academic Medicine*, 85(7), 1118-1124. <http://dx.doi.org/10.1097/ACM.0b013e3181d5dd0d>
- Simmons, B. (2010). Clinical reasoning: Concept analysis. *Journal of Advanced Nursing*, 66(5), 1151-1158. <http://dx.doi.org/10.1111/j.1365-2648.2010.05262.x>

Attendance: The mismatch between academics and students. Who is right?

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Most academics consider class attendance as one key to improving student performance. Various strategies have been implemented in order to entice students to attend classes and

engage more fully with the course, sometimes with limited success. This presentation examines relationships between student performance and class attendance, to facilitate discussion of the questions: Does attendance matter? And what do students expect from lectures?

In an introductory calculus unit, for which recorded lectures were not available, accurate student attendance records were obtained by lecture theatre scanners. In a first level business statistics unit, for which recorded lectures were available, attendance information was obtained by student surveys. Attendance records for the two units were linked to performance and demographic information to determine the effect of attendance on performance. In addition, surveys of academic staff and students were taken to ascertain attitudes towards class attendance. Students with a range of performance profiles were selected so attitudes to class attendance could be linked to performance. A qualitative and some quantitative analyses of the resulting data is in progress and some results will be reported in this presentation.

How do students from the *UniReady* enabling course and those from a traditional pathway compare?

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Curtin's *UniReady* program is an open access enabling course designed for people who wish to be eligible for entry to Curtin University but do not have the necessary entrance qualifications. The course is one semester long and only available to domestic students. Successful completion of the course gives students minimum entrance requirements for Curtin University and makes them eligible for entry to some but not all courses at Curtin University. For example, students wishing to study Science and Engineering need to enrol in the Science and Engineering enabling course.

As with other universities in Australia, Curtin offers several pathways for entry to university undergraduate courses apart from the traditional ATAR requirement; StepUp, Portfolio entry and bridging programs. Students can also come through Curtin College and TAFE. With this multitude of entry pathways how well do these students compare to those who enter via the traditional ATAR requirement? We sought primarily to investigate the difference between the *UniReady* students and those who entered an undergraduate degree with an ATAR between 70-75. This was done by looking at the demographics of the groups and by measuring student progress through the first year of their undergraduate degrees using university standards such as academic status and CWA (course weighted average).

Service-learning: Promoting the development of the graduate professional standards in pre-service secondary teachers

Refereed Research paper: Full text on website

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Service-learning has not been a common feature of tertiary courses and this is no less the case in initial teacher education programs. Where service-learning has been included the motivation has been to broaden the experience of students with respect to the development of their personal and professional skills. The *National Professional Standards for Teachers*, introduced in Australia in 2012, defines the range of competencies that pre-service teachers must demonstrate by graduation. This research investigated two aspects of a service-learning program within a secondary teacher education course. The first was the extent to which a service-learning program could promote the development of the graduate professional standards in pre-service teachers. The second was the manner in which the personal and professional skills of pre-service teachers can be enhanced through a service-learning experience. The results suggested that service-learning can impact pre-service teacher development towards the graduate standards. The results also indicated that for the vast majority of pre-service teachers, their personal and professional skills were enhanced through participation in a service-learning program.

Identifying the 'Big Five' teaching and learning issues in the School of Management, Curtin Business School

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This paper presents the findings of Curtin Teaching and Learning Teaching Academic Scholarship Seed Grant project conducted in the second half of 2015. The project was designed to identify the 'Big Five' teaching and learning issues in the School of Management in Curtin Business School. The findings will be used to guide the direction of teaching and learning initiatives and programs in the School - that will lead to greater quality in teaching and learning. In turn, significant outcomes will also include a better student experience and a more supportive learning environment.

A qualitative methodology was used to form part of a genuine, discipline-based conversation about teaching and learning in management education. The intention was this conversation should not be confined by the parameters of 'box ticking' exercises for internal or external data collecting or accreditation purposes (which although very useful, can constrain the type of data collected, depending on a range of factors). A literature review informed the development of a conceptual framework that assisted in identifying key questions that guided the semi-structured interviews (for students) and focus groups (for teaching staff). Teaching and learning issues identified include English language proficiency, students' motivation and commitment, academic competence, industry preparedness of graduates, casualisation of teaching and instructional design – just to name a few. The 'Big Five' teaching and learning issues will be revealed during the presentation!

Intentionally designing employability across a course using e-portfolios

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Employability means students are work ready on graduation, and universities are increasingly focusing on the development of employability skills through the whole course. Some universities are now using *Personal Development Planning* (PDP) to assist this process. PDP supports students to think about their learning and set goals for the future. Lecturers can support this process by intentionally planning the curriculum to help students make the connections between classroom learning and work integrated learning opportunities, by engaging students in reflective activities, documenting evidence of their learning, and setting goals for future experiences. This paper presents findings from a study investigating PDP processes embedded within an e-portfolio. Students who had been using the e-portfolio for up to 18 months were invited to focus groups to discuss their experiences. Focus groups were transcribed and analysed thematically. Themes were: the use of technology, the educational value of the tool, student engagement with PDP activities, integrated learning, and continuing professional development and lifelong learning. Quantitative data was also collecting using questionnaires and has been reported previously. Implications for further extending employability approaches using an e-portfolio tool will be discussed.

It's all in the mindset: Enabling resilience in educationally disadvantaged learners transitioning to university

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In recent years, there has been growing awareness of the impact of mental health issues on university students' ability to successfully access, transition and participate in university. Mental health issues are of particular concern in enabling programs which specifically target educationally-disadvantaged equity groups such as those with medical conditions, disability, low socio-economic backgrounds and refugees. Indeed, research indicates that "medical and/or emotional issues" is the most common reason for student withdrawal from Murdoch University's key enabling program *OnTrack* (Lisciandro & Gibbs, in press), and this is consistent with the findings of other Australian enabling programs (Hodges et al., 2013). Therefore, we recognised that in addition to 'academic skills', enabling students need to be equipped with social and emotional skills that support the transition into the university culture as well as promote resilience, sustained motivation and academic self-efficacy. In response to

this, we reviewed and revised the *OnTrack* curriculum to incorporate material which focused on developing student awareness and understanding of the psychological and emotional aspects of learning. One aspect that has demonstrated a highly positive response from both students and staff has been the inclusion of Dweck's notion of learner mindsets. Here, we present our rationale for incorporating this material into a curriculum which aims to support and enable the transition of educationally disadvantaged students into undergraduate studies. Furthermore, we provide examples of our multifaceted approach to this, shaped by theories of transformative learning, constructivism and creating a learner-centred educational experience.

Why can't we all just get along? Making group work more meaningful

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In an article in *The Australian*, Lisa White noted that 'students hate group work assignments'. This is common knowledge for most students and staff who face the challenge of successfully managing group work. Despite this, group work is a valuable experience, teaching students skills for success both at university and for employment. The importance of group work to students' development raises the question: how can we make group work more effective and enjoyable?

Group work forms a critical part of assessment in *Culture to Culture 100*, a compulsory first year unit in the Mass Communications Degree at Curtin. Anecdotal feedback from tutors indicated they spent considerable time managing student conflict and group dynamics, and students often found group work difficult. Teaching staff collaborated with the Curtin Leadership Centre (CLC) to embed an experiential group work activity early in the unit to develop the students' group work skills before attempting group assignments. This exposed students to basic group development theory, characteristics of effective groups, and the opportunity to reflect on previous group experiences. The CLC coached teaching staff on how to facilitate the activity and connect it to assignments. Feedback from tutors indicates the intervention has been successful in ensuring students have an understanding of group processes and how to work more effectively together. Tutors now have more time to deliver other engaging learning experiences, as well as the opportunity to gain skills, knowledge and confidence in different ways to engage students in the learning process.

Reference

White, L. (2013) Students hate group assignments. *The Australian*, 10 October.

<http://www.theaustralian.com.au/higher-education/this-campus-life/students-hate-group-assignments/story-fnhuzyfz-1226734939499>

55 Minute Workshop

Using collaborative tools for student centric learning and critical thinking

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In this hands on interactive session, you will create digital templates that engage students in critical and collaborative activities. You will be asked to move beyond simple polling techniques with fixed answers to explore ways of allowing students to voice, share, discuss and deliberate. You will be invited to create your own visual organisers using *GroupMap* (<http://www.groupmap.com>), customise your workflow and to share this with others to explore different ways of prioritisation, decision making and critical thinking.

Unlike simple polling (restrictive), *Twitter* (not easily aggregated), discussion boards (single format for discussion) and collaborative whiteboards/editors (edit wars), *GroupMap* allows you to capture individual student responses on customisable templates which are then combined to reveal the whole group perspective. *GroupMap* was a 2015 National iAwards finalist in the Education category.

Please bring your own Wi-Fi enabled device (laptop or tablet recommended), although computers will be available in the workshop venue. To help ensure the most effective use of time at the workshop, please sign up for a FREE participant account at <http://www.groupmap.com> before attending.

Objectives of the workshop

- Explore options for student engagement, formative assessment and collaborative learning and seeing case examples of it in practice.
- Easily create, customise, share and use digital visual organisers for your lesson plans - face to face or online.
- Understand and use different techniques used to help build consensus and determine audience sentiment.
- Learn how to create templates like KWL, SWOT, pitch scoring, questions from the audience, case study activities, perceptual mapping and others.
- Be able to choose the most appropriate templates and workflow for your lesson plan.
- Be able to identify, plan and create student centric engagement activities as individuals or in teams.
- Use real time results and data from the activity to identify top performers, students at risk and level of participation, and to provide more targeted feedback.

This workshop is for participants from any discipline, who have a basic familiarity with web browsers and who:

- want to expand their skillset in educational technology
- 'flip the classroom' or want to explore facilitated student centric activities
- use socratic, collaborative or collective learning methods
- are involved in instructional design, consulting or advisory.

Intended impact on learning

- Support 'flip classroom' activities and get real time results on student thinking.
- Gain visibility into individual contribution as well as whole group output.
- Utilise social capital and collective wisdom in the classroom.
- Apply creative and critical thinking to complex and multi-answer topics.
- Encourage sharing of ideas and to explore and learn from multiple perspectives.
- Remove manual collation time for educators and allow for iterative processes.

Drivers and barriers to intensive mode teaching

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With intensive mode teaching, classes are held on fewer days and longer each day than is traditional in the discipline. This presentation will report findings from a sector-wide survey in which 105 coordinators of units with intensive mode reported the structures of their units, why the mode was used, and features that they liked and disliked about the mode. The survey established the inter-disciplinary context for a project to enhance students' experiences of threshold capability development with intensive mode teaching (<http://www.ecm.uwa.edu.au/staff/learning/research/intensive-mode-teaching>). We will present the reasons that survey participants reported for using intensive mode – the most popular being to allow students to fit other activities between classes. Positive and negative features of the mode will then be discussed. Opportunities offered by the mode include the freedom for students to engage in extended discussions and interactive group activities. Reported challenges include fatigue, and marking assessments with limited time. A guide for educators teaching in intensive mode, informed by the survey and complementary studies in units, is being developed and will be reviewed in workshops early in 2016.

Support for this project has been provided by the Australian Government Office for Learning and Teaching. The views in this project/activity do not necessarily reflect the views of the Australian Government Office for Learning and Teaching.

55 Minute Workshop

Key strategies to enhance students' experiences of threshold capability development with intensive mode teaching

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With intensive mode teaching (IMT), classes are held on fewer days and longer each day than is traditional in the discipline. IMT is supported by advances in technology that allow information delivery, and 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, explained below. Flexibility offered by IMT is becoming increasingly important for students undertaking higher education, who now engage more heavily than in the past in paid employment. 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. In this context, it is important that educators know how to optimise students' learning with IMT.

Threshold concepts are transformative for students because they open new ways of thinking and knowing. They are usually troublesome for students and require attention from students and educators. With *threshold capabilities*, students can apply understanding of threshold concepts to previously unseen problems (Baillie, Bowden & Meyer, 2013). Threshold capabilities are necessary for future learning or practice in a discipline. By identifying the threshold capabilities in a program it is possible to focus the curriculum, and especially class time, on the most critical learning.

This workshop is based on key recommendations emerging from a national project to enhance students' experiences of threshold capability development with IMT. The project has included a national sector-wide survey of coordinators of units with IMT, and studies of students' experiences and pedagogical approaches in eight IMT units and three matched units taught in traditional mode.

People who are using or are interested in using intensive mode teaching, academic developers, and curriculum designers would benefit from this workshop. Even those who are not using intensive mode teaching are likely to find that the strategies could be used in other modes of teaching. Participants will learn about key strategies that students and unit coordinators have reported to enhance students' experiences of threshold capability development in units with IMT.

Project website

<http://www.ecm.uwa.edu.au/staff/learning/research/intensive-mode-teaching>

References

- Baillie, C., Bowden, J. A. & Meyer, J. H. F. (2013). Threshold capabilities: Threshold concepts and knowledge capability linked through variation theory. *Higher Education*, 65(2), 227-246. <http://dx.doi.org/10.1007/s10734-012-9540-5>
- Davies, W. M. (2006). Intensive teaching formats: A review. *Issues in Educational Research*, 16(1), 1-20. <http://www.iier.org.au/iier16/davies.html>

Support for this project has been provided by the Australian Government Office for Learning and Teaching. The views in this project/activity do not necessarily reflect the views of the Australian Government Office for Learning and Teaching.

Capstone principles: School of Nursing, Midwifery and Paramedicine

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Capstones are final year undergraduate units designed to provide a learning experience that synthesises the knowledge and skills attained over the duration of the undergraduate degree, assisting in the transition to independent practice and the development of professional identity (Bailey, van Acker & Fyffe, 2012; McNamara et al., 2012). The importance of capstones within the Australian higher education context is signified by their inclusion in the 'application of knowledge and skills' sections of the Australian Qualifications Framework guidelines. In 2015 a team from the Faculty of Health Sciences was successful in gaining a grant from the 'Teaching Excellence Development Fund' [TEDF] within Curtin University. The TEDF process has been developed to support innovative projects and capacity building approaches that foster excellence and scholarship in teaching, learning and assessment. The project contained seven phases, which culminated in the development of *Capstone Principles* for the Faculty of Health Sciences. This was then followed by testing the principles in supporting the development of new high quality capstone units within the Faculty.

This presentation will outline the process of conceptualisation and then the development of capstone principles as part of this grant. It will then discuss the implementation of the

principles within the undergraduate paramedicine major degree pathway as part of phase seven of the project. This culminated in an amazing array of quality improvement projects being developed by third year undergraduate paramedic students linked to areas of the Australian Commission on Safety and Quality in Health Care Service Standards.

References

- Bailey, J., van Acker, E. & Fyffe, J. (2012). *Capstone subjects in undergraduate business degrees: A good practice guide*. Brisbane: Griffith University.
<http://businesscapstones.edu.au/wp-content/uploads/2013/01/GoodPracticeGuide.pdf>
- McNamara, J., Kift, S. M., Butler, D., Field, R. M., Brown, C. & Gamble, N. (2012). Work-integrated learning as a component of the capstone experience in undergraduate law. *Asia-Pacific Journal of Cooperative Education*, 13(1), 1-12.
http://www.apjce.org/files/APJCE_13_1_1_12.pdf

Crafting feedback on academic writing for university students who have already met English language competency requirements

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The growing internationalisation of global education has meant an increase in international and transnational student numbers in Australian universities. These students bring with them approaches to written discourses which, in a world that is increasingly cognisant of the validity of 'World Englishes', cannot be ignored. Speakers of English as a first language may also face challenges in a context where there are strong pressures for standardisation of style, variety, content and assessment.

This presentation describes a Curtin University funded project (TEDF) designed to assist university academic personnel in their assessment and evaluation of students' English language use in an academic environment. Specifically, the project aims to develop and disseminate an electronic 'Handbook' resource to aid lecturers in providing informed, focused feedback to students on their written language. The 'Handbook' contains samples of student writing and comprises: a literature review and annotated bibliography; marking schemes and exemplars; identification of positive features of student writing and varietal differences; tips for formative and summative feedback on writing; and links to further useful resources. Some feedback on the 'Handbook' will be sought from participants attending the session.

55 Minute Workshop

'All the things': Developing a *Maker* community in the academic library

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Makerspaces are collaborative learning environments where people come together to share tools, materials and expertise, and develop digital literacy and other skills through hands-on 'making' activities. Fostering community building, they encourage collaboration, creativity, experimentation, exploration, and the sharing of knowledge and experience. Underpinned by constructivist pedagogy, Makerspaces provide opportunities to engage in problem solving activities using technologies such as 3D modelling and printing, electronic circuitry, robotics, coding, data visualisation, virtual and augmented reality, video creation, animation and digital storytelling, as well as art, craft and design. In the higher education environment, Makerspaces are a natural fit with the academic library, which traditionally has fostered lifelong learning, acted as catalysts for collaboration, and provided support and resources for the creation of knowledge. In 2015, Curtin University Library implemented a strategic initiative to establish a cross-disciplinary makerspace and maker community through facilitating 'making' events, activities and projects, both within the library and the wider Curtin community, as well as seeking opportunities to engage with the community more broadly.

In this workshop we will share our experience of establishing a Library Makerspace (<https://library.curtin.edu.au/facilities/makerspace.cfm>) by briefly outlining our aims and objectives, how we went about it, and what we learned. Participants will then work in small groups and engage in some of the Maker activities we have been exploring throughout the year including:

1. illuminated origami with LED lights and paper circuitry
2. arduinos, electronics and robotics
3. makey makeys and coding a simple program using *Scratch*
4. create interactive circuits with *LittleBits*
5. try out virtual and augmented reality, and make a hologram viewer.

The workshop will conclude by inviting participants to openly reflect, based on their experience of the workshop activities, on how Makerspace activities can support teaching practice. We will also pose questions around the potential for Makerspaces to facilitate the development of digital literacy skills required for the 21st century. What are the opportunities? What issues should we consider?

This workshop will be useful for anyone interested in Makerspaces or approaches to using hands-on Maker activities in teaching and learning. No expertise is required.

Listening, Learning and Leading: Transforming Curtin students' library experience

Refereed Research paper: Full text on website

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Curtin University Library's program *Listening, Learning and Leading: Transforming the Curtin Student Library Experience* directly enables Curtin University's *Learning for Tomorrow* strategy and aligns with students' experiences of a transformed learning approach, focusing on expanding support and access for very diverse student groups. Initiated in 2013, the program supports students on their learning journey by increasing physical and virtual access to library services and resources. It provides customised information literacy support at point of need and by developing innovative hands-on learning activities. It uses mobile app technology such as augmented reality in games based learning, to develop a 'maker community' and 'library makerspace'. The paper outlines how *Listening, Learning and Leading* has contributed to enhancing students' overall learning experience.

A/R/T/ography: Balancing the conflicting interests of artist, researcher and teacher in a simulated WIL environment

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Acknowledgement of the need for students to develop "aptitudes, knowledge and skills that prepare graduates for the workforce" (McIlveen et al., 2011) has led to an expansion of work integrated learning (WIL) opportunities within higher education over recent years. Traditionally, WIL is operationalised through industry placements; however, this model presents many challenges including finding adequate numbers of suitable placements, the risks associated with unsupervised fieldwork, and ensuring that once on site, students engage in tasks through which they can put their education and training into practice. This paper argues that these challenges can be overcome through on-campus simulated WIL environments.

Lateef (2010, p.348) described simulation as "a technique ... to replace and amplify real experiences with guided ones, often 'immersive' in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion". Curtin University's Theatre Arts program operates the on campus Hayman Theatre Company, which produces between 20 and 25 theatre productions a year in a simulated WIL environment. Using the production *80 Minutes, No Interval* as a case study, this paper examines the tension that existed for this researcher-director in balancing the need to realise excellence in the creative work, engage in research for his Masters degree, and place primary importance on the educational outcomes of students. The paper describes how approaching the creative work within the frame of an 'a/r/t/ographical' methodology ensured that in pre-production the desired outcomes for each role were appropriately considered. The paper ends by considering how this approach might be transferred to other higher education contexts, particularly those that are simulated WIL environments.

References

- Lateef, F. (2010). Simulation-based learning: Just like the real thing. *Journal of Emergencies, Trauma and Shock*, 3(4), 348-352. <http://dx.doi.org/10.4103/0974-2700.70743>
- McIlveen, P., Brooks, S., Lichtenberg, A., Smith, M., Torjul, P. & Tyler, J. (2011). Perceptions of career development learning and work-integrated learning in Australian higher education. *Australian Journal of Career Development*, 20(1), 32-41. <http://dx.doi.org/10.1177/103841621102000105>

Flipped in first year: Are we ready for it?

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The flipped classroom approach has received increased attention recently; however this is not a new approach. The approach supports active learning where students are required to complete preparation tasks prior to attending class and complete in-class tasks of a greater cognitive load using the knowledge acquired from their preparation tasks (Abeysekera & Dawson, 2015). Some of the challenges faced when implementing a flipped classroom approach include the student's failure to complete preparation tasks prior to attending class, which can be seen to suggest a lack of engagement. Another challenge can be adequately preparing teaching staff to facilitate a "meddler in the middle" teaching style (McWilliam, 2009).

So does restructuring a large first year unit to a flipped approach work? And how did the teaching staff respond? This presentation will discuss how a large inter-professional first year health sciences unit of approximately 2500 students and 32 tutors was restructured to a flipped approach. The presentation will explore what strategies worked and some of the challenges faced in implementing the flipped classroom approach. This research was funded by a Curtin Teaching Excellence Development Fund grant in 2015. Quantitative data from *Blackboard* analytics, a *Flipped Classroom Questionnaire*, student results and attendance rates were collected. Tutor perspectives were captured through a focus group. This presentation will be interactive, with attendees participating in an interactive "challenge test" similar to the student's class preparation tasks to "test" their knowledge on the flipped classroom approach. Attendees will be given recommendations for structuring a unit using a flipped approach in large units.

References

- Abeysekera, L. & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: Definition, rationale and a call for research. *Higher Education Research & Development*, 34(1), 1-14 <http://dx.doi.org/10.1080/07294360.2014.934336>
- McWilliam, E. (2009). Teaching for creativity: From sage to guide to meddler. *Asia Pacific Journal of Education*, 29(3), 281-293. <http://dx.doi.org/10.1080/02188790903092787>

Please 'like' me: Facilitating peer learning on Facebook

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Shunning clunky online platforms, the Curtin *UniPASS* team is having success facilitating student-driven learning experiences by utilising *Facebook* as a supportive PASS (Peer Assisted Study Sessions) learning tool. In this presentation we will share our experiences in initiating online collaborative learning communities that build student engagement and enthusiasm through peer-mediated, subject specific *Facebook* groups and the procedures and guidelines that have been developed to support peer-mediators. Curtin *UniPASS* completed an initial pilot in 2015 semester 1, which led to improvements to practices, processes and procedures. We can now report on engagement over 2015, and what peer-mediators are learning from the experience. There appears to be a lack of available information about actually using facilitated *Facebook* groups in this structured way, so our experience may be useful to any teaching and learning or support staff considering how to facilitate and manage student engagement in the online and social media space.

Development of a framework for assessment of simulated learning environments in medical radiation science: An early experience

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Students studying within Department of Medical Radiation Sciences (DMRS), Curtin University, develop practical and professional skills through learning in simulated learning environments (SLE) and clinical placements. To facilitate the former, DMRS offers eleven different SLE and associated technologies, used in a variety of ways in different units of study. These SLE represent a significant financial investment. However, it remains unclear how this investment can be best embedded throughout the programs to optimise student development based upon quality learning experiences and consistent, complementary teaching approaches. It will be likely for institutions in the future to pay a fee for student placements in a clinical learning environment. This will potentially make SLE a more economically viable learning option for students' practical and professional skills development, provided they are an effective learning substitute for part, or all, of the clinical placement program. This study aims at devising an evidence-based, discipline-wide framework for assessing SLE that supports students' professional development from novice to mastery.

A technology assessment was conducted. This assessment compared input parameters such as cost and time required to utilise the environment provided by teaching staff, with output parameters such as learning benefits for students on the professional skills development continuum identified within literature and course documents for each SLE. A preliminary framework for assessment of SLE in medical radiation science was devised based on the outcomes of the technology assessment. However, further validation and refinement of the framework are required for creating a benchmark assessment method for SLE across the board.

Mapping success: UWA's mature-age open access program

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The *Mature-age Access Program* (MAP) is an alternative entry pathway at The University of Western Australia which has provided an opportunity for mature-age students from a wide range of backgrounds and experiences, who have not matriculated from high school or completed any award-course at tertiary level. The program began in 2008 and over the subsequent five years has been continually developed, with a range of strategies being implemented to support the MAP students and maximise their participation, retention and success. In 2014 the program underwent a review and a number of recommendations were implemented as a result. This paper reports on the outcomes of the program to date including stories of success and diversity. It also addresses the implementation of the recommendations, resulting processes and strategies, and early indications of the outcomes of these changes.

Cloud and mobile technology in transitioning students into Year 1 Architecture

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Studio education is the mainstay of architectural schools internationally (Bashier, 2014; Nicol & Pilling, 2000; Salama, 1995). Despite significant changes in design practice, digital technology and student profiles, studio education remains essentially rooted in the Bauhaus and Beaux-Art traditions of the early 20th century. There is even some debate as to whether digital technology should be delayed until the third year of a five year program (Kara, 2015). Fortunately, there are some pioneering works embracing digital technology and cloud social media (Pektaş, 2015; Schnabel & Ham, 2014). The Department of Architecture and Interior Architecture at Curtin University is trialling an enhanced approach to architectural studio teaching that combines the latest cloud and tablet technologies with traditional drawing and sketching skills. In the process, we found an increased engagement with the students and that cloud and social media technology enhance collaborative learning rather than deter it. The future model for architectural education is seen as an integrated environment involving both face-to-face and digital methodologies. The underlying realisation is that architecture is a

service around interpreting design briefs and user requirements, and that digital technology are tools that enhance traditional manual skills rather than replace them.

Increasing student participation rates in online pre-class activities: How big does your carrot need to be?

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Successful student engagement in the flipped classroom is reliant upon student participation in, and completion of, pre-class activities designed to prepare the student for the enriching face-to-face classroom environment. In first year Human Biology at UWA a series of online pre-class activities (pre-labs) were developed using *Moodle*. These online pre-labs were designed to prepare students for their face-to-face classroom activities and provided the student with new and revision subject content and quiz questions pertaining to that content.

What are the motivational drivers for students to complete online activities? In this presentation we will discuss the reasons students gave for engaging in these online activities and address the following questions: What proportion of students will participate in formative online activities that earn no marks toward the unit grade? How few marks are required to achieve maximum student participation in online activities? Will allocation of marks maintain student participation rates in online activities throughout the semester? Just how big does your carrot need to be?

55 Minute Workshop Authentic online community of learning workshop

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With the rapid growth of online enrolments (Allen & Seaman, 2011; Brown & Hughes, 2014), many universities are seeking ways to encourage educators to embrace research-based methods for effective online teaching (Crawford-Ferre & Wiest, 2012). Learning management systems are widely used by universities around the world; however, many teachers are still uncertain about how to design interactive and engaging online learning environments (Parker, 2015). Research suggests advances in technology have increased the potential for using real-life tasks as a basis for learning in web-based environments, as high-end technology skills are no longer needed to create truly engaging online activities. Traditionally, educators have primarily used real life examples as vehicles for practice of skills or processes. However, a more innovative approach is to build a whole course of study around real life tasks.

In this workshop, participants will be introduced to the theory and research that underpins the *authentic online community of learning* (AoCoL) model (Parker, 2015). The model and guiding principles were developed as a result of a doctoral study that investigated how to construct more interactive, engaging and student-centred online learning environments which promote key learning skills and encourage self-directed learning. The key principles encompassed in the AoCoL model include: 21st century learning skills, authentic learning elements, community of inquiry components — social, cognitive and teaching presence, meaningful learning with technology and open educational resources. The research findings suggested that the AoCoL framework was a successful alternative to models frequently used to develop online courses and provided learners with greater flexibility and control over their learning. Participants (higher education practitioners) themselves believed that the online course influenced their choice of strategy when designing their future online courses.

This workshop is designed for higher education practitioners involved in designing and delivering online courses. Participants will work in pairs or small groups and are invited to bring along a copy of their unit outline. Participants in this workshop will:

1. view examples of authentic learning approaches implemented in the higher education sector
2. analyse their unit outlines using the authentic online community of learning model to identify opportunities for incorporating meaningful real-life tasks in their teaching area
3. discuss pedagogical and technological strategies for designing authentic online units.

Visit the *eLearnOpen* research website for further information about the AoCoL model and to access the workshop resources:

- Home page: <http://elearnopen.info/index.php>
- Workshop page: <http://elearnopen.info/index.php/workshops/>

Further information about the underpinning principles encompassed in the AoCoL model is available on the following websites:

- 21st century learning (P21): <http://www.p21.org/our-work/p21-framework>
- Authentic learning (Herrington): <http://authenticlearning.info/AuthenticLearning/Home.html>
- Community of inquiry model (Garrison, Cleveland-Innes & Vaughan): <https://coi.athabascau.ca/>
- *Meaningful learning with technology*, 4th edition (Howland, Jonassen & Marra, 2012): <http://www.pearsonhighered.com/educator/product/Meaningful-Learning-with-Technology-4E/9780132565585.page>
- Open education resources (Smartcopying.edu.au): <http://www.smartcopying.edu.au/open-education/open-education-resources>

References

- Allen, I. E. & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011*. <http://www.onlinelearningsurvey.com/reports/goingthedistance.pdf>
- Brown, M. & Hughes, H. (2014). Understanding the student experience: Doing things better in studying first-time distance learners. In A. M. Teixeira & A. Szucs (Eds.), *EDENRW8: Challenges for Research into Open & Distance Learning* (pp. 57-66). Oxford, UK: EDEN.
- Crawford-Ferre, H. G. & Wiest, L. R. (2012). Effective online instruction in higher education. *Quarterly Review of Distance Education*, 13(1), 11-14.
- Parker, J. (2015). *Designing authentic online community of learning experiences for higher education*. EdD thesis, Murdoch University. <http://researchrepository.murdoch.edu.au/28819/>

55 Minute Workshop

Learning to do scholarship of teaching and learning (SoTL): A taster of an online self-paced resource

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A scholarly approach to teaching and learning is a fundamental requirement for “purveyors of fine learning”. However, disciplinary scholars often find the ways of SoTL significantly different from their own approaches to research. New scholars to the academy may struggle to balance their energies regarding teaching and research. Scholarship of teaching and learning (SoTL) draws on the synergies between teaching practice and publication, and provides a viable scholarly space for reflection, inquiry and publication.

This workshop introduces participants to a newly developed online, self-paced resource that scaffolds scholars’ ability to engage in SoTL. The resource is the product of HERDSA’s *New Scholars* portfolio.

In order to fully experience the resource, participants are asked to bring a tablet or laptop to the workshop (some computers will be available in the workshop venue). Participants will have the opportunity to individually explore the online SoTL resource. In groups, they will then reflect, discuss and provide feedback on how it might be used on an individual, course-based or institutional level to improve learning and teaching in higher education.

By engaging in the workshop participants will be able to

1. explore the variety of definitions of SoTL
2. justify the pursuit of SoTL
3. identify relevant SoTL topics to investigate;
4. explore methodological approaches to undertaking SoTL
5. assess the potential benefit of the resource for personal or institutional advancement of SoTL.

Visual spaces: Opening up possibilities to enhance practice-based education

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Building on doctoral research that used photo-elicitation techniques to investigate physiotherapy students' learning in clinical workplaces (Patton, 2014) this presentation explores visual spaces as a pedagogical strategy to enhance practice-based education experiences and outcomes. Increasingly, universities are being required to develop work-ready graduates capable of flourishing in fast-paced and ever changing work environments. This highlights the importance of holistic student preparation for the reality of contemporary and future work life. A broad range of capabilities, extending beyond the skill and adequacy notions of competence now underpin contemporary work practice. These capabilities embrace qualities and dispositions such as resilience, respect, interpersonal skills, creativity and ethical courage.

Visual strategies provide immediate, tangible and intimate ways of understanding and enhancing students' learning and open up possibilities for developing a broader range of student capabilities. The strength of images lies in their capacity to tap into wordless or tacit knowledge, the ambiguity between what we see and what we can describe. Visual information can provide a wellspring for the development of new understandings of a phenomenon or experience (Davidson, 2004), with the strength of images residing in their contextual richness and the amount of specific information they transmit (Flick, 2007). The critical use of visual enriched pedagogy represents an exciting and evolving field, which provides educators with opportunities to creatively imagine new and powerful pedagogies to enhance student learning. This presentation explores learning and teaching strategies that privilege visual techniques in order to holistically develop graduates who will flourish in current and future societal contexts.

References

- Davidson, J. (2004). 'I am a fieldnote': Researching and teaching with visual data. *Qualitative Research Journal*, 4(2), 48-75.
<http://search.informit.com.au/documentSummary;dn=133113353881746;res=IELHSS>
- Flick, U. (2007). *Designing interpretive research*. Los Angeles: SAGE.
- Patton, N. (2014) Clinical learning spaces: Crucibles for the development of professional practice capabilities. [Doctoral dissertation]. Charles Sturt University, Albury, Australia.
http://researchoutput.csu.edu.au/R/-?func=dbin-jump-full&object_id=57862&local_base=GEN01-CSU01

Applying the Kirkpatrick model: Evaluating *Interaction for Learning Framework* curriculum interventions

Refereed Research paper: Full text on website

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Global perspectives and interpersonal and intercultural communication competencies are viewed as a priority within Australian higher education. For management educators, globalisation, student mobility and widening pathways present numerous challenges, but afford opportunities for curriculum innovation. The *Interaction for Learning Framework* (ILF) seeks to help academics introduce curriculum change and increase peer interaction opportunities. Although the framework has many strengths to recommend it, the ILF does not provide a process by which academics can easily evaluate the outcomes produced by its implementation. In this paper, we examine the efficacy of a popular four level training evaluation framework – the Kirkpatrick model – as a way to appraise the outcomes of ILF-based curriculum interventions.

Tim Tam diplomacy: The role of LACE in building intercultural connections at UWA

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As the intake of international students increases in Australian universities, so too does the need to support incoming students during their sojourn in Australia. International students, and postgraduates in particular, often experience isolation and loneliness and can struggle to make meaningful connections with other students. Yet it is well understood that students who have a good experience at their host institution are more likely to recommend it to others in their countries of origin, leading to better recruitment outcomes. David Lowe (2015) even suggested that studying the experiences of international students is important in understanding Australia's "public diplomacy", as positive experiences have the capacity to further develop links not just between higher education institutions but also states. In effect, in addition to the benefits to the individual and to the host institution, support of international students can also have diplomatic benefits.

Language and Cultural Exchange (LACE) at UWA is an intercultural friendship program which brings together UWA staff and students from a variety of backgrounds, and has over eleven years built a strong community through regular social activities and interactive workshops. This paper establishes, first, how LACE addresses the needs of international postgraduate students; and, second, what are the key elements of a successful friendship program aimed at this specific student cohort. The aim of the paper is to suggest generalisable strategies for programs with a similar 'vernacular diplomacy' focus, and to go some way towards Outhred and Chester's (2013) call to highlight the positive aspects of international students' experiences in Australian universities.

Modelling the impact of *UniPASS* attendance on student performance and retention: A three-year investigation

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UniPASS is an accredited, peer-led academic support program at Curtin University currently supporting 73 units with historically higher than average fail rates. Attendance is voluntary, and open to all students enrolled in supported units (N = 11,393 in 2015). At the 2015 Teaching & Learning Forum

[<http://ctl.curtin.edu.au/events/conferences/tlf/tlf2015/abstracts.html#pereira>] we presented the results of a series of *Generalised Linear Mixed Models* (GLMMs) demonstrating robust and meaningful *UniPASS* effects on both unit grades and pass rates that were consistent across the three years following the program's inception. These effects persisted after controlling for pre-existing differences among students in ability (e.g., ATAR), achievement (e.g., previous semester grades), and motivation (inferred from levels of previous participation in *UniPASS*), as well as several demographic factors. Since then, we have refined our models, and extended them to the prediction of retention. This year, we will present these revised and extended findings, and discuss their implications for students, the *UniPASS* program, and the University. Our presentation will conclude with a call to fellow educational researchers to consider the utility of our methods in the evaluation of comparable, voluntary academic support programs.

Humanising online teaching

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This session will report on an action inquiry project about my performance as an online tutor: investigating how and why what I do seems to work. It drew from online teaching experience in 1998 and 1999, and work in 2013 on an educational design project for the Common First Year for Curtin University's Bachelor of Education, offered through Open Universities Australia. This was the first cycle of action inquiry. I subsequently became an online tutor for two of the units that I had redesigned: *Learning and Living in a Digital World*; and *Inquiring about the World*. My teaching in these units formed the second cycle of action inquiry. As I 'planned' and 'acted' as an online tutor, I 'monitored' my online engagement with students, and the time I spent on each task. This session will report on the 'evaluate' aspect of the action inquiry cycle, informed by these principles:

- Recognising the emotional and motivational aspects of teaching
- Understanding the complex circumstances OUA students find themselves in

- Recognising that there is an academic culture and multiple academic languages, and that this culture is foreign to typical OUA students
- Applying Hofstede's 'power-distance' element of national cultures to the classroom.

The bulk of the presentation will present examples of how I successfully applied these principles to both motivate students and facilitate their learning. The session will conclude with a discussion of externally-imposed barriers to good practice.

The evaluation of a virtual patient to train communication skills in health science students

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Simulations provide safe, standardised opportunities for clinical training, and are a promising alternative/supplement to traditional placements in an era of rising student numbers and constrained resourcing. Last year, we introduced delegates to 'Jim', an award-winning, virtual elderly person programmed to provide allied health students with opportunities to practice communication skills

[<http://ctl.curtin.edu.au/events/conferences/tlf/tlf2015/abstracts.html#quail>]. We then presented results from our first evaluation, in which speech pathology students randomised to conversationally engage with Jim self-reported equivalent gains vis-à-vis the development of knowledge, skills and confidence, as students randomised to either a nursing home resident or a trained patient actor. This year, we will introduce delegates to Jim's wife, 'Moira', outline the development of the *Curtin Conversation Interaction Scale* (CCIS; a 25-item communication skills assessment instrument), and describe its role in our second evaluation study. 82 second-year speech pathology students conversationally engaged with Jim for 10-minutes, followed by feedback from a clinical educator (CE), then a second interaction with Jim. During each interaction, students' performance was rated by the CE on the CCIS. At the conclusion of the second interaction, students self-reported retrospective (i.e., prior to the first interaction) and current assessments of their communication skills, knowledge and confidence. Results indicated a substantial (median partial eta-squared = .71) increase in students' CE-rated CCIS scores between the first and second interactions, as well as large increases in their self-reported knowledge, skills and confidence (median $d = 1.25$). In this context, we argue that virtual simulations can play a valuable role in the training of fundamental communication skills.

Teaching teamwork skills in Australian higher education Business disciplines

Refereed Research paper: Full text on website

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Australian employers continue to indicate that the development of teamwork skills in graduates is as important as mastering technical skills required for a particular career. In Australia, the reporting on the teaching of teamwork skills has emanated across a range of disciplines including health and engineering, with less of a focus on business related disciplines. Although Australian university business schools appear to value the importance and relevance of developing teamwork skills, implementation of the teaching, learning and assessment of teamwork skills remains somewhat of a pedagogical conundrum. The aim of this paper is to present a systematic literature review so as to better understand the salient issues associated with teaching teamwork skills in Australian higher education business disciplines.

Ethical considerations in adopting a university and system-wide approach to data and learning analytics

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The rapid adoption of learning analytics in the higher education sector has not been matched by attention to ethical considerations surrounding their use, with ethical issues now slated as one of the major concerns facing learning analytics. Further, adoption of learning analytics within universities has typically involved small scale projects rather than university or system wide approaches, and missing from the research literature is consideration of learning analytics from a 'big systems' point of view. We begin to address these gaps through providing an introduction to ethical considerations in adopting a university and system-wide approach to learning analytics. Drawing on the existing literature on ethical considerations associated with learning analytics, we identify key questions that require consideration when introducing learning analytics. We then map these questions on to layers of systems and roles within universities, detailing how these ethical considerations may affect learning analytics decisions at differing levels of the university.

All I really need to know I learned in kindergarten: IT competency from the cradle to the stove

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There's a well-known adage, "All I really need to know I learned in kindergarten" (Fulghum). In the case of IT skills, a key graduate competency expressly recognised among most higher education providers, this has never been more accurate. Bodies such as ATSIL (the accreditation standards for teachers) and ACECQA (the registering body for birth to five-year-old education) advocate and establish guidelines for IT development among the youngest students. Similarly, school curricula set guidelines for the development of IT competency for secondary students. Such foundations should provide the necessary pedagogical infrastructure for extended application of technological skills into and beyond higher education. Yet employers often identify IT competency as an overestimated skillset among university graduates (Kennedy et al. 2008; Bennett et al. 2008). What slip is occurring between cup and lip educationally? How do primary and lower secondary students apparently fail to progress towards higher level competency in upper school and university years to become powerhouse technological users as graduate employees? What (if anything) goes awry?

This paper examines the curriculum underpinnings of Australian education in the area of IT and proposes a grounded hypothesis as to why the lessons begun in kindergarten and intended to promote lifelong IT competency may be "derailing" at some crucial point in the education trajectory, such that the graduate market may not be able to depend on sufficiently competent graduates stepping onto the first rung or stove of the ladder. It will also propose some methods for bridging the gap for higher education graduates based on the foundational IT methodologies promoted in early childhood education.

Reading lists: A next generation solution

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For nearly twenty-five years *eReserves* have been used in Australian universities to support teaching and learning through the provision of digitised course reading materials. In 2001 Curtin University Library successfully launched an in-house *eReserve* system as its digital reading list and copyright management solution. In 2016 Curtin University Library is working to implement a new reading list solution which is an extension of the library management system, taking advantage of technological developments to improve services traditionally offered by its *eReserve*.

This reading list solution allows for integration with learning management systems including *Blackboard*. It offers instructors major savings in time and effort in building reading lists. It extends the knowledge of the instructor by providing insights into what students are reading and allows for collaboration with other instructors and the library, all in real time. In addition, this system allows for better handling of copyright through its ability to seamlessly interact with the library. This presentation will provide an insight into this next generation reading list solution.

The Makerspace: Linking science, mathematics, engineering and technology to improve pre-service teachers' work readiness and create communities of practice

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This presentation will introduce an initiative aimed at improving pre-service teachers' work readiness and STEM skills in the context of *Makerspaces*. The *Makerspace* is a place where pre-service teachers, student engineers, teacher educators and engineering educators work together to conceive, design and create an artefact. The presentation will focus on two STEM activities developed to be part of the *Makerspaces* - the conception, creation and designing of an origami flower with a light circuit and a solar house. Both activities link science understanding of electricity, energy and light with mathematical knowledge of measurement and geometry, engineering planning and designing concepts, and the creation of the artefact - a simple technology.

These activities are designed to develop pre-service students' design processes as they solve a meaningful, interdisciplinary problem with multiple solutions; encourage them to generate their own mathematical and scientific ideas and processes as they engage in problem solving, and transfer their learning to related design situations; and develop a community of practice amongst pre-service teachers, student engineers, academics in the Schools of Education and Engineering and primary school teachers. The results from trialling these activities, highlighting the benefit of integrating relevant STEM content into the pre-service teachers' education program, will be presented. The presentation is particularly relevant for TLF participants interested in STEM education.

Reflecting on the UWA Postgraduate Teaching Internship Scheme: Lessons learned and lessons worth learning

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The UWA Postgraduate Teaching Internship Scheme sought to develop teaching skills in postgraduates interested in a teaching position in academia. The Scheme provided funding and opportunities for postgraduates to undertake structured coursework; curriculum development projects; peer support and review processes; lecturing and tutoring; and engage in reflective teaching practices. The Scheme commenced in 2000 with 9 interns, and has since been used as a model for the development of academic university internship schemes across Australia. During 2015 the Scheme was placed under review, with notification of the cessation of the Scheme in September 2015. No advice has been provided on what will replace the Scheme, however it is believed responsibility for training postgraduate teachers may fall to individual faculties.

The Scheme had a long-standing association with the WA Teaching and Learning Forum, with all interns required to attend the Forum and many choosing to present their curriculum development projects. Therefore, the Forum is a valuable opportunity to reflect on how interns perceive the Scheme. The results of a survey of the final three cohorts of interns, from 2013-2015, will be presented. The survey seeks to identify elements of the Internship that interns found most useful in developing their teaching practice, and considers the extent to which other mechanisms could replace the Scheme, in the absence of centralised funding. Findings could prove useful to faculties or administrators of future training programs.

This research is a joint initiative between the UWA Postgraduate Students' Association and the UWA Sessional Staff Association.

Developments, adaptations and applications of fine learning: Theories revisited

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Presentation cancelled after the Program Booklet went to the printer.

Learning law through a lens: Using visual media to support the development of communication skills in law

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In 2012 the Council of Australian Law Deans endorsed six threshold learning outcomes identified by the Australian Government funded Learning and Teaching Academic Standards Project for Australian Juris Doctor graduates. TLO5 relates to communication and collaboration. This paper examines two separate but related visual media projects aimed at facilitating and supporting the development of broad-based oral communication skills in the Juris Doctor at The University of Western Australia. The first project involved the use of short filmed courtroom scenes from a fictitious trial, loosely based on the *Harry Potter* books and films, for use in large lectures in the core unit, *Evidence*. The second project developed a film created in the machinima *Second Life* for use in small group classes in the core unit, *Equity and Trusts*. While the resources developed in both projects are specific to law, they represent an effective model for developing oral communication skills that may be valuable in other disciplines.

55 Minute Workshop

Tales from the other side: Embedding English language literacy in discipline units

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The internationalisation and widening of higher education in Australia has resulted in an increasing number of non-traditional students with low English language proficiency (Murray, 2014). The Tertiary Education Quality Standards Authority (TEQSA, 2013) addressed this concerning issue by emphasising it is incumbent on HEIs to ensure their students have adequate levels of English proficiency to successfully complete their courses of study and to provide opportunities for students to develop their English language skills if required

(Dunworth, Drury, Kralik & Moore, 2014). The great majority of Australian universities have responded with numerous initiatives for student development and support; however, fewer initiatives for staff development and support have been generated (Briguglio, 2014).

An institution-wide approach for English language development for all students (English speaking background [ESP] and non-ESP) through a wide range of initiatives is considered best practice in Australian universities (Arkoudis, 2014). These initiatives range from most embedded to least embedded into the disciplines. An effective way of developing embedded English language resources in the disciplines is through interdisciplinary collaboration between language and academic skills specialists, and discipline specialists (Harris & Ashton, 2011; Chanock 2013; Briguglio, 2014).

This workshop aims to provide support to staff interested in embedding English language in key units in the disciplines through interdisciplinary collaboration. Participants will be guided through discussions around considerations to be made when embedding English language skills in a core unit of study. The discussions will be held in the context of lessons learnt from embedding *Grammar Bites*, a series of English language workshops, offered face-to-face and online, in a core unit in the Natural Sciences in semester 1, 2015. Participants will also be introduced to *Grammar Bites* in *PebblePad*, the e-portfolio platform used at ECU.

The key benefits observed for students when embedding English language skills in this unit were an increased awareness of their specific language needs, familiarity with available resources for further reading and practice, and more meaningful and actionable assignment feedback. For staff the key benefit was the development of a stronger community of practice: staff developed shared understandings of minimum English language standards, as well as more meaningful ways of communicating standards to students.

In this workshop, participants will discuss the challenges and benefits of embedding English language workshops from the following perspectives: workshop context and workshop content; mode of delivery; and interdisciplinary collaboration between language and academic skills specialists, and discipline specialists. Participants will consider how these perspectives impact the development of embedded English language resources to construct a blueprint for their own project embedding English language workshop(s).

References

- Arkoudis, S., Baik, C., Bexley, E. & Doughney, L. (2014). *English language proficiency and employability framework*. Melbourne: The University of Melbourne.
- Briguglio, C. (2014). *Working in the third space: Promoting interdisciplinary collaboration to embed English language development into the disciplines*. Sydney: Office for Learning and Teaching. <http://www.olt.gov.au/resource-working-in-the-third-space>
- Chanock, K. (2013). Teaching subject literacies through blended learning: Reflections on a collaboration between academic learning staff and teachers in the disciplines. *Journal of Academic Language and Learning*, 7(2), A106-A119. <http://journal.aall.org.au/index.php/jall/article/view/256/173>
- Dunworth, K., Drury, H., Kralik, C. & Moore, T. (2014). Rhetoric and realities: On the development of university-wide strategies to promote student English language growth. *Journal of Higher Education Policy and Management*, 36(5), 520-532. <http://dx.doi.org/10.1080/1360080X.2014.936088>
- Harris, A. J. & Ashton, J. (2011). Embedding and integrating language and academic skills: An innovative approach. *Journal of Academic Language and Learning*, 5(2), A73-A87. <http://journal.aall.org.au/index.php/jall/article/view/158/110>
- Murray, N. & Hicks, M. (2014). An institutional approach to English Language proficiency. *Journal of Further and Higher Education*. <http://dx.doi.org/10.1080/0309877X.2014.938261>
- TEQSA (n.d.). *Selected resources to guide good practice*. <http://www.teqsa.gov.au/sites/default/files/GoodPracticeResources.pdf>

Implementation and features of international classrooms: A condensed course for visiting Chinese scholars

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This presentation details the implementation of a condensed training course focused on international education, which was developed and facilitated by the researcher for a group of visiting scholars from the China Scholarship Council (CSC) in August 2015. This program was designed to familiarise visiting scholars with international classrooms and educational

contexts. This presentation examines the usefulness of the program, delivered to academics drawn from universities across China, who were all in the initial stages of teaching to international classrooms. It considers efficacy in developing instructional strategies and techniques for international classrooms, with a particular focus on aspects of student engagement, class assessment, creativity, and applications of critical thinking. This presentation also reveals both researcher reflections and participant feedback related to the program, identifying both challenges and successes. It contemplates the effectiveness of condensed courses as a way of training visiting scholars about international classrooms, and outlines suggestions for future implementation.

Gender biases in teacher evaluations

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Student evaluation of teaching surveys are widely used by universities for comparing units and lecturers. However, recent research into teacher evaluations has shown that they can be influenced by student's unconscious biases toward lecturer attractiveness, age and gender. For example, students expect female lecturers to be more organised and more empathetic than male lecturers. This leads to students implicitly judging women more harshly on some survey items, such as time taken to return assignments. In this presentation, I will review the literature on gender bias in teacher evaluations and discuss methods for moderating unconscious biases and the implications for how we use the results of student surveys.

Philosophy in the *Gender and the Law* classroom

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Gender and the Law is a third year elective course in the Law and Society major offered by the Law Faculty at the University of Western Australia. The course is designed to have a philosophical approach in the sense that it focuses on feminist and gender theory that can be said to be a body of philosophy, and in that it incorporates the fundamental idea that gender in the law and in society generally is a construction of ideas as well as empirical realities. Three objectives of the course are to teach: higher-order language skills; 'reflexive thinking' (thinking that encompasses a consciousness of one's own influence on the generation and modification of ideas); and 'standpoint thinking' (the consciousness that knowledge is contextual, therefore there is knowledge we do not have automatic access to and we must perform intellectual work to aim at understanding). This paper is an evaluation of a pilot project in which the *community of inquiry* method was introduced into *Gender and the Law* in 2015 with a focus on these three course objectives. The community of inquiry is a pedagogy that facilitates collaborative and democratic philosophical thinking. It was developed by Matthew Lipman in the context of teaching philosophy in schools, but has been introduced at tertiary level, primarily in the context of courses on philosophy. We observe that the communities of inquiry facilitated the learning of higher-order language skills in one respect, had a significant influence on the development of 'reflexive thinking', and did not in this context appear to facilitate 'standpoint thinking'.

55 Minute Workshop

Teaching the Gen Z and millennial tribe: From *Twitter* to *Snapchat*, *Periscope* and more, a *Transmedia* workshop

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Technology for communicating is developing at a rapid pace and millennials and Gen Z are using the most up to date platforms to communicate. Many businesses now expect graduates to have a high level of social media literacy and it is a challenge for tertiary educators to keep abreast of these technologies and learn to use them in a way that will engage students, but also add to their learning of both the technology and the course content. This workshop will help educators understand the principles of a transmedia approach to teaching, and how to teach

across different platforms. Participants will find out what platforms millennials and Gen Z are using and be given practical case studies of transmedia storytelling approaches in education.

The workshop will also look at the technology challenges faced by both students and educators and discuss how educators can respond to these. We will go through a number of activities that educators can use to engage students in learning in a transmedia environment. Specifically, the workshop will outline how to use *Twitter*, *Snapchat*, *Periscope*, video and podcasts in a pedagogical sense. The workshop will deliver hands-on training that will get you setup with accounts on these platforms (if you don't have them already). Participants will undertake some basic tasks in each of the platforms so they gain an understanding on how to use them. Tips and best practice for each of the platforms will also be presented, as well as a guide on how to encourage students to use the technology when it may not be a direct part of their assessments.

The workshop is based on a study the facilitators are undertaking with undergraduate students about their experience with teaching materials presented via blogs, *Twitter*, podcasts, video and *Snapchat*, as well as more standard teaching platforms like *Blackboard*. The workshop is aimed at teachers with some knowledge (basic to intermediate) of social media. While some participants may be comfortable with *Facebook* and *Twitter*, they may not have used *Snapchat*, *Periscope* or podcasts previously. This is a "bring your own device" (BYOD) workshop. All participants will need a smart phone, or tablet or laptop - a limited number of computers may be available in the workshop venue. The Curtin University facilitators have developed a new unit within the PR course, called *Transmedia Storytelling*. This unit uses emerging platforms as a part of the student learning experience and the workshop will look at student responses to these platforms and future possibilities.

Teaching millennials in a transmedia environment: Embedding technology skills in the curriculum

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Digital media and its application in pedagogy has existed for more than ten years. However the transmedia perspective of teaching millennials, across many different kinds of media platforms, is still being explored from the perspective of what millennials want, and the technologies they engage with most. This study explores the challenges faced by students and employers with the continuously changing media landscape and how the higher education workforce should adapt to the rate of change. How to teach transmedia skills in a live environment with practical exposure to the different platforms is also a focus. This study uses students' experience with teaching materials presented via blogs, *Twitter* and *Snapchat*, as well as more standard teaching platforms like *Blackboard*. The authors will present findings that will be relevant across many areas of higher education, not just the public relations discipline in which the study was undertaken. Many businesses now expect graduates to have a high level of social media literacy and this study aims to provide further insight into new platforms that can enhance blended learning. The research will address the knowledge gap of what undergraduates know in terms of using new technology and developing their understanding of the platforms for business use. The research will add to a growing body of knowledge of how to integrate new technologies into teaching.

Using a holding environment to develop social intelligence in an undergraduate human resource management subject

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Social intelligence is seen as a critical soft skill for the future workforce. In the practice of human resource management (HRM), social intelligence is considered mandatory for effective professional performance. Using a case-study approach, the paper describes the development of a course design model which we used to operationalise a 'holding environment' so students in an undergraduate HRM subject could more ably engage with the curriculum and nurture their social intelligence. The agency of teaching staff in creating and controlling the environment is discussed, and the activation of self-efficacy beliefs is presented as a vital ingredient in the teaching and learning of non-technical skills within the higher education context.

Meeting the challenge of a university-wide assessment policy in a comprehensive university

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During 2015 The University of Western Australia embarked on a review of assessment with a view to developing a university-wide policy. The impetus and rationale for the review came from persistent student dissatisfaction with assessment practices, and a need to have assessment pedagogy consistent with the university-wide approach to curriculum structure introduced in 2012. This presentation tells the story of the Working Group enlisted to conduct the review. The presentation will explore the challenges of uniting the very devolved and diverse approaches to assessment in different faculties and schools into one comprehensive policy supported universally. In particular, issues of controversy and how they were addressed will be discussed including: 1. Norm and criterion-referenced approaches to assessment in different disciplines; 2. Moderation; 3. Digital assessment; 4. Diversity in distribution of grades across units and courses; 5. Ranking of students for selection into postgraduate courses; 6. Anonymous marking; and, 6. Specifying parameters around minimum requirements for assessment within a unit.

Exploring the ergonomic factors in online students learning environments: A cross-faculty scholarship of teaching and learning project

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There are rapidly growing numbers of students studying university units and courses online. To greater support and improve teaching and learning practices in these online environments, there is a need to understand how students are studying. This research was based in a cross-faculty scholarship of teaching and learning project which examined how physical, social, environmental, organisational and cognitive ergonomic factors affect learning for students studying fully online. The application of ergonomic principles and practices has been proven to be successful in the occupational sector and it was anticipated that this could be translated to positively impact student learning (Smith, 2007). The research participants were students enrolled in fully online university units in the School of Public Health, School of Education, and School of Architecture and Built Environment. Student perceptions of their online learning were collected through the use of a self-administered online questionnaire and checklist. Quantitative analysis was conducted in *STATA* and *Excel*, and included descriptive statistics of frequency, mean and standard deviation. Calculations of two-tailed t-tests for independent samples and Pearson product moment for correlational analysis; rational equivalence reliability was assessed through Cronbach's alpha. Qualitative analysis was conducted in *NVivo* to identify common themes of ergonomic factors. The findings suggests that online students are most concerned with the environmental ergonomic factors in their learning environment, especially noise as it distracts them from their learning. Furthermore they rated organisational ergonomic factors as the most important of all five ergonomic factors for providing an effective learning environment.

Preparing tomorrow's industry leaders: An embedded approach to leadership skills in the communications curriculum

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Educators are under pressure to design curricula and corresponding assessments that are increasingly industry focused, as universities utilise industry-connectedness and work-ready skills as marketing tools to attract potential students. Much of this focus on so-called soft (or generic) skills and graduate attributes is driven by today's fast changing business landscape and employers' demand for graduates. Sought-after emerging professionals with the aptitude, tools and knowledge to advance in their chosen field are effective communicators who can solve problems, demonstrate creativity, possess technical expertise, as well as an ability to adapt to change and work in teams (Ackerman, Gross & Perner, 2003; Kerr & Proud, 2005; Parsons & Lepkowska-White, 2009). However, much of the skills development support provided at a university level is limited to specific units within the wider degree program, or

specialised providers and initiatives, such as career centres and leadership programs, thereby largely relying on students to seek out additional training. This paper provides an insight into a fully embedded approach to leadership skills, carefully mapping and scaffolding learning in relation to teamwork, conflict management, public speaking, negotiation and diplomacy, decision making, cross-cultural literacy and goal setting throughout the three year public relations program for both business and humanities students.

In 2009 Todd concluded that professional advisors are not convinced that higher education institutions are teaching the skills graduates will need to enter and succeed in the public relations industry. The authors are confident that the embedded approach has addressed existing concerns and skills gaps, enabling future graduates to advance in their chosen careers.

References

- Ackerman, D. S., Gross, B. L. & Perner, L. (2003). Instructor, student, and employer perceptions on preparing marketing students for changing business landscapes. *Journal of Marketing Education*, 25(1), 46-56. <http://dx.doi.org/10.1177/0273475302250572>
- Kerr, G. F. & Proud, B. (2005). Hiring graduates: Perspectives from advertising and public relations employers. In *Proceedings, ANZMAC 2005*, Perth, 4-7 December. http://eprints.qut.edu.au/25715/1/25715_kerr_2006001276.pdf
- Parsons, A. L. & Lepkowska-White, E. (2009). Group projects using clients versus not using clients: Do students perceive any differences? *Journal of Marketing Education*, 31(2), 154-159. <http://dx.doi.org/10.1177/0273475309334169>
- Todd, V. (2009). PRSSA faculty and professional advisors' perceptions of public relations curriculum, assessment of students' learning, and faculty performance. *Journalism & Mass Communication Educator*, 64(1), 71-90. <http://dx.doi.org/10.1177/107769580906400106>
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Visiting staff and students

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<http://ctl.curtin.edu.au/events/conferences/tlf/tlf-pubs.cfm>