

WA TEACHING AND LEARNING FORUM 2018

STUDENT FUTURES

27th Annual Conference

1-2 February 2018

The University of Notre Dame Australia



West Australian Network
for Dissemination

wand.edu.au

27th Annual Teaching and Learning Forum
Tannock Hall, The University of Notre Dame Australia
1-2 February, 2018
<https://www.wand.edu.au/teaching-and-learning-forum-2018>

Program and Abstracts

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Program Booklet prepared by Clare McBeath and Roger Atkinson.

Forum host



Organising committee

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Ms Sophie Benson – The University of Notre Dame Australia
Associate Professor Lisa Goldacre – The University of Notre Dame Australia
Ms Meredith Willmott – The University of Notre Dame Australia
Ms Denyse MacNish – Murdoch University
Dr Sarah Veitch – Murdoch University
Dr David McConnell – Curtin University
Dr Audrey Geste – Edith Cowan University
Ms Clare Alderson – The University of Western Australia
Ms Evelyn Whitfield – 'Events by Evelyn'

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Welcome

It is with great pleasure that we welcome you to the 27th Annual Teaching and Learning Forum held at The University of Notre Dame, Australia. Over the past 26 years, the Forum has gathered a committed group of advocates to debate, provoke and discuss the importance of teaching and learning in a changing context of higher education. It is a great privilege to continue this tradition at Notre Dame, with 2018 being the first of two years the forum will be hosted within the gorgeous surrounds of our Fremantle campus.

We anticipate the 2018 Forum will continue the tradition of robust discussion and debate through quality sessions, and your presence signifies the role you play in advancing educational excellence. This year the theme of *Student Futures* encourages reflection on student experience; past, present and future, and our contribution to the learning space as it further evolves into the 21st century. In imagining this theme, the committee was keen to represent the different successes and challenges faced as higher education grapples with society's shifting understanding of what students desire from their university educations, and what the community requires from its graduates. The themes of employability, dialogue, internationalisation, WIL, assessment, Technology enhanced learning (TEL), engagement, and academic development featured strongly in the committee's deliberations, and all have all found their echo in the presentations offered. This Forum will continue to provide the stage for us to explore the changing context of teaching and learning as the threads are taken up again in the 2019 theme *Vision and Voice*, focusing on our collective journey.

Although the TLF has a long tradition, it is the first time the Forum has been hosted by Notre Dame, and we are very grateful to those who have stepped up to support such a smooth transition. I would personally like to thank the Forum Organising Committee for their dedication, commitment and expertise, which is critical when preparing for such an event. We are very grateful for your contribution. On behalf of the committee, I would like to thank Dr Clare McBeath and Dr Roger Atkinson for managing the submissions and preparing the print program in such an efficient manner. Thank you Clare and Roger for your continued support of the Forum. I also acknowledge the Notre Dame Executive who have lent much valuable guidance, and the Notre Dame officers who so willingly joined our working party to make the event a success. The WA teaching and learning community is extremely privileged to be the beneficiary of such collaborative efforts to promote excellence in higher education.

Ainslie Robinson
TLF 2018 Chair

Editorial

Table 1 shows the usual analysis of TL Forum submissions, including this time the new category 'Nuts and bolts and /or poster'. The longer term picture, given in Table 2, has been revised to combine the two full paper categories, 'Refereed research' and 'Refereed professional practice'. This illustrates more clearly the marked decline in the use of the full paper option. Nevertheless, it seems worthwhile to continue promoting 'full paper *thinking*', if only as an aid to organising your ideas without any immediate plan to submit for publication. As we stated 13 years ago for the TL Forum themed *The reflective practitioner*:

For TL Forum 2005 we sought to place some extra emphasis upon a particular aspect of reflecting, namely writing. The purpose has been eloquently summarised by Richard Winter:

... writing up a report is an act of learning and in this sense, we write for ourselves so that, when we read what we have written, we find out what, in the end, we have learned. (Atkinson & Hobson, 2005)

Thus we hope that 'writing up a report [*will continue to be*] an act of learning', though the category of full paper publication may not appear in future TL Forums.

Table 1: Summary of TL Forum 2018 numbers of submissions and outcomes

Category (a)	Submitted	Accepted	Rejected	Offered	Withdrawn	Net outcome
Refereed research	1	1	0	1	0	1
Refereed professional practice	2	2	0	2	0	2
Abstract only	67	51	16(b)	51	2	49
Workshop	9	11(c)	0	11	0	11
'Nuts and bolts' and /or poster	0	10(d)	0	10	3	7
Total	79	77	-	-	5	70

a. See Call for papers at <https://www.wand.edu.au/teaching-and-learning-forum-2018> for definitions of the categories of submissions. Refereed papers, both categories, and all abstracts are published online at the *TL Forum Proceedings* website, <http://ctl.curtin.edu.au/events/conferences/tlf/tlf-pubs.cfm>

b. Of the 16, 1 was combined into another Abstract only session; 2 transferred to Workshop; 10 offered 'Nuts and bolts' (8 accepted) and/or Poster (2 accepted); 1 withdrawn; 2 rejected.

c. 3 Abstract only offered transfer to Workshop; 2 accepted, 1 remained as abstract only.

d. From Abstract only rejected.

For TL Forums 2005-2017 numbers of submissions and outcomes, see similar tables in the 2005-2017 'Welcome and Editorial' pages, accessible via <http://ctl.curtin.edu.au/events/conferences/tlf/tlf-pubs.cfm>

Compiler: Roger Atkinson. Date: 22 Jan 2018.

Table 2: TL Forums 2006-2018 submissions and outcomes summary (a)

Year	Full papers		Abs only submitted	Total all subs(b)	Total offers	W (c)
	Submitted	Accepted				
2018	3	3	67	79	77	3
2017	4	3	109	131	129	4
2016	7	7	90	110	110	9
2015	10	9	117	138	138	6
2014	21	13	104	134	130	4
2013	23	19	75	112	108	5
2012	20	17	53	87	87	5
2011	25	17	72	107	106	4
2010	35	21	55	94	92	13
2009	39	14	67	110	107	12
2008	27	18	59	92	90	7
2007	30	22	37	73	68	2
2006	44	25	62	112	103	11
2005	35	28	54	89	85	10

a. Data sources: <http://ctl.curtin.edu.au/events/conferences/tlf/tlf2017/editorial.html>, and similar files for 2005-2016 (prior to 2018, the tables had separate columns for the two categories of full papers).

b. Submissions include all categories (except posters): Full papers, Abstract only and Workshops.

c. W is the number of post-acceptance withdrawals (or cancellations), all categories.

The most notable innovation in Forum 2018's timetabling is the reservation of parallel sessions on the first day, Thursday 1 February, exclusively for workshops, with each being allocated 90 minutes compared with the 55 minute allocation used in previous years, and having four or three in parallel. With the traditional paper presentations timetabled only on the second day, Friday 2 February, leading to some pressure on the number of timeslots, another innovation has emerged. This is the use of a new category, 'nuts and bolts', which provides for a half-length, round table style presentation, to accommodate those not selected for a full length presentation timeslot. To illustrate the increased importance accorded to workshops in 2018, Table 3 compares the use of parallel session time for workshops and for traditional paper presentations.

Table 3: TL Forums 2012-2018 - use of parallel session time for workshops and paper presentations

Year (a)	Parallel session total time mins(b)	Workshop use of para sess time(c)		Paper presentation use of para sess time(d)	
		Minutes	%	Minutes	%
2018	2215	11x90 = 990(e)	44.7	49x25 = 1225	55.3
2017	3205	11x55 = 605	18.9	104x25 = 2600	81.1
2016	2885	12x55 = 660	22.9	89x25 = 2225	77.1
2015	3450	5x55 = 275	8.0	127x25 = 3175	92.0
2014	3270	4x55 = 220	6.7	122x25 = 3050	93.3
2013	2725	10x55 = 550	20.2	87x25 = 2175	79.8
2012	2370	13x55 = 670	28.3	68x25 = 1700	71.7
a. Data sources: Timetables for previous Forums, http://clt.curtin.edu.au/events/conferences/tlf/tlf-pubs.cfm . b. As the Proceedings versions of timetables record outcomes (i.e. cancellations do not appear), this column records actual use of parallel session time (keynotes and other plenary sessions are not included in the minutes count). c. In some years, the 55 minute sessions were characterised as 'Workshop', 'Symposium' or 'Panel discussion'. d. For 2018 only, this column includes 'Nuts and bolts' sessions in the count. e. This indicates a total of 11 workshops presented, each allocated 90 minutes. Similarly in other cells the format is (number of that type) x (minutes allocated for that type).					

Roger Atkinson and Clare McBeath
TL Forum Proceedings Editors

Reference

Atkinson, R. & Hobson, J. (2005). Editorial: Welcome from the TL Forum Committees. In *The reflective practitioner. Proceedings of the 14th Annual Teaching Learning Forum*, 3-4 February 2005. Perth: Murdoch University.
<http://clt.curtin.edu.au/events/conferences/tlf/tlf2005/editorial.html>

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THURSDAY 1 FEBRUARY 2018 - WORKSHOPS

8.00 – 8.45	Registration - ND4 Tannock Hall of Education Coffee/tea			
8.50 – 9.10	Plenary session, Theatre: Welcome to Country and Welcome to Notre Dame			
9.10 - 10.10	Keynote address: Professor Beverley Oliver. <i>Grand challenges require grand strategies for change.</i>			
10.10 – 10.40	Morning Tea - ND25 The Drill Hall			
	Room 201	Room 202	Room 301	Room 302
10.40 – 12.10 (90 minutes)	Lee Partridge HERDSA online resource: Exploring a new introduction to SoTL	Susan Flavell & Helen Flavell Small ‘c’ creativity: strategies to enhance ‘innovation’ in teaching and learning <i>Pre-viewing video.</i>	Karin Strehlow, Simon Walters, Sarah Veitch, Nikola Horley & James Boyd Engaging with students with challenging behaviours	Dawn Bennett Developing employABILITY as metacognition from Semester 1: A workshop on how! <i>Pre-workshop online tool</i>
12.10-12.50	Lunch - ND25 The Drill Hall			
12.50 – 2.20 (90 minutes)	Melissa Davis & Daniel Southam How to get the most out of peer review of educational practice: Reviewee and reviewer perspectives <i>Pre-reading 1 & 2.</i>	Kristoffer McKee & Rajinder Kaur Attar Singh Using origami to demonstrate the effectiveness of utilising the marking criteria as a learning device	Margo Brewer Enhancing student resilience through a staff resilience and leadership program	Jamie Zander And <i>iPad</i> makes three: How technology transformed my teaching
2.20 – 2.30	Snack & Comfort break			
2.30 – 4.00 (90 minutes)	Andrea Carr & Jo-Anne Kelder Embedding SoTL using the Curriculum Evaluation and Research (CER) Framework. <i>Sponsored by WAND.</i>	Clive Walley Indigenous cultural awareness: Outcomes from staff development activities		Mark Bailye TEL Tales
4.00 – 5.00	Reflections and thanks - Drinks, nibbles, tea and coffee - ND25 The Drill Hall and Courtyard Entertainment by Isaac Mangano (Classical guitarist)			

FRIDAY 2 FEBRUARY 2018 - PRESENTATIONS

8.00 – 8.45		Registration - ND4 Tannock Hall of Education Coffee/tea						
8.50 – 9.00		Plenary session, Theatre: Acknowledgement of Country and Head of Campus welcome						
9.00 – 10.00		<u>Keynote address – Professor Angela Hill.</u> <i>Disparate student futures: Critical global citizenship, activist pedagogies and inequality.</i>						
10.00 – 10.10		Snack & Comfort break						
Parallel sessions	ROOMS	Theatre	Room 201	Room 202	Computer lab 203	Room 301	Room 302	Computer lab 303
THEMES		Student Futures	Digital Futures	Engagement Futures	Assessment & Design Futures	Employability Futures I	Employability Futures II	Academic Development Futures
10.10 – 10.35		<u>Michelle Quail, Jillian Briggs & Ayomide Ogundipe</u> The 'us and them' and the 'then and now': Supporting clinical educators and millennial students in fieldwork	<u>Anne Polley & Jill Darby</u> Exploring integrated problem based learning initiatives through multimedia and digital platforms in Health Sciences at Edith Cowan University	<u>Melissa Puertollano</u> The potential for transformation: An analysis of immersion-style Aboriginal Studies in Broome	<u>Lynne Roberts & Natalie Gasson</u> Measuring students' discipline-specific literacy	<u>Céline Doucet</u> Get ready! Strategies to prepare students for the international workplace	<u>Sally Male, Patrick Kenworthy, Courtney & Tim French</u> Pilot virtual work integrated learning in engineering	<u>Sam Millar, Bron Bateman</u> Not Another Brick in the Wall: OnTrack and the student experience
10.40 – 11.05		<u>Benjamin Hay</u> SMARTcare seminars: Student engagement, involvement & ownership	<u>Rina Wong, Katrina Strampel, Stephanie Dowdell & Luisa Cecotti</u> Using interactive tutorials & virtual microscopy to enhance learning skills: A pilot study	<u>Brennen Mills, Sara Hansen, Alecka Miles, Travis Cruickshank, D. Bartlett, T. Rankin & P. Zaenker</u> Providing realistic night shift	<u>Benjamin Milbourn, Tomomi McAuliffe, Melissa Scott & Angus Buchanan</u> Collaboration with undergraduate students in	<u>Lyn Mahboub, Robyn Martin, Stuart Youngson, Judi Anderson, Nigel Gribble, S. Ridley & A. O'Callaghan</u> Lived experience education: Transforming		<u>Ian Boudville & Antonia Girardi</u> Design thinking your way to leader development: Translating theories of leaders and

			training to undergraduate paramedics through simulation	marking and moderation of written assessments: An exploratory study	learning and teaching in Health Sciences		leadership into practice
11.05 – 11.30	Morning Tea - ND25 The Drill Hall						
11.30 – 11.55	<u>Karen Winter, Uwana Evers, & Julie Lee</u> Personal values and motivational interference among university students	<u>Leitha Delves</u> <i>Datafacts</i> in the digital world: Learning analytics and the virtual archaeologist	<u>Alison Kirkman</u> Does creating a music video enhance neuroscience learning in third year Physiotherapy students	<u>Michael Stein</u> The benefits and advantages of using exemplars (and not rubrics) in teaching Chinese university students	<u>Natalie Lloyd, Sally Male & Megan Paull</u> Access to work integrated learning: The lived experience	<u>Simone Duncan, Ajanthy Arulpragasam, Sandra Kemp, Mara Bosfelds, Jaci Mason & G. Fyfe</u> Applying medical education assessment practices to improve the reliability and validity of MCQ tests in a large health sciences unit	<u>Abigail Lewis</u> Jottings from the journey: On the way to improved teaching
12.00 – 12.25	<u>Angela Jones & Chris Cunningham</u> Understanding future students: Measuring enabling students' mindsets, motivations, resilience and emotional states	<u>Steven Richardson, Christian. Ohly & Aiden Fisher</u> Formative computer-aided assessment in mathematics using SOWISO	<u>Antonia Girardi, Alex Dawson, Mike Fardon, Tara Smith & Moira Watson</u> Time for the chronotype: Understanding student engagement with online learning resources	<u>Guy J. Curtis, Emily Cowcher, Brady Greene & Kiata Rundle</u> Predicting and preventing plagiarism	<u>Jean Wootton & Ingrid O'Brien</u> Identifying the most valued facets of a WIL program: Perspectives from three stakeholders	<u>Sonia Ferns, Vaille Dawson & Christine Howitt</u> Collaboration, consultation and cooperation: Work-integrated learning partnerships for enhancing graduate employability	<u>Lee Partridge & Trina Jorre de St Jorre</u> "What's has the United Nations Sustainable Goal #4 got to do with me?" Facing up to global issues in our classrooms and universities
12.30 – 12.55	<u>Mark Paynter</u> Incorporating futures education into a crowded curriculum	<u>Sabine Tan, Kay O'Halloran, Rachel Sheffield, Michael Wiebrands, Peter</u>	<u>Arran Goddard-Nash, Katharine Andrews, Ajanthy</u>	<u>Mara Bosfelds, Joel Howell, Anne & Peter Allen</u> Where do we draw the	<u>Martin Cake, Melinda Bell & Caroline Mansfield</u>	<u>Jill Darby & Anne Polley</u> Students transformed:	<u>Ainslie Robinson, et al.</u> Waving the WAND: The

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12.55 – 1.45	Lunch - ND25 The Drill Hall HERDSA AGM – Theatre (1.15pm-1.45pm)						
1.45 – 2.10	Joel Howell, Lynne D. Roberts & Vincent O. Mancini Mastery or avoidance? Evaluating student reactions to learning analytic alerts	Megan Walske, Allison Dugdale, Matt Lavendar & Jeremy Siao Him Fa <i>CurTerra</i> : A fieldtrip app for self-regulated learning	Jianye Wei, Mauro Mocerino, David Treagust, Marjan G. Zadnik, E. D. Lindsay & A. D. Lucey Interactions and student satisfaction in physical and remote-access chemistry laboratories	Mervyn Travers, Beatriz IR de Oliveira, John Owens & Anne Furness Using an interactive automated assessment and feedback system to drive learning in an anatomy unit	Toni Hannelly Challenges of delivering authentic work integrated learning content and assessment in vocational non-clinical courses	Facilitated Round table NUTS & BOLTS Arif Sikander From blended to integrated learning: A proposed Learning model based on teaching an undergraduate course	Isaiah Awidi & Mark Paynter Participatory research in evaluating learning design in higher education
2.15 – 2.40	Meredith Willmott, Gabrielle Brand & Sue Miller How and why do undergraduate physiotherapy students use reflection in learning and practice?	Silvia Dewiyanti, Clarence Sin, Mike Fardon & Lisa Cary Looking ahead a scalable learning design and educational technology service	Dom Wolff-Boenisch Exam or portfolio as assessment tool? Experiences from a third year undergraduate unit	Heidi Waldron Video resource creation: Seeking and acting upon student feedback	Rosemary Kerr, Alina Lee & Kenneth Ke Embedding business communication skills using micro-WIL Assessments	Mauro Mocerino, et al. Online course to improve university laboratory teaching practice Mauro Vaccarezza Best practice for anatomy learning and teaching: Hints from a literature review	Antonia Hendrick, Louise Hansen, Percy Hansen & Joanna Corbett Reaching across the divide: Aboriginal Elders and academics working together

2.45– 3.10	<u>Darryl Fitzgerald</u> Seeking engaging law units: The final frontier	<u>Jo Coldwell-Neilson</u> Digital literacy for the 21st century: Implications for student learning	<u>Sara Hansen, Helen McDonald, Charn Nang, P. Lyons-Wall, B. Mills, J. Hunt, D. Hersh & T. O'Sullivan</u> A simulation-based inter-professional learning initiative for occupational therapy, speech pathology and dietetic students	<u>Catherine M Fetherston, Sharryn Batt & Amanda Johnson</u> Assessment using Bachelor of Nursing inherent requirements: Enhancing students' understanding of course requirements and registered nurse attributes	<u>Benjamin Milbourn & Angus Buchanan</u> Developing a methodology to evaluate educational content from a lived experience perspective	<u>Therese O'Sullivan, et al.</u> Using classroom innovation to develop career opportunities <u>Jae Y. Han & Mauro Mocerino</u> Inquiry-based experiments for undergrad chemistry laboratories <u>Enrique Mergelsberg, et al.</u> Student engagement with peer assisted study	
3.15 – 4.00	Lecture Theatre: Close and thanks						
4.00 – 5.30	Sundowner, tea and coffee - ND2 Malloy Courtyard Entertainment by 'The Runarounds'						

Plenary sessions

Keynote speaker, Thursday 1 February 2018

Professor Beverley Oliver

Deputy Vice-Chancellor (Education) and Alfred Deakin Professor, Deakin University



Professor Oliver leads Deakin's ambitious education strategy, including the drive to premium cloud learning and our partnership with *FutureLearn*. Professor Oliver's portfolio includes oversight of the projects designed to enhance student learning and experience, as well as Academic Governance and Standards, the University Library, Deakin Learning Futures, the Dean of Students, Deakin Learning Centres, the Centre for Research in Assessment and Digital Learning and DeakinCo. Professor Oliver is Deputy Chair of the Board of *EduGrowth*, a not-for-profit entity and Australia's acceleration network for high-growth, scalable, borderless education.

Keynote address

Grand challenges require grand strategies for change

We share the grand challenges of higher education in the twenty-first century bearing in mind that we are now 17% into that century! Our students are changing, and so is the world - and the policy environments - in which we operate. At times, the challenges can feel overwhelming – student work patterns and attendance on campus are shifting; learning in digital micro bytes and on a phone is increasingly possible; we have expensive campuses and timetabling that anchor us to the past. Our teaching staff increasingly lead large units and courses in an age where personalisation is expected. This presentation will attempt to provide some insights on how teaching staff at all stages of their careers can contribute to meeting these challenges at the systemic level – to change institutional attitudes and practices – so as to make change and adaptation effective and timely. The focus will be a consideration of our range of students – undergraduate and postgraduate, school leaver and mature aged, domestic and international, on campus and online; the future world of work they are likely to encounter, and the digital and blended ways in which they will and do prefer to learn, evidence their learning and acquire and use credentials.

Keynote speaker, Friday 2 January 2018

Professor Angela Hill

Pro-Vice chancellor (Education) Edith Cowan University



Professor Hill joined Edith Cowan University as Pro-Vice (Education) in May 2017. The portfolio responsibilities include Learning and Teaching and the Library Services Centre. She holds key responsibilities for ECU's technology enhanced learning, academic governance and TEQSA regulatory activities.

Professor Hill's research interests relate to practice based learning including service learning, higher education policy and academics' work. Before joining ECU, she held the role of Dean, Learning, Teaching and Student Engagement at James Cook University, Townsville where she developed a range of programs to support widening participation, retention and student engagement. In 2008 she was awarded an Australian Learning and Teaching Council citation that recognised innovative curriculum design for work integrated learning. She has an abiding interest in social justice as a framework for educational practice.

Keynote address

Disparate student futures: Critical global citizenship, activist pedagogies and inequality

In this keynote address, Professor Hill will explore notions of critical global citizenship and the role of higher education. Drawing on her involvement in projects across a range of disparate settings including Papua New Guinea, Far North Queensland and now Western Australia, the imperatives for promoting student engagement with an ethical understanding of inequalities are highlighted. It is argued that centering a 'curriculum vision' founded in the literature of transformative education is critical. This includes the promotion of more activist pedagogies that play a central role in creating more socially just student futures.



The Higher Education Research and Development Society of Australasia (HERDSA). The HERDSA WA Branch has been a long-term partner of the Teaching and Learning Forum, and will hold its Annual General Meeting **at lunchtime on Friday 2 February**. Please join us in the Theatre, to find out what HERDSA has been involved in over the past year and its plans for 2018.

About HERDSA

The Higher Education Research and Development Society of Australasia is a scholarly society for people committed to the advancement of higher and tertiary education. It promotes the development of higher education policy, practice and the study of teaching and learning. HERDSA has members across Australia and in Hong Kong and New Zealand. There are branches in most states which aim to promote practices within their state by offering professional learning, networking and events.

HERDSA also publishes the journal Higher Education Research and Development, regular print-based and email newsletters and 'Green Guides' – short, practical books about learning and teaching approaches. The HERDSA Fellowship scheme recognises high quality reflective practitioners in higher education.

HERDSA web-page: <http://www.hersda.org.au/>

About HERDSA WA

In line with HERDSA's international and national aims, the WA Branch of HERDSA promotes a scholarly society for people committed to the advancement of higher and tertiary education. HERDSA WA runs a series of free seminars from local, national and international presenters. As a follow-up from the annual HERDSA conference, the WA Branch hosts a half-day mini-conference named 'HERDSA Rekindled', which reprises presentations by the WA conference presenters.

See the WA Branch website:

<http://our.murdoch.edu.au/Educational-Development/Scholarship-of-T-and-L>

We welcome you to join as a member to this friendly and collegial group. Further information and online registration is available at

http://www.hersda.org.au/?page_id=36

Abstracts: Presentations, workshops and posters

Participatory research in evaluating learning design in higher education

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This study explored the impact of incorporating digital technologies into the learning design of teaching units at a Western Australian university. Digital technologies were incorporated following participation of unit coordinators in learning design workshops. The study adopted a participatory research methodology inviting unit coordinators to contribute to the research design, analysis of data and interpretation of results. Data sources for this study were interviews with nine unit coordinators as well as questionnaire responses from over 550 of their students. Findings from the study reveal high levels of student satisfaction and an enhanced learning experience in response to specific learning designs. All unit coordinators responded to the student data and refined their designs to either implement immediately into the current offering of the unit, or for inclusion in the next iteration of the unit. The study confirmed the value of a specific, student-centred model in understanding the impact of design on the learning experience. This model was used to assist in both the collection and the analysis of data. We concluded from the study that a student-centred model is more likely to guide better learning designs decisions and higher levels of satisfaction for students, than instructor-centred models.

90 minute workshop

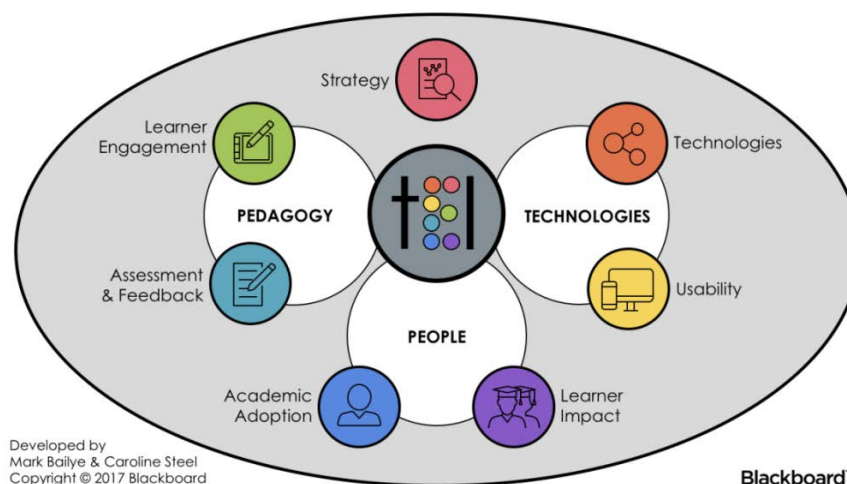
TEL tales

Mark Bailye

Blackboard

There is a growing realisation that technology enhanced learning (TEL) has the potential to transform and improve the quality of learning, teaching and the student experience (Walker et al. 2016; Marshall, 2010). Additionally, when done well, TEL can help institutions access new student markets especially via online learning. Together, these factors have weighted the priority of TEL more heavily than in the past. While higher education institutions continue to invest in TEL, many still struggle to identify and to address the essential elements that enable institutional success.

In 2017, a *TEL Framework* was developed, based on a set of seven themes that have been identified as critical to the success of TEL. These seven themes cover areas such as strategy, pedagogy, people and technologies as shown in the following diagram.



The themes are used as part of dialogic process, designed to gather perspectives on how TEL is being used across an institution. A set of cards, centred around each of these themes, was

used to help stimulate these insights. Overall, most participants agreed, that the TEL Framework was a valuable process to use to uncover institutional successes and challenges in.

As a consequence, the purpose of this workshop is to provide an opportunity for participants to

- investigate which TEL themes are a challenge or success at their institution;
- explore findings and uncover some of the tales in relation to TEL;
- investigate what TEL best practice looks like.

This is a highly interactive and conversational workshop, so hoping participants come ready to engage!

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90 minute workshop

Developing employABILITY as metacognition from Semester 1: A workshop on how!

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The development of employability is the responsibility of educators, students and leaders. Teachers are by far the most important and influential people in students' higher education experience, so how do we overcome the constraints of time, expertise and resources to develop employability within the existing curriculum?

This workshop positions employability development as the cognitive and social development of students as capable and informed individuals, professionals and social citizens. The employABILITY initiative locates employability development within the existing curriculum and seeks to engage students as partners in their developmental journeys by creating a better understanding of students' thinking as aspiring professionals. This cognitive approach aligns employABILITY development with both the purpose of higher education and the future of work.

The workshop utilises six inter-related *Literacies for Life* (L4L), which combine to enhance employability and inform personal and professional development. The student version is illustrated at Figure 1.

The interactive workshop engages participants in a socio-cognitive self-assessment profile and follows with resources and strategies to embed employABILITY within existing programs and courses. The workshop will suit teachers, program leaders, curricular designers, senior managers and careers advisors. No prior expertise or experience is required.

Participants will leave the workshop equipped and ready to embed employABILITY thinking and the research-enabled tool into Semester 1 classes. Participants will gain:

- access to the online self-assessment profile tool for students;
- resources, ready to embed into an LMS or unit outline;
- career stories to share with students; and
- examples of the SoTL and educational research that flow from students' responses and engagement.

The workshop will be followed by an online community of practice to support educators through their work in Semester 1. For more information, please visit <http://developingemployability.edu.au/> or visit the student site at <https://student.developingemployability.edu.au/>



Figure 1: Student (plain English) version of the *Literacies for Life* (L4) model

Where do we draw the line? Student perceptions and interpretations of *Turnitin* reports

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Plagiarism is the use of another's work without properly acknowledging the original source. It is an increasing problem in higher education as information has become more accessible digitally. Text-matching software (e.g., *Turnitin*) is used by academics to identify plagiarism and by students to amend their assessment if it is too similar to another's work. While universities impose penalties for academic misconduct as a deterrent, the prevalence of plagiarism is still high. The current study investigated 140 Curtin University undergraduate students' understanding of plagiarism. Participants were presented with *Turnitin* similarity reports for assignments submitted by students with varying levels of experience at university. After each report, they were asked questions related to reasons for similarities between the students' assignments and sources in the *Turnitin* database. Using a repeated measures design, we compared response across three levels of plagiarism and three student year levels (first, second, and final). Participants were consistent in responding that higher levels of plagiarism were more serious and more likely to be intentional. Similarly, plagiarism was considered most serious and intentional when it was from a final semester student compared to earlier year students. Participants in their first year of study selected more serious consequences for plagiarism than students in other years. Results were less consistent when participants evaluated the causes of the plagiarism (e.g., carelessness; lack of skill in paraphrasing). Research comparing Curtin with other universities would allow us to evaluate the role of university academic integrity programs in helping students maintain academic integrity.

Design thinking your way to leader development: Translating theories of leaders and leadership into practice

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Oceans of ink have been expended in the study of leadership yet, at the end of the day, researchers still do not fully understand how leadership influences organisational effectiveness (Gordon & Yukl, 2004). Effective leadership at all levels is imperative in an environment characterised by volatility, uncertainty, complexity and turbulence. Effective leader development approaches are an even greater imperative, as translating theories of leaders and leadership into practice at the coalface pose a significant challenge. Leader and leadership development may be fostered through various means – facilitated role-playing, comprehensive mentorship programs, service-learning in situ, and experiential learning courses focused on reflection and personal development. This paper is an account of how a design thinking approach led to the development of a curriculum grounded in *Complexity Leadership Theory* (Uhl-Bien, Marion & McKelvey, 2007) and integrating two leadership frameworks: the *Sloan Distributed Leadership Model* (Ancona, Malone, Orlikowski & Senge, 2007), and *Adaptive Leadership* (Heifetz, 1994), which harnessed experiential learning to develop effective leadership practice. Using Brown's (2008) *Inspiration-Ideation-Implementation* cycle, the origins and development of the curriculum is outlined.

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90 minute workshop

Enhancing student resilience through a staff resilience and leadership program

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In an environment of widening student diversity, including increasing numbers from rural and remote areas, from low socio-economic backgrounds, and from Indigenous and international students, higher education faces challenges in relation to student well-being, retention and employability. Studies have shown high levels of distress in university students (Leahy et al., 2010; Stallman, 2011). Resilience has been shown to be a key factor in reducing psychological distress as well as assisting students manage academic demands and enhance their learning outcomes (Pidgeon, 2014). Resilience strategies developed at university have the potential to positively impact on career success (Hodges, Troyan & McKeeley, 2010) with lifelong benefits for individuals, professions, the economy and society more broadly.

This workshop is based on a large scale national Australian Technology Network (ATN) funded project which aims to build staff capacity to develop student resilience resulting in improved academic outcomes and enhanced graduate employability. The workshop will provide an overview of the project and the resources available for university staff. Participants' conceptualisation of resilience will be explored along with the project team's conceptualisation of this contested term. The facilitators will highlight key research on resilience within the higher education context. Participants will then explore resilience enhancement strategies at the intrapersonal, interpersonal and university level. The workshop is intended for academic staff interested in student resilience, retention and employability.

The lead facilitator, Dr Margo Brewer is the Director of Practice and Interprofessional Education in the Faculty of Health Sciences at Curtin University. Margo has been leading work integrated learning within the higher education sector since 2002 and has been awarded

several teaching excellence awards including the OLT's Award for Programs that Enhance Learning in 2012. In recognition of her leadership and excellence in teaching Margo was inducted as an inaugural Curtin Academy Fellow in 2014. Other Perth based members of the project team will also be involved in facilitating the workshop.

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VetSet2Go: A stakeholder-lead approach to employability in a health profession

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The VetSet2Go Project (OLT, 2015-2018; <http://vetset2go.edu.au>) set out to develop a framework for building employability in the veterinary profession, with an emphasis on defining the capabilities most important to professional success. The framework developed by the project has taken a slightly different path from other employability models, as one of the first to be articulated for a health profession. Firstly we have been guided by a definition of employability focused on success and satisfaction in work, thus interposing 'the self' as a major stakeholder (a premise conspicuously absent from the prevailing paradigms of 'competency' and 'professionalism'), and bringing particular focus on resilience and wellbeing. Secondly we have been guided by a conception of the successful veterinary professional as one capable of navigating and balancing the (sometimes competing) needs and expectation of multiple stakeholders across the work context. This has lead us to propose an employability framework with dimensions defined by the outcome orientation in the human or work context (for *self*, for *others*, for the *task*, for the *mission*), with somewhat blurred domains of *psychological resources*, *effective relationships*, *veterinary capabilities*, and *professional commitment* respectively. These are activated by the central fifth element of reflective *self-awareness and identity*. This account of employability, as the capacity to sustainably satisfy the optimal balance of all stakeholder needs, has been useful for positioning employability within this highly-prescribed health profession, and aligning it to other priorities in veterinary education.

90 minute workshop

Embedding SoTL using the Curriculum Evaluation and Research (CER) Framework

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The WA Network for Dissemination (WAND) aims to facilitate the enhancement of the Scholarship of Teaching and Learning (SoTL) in WA universities. In keeping with this aim we are privileged to be working with Associate Professor Andrea Carr and Dr Jo-Anne Kelder in 2018 on a project to embed their Curriculum Evaluation and Research Framework in selected courses in WA universities.

In Australia, conversations around national standards for Higher Education reference and align with international standards (e.g. Tuning (Europe, USA), Quality Assurance Agency (QAA) for Higher Education UK). The Higher Education Standards (HES) Framework prescribes the minimum requirements for provision of higher education in Australia, including continuous

evaluation informing ongoing curriculum transformation.

This workshop presents a framework for designing evaluation and research into teaching at the level of a course (award program). It provides a practical resource that can be used by teaching teams to address institutional and personal expectations of evidence-based quality teaching practice.

Participants will be introduced to a 'generic' ethics application and demonstration of how a university's Learning Management System (LMS) can be used as a mechanism for participant recruitment and ethical management of consent, as well as disseminating research outcomes. The CER framework is designed to incorporate planning for SoTL into the practices of routine evidence collection that is response to institutional requirements for quality assurance of a body of curriculum and informed by national standards. The goal is providing staff a practical and efficient method for ensuring coordinated quality activities related to a course that enable individual and collective outputs related to quality improvement, quality assurance and scholarship.

Participants will be introduced to the CER framework and accompanying practical resources to collect data and a survey mechanism for establishing consent. Participants will have opportunity to discuss how to translate and use the resources for their own context.

The second half of the workshop will consist of question and answer discussion related to designing a specific evaluation-research plan (research questions and justification) and research management; ethics requirements (including research management); establishing and using the LMS; and, setting up the consent mechanism within the LMS.

The workshop is relevant for teaching staff and/or teaching teams, course and unit coordinators, Deans and Directors of Learning and Teaching who are interested in establishing a sustainable and effective approach to educational evaluation and scholarship as part of their teaching practice.

Associate Professor Andrea Carr and Dr Jo-Anne Kelder have extensive expertise in designing, delivering and evaluating curricula across health sciences in higher education, are experienced in supporting teaching teams to evaluate curricula and engage in scholarship. They publish in the field of learning and teaching and have partnered and/or led institutional and national learning and teaching grants.

Digital literacy for the 21st century: Implications for student learning

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Digital literacy was originally conceptualised by Paul Gilster in 1997 as 'the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers'. Gilster's definition is one that is commonly used, in some form, in higher education in Australia today, including at Deakin whose digital literacy graduate learning outcome focuses on using technologies to find, use and disseminate information. Is this still relevant 20 years on? Digital technologies have changed dramatically in that time; computers have moved out of air-conditioned rooms into our pockets, even as wearables; smart devices are now easily available and used by most. Does an understanding of digital literacy that focuses on information meet the learning needs of our students, and of employers' expectations of our graduates?

In this presentation I will suggest an updated understanding of digital literacy that encapsulates the broader, ubiquitous nature of digital technologies, and explore the implications for student learning and curriculum development. What should we expect of a digitally literate student? What skills and capabilities do students need to learn, work and play effectively in a digitally enhanced environment? Ultimately, how can these skills and capabilities be scaffolded through our curricula so our graduates are prepared for digitally enhanced workplaces?

Reference

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Predicting and preventing plagiarism

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Previous studies have examined whether the *theory of planned behaviour* is able to predict students' engagement in plagiarism. This theory predicts that a combination of attitudes, perceived norms, and perceived behavioural control predict intentions, and that intentions ultimately predict behaviour. Furthermore, the *general theory of crime* suggests that self-control is particularly important in predicting engagement in unethical behaviour such as plagiarism. In Study 1 (N = 229), we tested whether norms, attitudes, and self-control predicted intention to plagiarise and plagiarism behaviour. The path-analytic model's statistical fit was best when a direct path from self-control to plagiarism engagement was specified. In Study 2 (N = 320) we added a measure of perceived behavioural control and split the measurement of norms into descriptive norms (normal behaviour) and injunctive norms (good behaviour) components. This study found that the theory of planned behaviour model achieved a better statistical fit when direct paths from perceived norms to plagiarism behaviour were specified. These studies suggest that institutions should set strong anti-plagiarism norms and seek to enhance students' self-control via training in order to reduce engagement in plagiarism

Students transformed: Attributes for job ready graduates

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A series of 'Job Ready' tasks have been developed for a final year Health Science Professional Practice unit which has undergone continuous improvement to meet professional expectations including industry and student consultation. Mixed mode students, majoring in Addiction Studies, Environmental Health, Health Promotion, Nutrition and OHS, are guided by a series of 'voxpop' recordings by leading health professionals, health and safety industry supervisors and previous students. Tasks include a scaffolded real job application and industry interview in an agency setting or on *Skype*, to accommodate regional and interstate students. The presentation will highlight measures where students draw on an industry placement; training in professional communications, workplace culture and ethical practices, networking and social media strategies to support employability in a professional role. Students are provided feedback from 'industry panels' with the opportunity to reflect on their skills, experiences and competencies to inform their personal *Pebble Portfolio*, where attributes of 'Job Ready' graduates are showcased.

90 minute workshop

How to get the most out of peer review of educational practice: Reviewee and reviewer perspectives

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This workshop is designed to assist staff at any academic level who are interested in maximising the professional value of participating in *Peer Review of Educational Practice* (PREP) as a reviewee and/or reviewer. The workshop will involve the presentation of a case study based on our experiences of a successful PREP experience within the *Australian University Teaching Criteria and Standards* framework (Chalmers et al., 2014). It will provide opportunities for participants to consider the benefits of engaging in PREP and assist participants to plan for each stage of the PREP process.

We aim to set up participants for a successful review by identifying and approaching a suitable reviewer, negotiating the scope, activities, and time frames for the review; identifying potential sources of evidence related to the teaching excellence criteria to showcase various aspects of educational practice including teaching, unit coordination, and course coordination; devising effective ways to present the evidence to highlight scholarly practice and one's teaching philosophy in action; and processes related to evaluating evidence against the

criteria. The authors will share the benefits they gained and tips for success from based on their experiences as a reviewee and reviewer.

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Full paper on website

Datafacts in the digital world: Learning analytics and the virtual archaeologist

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Datafacts are the tangible traces the online learner leaves behind while travelling through, and interacting with, the online learning landscape. This paper examines the evolution of learning analytics in higher education and presents it as the tool with which educators and researchers, as virtual archaeologists seeking to understanding online learners, online learning, and online learning environments, unearth these *datafacts* and interpret their interrelated meaning in order to answer questions about online learners, how they learn and the environments within which they do it.

Looking ahead to a scalable learning design and educational technology service

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The adoption of online, blended and flipped learning has challenged Murdoch University to develop contemporary educational practices such as the use of technology in supporting teaching and learning and learning analytics to provide students' engagement data, and also to provide learning design and educational technology support and expertise. To cater for increased demand for learning design and educational technology support and expertise, the Centre's *Learning Innovations* initiated a partnership with the School of Education. This partnership has two aims, with the first being directly related to the School of Education, to create blended/online courses. The second aim centres upon learning innovations to establish a process that streamlines learning design and enables educational technology to be effective, efficient and practical. The process consists of a number of stages, each including activities, instruments and outcomes. In TLF 2018, we are going to share our partnership journey and outcomes in determining and developing the activities and instruments of the process that are focused on student learning experiences, time-friendly for academic staff, and scalable across the institution.

Get ready! Strategies to prepare students for the international workplace

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Work readiness is a key priority for employers. At the end of their journey at university, graduate students have to apply their skills to the global workplace. Students who have a cross-cultural and international outlook demonstrate respect and understanding for different cultures and are better able to interpret international issues. Solid academic results are not enough. A well-developed international outlook is an advantage in the competitive and global employment market. Our role as university lecturers is to develop students' attributes and employability skills to contribute to our international and global society. This paper will

outline evidence-based interventions and strategies used in the French studies' classroom at tertiary level that concentrates on enhancing the employability of future graduates in the international workplace.

Applying medical education assessment practices to improve the reliability and validity of MCQ tests in a large health sciences unit

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Human Structure and Function (HSF) is a core interprofessional unit studied by more than 2600 students each year in the Faculty of Health Sciences at Curtin University. The unit services 24 courses including psychology, nursing and exercise science, and is a part of the course structure of the new medical course. In large units, the feasibility of administering varying assessment tasks can be constrained by human and financial resources. Therefore multiple choice assessment is widely adopted for its efficiency, validity and reliability (McCoubrie, 2004). Due to the high stakes involved with assessing the competence of future doctors, medical schools are at the forefront of applying current evidence-based assessment practices to ensure the quality of their graduates. By using assessment quality assurance processes, employed extensively in medical education, this project aimed to improve the quality of the multiple choice assessment items in this introductory unit. This presentation will discuss some of the processes we undertook to apply some of these internationally recognised practices to improve the overall validity and reliability of the multiple choice assessments. We also report on the outcomes, and quantitative and qualitative evaluation of this implementation.

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Collaboration, consultation and cooperation: Work-integrated learning partnerships for enhancing graduate employability

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Workplace demands, economic productivity, and evolving technologies are increasingly driving university imperatives to deliver entrepreneurial, responsive, and self-driven graduates. The quality of university graduates and their work-readiness is considered vital to national sustainability and innovation. The pressure for collaboration, cooperation and consultation among universities, industry, professional accrediting bodies, and students, is intensifying. This presentation highlights the benefits, enablers and challenges of establishing partnership with stakeholders, to inform curriculum and assessment design and implementation. A mixed methods approach, incorporating a multiple case study research design, was deployed to determine important elements of a university education which provides a developmental approach to graduate employability with relevance to the contemporary labour market.

Quantitative and qualitative data was collected from graduates, employers, teaching staff, current students, and representatives from professional accrediting bodies via two surveys,

small focus groups, and interviews. Authentic learning experiences with relevance to the workplace, teaching staff with the capacity to deliver real world learning experiences, work-based learning that enables networking with industry, social connections, and role models, were deemed to be important for graduate employability. Mutually beneficial partnerships were shown to be fundamental in enacting a quality student experience, culminating in graduates prepared for an unpredictable and volatile workplace. Prioritising partnerships challenges university protocols, traditional quality measures, staff capabilities, and curriculum design and assessment profiles.

Assessment using Bachelor of Nursing inherent requirements: Enhancing students' understanding of course requirements and registered nurse attributes

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Bachelor of Nursing Inherent Requirement (BNIR) statements articulate to prospective students the course expectations that are necessary for successful progression through, and graduation from, a Bachelor of Nursing program. The statements are clustered under eight domains consisting of ethical behaviour, behavioural stability, legal, communication, cognition, sensory abilities, strength and mobility and sustainable performance. Anecdotally, beginning students may experience a range of misperceptions regarding course expectations and how they link to the role of a registered nurse (RN).

We aimed to encourage, through an assessment for learning activity based on BNIR statements, an awareness of requirements inherent in the course and how they link to the attributes expected in or of an RN. First year transition students undertook an assessment-for-learning activity that required them to choose two inherent requirements, engage in self-reflection and compile a 350 word descriptive summary and reflective text outlining how the BNIRs had influenced their understanding of RN attributes. Themes were generated from reflective texts by 162 students, using a content analysis approach. These showed that studying BNIR statements had either confirmed or increased their awareness and understanding of the course requirements, which in turn led them to report feeling motivated and inspired to set goals for self-improvement. However, in some instances students reported feeling overwhelmed and anxious about role expectations. Overall, assessment for learning based on BNIR statements resulted in an increased awareness of the course requirements and how these link to the attributes of the registered nurse.

Seeking engaging law units: The final frontier

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'Seeking engaging law units: The final frontier' is a *Student as Change Agent in Learning and Teaching* (SCALT) project at Murdoch University undertaken in 2017. The project designed and implemented a structured, engaging, and authentic online tutorial resource for the law unit on Evidence. The online tutorial resource is made up of a structured framework developed in *Articulate Storyline eLearning* authoring software and provides problem solving scenarios for students as animated whiteboard videos developed using *VideoScribe*. Access to key characters and witnesses in the problem-solving scenario was provided through artificial intelligence conversational entities or chatbots. Chatbots were developed using artificial intelligence mark-up language (AIML) from the *PandorBots* chatbot server. Student experience with respect to use, engagement, and contribution to learning and participation in Evidence tutorials was assessed and analysed from a ten-question student feedback survey. The survey showed that while not all students made extensive use of the online resource, respondents who utilised it regularly indicated that they were more engaged, better prepared and provided a positive impact on learning. Respondents also strongly indicated that they thought similar online tutorial resources provided in other law units would also contribute positively towards engagement, participation and learning in these units. The resource will continue to be used in the unit, and interested staff are looking at how they might embed a similar resource.

Small 'c' creativity: Strategies to enhance 'innovation' in teaching and learning

Susan Flavell

Practising visual artist and lecturer, Central TAFE

Helen Flavell

Coordinator of the SoTL, Faculty of Health Sciences, Curtin University

As resourcing of higher education shrinks and disruption and change intensifies, largely due to technological developments and growing student numbers, those with teaching responsibilities are experiencing increasing pressure to be 'innovative' and demonstrate capacity for creativity. Academics are being asked to do more with less and respond positively to ongoing challenges with imagination. Similarly, all graduates—regardless of their discipline—will need to be able to think creatively. Future work is likely to be unpredictable and some forecasts suggest graduates will have to create their own opportunities. In other words, creativity cannot remain the domain of the individual hero artist—that is, large 'C' creativity—it must now be part of everyone's repertoire. Despite these drivers and the need for enhanced creativity, academics from disciplines with positivist epistemological traditions and/or those not engaged in the creative arts may not have a clear 'road map' or way to approach innovation and creativity for teaching and learning.

This workshop will provide participants with practical strategies to expand their knowledge of, and skills in, creative processes. Parallels will be drawn between the visual art creative processes and ongoing reflection on educational practice in the current higher education context. Artists—as part of their practice—have to be able to tolerate a certain amount of chaos, be resilient to feedback and continue to change and adapt their practice. Through an interdisciplinary approach the workshop will translate what has been learnt from artistic processes to teaching and learning in higher education to support student outcomes and the capacity of academics to innovate and survive ongoing change. The intended audience is higher education staff interested in exploring strategies to support innovation in teaching and learning.

This workshop is co-facilitated by practicing visual artist and Central TAFE lecturer Susan Flavell and Dr Helen Flavell, Coordinator of the SoTL, Faculty of Health Sciences, Curtin University. Susan Flavell has been a practising artist for over 30 years and her recent exhibitions include *The Horn of the Moon* (2017) John Curtin Gallery, *The Dog's Artist* (2016) Fremantle Arts Centre and *An Internal Difficulty* as part of the 2015 Perth International Arts Festival. The Art Gallery of Western Australia, Wesfarmers, Royal Perth Hospital and the City of Perth have acquired her work. Recently, she returned from a Residency at The Pottery Workshop, China. In addition, Susan has over 20 years' experience as a TAFE lecturer in the visual arts.

Dr Helen Flavell leads SoTL academic development to improve student learning. Helen has published on a range of higher education topics including academic leadership, enabling SoTL, embedding Aboriginal and Torres Strait Islander perspectives into the curriculum, and supporting academics to respond to higher education change. She has been involved in more than eight Office for Learning and Teaching projects and is currently the external evaluator of a 2017 Australian Technology Network project on resilience led by Curtin. In 2017 Helen was recognised through a Curtin University Citation for Outstanding Contribution to Student Learning.

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Time for the chronotype: Understanding student engagement with online learning resources

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Online learning resources provide numerous opportunities for discourse between students and faculty and can help in developing learning communities. While there have been many studies that show engagement with online learning resources positively influences student performance, this engagement is less than uniform and continues to be a challenge to faculty who are continuously encouraged to enhance the online learning experience. Factors that influence student engagement are many and include the instructor, the technology, class management, interaction, and learning design. Very little research to date has examined the impact of student variability when it comes to their engagement with online learning resources.

In this exploratory study, we examine the pattern of peaks and troughs in student engagement with online learning resources over a teaching period within each 24-hour window. Using the construct of chronotype diversity (Volk, Pearsall, Christian & Becker, 2017) we examine student chronotype - dispositions toward optimal timing of daily periods of activity - to identify patterns of engagement with online learning resources. Understanding the influence of chronotype diversity among student populations can help to explain the variance in student behaviour and performance, especially in teamwork, and identify optimal timing for students-students interactions and students-faculty interactions. Implications of chronotype considerations for curriculum design, for the teaching of teamwork skills, and for adopting teamwork in assessments, as well as faculty workload allocations, are discussed.

Perceptions and attitudes of first year health science students to interprofessional education

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Interprofessional education involves the teaching of two or more health professions concurrently and is recognised as an efficient and effective means to teach core health professional skills such as patient-centred care and collaboration (Whitehead, 2007). Learning with, from and about other health professions is seen as an important step to adequately preparing a health professional for the workforce (Paradis & Whitehead, 2015). The interprofessional first year program in the Health Sciences faculty at Curtin University is one of the largest programs in Australia, with more than 2000 students across 29 courses. The aim of this study was to assess students' attitudes and perceptions towards other students studying within the interprofessional first year; and identify their knowledge of their future roles in their respective profession. This study is unique as it has been designed and implemented by two undergraduate students in conjunction with two teaching academics from the Health Sciences faculty. Data gathered from 116 students was analysed and the findings show, overall, that student attitudes towards teamwork, collaboration and using interprofessional skills in the workforce were positive, however students had a poor understanding of their future roles as health professionals. This presentation will explore the implication of the findings on interprofessional education in the Health Sciences courses.

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10 minute 'Nuts and Bolts'

New inquiry-based experiments for undergraduate chemistry laboratories

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Chemistry demands for a high standard of experimental work, and therefore laboratory practice plays a critical and characteristic role in the curriculum of science education. Laboratory work also serves as a useful medium to establish the concept of developing a professional identity, and workplace-relevant skills and attributes. Traditional labs involve students performing teacher-structured laboratory exercises, typically resulting in students

resorting to “following the recipe”, especially when the lab involves little student engagement with the content. In contrast, inquiry-type labs put greater emphasis on student independence in the laboratory, and the utilisation of inquiry in the labs has been found to improve problem solving skills and critical thinking. This presentation describes the development of two inquiry-based experiments for undergraduate medicinal and natural products chemistry.

Challenges of delivering authentic work integrated learning content and assessment in vocational non-clinical courses

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The School of Public Health offers several vocational non-clinical courses including Environmental Health, Health, Safety & Environment, Health Promotion, Sexology and Health Administration. All of these courses offer professional placements where students are placed in the field with a qualified and experienced practitioner as a component of the course structure. This hands-on experience increases the graduate’s work readiness’ and hence their employability.

The Postgraduate Diploma in Environmental Health is one of 3 accredited postgraduate EH courses offered across Australia. The courses are delivered in a mix of face to face, online and intensive workshop formats. As part of the accreditation requirements, students must complete a minimum of 100 hours of practical experience to be able to practice. Non-clinical placements present a unique range of challenges in that the students are being sent to a heterogeneous mix of workplaces, where there is great variation in the daily work activities undertaken. Postgraduate Environmental Health educators from Curtin, Flinders and QUT have collaborated to identify challenges associated with placements and are working towards developing and delivering authentic assessments that reflect the discipline specific knowledge and assess the practical skills required to perform statutory and non-statutory tasks.

A simulation-based interprofessional learning initiative for occupational therapy, speech pathology and dietetic students

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Interprofessional learning (IPL) is increasing in popularity, however designing and implementing these learning opportunities can be very challenging. This learning activity utilised a series of complex and unfolding video simulations to allow occupational therapy, speech pathology and dietetic students to work together in an interprofessional manner to manage a patient who had a recent stroke. Seventy-five allied health students participated in a 3-hour interprofessional interactive workshop. Prior to the activity, students were exposed to key concepts of IPL and practice including teamwork, communication and leadership, and were given a brief introduction to core roles of each health profession. Participants completed a pre and post-activity survey to assess attitude change regarding IPL, with a sub-sample (n=30) also participating in post-course completion focus groups.

Analysis of the Readiness for Interprofessional Learning Scale (RIPLS) Questionnaire data suggested student attitudes towards IPL improved between pre- and post-workshop ($p<.001$). In focus groups students suggested their knowledge of other disciplines improved, and they felt more confident to practise in their own role in subsequent clinical placements. They also suggested they would appreciate further IPL opportunities incorporated into their respective courses. This teaching and learning activity allowed students to interact with a variety of interprofessional team members to solve a complex patient care issue. Results suggested this format helped students to increase their working knowledge of other professions, apply concepts of teamwork and communication in a safe environment, and further prepare them for their future careers where these forms of collaboration are essential.

SMARTcare seminars: Student engagement, involvement and ownership

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Research at the University of Notre Dame Australia has sought to identify in what ways social media and mobile technology assist with learning and education of the undergraduate nurse. Findings indicated students currently use mobile technology and social media for learning resources, and are keen to keep doing so within an undergraduate nursing degree. As students are learning and collaborating online, School of Nursing & Midwifery academics encourage responsible use of mobile technologies and social media through a number of initiatives. These include the highly successful, co-organised seminars between academics and students titled *SMARTcare*. The purpose of the presentation is to discuss the success of *SMARTcare*, by highlighting the role of the students as engaged partners in the planning, ownership and direction of these events.

SMARTcare focuses on 'Social Media Application for Research and Teaching'. Three successful seminars on campus in 2013, 2015 and recently in 2017, have been very well attended. *SMARTcare3* in August 2017 was attended by over 300 people, with the theme of 'Working the Net'. This encouraged 'thinking outside the box' for networking, creating links for employment and for ongoing learning opportunities. Two highly respected keynotes, an interactive panel of guest speakers, and an industry networking session with over 30 organisations were represented. *SMARTcare* is co-organised by both the School of Nursing & Midwifery and the students' Notre Dame Nursing Society. This is the key to their success. Students are engaged, highly involved and had ownership in the organisation, which showcases the university and students to industry leaders.

Reaching across the divide: Aboriginal Elders and academics working together

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Elders

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Reaching across the divide: Aboriginal Elders and academics working together (RAD) is a 2017 Curtin University Learning and Teaching Innovation funded project to enable Occupational Therapy and Social Work students to develop important skills for engaging and working with Aboriginal and Torres Strait Islander peoples. Students of the RAD project report greater confidence, knowledge and more equipped in their interactions with Aboriginal and Torres Strait Islander peoples. Sixteen students undertook an experiential journey alongside Aboriginal Nyoongar Elders and fieldwork and academic staff in what we describe as an innovative, decolonising pedagogical development within tertiary education. It offers great hope and much promise for future students practising in the health and human services sector to develop culturally safe and secure practices, and for tertiary institutions a process that activates elements of their reconciliation action plans. In the student and project team evaluations, students reported on transformational learnings they consider to be life changing, scholarship that will be remembered long after completion of their degree, and an experience they believe would be beneficial to all students across all degrees of study. Staff and Elders also report greater knowledge and confidence in working with each other.

Although this project is external to course study units for degrees, this new model of learning and teaching provides opportunities for centering Aboriginal pedagogy and developing ways of working, thinking and doing that could be expanded into mainstream courses. Join the Elders, staff and students in hearing about the RAD project and reflections of this transformational journey.

Mastery or avoidance? Evaluating student reactions to learning analytic alerts

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Learning analytics in higher education institutions are being explored to predict and understand student learning behaviours, and reduce student attrition. Learning analytics can provide personalised feedback and support through alerts, however the assumption is that

providing this information to students will allow them to respond positively and regulate their own learning. So far research has not tested how student reactions may differ to learning analytics alerts across different grade conditions. We tested higher education students' reactions to learning analytics alerts that varied according to grade (High Distinction, Pass, and Fail), sender (course coordinator versus automated message), provision of comparative peer achievement, and message style (supportive versus factual). The outcome variables of interest were student affect and academic resilience. Across 320 undergraduate students (mean age = 22.36 years, SD = 6.55 years) there was a significant difference in affect according to grade level (large effects) where students reported more positive affect as grade level increased and more negative affect as grade level decreased. Students were also more likely to demonstrate perseverance, reflection and help-seeking behaviours for lower grade conditions than higher grade conditions. Within Pass and Fail grade levels, some smaller effects were observed for reactions to whether the student received a comparison to peer achievement, the supportiveness of the message, and who send the alert. The findings highlight how, primarily, students will respond to the grade received, but that there are elements of the learning analytics feedback that can be modified according to grade level to enhance student learning experiences.

Understanding future students: Measuring enabling students' mindsets, motivations, resilience and emotional states

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The burden of mental health issues on university students and their ability to successfully access, transition and participate in university has been recurrent in contemporary educational discourse (Cleary, Walter & Jackson, 2011; Said, Kypri & Bowman, 2013). In recent studies (Stallman, 2010; Said et al., 2013) it was reported that the students most at risk included females aged 18-34 years old, those with a disability and those on low incomes. These 'at-risk' groups are over-represented in enabling program cohorts compared with the general university student population (Lomax-Smith, Watson & Webster, 2011). Due to our growing concerns for the wellbeing of students, the unit coordinators of Murdoch University's Access Programs set out to become more proactive in their response. We targeted the development of attributes such as resilience, academic self-efficacy and a growth mindset as crucial learning outcomes for our students (in addition to the development of academic and study skills) through holistically including learning material and activities in the *OnTrack* curriculum (Lisciandro, Jones & Strehlow, 2016; Jones, Lisciandro & Jones, 2016). Three cohorts of enabling students were surveyed at the beginning and end of each iteration of the *OnTrack* program. This presentation provides the preliminary results of the 18 month study which evaluated the impact of embedded mindset training and psycho-education related student wellbeing and success in a Murdoch university enabling program. As enabling students now make up a significant portion of undergraduate students, these results can help educators understand the levels of motivations and resilience of future undergraduate students.

Embedding business communication skills using micro-WIL assessments

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Communication skills are highly valued by employers and students need opportunities to develop relevant and authentic skills. This presentation showcases the successful use of embedded micro-WIL (work integrated learning) communication assessments across an undergraduate accounting degree. Based on accounting education literature and industry feedback on the most important communication skills for graduates, a custom publication handbook was developed to support both students and teachers. Communication components in unit assessments were scaffolded across the degree to expose students to industry expectations for communication media such as email and reports. Evaluation data from students, teachers and industry indicates the assessments and handbook are well aligned and provide authentic exemplars and guidance to users.

Does creating a music video enhance neuroscience learning in third year physiotherapy students?

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There is growing evidence to support harnessing popular culture to support student-centred learning. Tinashe Dune at Western Sydney University found that learning through making a video was equally effective compared with traditional ways of learning for the majority of students. The process of creating a video increased engagement with coursework and students reported that combining information with music made it easier to remember. This study uses action research to explore students' perceptions of video creation on their learning. Third year physiotherapy students (N=67) were given a groupwork task of producing a five minute music video to inform their classmates. A survey design was implemented with students providing feedback at the end of semester on task elements including their enjoyment, creativity, time, effort and subsequent learning. Forty six responses were obtained (69% of the cohort). Feedback on the task was mixed with 52% enjoying the task and 61% reporting it to be challenging. The biggest challenge identified by participants was facilitating the groupwork aspect of the task, with time to produce the video also highlighted as an issue.

There is a perception that physiotherapy students tend to be science-focused and uncomfortable with less-structured creative type assignments. 52% of participants in this task reported it to be a meaningful learning experience. Effective teaching should foster higher order thinking within the cognitive dimension and, of note, 90% reported creativity to be important in their learning. Educators should consider the influence of assignment tasks involving a creative process to promote effective learning by health professional students.

Poster presentation

An alternative approach to student assessment for engineering laboratory learning

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Assessment of students' performance in laboratory activities evaluates their achievements and weaknesses in practical work. This is vital from student, institutional, and professional accreditation perspectives. Practical skills assessment methods evaluate students on three major components: the ability to collect data, perform calculations, propagate uncertainties, and write reports; ability to analyse the cause of failures in the process; and finally students' active engagement and participation in the practical work. A conventional, report-based assessment method combined with an alternative method, termed in-class assessment, was developed and used for second-year Fluid Mechanics laboratory work. In this study, we present the results of a quantitative investigation of students' responses for the following questions.

1. How should students be assessed in the engineering laboratories so as to measure the essential practical skills attainment as required by Engineers Australia for graduate engineers?
2. Does the mode of assessment affect students' activities in the laboratory and the marks they are awarded?
3. How does the assessment method affect students' satisfaction with their laboratory work?

Students expressed similar experience and satisfaction levels for each of the assessment methods that measured the attainment of different but essential personal and professional

skills stipulated by the professional body for students graduating with an engineering degree. This study shows that the use of in-class assessment can serve as a useful complement to conventional report-based assessment methods ensuring optimal laboratory learning for students across all of the essential engineering knowledge and skills areas.

Jottings from the journey: On the way to improved teaching

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As one of this year's teachers awarded a citation for outstanding contributions to student learning, Abigail will share some thoughts from her journey in this process. Developing excellent teaching firstly involves connecting with those who have journeyed before you, who blazed trails through the scholarship of teaching and learning and then also knowing how you continue to develop the skills you need for your ongoing steps. Secondly, your individual teaching fits into a map with macro, meso and micro levels. Knowing where you are and how the different levels integrate together is vitally important. Finally, take time to reflect and gather data to ensure you are on the right course and to refresh you for the next stage. Consider where you are in your own journey into SOTL and what might be your next steps.

Access to work integrated learning: The lived experience

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Work integrated learning (WIL) and internships are an important part of the suite of employability activities utilised by universities in their increasing efforts to ensure that graduates make a successful transition to the workplace. In Engineering, this is not only desirable but a compulsory part of the course, recommended by Engineers Australia as part of program accreditation criteria. Engineering has a long history of ensuring that graduates have been exposed to the workplace before they enter the profession, including via summer placements, and evidence of unpaid work experience. Research across other professions has indicated that unpaid internships may be subject to "class based privilege" (Shade & Jacobsen, 2015, p 188) and induce financial stress for students (Grant-Smith & Gillett Swan, 2017). With increasing economic pressures on students, lowered levels of employment and short and part-time project based employment in the "gig economy", the nature and quality of internships adds another dimension to the picture for graduate employability. Unpaid placements may be an additional employability barrier for engineering students from equity groups including women in non-traditional areas, low SES students, and those from non-English speaking backgrounds. Preliminary findings will be presented from research (funded by the National Centre for Student Equity in Higher Education) into the lived experience of student engineers in both paid and unpaid internships, including the barriers faced by individuals from equity groups, and potential improvements to their outcomes that industry and universities can facilitate.

Lived experience education: Transforming learning and teaching in Health Sciences

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Education delivered by health consumers or service users, creates the conditions for learning from lived experience and is widely acknowledged as good practice in the education of budding health and human service professionals. Research has demonstrated a positive impact on, and shift in student attitudes, knowledge and skills when they learn in this way, and innovative approaches to engaging people with lived experience (PLE) are gaining

momentum. In this presentation, we present the Valuing Lived Experience Project (VLEP), an Australian-first initiative led by a Lived Experience Academic. The VLEP draws strength from national and international policy directives and research to increase lived experience participation in education beyond tokenistic encounters. We will present activities completed such as the delivery of a short course that aims to upskill PLE to become educators within the tertiary setting, enabling deeper involvement in teaching including the delivery of lectures, curriculum development, and assessment marking. Information will be provided on how we systematically embedded lived experiences into units across Occupational Therapy and Social Work courses. Feedback from PLE, students and academics on the involvement of PLE in teaching will be included. This presentation will provide academics with ideas on how to support and centre lived experience in their teaching and research activities.

Pilot virtual work integrated learning in engineering

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Recognising the transformative value of workplace learning, Engineers Australia requires that students of accredited engineering programs are exposed to engineering practice. Traditionally, students have undertaken placements in industry. However these are often difficult to secure. Furthermore the quality is unreliable, and placements are usually taken only after three years of engineering study. Virtual work integrated learning offers an alternative to traditional placements. With virtual work integrated learning there are opportunities to provide more diverse experiences than in a single traditional placement, to more students, from their first year of studies.

We will present pilot virtual learning modules. In the first module, students learn about safety in design using virtual reality. The virtual reality environment represents a crane on a truck - an environment identified by Safe Work Australia as being involved in fatalities. In the second module students learn about communication in engineering workplaces using interactive scenarios in a simulated environment. Initial testing will be reported, along with plans for engaging students in authentic reflection with practitioners following activities in the virtual reality environment or the simulated environment.

Victor Zhang and Joel Gray are acknowledged for their research on which this builds. Support for this project has been provided by the Australian Government Department of Education and Training. The views in this presentation do not necessarily reflect the views of the Australian Government Department of Education and Training.

90 minute workshop

Using origami to demonstrate the effectiveness of utilising the marking criteria as a learning device

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This workshop is intended for educators who want a strategy to use marking criteria as an effective learning tool to help students achieve the learning outcomes for an assessment. The main focus of the workshop is to enable participants to learn ways of engaging students in the development and utilisation of a marking criterion to enhance student learning.

The workshop imitates a successful learning strategy implemented in a foundations engineering unit at our university. As the workshop will involve participant engagement in the designing of marking criteria (Ormond, Merry & Reiling, 2000), it is anticipated that everyone in the audience would participate.

The workshop runs in two phases. In the first phase, all materials are provided to create an origami cube; each team (2-3 participants) receives a sample (a pre-made model) of an origami cube, a set of instructions to create the cube, marking criteria for the origami task, and twenty-one sheets of origami paper. The process begins with engaging the participants in a discussion involving the assessment criteria using an exemplar for a basic task comprising

origami units (Handley & Williams, 2011). This is followed by the participants performing the task. After completing the task, there will be a peer-evaluation and feedback activity (Price & O'Donovan, 2006) followed by self-assessment (Taras, 2010) before getting tutor feedback (Price, Handley & Millar, 2011)

The process is then repeated in the second phase with another task; an increasingly complex task that builds on the first. In this second phase, the teams are expected to create an octahedral unit. After the phase is complete, facilitators then lead the whole session in a discussion in evaluating how well the purpose of the workshop has been achieved, and if, how and why participants engaged with the marking criteria. To conclude, participants give their feedback on the possible applicability of the using this technique in their own teaching practice.

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10 minute 'Nuts and Bolts'

The development, implementation, and evaluation of a theoretically-based intervention to increase student engagement with peer assisted study sessions

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Although the benefits of *Peer Assisted Study Sessions* (PASS) are widely documented, most PASS programs attract relatively few regular attendees. The *Theory of Planned Behaviour* (TPB) has been used to model a range of attendance behaviours, including PASS attendance. The TPB proposes that behaviour is best predicted by intentions, which are best predicted by attitudes, subjective norms, and perceived behavioural control (PBC). The TPB has also underpinned many successful behaviour change interventions. It is within this context that we developed a TPB based intervention to increase PASS attendance behaviour. The intervention took the form of an advertising campaign comprised of a series of short, targeted messages delivered to students via multiple media across Semester 1, 2017, at Curtin University. Although the intervention did not increase students' PASS attitudes, subjective norms, and PBC (possibly due to pre-intervention ceiling effects), our data did illustrate that the TPB is an effective model PASS attendance behaviour. Furthermore, we found that self-reported exposure to advertising messages delivered via email moderated the intention-attendance relationship. For participants with low intentions, email exposure was associated with higher attendance. No such effect was observed amongst participants with high intentions. We replicated the intervention in Semester 2, 2017, at both Curtin University and the University of Wollongong, and are currently collating and analysing this data.

Developing a methodology to evaluate educational content from a lived experience perspective

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Involving consumers with lived experience of disability in evaluation of curricula is becoming an expectation of good educational practice. Accreditation Boards are now setting this as required standard of practice. The School of Occupational Therapy and Social Work, Curtin University provides an undergraduate unit exploring the life outcomes for people living with disabilities. This study describes the methodology employed to evaluate learning content, delivery and assessment within the unit. The evaluation involved a qualitative approach. The team employed a consultant with lived experience of cerebral palsy to review unit readings, lecture and tutorial content. The consultant participated in assessment moderation and observed several tutorials. Field notes and audio recordings was used to make observations. Thematic analysis was employed to carry out an independent analysis of the data. Triangulation involved meeting with the consultant and researchers to analyse interpretations in relation to current learning outcomes of the unit.

Three themes emerged from the evaluation: Greater emphasis of inclusion of direct experiences from consumers was identified as beneficial, yet from an academic perspective creates tension in regards to the pragmatic considerations (cost and time) of this approach. The complexities of disability means that learning content needs to be equally balanced out to represent different disabilities/contexts and situations. Finally, increased Australian educational readings and video content would provide relevancy to contemporary Australian society. The study highlights the benefits and challenges of including people with disabilities as educational consultants to contemporise and translate everyday life for people with disabilities into educational content.

Collaboration with undergraduate students in marking and moderation of written assessments: An exploratory study

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There appears a lack of discourse in higher education surrounding marking practices directly involving students as peer assessors and expectations how this relates to a sound moderation process. This study aimed to describe students' perceptions and experience of involvement in the moderation process of a 2000 word written essay. Six undergraduate occupational therapy students were recruited to participate in moderating a written essay. Participants were presented with three printed, de-identified essays, instructions and rubrics on the marking process. Individuals independently appraised and moderated the three essays. A recorded focus group was used to understand the students' experiences of the moderation process. Thematic analysis of the focus group transcript was undertaken by several members of the research team to identify themes. Trustworthiness and rigour was further ensured using member checking to confirm the emergent themes with participants.

Four themes emerged from the findings. Students reflected increased understanding of the requirements of the moderation process. Next, students benefited from transparency of the moderation process to understand the diversity, range and criteria of grades available. Students felt empowered to use their academic skills to judge peer work. Finally, a reflective mindset was helpful in evaluating their own work for future assignments. We conclude the study highlighted the successful utilisation of students to enhance the moderation process. The findings provide an opportunity to bridge the student-educator nexus while at the same offering a transparent dialogue of the processes required for marking and moderation.

Poster presentation

How a blended classroom engaged and inspired students in an introductory pharmacology unit

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Blended learning as a pedagogical concept has become popular and involves the deliberate incorporation of traditional face to face and online learning in an attempt to maximise student learning and engagement by utilising the strengths of each mode of delivery. Since 2003, *SCH1105 - Introduction to Pharmacology* at Edith Cowan University has been delivered as a traditional on-campus, face to face lecture based unit. Results from past unit teaching evaluation instrument (UTEI) surveys demonstrated that student satisfaction with this unit was consistently below the School and University averages. A new approach to teaching this first year unit needed to be explored, and in 2017 the unit was delivered in a blended classroom mode whereby students complete two hours of online learning before attending an on-campus seminar/tutorial. Students were surveyed to identify the impact of the changes in the delivery mode on their experience and learning. This interactive presentation summarises the methods and results of this pilot project.

Not another brick in the wall: *OnTrack* and the student experience

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Hodges et al. (2013) identified that secondary students are becoming more strategic in their selection of enabling programs as a legitimate pathway into higher education. This has created an emerging subsector within higher education. To address and meet the challenges of these student strategies, the *OnTrack* team has responded in the following ways. Firstly, maintaining *OnTrack's* high retention and completion rate, despite the large increase in our cohort numbers, has been a priority. The “skin-on” or face to face relationship between tutor and student has been continued, despite increasing class sizes. This has necessitated a change in the hierarchy of support provided to staff. To address this, the program has implemented streaming, dividing our cohort into manageable sizes, as well as increasing the number of “Lead Tutors”. The lead tutor role has become pivotal in the relationship between unit coordinator and tutor, as the lead tutors are “on the ground,” working with their own students, as well as mentoring other tutors. This means that the relationships between tutor, lead tutor and unit coordinator have remained cohesive and personal. Finally, the traditional hierarchies and separation of professional and academic staff has been blurred, in recognition of the strengths and attributes that each has to offer the other. This support in the enabling space facilitates success for our students, and ensures that our staff are concurrently mentored and upskilled.

Providing realistic night shift training to undergraduate paramedics through simulation

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We trialled and evaluated a simulated 13-hour paramedic night shift held overnight on ECU Joondalup campus for second-year undergraduate paramedicine students. The event allowed students to put into practice applications of knowledge and skills under actual shift-length conditions, inclusive of transporting patients to and from ‘the hospital’. 24 second-year paramedical science students were exposed to ten clinical scenarios over the course of the 13-hour night shift. 12 patient ‘actors’ (first-year paramedicine students) undertook an intensive three-hour training session in the lead-up to data collection to ensure standardisation of responses across scenarios. Participants completed an online survey the next day.

A series of repeated measures ANOVAs suggested students’ self-reported fatigue levels measured via the *Stanford Sleepiness Scale* steadily increased over the course of the simulated

night shift ($p < .001$). Similarly, task difficulty, measured via the *NASA Task Load Index*, also steadily increased ($p = .030$) and motivation to perform declined ($p < .001$). 100% of students suggested the exercise provided a valuable learning experience. 86% agreed that the exercise reliably replicated a paramedic night shift, and 95% agreed they would like to see the exercise incorporated into regular paramedic curricula. Providing avenues for students to implement skills closely resembling real-world conditions has sufficient learning merit to justify the time and resources required to facilitate such teaching and learning opportunities. This research also has implications for paramedicine and other healthcare professions undertaking nightshift work, suggesting that increased fatigue over the course of a night shift can impact on alertness and capacity to perform.

10 minute 'Nuts and Bolts'

Online course to improve university laboratory teaching practice

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Laboratory classes are an essential component of most science and engineering courses, with the potential to achieve a number of practical and theoretical objectives. However, the effectiveness of laboratory classes is often not achieved to their full potential. Rice et al. (2009) showed in their report *Tertiary science education in the 21st century* the key role of laboratory instructors for science in higher education. They argued that laboratory teachers have a huge impact on their students' growth as chemistry professionals. O'Neal et al. (2007) in their study into the impact of teaching assistants and retention in science and engineering classes, stressed the importance of providing high quality instruction in laboratory classes. To improve the teaching in laboratory classes, the European Chemistry Thematic Network (ECTN) working group, Lecturing Qualifications and Innovative Teaching Methods, is developing an online course entitled "Teaching in University Science Laboratories: Developing Best Practice." The course is targeted at relatively inexperienced university teachers. First, a *Small Private Online Course* (SPOC) will be launched and, after a trial period, it will be made open and more massive (MOOC). The argumentation for the chosen content of the course, the structure of the course and its component modules and the course design will be discussed briefly. Some observations made during the running of the SPOC pilot will also be presented.

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10 minute 'Nuts and Bolts'

Using classroom innovation to develop career opportunities

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Graduating students are increasingly required to create their own jobs. Although new grads often focus on obtaining traditional jobs, they have valuable skills that can be applied successfully to other emerging innovative fields. We aimed to create an active learning experience that would equip students with real world skills, in order to develop their own innovations. The learning experience was inspired by the TV show concept, *Shark Tank*. With support, students developed their innovative business ideas over the semester. They then presented their ideas in small group sessions. Students took turns in pitching their innovations to the ‘investors’ - lecturers, a representative from the Office of Research and Innovation, and the other students in the session. Investors were given play money to support innovations of their choice. This meant that when students were not presenting, they were required to think critically and encouraged to ask relevant questions of the students who were pitching. Feedback was given to each presenter. The experience encouraged students to think out of the box and apply business principles to create their own potential job opportunity. Ongoing support after the semester finished enables motivated students to make their opportunities a reality.

90 minute workshop

HERDSA online resource: Exploring a new introduction to SoTL

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Both early career and experienced academics can be challenged when they first undertake research into their teaching. The *Scholarship of Teaching and Learning* (SoTL) has its own idiosyncratic approaches to research which may be foreign to disciplinary scholars. In recognition of this, HERDSA (Higher Education Research and Development Society of Australasia) has a *New Scholars* (new to SoTL) portfolio which works to support colleagues in their introduction to SoTL. Recently the New Scholars portfolio developed an online resource of self-paced modules to step researchers through the process from idea development to publication. It begins with an introductory section exploring what SoTL is, and how it differs from and aligns with disciplinary research. The rest of the resource then covers the necessary stages of planning, conducting and disseminating the results of a SoTL project. The resource contains activities, readings and videos. Commentary from Australian and New Zealand scholars of SoTL is distributed throughout the resource providing points of reflection.

This workshop is suitable for anyone interested in developing their own or their students’ SoTL understanding and capacity. It will allow non-HERDSA members to trial this resource which is normally only available to members of HERDSA. Participants will explore how the resource can be used to promote individual professional development, or as a teaching resource within institutions. The workshop will create an opportunity to discuss how the resource could support SoTL communities of practice. Participants are encouraged to bring their own tablets or laptops.

“What’s has the United Nations Sustainable Goal #4 got to do with me?” Facing up to global issues in our classrooms and universities

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Few would deny the fact that the world is facing challenges, social and environmental, that are unprecedented in our history. In 2000 the United Nations issued eight *Millennium Development Goals* that it saw as a way to address pressing issues. In 2015 these were replaced by seventeen *Sustainability Development Goals*. Both the increased number and the change of title signals the urgency of the situation. Sustainable Goal #4 is *Quality Education* and it could be argued that each of the other goals are related to, or have a reliance on, quality education. We are a population of educators. How can we do more to contribute this pressing global imperative? This presentation describes a case study of one effort by two academics who shared with and learnt from colleagues in a developing country, providing professional development and opening the conversation for ongoing collaborations. The aim was to discover ways in which a co-created relations and opportunities can be developed to foster quality education in regions on the world that need it most. Session participants are asked to

consider what they could do to personally engage, and to engage their students and their institutions, in facing up to this challenge that has clearly been directed at us all.

Incorporating futures education into a crowded curriculum

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Education always has an eye to the future and it is crucial in ensuring cultural values are shared and human societies advance. The curriculum in our formal educational institutions is a primary mechanism to advance these aspirations for our young people. We face significant challenges as a global community and these challenges are clearly reflected in the UN's *Sustainable Development Goals 2030 Agenda* (2016). This paper argues that futures education has a pivotal role in our curricula. Through futures education students develop a capacity for envisioning alternative futures, together with requisite knowledge and skills for contributing to better world futures. Whilst it is recognised that capacities, such as critical and creative thinking and managing change, are not developed uniquely in futures education, it is argued that a convincing case can nevertheless be established. Many curricula claim to be futures-focused, and three international curricula are reviewed broadly to establish the extent to which their aims are congruent with those of futures education. The fundamental role of shared educational purposes (Tyler, 2013) and constructive alignment (Biggs, 2002), as well as the influence of ideology at all levels in curriculum (Goodlad & Zhixin, 1992) inform the review.

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Exploring integrated problem based learning initiatives through multimedia and digital platforms in Health Sciences at Edith Cowan University

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In 2017, supported with a Teaching and Learning Grant, staff in the School of Medical and Health Sciences at ECU developed and utilised a series of problem based learning (PBL) multimedia tools to foster student engagement. PBLs are effective tools that enable students to work within a team, encourage observation, respond to open ended questions and encourage reflection. When using a PBL approach, the students' task is to formulate their own solutions to a problem, then test and evaluate them against some existing solutions. A case study approach will be presented to reflect how a series of PBLs presented in a multimedia and audiovisual format were utilised as a platform to encourage students to extend their critical thinking, and engage them in a 'solution focused' paradigm. Student feedback and reflections on this approach will be presented.

The potential for transformation: An analysis of immersion-style Aboriginal Studies in Broome

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In 2015, The University of Notre Dame Australia, Broome Campus reinvigorated delivery of its Aboriginal Studies units as part of the *Regional Rural Delivery Model* (RRDM). This was in addition to the re-developed Graduate Certificate in Aboriginal Studies, in which it was considered important to offer postgraduate units alongside undergraduate units in immersion-style delivery. Whilst anecdotal evidence show students who complete the units in Broome during Winter Term do experience some 'degree of transformation', it is not known what aspects of this delivery style actually contribute to this sense. For the purposes of the action research study, only students enrolled in AB100 Aboriginal People (17WT) were selected. Utilising a structured qualitative interview to generate responses, a thematic network mapping approach was applied to the data to extract categories of topics and themes. Through application of inductive and deductive reasoning, the overall global themes of immersion experience, curriculum design, Aboriginal Studies as a pedagogy and the potential for transformation emerged. Ultimately with the launch of the Kimberley University Rural Health Alliance (KURHA), immersion-style units or programs will be a pivotal feature offered to the consortium of five universities, their staff and students who will all share the focus of rural health in the Kimberley.

The 'us and them' and the 'then and now': Supporting clinical educators and millennial students in fieldwork

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Having been born between 1981 and 2000, the majority of students now attending university are may be referred to as 'Millennials' or 'Generation Y'. Many assumptions, often manifesting in stereotypes, are made about millennials with most of the literature focusing on their needs and learning styles (NSW Health Education and Training Institute, 2012). This research aimed to gain an increased understanding of millennial students and clinical educators' expectations of fieldwork learning in particular. Millennial students from seven health sciences disciplines were recruited as student co-leads for the research project, and worked with staff to ensure that the product of the research best reflected, and appealed to, the needs of this student cohort.

After an initial scoping review of the literature, four millennial student focus groups (n=11) and three clinical educator focus groups (n=13, both millennial and non-millennials) were conducted. Participants were from the disciplines of speech pathology, physiotherapy, nursing, and radiation therapy. The data was analysed thematically using Braun and Clarke's (2006) six step process. The research informed the creation of a set of guidelines with recommendations for both students and clinical educators, to assist in facilitating students' success during fieldwork placement. The results of the research will be co-presented by students and academics, with an overview of the guidelines provided. Student co-leads will also share their perspective on their experience as co-investigators and their involvement in this study.

Full paper on website

Formative computer-aided assessment in mathematics using SOWISO

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In 2017 Edith Cowan University became the first institution in the Asia Pacific region to trial the online computer algebra assessment platform *SOWISO* in first year mathematics units. *SOWISO* was used as a formative assessment tool to motivate and guide students in preparing for tests and exams by providing a large bank of exercises with parameter randomisation, detailed feedback and worked solutions. Students who were required to complete assessments in a continuous fashion enjoyed using *SOWISO* and found it to be a useful learning tool, while those who were required to complete only a few assessment items over the semester were significantly less positive. Exam results mirrored student perception in that improved average exam marks were observed in units utilising *SOWISO* in a more continuous fashion.

Measuring students' discipline-specific literacy

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Stakeholders in the tertiary education system (such as students and their families, employers, professional bodies, industry, business, and government) demand greater accountability and clarity about the value of degrees. This includes details of the array of skills students will possess at the completion of their education as they take up a place in the workforce. A key expectation is that students will have attained literacy within their discipline, but there is no consensus on how discipline-specific literacy can be assessed. In this presentation we will review ways of measuring discipline-specific literacy that have been reported in the literature, using psychological literacy as an example. In addition, we will present our work that has involved the development of two measures of psychological literacy; one a multiple-choice test that targets direct learning in an undergraduate psychology course, and the other that targets students' ability to apply psychological literacy to personal, professional and societal needs. Our discussion will focus on the evolution of discipline-specific literacy measures from single-item self-reports through to valid and reliable objective tests.

Waving the WAND: The power of one WA network

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The Western Australian Network for Dissemination (WAND) emerged in 2011 in response to the cessation of the *Performing Excellence Initiative* (PEI). Other Australian states previously involved in PEI also took the initiative to preserve the sustainability of the PEI in a similar vein, and the *Promoting Excellence Network* (PEN) was born. As one member of PEN, WAND has operated successfully as a dissemination network from 2011 to the present (2017) with successive funding from the ALTC, OLT and recently the Department of Education and Training (DET), with all five WA universities (Curtin, ECU, Murdoch, Notre Dame and UWA) consistently represented throughout this time period.

The network somewhat grandly proposed that its broad aim was to 'facilitate sustainable, long-term enhancement of learning and teaching, nurture a climate of collaboration and embed innovation and good practice'. Since 2011, WAND has achieved its aim of sustainability and it is argued here, surpassed expectations in respect of its self-proclaimed mission of collaborative dissemination. The scope of WAND activities and its unswerving focus on its *raison d'être* has ensured that it remains one of the country's most viable networks. This presentation lays out some of the potential reasons for such sustained success and posits that the WAND "formula" may prove to be a model for similar networks in the higher education sector.

10 minute 'Nuts and Bolts'

From blended to integrated learning: A proposed learning model based on teaching an undergraduate course

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Academics and researchers have developed and put together various learning models that describe the teaching-learning process. To this effect *blended learning*, *flipped learning* and

reverse learning are models under discussion and development at various universities. The model proposed in this presentation is named as an “integrated model”, not aligning with any of these models, but integrating the core aspects of each to suit a diverse population of students. Especially in the context of Australian higher education, predominantly multinational with students from many cultures and countries, no one approach will suffice. Each student brings along an experience of learning with a unique model relevant to his/her country. A blended or flipped model is not a “one fit” solution for all. I had designed and developed a new blended version of an existing course last year and had the opportunity to teach as well. Having taught across various countries and being aware of the cultural sensitivities, I felt that the blended approach alone would not work for my style of teaching. I needed to infuse innovation and develop an alternate teaching strategy. I realised the online portion of the course, though suitable for local students, would not be appreciated by most international students, who have chosen to study in Australia - not to do an online course. They prefer and are comfortable with more face to face contact and a lesser use of online. My adopted model represents an integrated approach, relying on online material presented on Murdoch's LMS, but most of the learning is done by the students themselves in workshop settings. The workshop component included a short review of theories and concepts. Each theme was followed by activities and in groups with students doing their own “search and rescue”. I tried to avoid “feeding” videos and journal articles, asking students to explore for themselves, assisted by material available on the LMS. The students took control of their own learning and constant feedback was sought. The concept worked for the unit's offshore delivery as well.

The benefits and advantages of using exemplars (and not rubrics) in teaching Chinese university students

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This presentation advocates for the importance of using written exemplars in teaching academic writing to Chinese university students. The abstract recounts the facilitator's own recent experiences of teaching a study skills unit to students enrolled in a Chinese university, and how exemplars featured as a key technique for engaging and developing student writing. The facilitator reflects on the specific value of varied and ranging written exemplars in contrast to his established focus on assessment rubrics and marking guides to support students to gauge their own writing. The presenter notes in particular how exemplars provide the potential to bridge gaps between Chinese and Australian university practices, and outlines how they were used to overcome differing educational expectations and processes. The facilitator reflects on how this experience has informed his teaching practice in China and its subsequent impact on his return to Australia. In this presentation the facilitator hopes to relay some of the advantages and benefits of using written exemplars to foster and develop student academic writing in general, but also to outline their particular effectiveness in engaging and supporting Chinese students in their studies.

90 minute workshop

Engaging with students with challenging behaviours

Karin Strehlow, Simon Walters, Sarah Veitch, Nikola Horley and James Boyd

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Increasing participation in higher education has led to greater diversity in student populations, including an increase in the numbers of students with disability, including long-term medical conditions, learning difficulties, behavioural difficulties and psychological conditions (Australian Institute of Health and Welfare, 2014). In addition, significantly higher rates of mental health problems have been recorded in university students than the general population, with 19.2% of students, compared to 3% of the general population, experiencing very high levels of distress (Stallman, 2010). While institutions have responded in providing support for these students – typically through the provision of services, such as disability officers, and accommodations for assignments and exams – tutors and academics often feel unprepared and ill equipped to provide the support that these students require. This is increasingly acknowledged in the literature which calls for more training for academic staff (Storrie & Tuckett, 2010; Laws & Fiedler, 2012).

The proposed workshop has two objectives:

- a) to provide participants with some training on how to engage students that present with challenging behaviours, and
- b) to encourage the development of similar workshops at other institutions.

The workshop is designed for anyone who is involved in teaching students (demonstrators, tutors, unit coordinators).

The workshop will be delivered by the following presenters:

Dr Karin Strehlow. Karin is the Academic Development Coordinator at the Kulbardi Aboriginal Centre at Murdoch University. She has extensive experience in curriculum development and staff development, which has been recognised by several teaching and program awards.

Simon Walters: Simon manages the Murdoch University Health: Medical and Counselling Service. He has been working in Mental Health Services for 25 years across a range of fields, in the UK and Australia.

Dr Sarah Veitch: Sarah is an Academic Coordinator in Learning Support in the Centre of University Teaching and Learning at Murdoch University. She works with staff and students to develop students' academic literacies and communication skills.

Nikola Horley: Nikola is a Student Disability Advisor with Equity and Social Inclusion at Murdoch University. She is a registered Psychologist and mediator with both academic and professional experience in the education, community and private sectors.

Dr James Boyd: James has been involved in enhancing student learning and retention, and with 14 years of living and working in Asia, he is attuned to the challenges that international students face in navigating tertiary education in Australia.

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Encouraging and mapping student engagement through 360-degree videos

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This presentation demonstrates an online application that enables students to experience video-recorded learning activities from a 360-degree immersive perspective in order to enhance the quality of learning outcomes in online teaching and learning contexts. The online 360-degree video application provides teachers and students with a panoramic view of selected classroom activities, and facilities for annotating the content. The annotation tools in the application permit users to set contextual tasks and ask questions, enabling online students to engage with and reflect critically on aspects of the teaching and learning activities. Data analytics in the form of information visualisations (e.g. heat maps and area of interest analytics) provide feedback for evaluating student engagement with video-recorded classroom activities and understanding of concepts. The online 360-degree software application is currently being trialed in mathematics and science teacher education programs in Australia. However, the theoretical approach and design are flexible so that the 360-degree video application can be used for teaching and learning in any discipline.

The 360-degree video application (<http://online360video.education/>) was developed in the project "Encouraging and Mapping Student Engagement through 360-degree Video Annotation and Data Analytics" (2017-2018), funded by the Australian Technology Network (ATN). Michael Wiebrands developed the 360-degree video application and the website. For further information about the project, see <http://computation.curtin.edu.au/multimodal-analysis-group/projects/atn-projects/>

Using an interactive automated assessment and feedback system to drive learning in an anatomy unit

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Anatomy is considered a “cornerstone” for health practitioner education. However, students find the terminology and conceptualisation of anatomical principles challenging, and timely feedback assists student learning outcomes. With large class sizes it is important to develop cost effective methods of providing this feedback, and therefore an automated assessment and feedback system was developed to supplement existing methods of feedback in Curtin University's *Functional Anatomy* unit. This was embedded in the curriculum via six online tests (four formative; two summative) created within the *Blackboard* LMS and delivered using *iPads*.

Students (N=198) provided anonymous written feedback on perceptions and experiences regarding its use and value. Positive themes included: (i) improved preparation for summative examinations; (ii) satisfaction with the level of feedback and interactive learning experience; (iii) reduced stress/anxiety in exam situation; (iv) a clear sense of exam expectations; and (vi) increased motivation to learn anatomy. To a lesser degree, negative themes entailed (i) preference for paper-based exams; and (ii) technical difficulties with electronic devices used. We conclude that the interactive automated assessment and feedback system was effective in improving learning experiences and was largely accepted by *Functional Anatomy* students.

10 minute 'Nuts and Bolts'

Designing best practice for anatomy learning and teaching: Hints from a literature review

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Anatomy is considered a cornerstone of medical education and biomedical disciplines; nevertheless, in the past few decades it has witnessed a gradual decrease in time dedicated for anatomy learning and teaching. An unresolved question in modern anatomy learning and teaching is the validity of different anatomical pedagogies and the supposed to be superior effectiveness of dissection versus other tools now available in biomedical education. A previous survey among European anatomy educators indicated a strong general favour toward the use of cadaveric dissection above the other teaching methods. Recent meta-analysis encompassing over 70 years of anatomy pedagogies yielded the surprising finding that dissection was not superior (and neither inferior) to other teaching tools in anatomy learning and the use of non-dissection-based learning tools was not detrimental for students' academic performance. Of note, these results referred to a short term survey; it is conceivable that dissection practice could be important for long term performance and probably be more engaging in certain scenarios (such as in medical school), but these statements are not really proven by the reviewed literature at the moment. I will discuss these findings highlighting the new computer-aided digital tools as important factors in improving learning anatomy, and how curriculum integration and a flexible use of all the various tools that we have today is a good way to implement anatomy education and personalised learning: it is probably a matter of “how to use it” above all.

Video resource creation: Seeking and acting upon student feedback

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The doctor-patient relationship is central to providing high quality medical care. Teaching communication skills to medical students aims to enhance their ability to establish effective therapeutic relationships with patients. To promote learning engagement, students often need to understand the clinical relevance of what they are learning. Videos provide this contextual backdrop, by showing scenarios that illustrate how specific skills can be applied, and expert commentary from health professionals that explicitly outlines the clinical importance of such skills. Mary Philippa Brazill Foundation and School of Medicine jointly funded creation of short communication videos for health professional courses at Fremantle campus. Faculty and

students from schools of medicine, physiotherapy, nursing and midwifery as well as hospital-based clinicians were involved in this initiative. To evaluate efficacy in the context of medical student communication skills development, the videos were shown to students in a lecture format prior to a specialised three-week workshop series. Ethical approval was granted from Notre Dame HREC to survey medical students and obtain qualitative and quantitative data about the impacts of the videos on their learning experiences. Qualitative feedback provided by the students was used to refine the editing of the final versions of the videos along with recommendations from members of the expert review panel. In this way, clinicians and academics provide their views based on their professional experience, and students contribute their views based upon their engagement with the learning experiences. Evaluation of future student cohorts will identify whether this student-inclusive approach to video creation works.

90 minute workshop

Indigenous cultural awareness: Outcomes from staff development activities

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The University of Notre Dame Australia encourages Aboriginal cultural events and cultural activities across its campuses in its endeavour to increase the promotion of Aboriginal and Torres Strait Islander culture in the learning and teaching space for staff and students. The implementation and continuation of cultural awareness training for staff since 2012 on the Fremantle campus has provided the opportunity for the University to mature, to embrace, and to understand Aboriginal cultural ways and student cultural diversities. The University also acknowledges and recognises the importance of the land on which it is situated in both a historical and contemporary context, and to celebrate the sharing of Nyungar Wadjuk boodjar (land) at Fremantle. This importance includes how the University recruits Aboriginal students and how it builds appropriate cultural structures for retaining and connecting students, which then leads to successful graduating outcomes.

All staff and students have the opportunity to develop a better understanding of these cultural ways, recognising their diversity and histories and resilience to the many adversities placed before our Aboriginal and Torres Strait Islander students. This provides staff with the opportunity to engage and develop culturally appropriate support structures and student support programs, enabling our students to thrive to completing their studies. The University of Notre Dame's commitment to reconciliation values the importance of a whole of University approach that recognises and builds on existing commitments to Indigenous education and respect for Indigenous peoples throughout Australia. It is committed to providing strong support for the process of reconciliation between Indigenous and non-Indigenous Australians. Notre Dame values the importance of a whole of University approach that recognises and builds on existing commitments to Indigenous education and respect for Indigenous peoples throughout Australia. Notre Dame recognises the importance of its campus locations on traditional country of the Nyungar, Yawuru and Cadigal peoples.

At Fremantle, a number of initiatives and strategies have been introduced to address this commitment and the university encourages all staff to participate. In this Workshop, we will discuss the principles that underpin creating a culturally safe learning environment and some of the key steps undertaken to achieve this on the Fremantle campus.

Full paper on website

CurTerra: A fieldtrip app for self-regulated learning

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Field work is a key element in successful teaching and learning of engineering geology. Large class sizes and OH&S requirements make it difficult to get students into the field. The ubiquitous use of mobile phones and apps by the current student population provides a way

for students to independently access required information and materials at any point in time, in a way that is familiar. A self-guided field trip app, called *CurTerra*, was developed to assist students to observe geological content in the field through the use of descriptive text and images linked to GPS locations, providing a self-regulated learning (SRL) opportunity and connection of classroom theory with the real world.

The app is designed to facilitate updates and editing to allow for flexibility and future expansion. The app underwent field testing with a small group of volunteer students who provided generally positive, yet constructive feedback on the app. This feedback largely falls into two categories relating to SRL, specifically motivation and feedback. While this case study is focused on the developmental details and initial use of the app, it also highlights the necessity for further consideration of SRL and student motivation in the use of *CurTerra*.

Interactions and student satisfaction in physical and remote-access chemistry laboratories

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Most researchers agree that laboratory classes are an important component of science learning. Students' engagement in laboratory classes necessitates being actively involved in the laboratory process with enough apparatus being available for the students. This is important because with the increasing number of enrolments in universities, the demand for enough apparatus for undergraduates is also increasing. The remote laboratory may be a supplement or replacement for traditional face to face laboratories and help to solve the deficiency of available laboratory equipment and space. Whilst there is an increasing number of remote laboratories implemented worldwide since they first appeared in 1996, research on the learning process, especially about the interactions that occur in learning and how they affect students' learning experiences, is not well understood. A detailed understanding of learning in science laboratories is required to design both physical and remote laboratories and to improve learning. This study aims to show the interactions in the learning process and how they affect students' learning outcomes by answering this following question: What level of interaction is essential for cognitive learning outcomes of students in face to face and remote laboratories?

This research is addressing this question by focusing on coding and analysing student and instructor behaviours in both face to face and remote chemistry laboratory classes in two Australian universities. Direct observation and video/audio analysis based on a comprehensive list of interactions is being used (Sadler, Puig & Trutschel, 2011). Additionally, post-laboratory surveys gather students' perceptions of laboratory interactions. Some results based on preliminary observations indicate that the frequency of various kind of interactions in different laboratories has some common features and there are some connections between these and student satisfaction (Sher, 2009) .

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How and why do undergraduate physiotherapy students use reflection in learning and practice?

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Although the capacity to reflect on learning and within practice is an essential requirement for physiotherapists in Australia, there is little known research into the development of reflective capacity over a physiotherapy course. Our study used a cross-sectional, mixed method research design combining data from two validated questionnaires, the *Reflection-in-Learning Scale* (Sobral, 2000; 2001) and the *Reflective Thinking Questionnaire* (Kember et al., 2000), and from individual interviews. Participants were undergraduate physiotherapy students (N=122) from pre-clinical (PC) and clinical (C) levels of learning.

The quantitative results showed no significant difference in self-reported use of reflection between the PC and C students. The qualitative results revealed PC students predominantly reflect on personal experience and study practices, while C students draw on their diverse clinical experiences. The dominant trigger to reflect for both cohorts was extrinsically motivated. Less often, C student triggers were intrinsic motivations including professional competency, altruism and conflict during clinical placement, leading to deeper levels of reflection. Both cohorts predominately used reflection-on-action (Schon, 1987). Using Kolb's (1984) cycle of experiential learning, this study demonstrates there are few formal 'concrete experiences' at PC level that address affective domains of learning, which is key to fostering critical reflection. In order to adequately prepare and foster deeper levels of reflection in physiotherapy students, consistent exposure, guidance and opportunity to practise reflective thinking should be included and scaffolded throughout the course, using more intrinsic triggers that stimulate affective domains of learning. The timing of reflective thinking in relation to the experience should also include anticipatory reflection and more episodes for reflection-in-action (Schon, 1987). Introduction of these simple pedagogies are important for students' futures in reflective practice.

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Personal values and motivational interference among university students

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Many students struggle to focus on their academic tasks due to motivational interference caused by the pursuit of multiple competing goals. This study investigated the relations between personal values and motivational interference in undergraduate university students, to facilitate the development of appropriate educational interventions. Students enrolled in a first year elective unit answered an initial survey early in the semester (Time 1, n=157) and a second survey toward the end of the semester (Time 2, n=107). Specifically, we examined personal values, life priorities, general motivational interference and demographics at Time 1, and the elicited types of interference and general motivational interference at Time 2. In Study 1, we investigated the types of, and reasons for, motivational interference to study tasks. The results indicated that there were a broad range of motivational interferences that could be categorised in relation to students' affective, cognitive, and behavioural stabilisation during study tasks.

To build on this in Study 2, we examined individual differences in relation to the full range of motivational interferences found in Study 1. Findings from Study 2 indicated that stimulation,

self-direction and hedonism values were positively related to motivational interference. The types of interferences with the strongest relations to motivational interference included: lack of engagement with the course content, social media and technology, and interruptions. We also propose a range of targeted educational interventions, as well as further research into the impact of goal conflict and motivational interference on students' academic achievement and well-being.

Exam or portfolio as assessment tool? Experiences from a third year undergraduate unit

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There are reasons to believe that exams, among others due to their limited time, are not a very ideal form of assessing unit learning outcomes. To test an alternative that would lead away from rote learning, a portfolio as an assessment tool was implemented in a third year undergraduate unit on environmental geoscience. Rather than the typical end of year exam (worth 40%) which focusses on lower levels of thinking, typically from one to three, the students had to prepare a portfolio including two science labs (20%), one infographic (10%), and one essay on an environmental topic (20%). As the portfolio activities were spread over the entire semester, it allowed for a wider range of unit learning outcomes to be interrogated, as well as the testing of higher levels of thinking, from two to five. Especially appealing was the concept that the students would choose their own subjects for the infographic and essay as autonomy and self-determination are key features of engaged and motivated students. A questionnaire at the end of the semester provided valuable feedback on student acceptance and thoughts. Outcome of this portfolio experiment will be shared with the audience.

Using interactive tutorials and virtual microscopy to enhance learning skills: A pilot study

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Haematology entails the interpretation of the microscopic appearance of blood cells to identify changes resultant from disease. Outside of class time, students at Edith Cowan University do not have access to microscopes or slide boxes of tissue samples for independent study. Furthermore, student access to lab resources is increasingly limited. Virtual slide technology however has enabled online access to digital copies of microscope slides. This project allowed ECU students to interact with virtual slides both in class and for independent study, and developed tutorials that provided students and staff with immediate feedback on student comprehension. This pilot study employed a next-generation learning platform (*Smart Sparrow*) and web-based virtual microscopy technology (SLICE). Student interaction with virtual slides and online tutorials was evaluated to determine impacts on learning outcomes.

This case study highlights the excitement and challenges of implementing virtual microscopy and the development and deployment of virtual slide-integrated interactive tutorials. Preliminary data on student perceptions and impact on teaching and learning is presented. This project is the first of its kind to be trialled in Western Australia and resultant enhancements to haematology student learning would be applicable to other microscope-based courses at WA tertiary institutions.

Identifying the most valued facets of a WIL program: Perspectives from three stakeholders

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Industry is increasingly demanding graduates with experience, staff who have already developed an awareness of workplace cultures, and those with 'soft skills' (DET, 2013). Research has shown that students who complete work integrated learning (WIL) develop an increase in confidence that is associated with a successful metamorphosis from being a student to becoming a valued employee (Thompson, Bates & Bates, 2016). International students place a high value on WIL opportunities, and as domestic students also start to recognise the advantages of having had a WIL experience, an effective process is important (Gribble, Blackmore & Rahimi, 2015). This presentation reports early findings from a review of the current WIL methods utilised in a business school, with a particular focus on internships, to assess the effectiveness from the perspectives of the business, the student and the academic supervisor. Participant feedback will assist in identifying the different facets of the program that are valued or need improvement and will add to our understanding of the program's strengths and weaknesses and the growing body of work around enhancing student employability.

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90 minute workshop

And iPad makes three: How technology transformed my teaching

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Technology has the capacity to transform teaching practices and enhance learning outcomes. However, simply adding digital components to a course of study achieves little, unless they serve a clear and well-considered purpose. Garrison and Kanuka (2004) argued that blended learning involves a 'thoughtful integration' of the most desirable aspects of face to face and online learning. Using an auto-ethnographical methodology, this presentation provides a concrete example of how a first year, first semester research unit can generate an effective learning community by applying a combined blended/flipped approach to teaching. Attendees will have the opportunity to participate in an example tutorial exercise, and view examples of the online learning components. Technology transformed this unit of study from 'most hated' to 'most enjoyed' for both the students and myself. Preliminary analysis of the unit outcomes demonstrated the efficacy of a flipped/blended approach for teaching research design and data analysis. Finally, the presentation will provide some suggestions of useful apps.

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