QUEST 2018

Queensland University Educators Showcase

University teaching and learning: Celebrating excellence, sharing innovation, and building collaboration.

QUEST 2018 is proudly sponsored by QPEN and hosted by USC
Welcome to the 2018 Queensland Universities Educators Showcase (QUES).

QUES is dedicated to celebrating and sharing practice from innovative teaching and learning university educators and building networks for Scholarship of Teaching and Learning (SoTL) collaborations across Queensland universities.

Our theme is Celebrating excellence, sharing innovation, building collaboration

In designing a program to address this theme, we aimed to incorporate:

- innovative teaching practices, to showcase the practice of teaching award winners
- progressing teaching practice, to showcase higher education research projects
- network building activities, to facilitate future SoTL collaborations.

We are therefore delighted to present to you our final program that features award winning presenters, innovative projects, and collaboration building activities. As a showcase, QUES offers the opportunity to bring together a range of outstanding work that may have been previously presented in other forums. Our final program features:

- Keynote presenter, Professor Sally Kift, the 2017 AAUT Career Achievement Award winner
- 25 presentations from Queensland university staff recognised for their achievements as outstanding educators and work in SoTL
- 24 posters on a range of SoTL projects
- 5 Collaboration Pitches for SoTL projects
- 4 discussion groups on thought-provoking topics in SoTL
- A pre-Showcase full day SoTL writing retreat

In addition, members of the Queensland Promoting Excellence Network (QPEN) will be encouraging and facilitating informal networking across the day. We hope everyone attending will meet new colleagues and build the foundations of ongoing professional relationships.

We offer our grateful thanks to our sponsors and supporters: QPEN through funding provided by the Australian Government Department of Education and Training, HERDSA Queensland, and the University of the Sunshine Coast.

QPEN, HERDSA and the University of the Sunshine Coast acknowledges the Traditional Custodians of the land on which QUES will be held. We recognise and pay respect to Elders past, present and emerging.

QUES Organising Group:
Cathryn McCormack, Southern Cross University, Chair QUES Organising Group
Dionne Amato Ali, University of the Sunshine Coast
Pratima Durga, Alpha Crusis College
Glenda Hepplewhite, Alpha Crusis College
Nicola Waterreus, University of the Sunshine Coast
Kelly Burton, University of the Sunshine Coast
Keynote Presenter - Professor Sally Kift.

Sally Kift is a Principal Fellow, Higher Education Academy (PFHEA), a Fellow of the Australian Academy of Law (FAAL) and elected President, Australian Learning & Teaching Fellows (ALTF). From 2012-2017, she was Deputy Vice-Chancellor (Academic) at James Cook University. Prior to JCU, Sally was Professor of Law at Queensland University of Technology and QUT’s foundational Director, First Year Experience (FYE). Sally is a national Teaching Award winner (2003) and national Program Award winner (2007). In 2006, she received an ALTC Senior Fellowship to investigate the FYE. She is a Discipline Scholar in Law. In 2017, Sally received an AAUT Career Achievement Award for her contribution to Australian higher education.

Professor Kift will be presenting:

Not drowning, waving: Sustaining the Learning and Teaching Focus in a post-OLT world

‘It might fairly be observed that learning and teaching (L&T) in Australian higher education (HE) is currently weathering some turbulent times (Kift, 2018). Our sector is scrambling to deal with endemic disruption – visited upon it by policy changes, funding instability, aggressive competition, QILT performance transparency, technological change, and shifting student demographics and expectations. And these challenges are exacerbated by doubts now expressed about the very relevance of formal academic credentials: are they germane preparation for an unknowable world of future work? It is clear that some of this is symptomatic of an international and popularist groundswell keen to see the prevailing social contract between universities, government, industry, and society re-negotiated in the face of a “loss of trust in institutions and the growth of anti-intellectualism” (Harding, 2018), but that doesn’t help much. Such an unsympathetic environment does help explain however why it is that any L&T response to allegations of sector irrelevance and misalignment must now be self-generated and will no longer be underwritten by any federal enhancement fund; ameliorating pedagogical research and development is squarely up to us to pursue or not at our peril.

This presentation will argue, somewhat paradoxically, that it is exactly these challenges that present those of us toiling away virtuously in L&T land with sustaining hope for a continued focus on educational quality and innovation. As is obviously imperative, our sector, discipline, and institutional learning leaders are now regrouping, with fresh agency and purpose, to leverage the rich legacy of pedagogical innovation and excellence that has stood Australian HE in such good stead for so many years. In these endeavours, it is critical to understand that our L&T advocates and change agents are deeply embedded in our institutions and also permeate the professions. They are (obviously) our Teaching Award Winners, our Fellowship and Grants recipients, and our (Q)PENs, but they are also our students and recent graduates, and our industry and employer groups. It will be argued that our pedagogical future is bright if so inclusively conceptualised, as it will demand our full and collective resources to collaborate on, and co-create for, graduate success and its (and our own) future proofing.’
Queensland University Educators Showcase (QUES) 2018
Program Overview - Friday September 28th 2018

9.00am - 9.30am: Registration
Building C - ground floor

9.30am - 10.30am: Opening Plenary
Welcome to Country
Opening address - Professor Karen Nelson
Keynote speaker - Professor Sally Kift
Building C - lecture theatre 7

10.30am - 11.15am: Morning Tea
Building C - ground floor

11.15am - 11.45am: Presentations
- STREAM 1: Lachlan H Yee (SCU)
  Student’s attitude and anxiety to chemistry can affect their learning ability
- STREAM 2: Fiona Naumann & Louise Hooper (QUT)
  Professional identity and career development for the real world
- STREAM 3: Suzanne Maloney (USQ)
  Innovative Teaching Practices: Accounting Stories of Empathy and Realism
- STREAM 4: Celeste Lawson (CQU)
  Engaging online students in teamwork assessment tasks
- STREAM 5: Vikki Schaffer (USC)
  Immersive visualisation for engaged learning*

11.45am - 12.15pm: Presentations
- STREAM 1: Adkins, Bye, Keys, Nash, Robertson, Turley (USC)
  Developing a whole of institution first year academic literacies course
- STREAM 2: Adriana Diaz and Anna Mikhailova (UQ)
  A school-wide approach to enhancing the culture of assessment in language programs: The student experience
- STREAM 3: Stephen Colbran (CQU)
  An authentic constructionist approach to student’s visualisation of the law
- STREAM 4: Anna Blackman & Rachel Hay (JCU)
  Instant Feedback Assessment Technique Trans-forming Face to Face Teaching Techniques for use in Online Learning Environments
- STREAM 5: Ann Parkinson, Nicole Reinke & Mary Kynn (USC)
  Getting stuck in the cell membrane: Immersive 3D visualisations to enhance learning in biology*

12.15pm - 1.15pm: Lunch
Building C - ground floor

1.15pm - 2.15pm: Poster Session
Building C - ground floor

1.15pm - 2.15pm: CAVE2™ Tours*
Building H2

2.15pm - 2.45pm: Presentations
- STREAM 1: Amanda Henderson & Dionne Amato Ali (USC)
  The Cumulative Effect of Grant Exploration: Enhancing Student Self-Efficacy in the Clinical Practice Learning Space
- STREAM 2: Jenny Gamble (GU)
  Celebrating excellence: Achieving program coherence
- STREAM 3: Dianna Hardy and Trina Myers (JCU)
  Developing a Design Thinking Culture in an Undergraduate Information Technology Degree
- STREAM 4: Melanie Fleming (UQ)
  What are the learning pathways of students in a large flipped engineering course?
- STREAM 5: Jacqui Blake and Mark Utting (USC)
  Development of general purpose tools for a CAVE2™ environment*

2.45pm - 3.15pm: Presentations
- STREAM 1: Blake M McKimmie (UQ)
  Flipping great: Using hybrid learning to improve learning and engagement in the classroom
- STREAM 2: Elicia Kunst (SCU)
  ‘I knew what I needed to do’: How simulation learning enhanced nurses’ confidence in graduate clinical practice
- STREAM 3: Beata Batorowicz (USQ)
  Teachers as Tricksters: The Magical Rituals of Women Artists in Academia
- STREAM 4: Abby Cathcart & Christy Collins (QUT)
  Calling Australia Home? Building regional & international partnerships with University Educators: Reflections on Queensland, China and the UK Professional Standards Framework
- STREAM 5: Patrea Anderson & Mark Barry (USC)
  Using 3D artefacts in teaching and learning to enhance learning outcomes in undergraduate health degrees*

* Not part of the official program overview.
### Program Overview - continued

#### 2.45pm - 3.15pm: Presentations

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#### 3.15pm - 4.00pm: Collaboration Pitches for SoTL Projects: ‘Speed Networking’ 3 x 15 minute sessions

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<td>Graduate employability</td>
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<td>Michael Cowling (CQU)</td>
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<td>4.00pm - 5.00pm: Awards</td>
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#### Cave Automated Virtual Environment

USC’s CAVE2™ is a powerful visualisation tool that can immerse its audience in a limitless range of visual and audio content. This unique experience makes CAVE2™ the ideal presentation tool. Despite being visually arresting and strikingly modern, setting up presentations for the CAVE2™s 320-degree panorama is surprisingly straightforward, which is why local schools, government departments, businesses and industries are partnering with USC to reach their audiences.

USC researchers using immersive visualisation for teaching have found increasing levels of student engagement and enhanced learning outcomes.

*Experience the CAVE2™ by booking at Registration on the day to attend one of the presentations in the CAVE2™ stream or the tour at 1.45pm.*
Queensland University Educators Showcase (QUES) 2018
USC Sippy Downs campus

Car Parking:

- Enter USC via Sippy Downs Road.
- Most convenient parking for access to Building C is P4, P5, P13A. Alternatively you can walk across campus from P6 or P10.
- Cost for a full day of parking is $5. Pay on arrival via parking meters located in the carparks, credit card or coins only.
Abstracts listed in alphabetical order by first author.

Using 3D artefacts in teaching and learning to enhance learning outcomes in undergraduate health degrees

Historically MR environments such as CAVE2™ have been used predominantly in research to manage large data. There is a growing body of knowledge in human information processing supporting the use of visualisation methods in education. Low (2001) posits that employing the use of animation can remove barriers to understanding by simplifying complex cognitive processes associated with learning. The translation of science theory and concepts into practice can pose a barrier to student learning and understanding. While there is a growing body of literature describing the use of three-dimensional (3D) visualisation for teaching science concepts, there is little evidence regarding the efficacy of immersive visualisation in teaching and its impact on learning (Richardson et al., 2013). Nonetheless, research has identified that visualisation methods that employ the use of animation can remove barriers to understanding by simplifying complex cognitive processes associated with learning (Low, 2001). Using animation as a visual aid has advantages over static pictures and diagrams as it mitigates the initial cognitive effort of having to mentally work out the processes involved (Low, 2001). This reduction in cognitive load allows the mind to concentrate on the content, address visual abstractions and results in a quicker grasp of concepts. In this way, animation and visualisation technology is able to deliver more information than that available in a static diagram (Yeung et al., 2007). In doing so the explanatory nature of animation increases understanding and provides a visual and conceptual perspective of processes that are not demonstrated in static models (Vogel-Walcutt et al., 2010). Hoffler and Leutner (2007) suggest these factors are responsible for enhancing motivation and engagement with difficult concepts and accelerating learning. For these reasons the University of the Sunshine Coast, Australia has strategically supported and employed the use of visualisation as a primary educational modality in undergraduate education.

This presentation will include a demonstration on how CAVE2™ and other VR/AR technologies are being used in undergraduate education for teaching core content. The presentation will showcase a variety of technologies/ 3D artefacts and pedagogy discussed.

University of the Sunshine Coast

Developing a whole of institution first year academic literacies course

In 2014, the University of the Sunshine Coast (USC), mandated a whole-of-institution first-year course to support all commencing students in developing foundational skills and knowledge in research and referencing, essay and report writing, group work, and oral presentation delivery. The course, ‘Communication and Thought’, is delivered face-to-face at six USC campuses and through ATMC in Melbourne and Sydney. The course aims to provide students not only with essential skills and resources for success within higher education but also a sense of belonging to both the university and their discipline or field. ‘Communication and Thought’ uses a research-informed and iteratively evaluative curriculum design process to make pedagogical and curricular decisions which ensure inclusive, engaging, and coherent support for first-year students. The curriculum was developed by academics from several disciplines including Education, Communication, Science, Business, Sociology and Languages, and employs teaching staff from a range of disciplines. Since 2014, 15,695 students have been enrolled, with a pass rate of 82 per cent.

This presentation discusses the curriculum design elements of the course, demonstrating how it operationalises key concepts within transition pedagogy to scaffold learning and to support a sense of belonging through connection to discipline and graduate attributes. Supporting diverse learners is central to our curriculum design since USC enrols higher than average numbers of students who are Low SES, First in Family, NESB, or Regional, or who identify with a Disability, or as Aboriginal and Torres Strait Islander. Aligning with transition pedagogy, we understand that personal, social and academic competences of students must be addressed by institutional-wide and integrated support facilities (Nelson & Kift 2005; Kift 2009) to ‘actively integrate students into the university community’ (Krause, 2001, p. 149). The presentation demonstrates how curricular and co-curricular strategies are strategically woven together to create an inclusive, foundational, transitional learning experience aimed at developing student’s skills in research, writing, and oral communication, across all disciplines.


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Teachers as Tricksters: The Magical Rituals of Women Artists in Academia

Within the Visual Arts in Australia, women artists continue to be underrepresented in comparison with their counterparts (Richardson, 2016). This is further heightened for artists living in regional areas, who earn almost a third less than their city counterparts for creative work (Australia Council 2017). This imbalance is experienced through the hierarchal traditions of art academies, whereby public (art institution) and private (domestic) spaces continue to be a gendered domain (Battersby 1989). In response, this presentation explores my development of Dark Rituals (2018), a major project taking form of an internationally touring group exhibition of renowned women artists such as Lisa Reihana (New Zealand), Amalie Atkins (Canada), Prof. Susan Shantz (Canada), A/Prof. Margaret Baguley (USQ), and two of my Doctor of Creative Arts students, Linda Clark and Ellie Coleman (USQ).

The project examines personal and cultural mythologies as rites of passage inherit in the practices of contemporary women artists-academics and their student-artists. Blurring art and life, fact and fiction, teaching and learning, and teachers and learners, women artists often ritualise their practice as a means of reclaiming the culturally gendered spaces in art and education. In particular, I explore how women artists can employ the trickster as a useful non-hierarchical device in charting the often challenging and lucid terrain between art practice and teaching. As tricksters are boundary crossers (Hyde 2017, p.6), they operate as artist-teachers do. Creative fluidity and play underpin their practice-centred enquiry as a method of overturing rigid ideas (Graham & Zwirn 2015). There is too, a criticality in the way the artist-tricksters alerts us through their subversive, social constructivist teachings (Vygotsky 1978; Matthews 2017). The trickster, after all, is a wise fool and uses the periphery well (Hyde 2017, p. 7, Palmer & Batorowicz 2018). This contextualization of the artist-trickster is useful in altering us to the possibilities of extending boundaries into innovative artistic and educational outcomes.

The project is supported by Australia Council for the Arts and offers an educational model in developing cross-institutional partnerships and peak industry collaborations that connect regional women artists [students and teachers] internationally. These outcomes are evidenced by the project establishing partnerships with University of Sunshine Coast Art Gallery, University of Tasmania Art Gallery and University of Saskatchewan, Canada among others. In demonstrating expanding partnerships within regional university settings, Dark Rituals exemplifies creative resiliency in its local and international reach within art and education.


Instant Feedback Assessment Technique Transforming Face to Face Teaching Techniques for use in Online Learning Environments

Student demands for flexible learning are driving more diverse delivery modes in post-secondary education. Large increases in participation in higher education and escalating student debt has resulted in more students combining work and study (Bexley, Daroesman, Arkoudis, & James, 2013). In response, many institutions have invested in OLEs that provide a platform for learning and assessment. However, OLEs require extensive upfront planning and design to engage students and provide them with the skills required by employers (Myers, Trevathan, & Gray, 2014). While most OLEs offer collaborative tools such as blogs and discussion boards their ability to replicate some of the learning outcomes achieved in team-based learning settings is limited. This limitation makes the development of graduate capabilities and soft skills such as teamwork, communication, interpersonal and cognitive skills challenging (Maddix, 2013; Michaelsen, 1997-98). Blended and online learning environments (OLEs) have created challenges for the development and assessment of business skills and capabilities. The creation of both traditional and online environments that can develop teamwork and soft skills is vital to the production of quality business graduates. Employability requires students to have developed communication, cognitive and interpersonal skills, particularly when working in teams.

The Instant Feedback Assessment Technique (IF-AT) is a social constructionist teaching approach that encourages individual engagement with the topic, student-student interaction and peer instruction in learning environments. The assessment technique encourages student-student interaction using a multiple choice answer form. As students answer a multiple-choice quiz, they are given instant feedback on their responses, which reinforces their comprehension of the topic being tested. The use of IF-AT enhanced the students’ learning experience as they found this technique more interactive than other group testing methods and were instantly rewarded with immediate feedback. When used in groups, the IF-AT is particularly effective as a means for encouraging not only individual engagement but also student-student interaction (Cotner, Fall, Wick, Walker, & Baepler, 2008) and peer instruction. These are teaching techniques that are excellent for encouraging active processing of course material and for enhancing student learning (Crouch & Mazur, 2001). They valued the immediate feedback provided by the IF-AT because it revealed misconceptions and helped them to improve their exam preparation.


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University of the Sunshine Coast
Development of general purpose tools for a CAVE2 environment

The CAVE2 is an immersive 2D and 3D visualisation environment where the users are surrounded by visual panels and sound giving an opportunity for use as a technology-enabled learning space. However, as one of two in Australia the cost and time imposition of constructing any teaching materials formed barriers to using the CAVE2 for teaching. Most of the tools constructed were static set pieces such as inside a turbine engine or very expensive 3D environments built inside the Unity game engine with instructor led interaction. These barriers had limited the number of academics who were able to use the CAVE2 as a teaching environment as the time required and the level of expertise required exceeded the level of perceived usefulness.

The SLICE project initially focused on configuring easy-to-use off-the-shelf tools already used by academics, such as PowerPoint. The SLICE project developed a set of standard templates for displaying content, along with a protocol for their use. The second phase focused on customising existing web applications for multi-user use in the CAVE.

The first approach was trialled by 100 Sport and Event Marketing students from the School of Business, who attended weekly tutorials and developed their own presentations as part of their assessment in the CAVE. The course content, exemplars and case studies provided excellent opportunities to use visually high impact images in the CAVE. Students gained new knowledge and skills in formatting power point presentations and basic graphic design, and displayed a photojournalism “story” of their event in week 13. This was the first time that standard PowerPoint templates had been used to display content in the CAVE2 environment. These tools enabled students skilled in creating their own Web 2.0 content, such as Instagram to use those skills in a large scale professional environment. They now routinely use these tools to display content within the visualisation studio.

The second approach was trialled by using existing interactive human anatomy models to build multi-user quizzes. Anatomy students often struggle to remember the anatomy nomenclature, so the aim of these quizzes was to encourage students to learn the nomenclature. Web based tools were developed using an Application Programming Interface (API) of a website containing mapping and models of the human body. This approach enabled multiple timed quizzes to be run at the same time within the CAVE2. These quizzes had a model of the human body with a list of different body parts. Each student had their own named cursor that they could use to interact with their model to highlight a named body part. A timer ran within each model which stopped when all named body parts were identified. The game was the race to be the first team who completed the quiz.


Revolution in a conservative profession: A landmark curriculum for sonographer education

Medical Sonographers are a health profession suffering chronic national workforce shortage. According to Shulman (2005), each profession has a distinct signature pedagogy, or characteristic form of teaching and learning, which defines the fundamental way in which future professionals are educated to think, perform and act with integrity. This presentation describes the development and implementation of a landmark undergraduate curriculum for medical sonographers in Australia.

The original 1980’s sonographer postgraduate training model persists in Australia and the U.K. largely unaltered. Launched in 2011, this new four-year curriculum represents an alternative pedagogy to the traditional sonographer education comprising a dedicated undergraduate sonography curriculum to facilitate a greater volume and depth of learning, with integrated high-fidelity simulation skills training and university sourced clinical placement. Access to previous graduate diploma training involved ‘apprentice’ employment sourced by students, with radiography degrees and industry connections. Training costs were borne by industry, who prioritised patient throughput resulting in low clinical training capacity. This new curriculum is accessible to school leavers, graduates and students completing tertiary entry pathway, and includes simulation to enable students to progress to advanced-beginner level skill prior to clinical placement. Clinical placements are university sourced and students require less supervision in the clinical context.

This sonographer curriculum has expanded across four states with good student enrolment numbers, retention and graduate employability and remuneration outcomes. Student, graduate, industry, university review and accreditation body feedback is positive. Labour data (2007-2016) indicates an increase in sonography student numbers nationally. International changes to sonographer education to include simulation and undergraduate entry have followed.


An authentic constructionist approach to student’s visualisation of the law

This research combined three learning strategies, constructionism, visualisation and authentic assessment, together in one assessment task designed to enhance student learning. The analysis proceeded from the viewpoint of how students interacted with the assessment task, why they chose certain types of visualisation, the time involved in learning and applying visual versus legal skills, the benefits and challenges of this approach and how the assessment could be improved. The primary rationale for combining the three learning strategies was to enhance student engagement, creativity and learning. Student construction of storyboards, comics, films and animation was explored as an authentic method for personalised learning of legal professional conduct and ethics. An online survey instrument was created and distributed to the entire cohort of 112 students who completed the assignment in LAWS13013 Legal Professional Conduct at CQUniversity in Term 1, 2017. LAWS13013 is a third-year core unit in legal ethics included in an accredited undergraduate law degree leading to admission to the Australian legal profession. The survey included both quantitative and qualitative data concerning the overall value, and student perceptions, of using visual approaches to assessment. A mixed method design was used for triangulation of the data and investigation of two themes:

- Visualisation as a creative learning exercise
- Student perceptions of alternative approaches to visualisation

The results of the study showed 69% of students engaged in this highly creative visual task responding positively to the exercise as a learning activity. Providing scaffolding including suggested topics, suggested software resources, example answers, peer and instructor support and sample artefacts greatly assisted students with completing the task. Students saw value in gaining skills in visualisation and found the assignment both creative and challenging.

Most students created a comic strip or storyboard for a scene in a film. Students appeared to select their form of visualisation based on the level of scaffolding provided, their perceived level of complexity of constructing the visual elements of their artefact.

Students indicated that they had learned skills they could transfer to other projects, they had learned something new in completing the assignment, that the assignment had helped them think about the variety of skills required in different legal careers, to think about the ways in which legal professionals need to communicate with clients, helped them look at the law in a different way and that they would try an assignment like this in the future.

Students perceived positive aspects of the assessment as enabling creativity and self-expression, invoking their imagination and higher order thinking skills compared with traditional written assessments. Negative aspects included higher levels of anxiety associated with task uncertainty, the difficulty associated with developing visual skills and uncertainty around the meaning of creativity.

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A school-wide approach to enhancing the culture of assessment in language programs: The student experience

Marisa Cordella, Juliana De Nooy, Adriana Diaz, Barbara Hanna, Kayoko Hashimoto, Noriko Iwashita, Anna Mikhailova, Paul Moore, Deanne Gannaway, Alicia Toohey, Monica Waung, Jasmine Miller.

This presentation presents preliminary findings of a collaborative project partnering colleagues at the School of Languages and Cultures (SLC) with ITaLI (Institute for Teaching and Learning Innovation) at the University of Queensland. Funded by a Teaching Innovation Grant, this large-scale, school-wide project has a two-pronged approach to the revitalisation of assessment practices. First, detailed examination, reconceptualisation and systematic overhaul of key assessment components and feedback practices currently in use in order to align students’ learning outcomes and academic achievement standards internally – across the eight language programs taught at SLC – and externally against the international benchmarking framework (the Common European Framework of Reference for Languages). Second, creation of an enhanced ‘culture of assessment’ through knowledge transfer amongst key stakeholders: sessional and continuing teaching staff as well as students.

This presentation will report on the student perspective regarding implementation of this approach. We will unpack data drawn from student online surveys and focus group discussions to reveal some of the insights gained through this project as well as the contextual and discipline-specific challenges that lie ahead.
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University of Queensland

What are the learning pathways of students in a large flipped engineering course?
Melanie Fleming, Carl Reidsema, Hassan Khosravi, Lydia Kavanagh

In this presentation, we examine the variations and similarities of student’s approaches to learning (their learning pathways) by examining how well they performed in a large first year engineering flipped classroom (N ~ 1000).

The analysis focused on student’s performance in their assessment (formative and summative) as well as their online interaction with a range of tools purposely built to support students through peer learning and acquisition of resources and expertise.

Analysis using k-means clustering reveals that students do in fact adopt a variety of successful pathways through the course.

The unique aspects of this work lie in the use of analytics algorithms that whilst perhaps routinely utilised in data mining, are not as well utilised in better understanding patterns (successful or otherwise) of student interactions within a technology enhanced active learning environment that integrates theory with engineering practice.

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Professor Jenny Gamble
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Griffith University

Celebrating excellence: Achieving program coherence

For the past 30 years every maternity services review conducted in Australia and internationally has recommended implementing a social model of health and making better use of midwives’ skills (Commonwealth of Australia, 2011). To produce change, transformation in government policy, maternity service design, and midwifery education was required.

We responded by developing an innovative, three-year, Bachelor of Midwifery program (BMid). BMid has a distinct, future-oriented purpose and vision “to influence maternity service reform and produce graduates for the future” and embodies a social model of health that is reflected through curriculum design, learning strategies and assessment approaches to prepare graduates to practise continuity of care. This presentation showcases achieving program coherence in alignment with social good purpose through the integrated use of four frameworks.

1) Socio-political framework: The Framework for Quality Maternal and Newborn Care supports a system-level shift, from fragmented maternity care to preventive and social approach to health (Renfrew et al., 2014).

2) Midwifery@Griffith meta-values: Constructive alignment of meta-values with learning, teaching and assessment strategies promote and sustain program coherence. Program mapping, peer observation of teaching, and planning meetings, ensure that these defining values: a) are visible throughout the curriculum, b) underpin assessment, and c) guide all teaching and clinical practice activities (Bass, Sidebotham, Gamble & Fenwick, 2015).

3) Educational framework: Learning and teaching processes reflect a social emancipatory model of transformative education. Professional education needs to inspire a critically reflective consciousness to develop graduates with capability to effect social change. Students are empowered to claim their own ways of knowing, and critically appraise themselves and their practice (Bass, Fenwick & Sidebotham, 2016).

4) Five Senses of Success: The Five Senses of Success framework (Lizzio, 2006) is scaffolded throughout the curriculum to create purposeful, resourceful, capable, and connected students who have a clear sense of identity.

Evidence of the impact, innovation and quality of the BMid program has been reported in over 30 peer-reviewed learning and teaching publications, 45+ peer-reviewed national and international conference presentations, and the AAUT program award application.


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Developing a Design Thinking Culture in an Undergraduate Information Technology Degree

Design Thinking (DT) and advanced problem-solving skills are highly sought by industry, especially among Information Technology (IT) graduates. However currently there is a job-ready skills gap in this area based on the 2016 Australian Information Industry Association (AIIA) work ready skills survey. Design Thinking applies a problem-solving framework to the process of short, iterative cycles of problem understanding, ideation and iteration with users and stakeholders. This presentation will describe how a Queensland University has directly embedded a three-subject DT strand into the core requirements of a Bachelor of Information Technology (BIT) degree. The DT strand aims to engage students at each year-level to develop essential, deeply scaffolded, DT skills across the cohort and create a culture of design thinkers. In addition to in-class activities, each year all students in the BIT participate in a two-day Design Sprint off-campus in partnership with industry. Local, national and multi-national industry partners offer subject matter expertise as students attempt design solutions to grand challenges around issues of the Tropics such as health, water management and sustainability. Outcomes of this sprint have included solution now being developed further by our industry and government partners. Industry report that graduates’ skills in overall problem-solving and creativity have increased. This year, based on the success of the design sprint as embedded curriculum, the event has been extended to include undergraduate students in Engineering and Science as well as community involvement with local primary and high school students.


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The Cumulative Effect of Grant Exploration: Enhancing Student Self-Efficacy in the Clinical Practice Learning Space

Over a five year period we worked on three funded learning and teaching projects with the common goal of understanding and supporting students in the work integrated learning (WIL) space. In Australia each student in a nursing program is required to complete 800 WIL hours. This requirement is supported by both academic and industry institutions as it provides students with an opportunity to develop their ability to apply knowledge and skills in real world settings. The overarching goal of WIL is to prepare students for graduate practice and enhance employability, however students undertake their WIL across numerous healthcare institutions which employ various clinical learning models. Our program of work has supported the implementation of a consistent clinical learning process—called the Check In and Check Out process (CICO). The CICO process uses a programmatic approach to consistently advance student engagement, partnership and collaboration. While the three grants were independent from one another, it was the cumulative effect of their exploration into the WIL space that ultimately created the CICO process.

Grant 1, 2013-2015: Evaluating nursing students’ empowerment to meet expected industry capabilities.
Key outcome: To explore the importance of student self-efficacy in clinical learning spaces.

Grant 2, 2015-2017: Developing and piloting a nursing and midwifery clinical skills learning framework to enhance student learning across industry and academic learning spaces.
Key outcome: By exploring a platform of self-efficacy we developed the CICO learning approach.
“‘The CICO process is designed for use in collaborative learning spaces, including clinical laboratories, simulation suites and clinical practicum or WIL, so that students engage as partners with the teaching staff in their learning. Three interdependent processes make up CICO: a check-in (CI), or briefing, process; a clinical practice process (CP), which helps students to engage in their learning and practise clinical skills; and a check-out (CO), or debriefing, process.”’ (Henderson et al, 2018)

Grant 3, 2017-current: Enhancing work integrated learning across industry-based learning spaces to improve self-efficacy and graduate employability in undergraduate nursing students.
Key outcome: Exploring the translation of the CICO process across 90 WIL industry partners.
Our presentation reviews the cumulative effect of the three grants to enhance student self-efficacy in the clinical practice learning space.
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Amanda Henderson (QHealth) and Professor Marion Mitchell studies under the supervision of Dr Amy Johnston (UQ), Professor This work was undertaken as part of my higher degree research.


Students identified that the authenticity of the scenario and ability in identifying the need for and providing mental health care after participation in the simulation activity. The simulation activity was designed using Bandura’s self-efficacy theory (Bandura, 1977) and incorporated all elements of the best practice in simulation guidelines (Kunst, Henderson & Johnston, 2018). In this safe environment, students experienced complex clinical practice and developed their skills for dealing with challenging multi-faceted clinical issues.

Students reported significantly increased confidence, knowledge and ability in identifying the need for and providing mental health care after participation in the simulation activity. Students identified that the authenticity of the scenario improved the quality of their learning, and the ability to work through their responses enhanced learners’ self-efficacy to provide comprehensive nursing care (Kunst, Mitchell & Johnston, 2017). Students reported that they were then able to transfer these attributes to their graduate practice. These results support the use of simulation to enhance student nurses’ clinical capability to provide mental health care in acute care clinical environments. Simulation activities that are expertly developed and scaffolded within the curriculum will support nursing graduates to develop the skills and capability to provide high-quality, holistic patient care.

This work was undertaken as part of my higher degree research studies under the supervision of Dr Amy Johnston (UQ), Professor Amanda Henderson (QHealth) and Professor Marion Mitchell (GU).


Innovative Teaching Practices: Accounting Stories of Empathy and Realism

Accounting education has been criticised for its central focus on techniques (Jackling & de Lange, 2009) with the consequence, that graduates’ skills are often called into question (Howieson et al., 2014). The rapidly changing business landscape (Parker & Guthrie, 2010), the rise in the need for ‘soft skills’ (Elder, 2015) and the move towards a citizen scholar (Arvanitakis & Hornsby, 2016) requires a step change in accounting education to ensure graduates contribute vibrancy and relevance to the workings of society. After all, our graduates are our succession plan. The gap between accounting technical material and the complexities of the real world is the challenge exposed by many, including The Pathways Commission on Accounting Higher Education (2012).

To meet the “real world” challenge, in teaching accounting, a three-pillar approach was adopted that rested on a foundation of empathy. Empathy is aroused through the three pillars of authenticity, storytelling and SAM. The use of real stories and case studies are the backbone of the resources used. They are essential to evoking students’ emotions and ideas onto the accounting issues at hand enacting a process where literally students “feel into” or empathise with the real people affected within the case. Drawing the students out into the real world influences their strategies and motives for studying accounting, which in turn influences their learning. They learn that they can make a difference. By practicing the art of accounting and by understanding this from a place of empathy they can use their discipline to voyage to an emotional connection with others. Improvement in student learning (improved pass rates), student engagement (reduced non-completions) and student satisfaction (student survey results) in a number of courses demonstrate the success of the three-pillar approach. Further, adoption of resources developed from the approach and comments by colleagues, both local and international, validate its effectiveness. Endorsement by employers also provides evidence of success. Most importantly, animated student participation and feedback suggest a vitality that touches on their love of learning and their need to be part of something bigger.

Flipping great: Using hybrid learning to improve learning and engagement in the classroom

It is frequently claimed that the lecture is dead and that flipped, blended, or hybrid models of teaching are the new way forward. The format of the class per se is not what necessarily drives improvements in student learning and engagement however. How the class implements activities and assessment known to improve study behaviour and learning is what is important. We present data from two classes, taught in both flipped and traditional format, that included assessment tasks designed to promote spaced learning (learning spread out over time), repeated testing before and after content, and peer learning. Students showed increased engagement with the class, and improved learning both on individual assessment items and in terms of myths associated with the content areas they were learning about. While these methods of assessing students are easy to integrate in a flipped classroom due to the flexibility afforded by online lectures, they can also be used with traditional lecture format classes.

Excelling in the enabling space

CS1022: Learning in a Digital Environment is a core subject within James Cook University’s (JCU) Diploma of Higher Education (DHE). The DHE is a one year, open access, enabling program that attracts a diverse array of students from highly variable educational backgrounds. The DHE serves as a pathway into a variety of bachelors courses and students require a broad range of technology skills in order to succeed within their disciplines. CS1022 supports students in the development of the digital literacies required for success at university through explicit instruction, authentic assessment, and a flexible research-informed curriculum. The diverse student cohort’s characteristic of enabling spaces results in variable levels of digital literacy in the classroom. In CS1022, inclusive teaching practices and principles of intentional design work in tandem to mediate incoming students’ diverse levels of preparedness. This showcase demonstrates how JCU has responded to the challenges of digital literacy instruction in an open access enabling space through explication of the research methods, monitoring processes, and reflective design practices utilised in the CS1022 curriculum.

The curriculum engages the Jisc (2017) digital literacies framework as an organizing device for the delivery of content on ICT proficiency, information, data and media literacies, and digital identity management. Following an initial roll-out of the subject in 2015, it became apparent that further investigation into the technological practices of students was necessary in order to inform the development of effective subject resources. The 2014 iteration of the Educause Students and IT survey (Dahlstrom & Bichsel, 2014) was subsequently selected as the analytic basis for an investigation of the digital practices of DHE students.

Qualitative and quantitative survey findings, in conjunction with assessment outcomes, student feedback, and engagement analytics have since informed a series of curriculum refinements. These refinements include the integration of a diagnostic tool, flexible assessment options, career development learning, and the development of a simulated assessment task that utilises an adaptive eLearning platform to provide personalised formative feedback. The success of these approaches is evidenced in student satisfaction ratings that consistently exceed 90% and more broadly in the DHE’s sector leading student achievement data.


In 2018, QUT set about revisiting and refreshing its’ strategic 2020 Vision for teaching and learning. One of the priorities, supported through the redesigned Student Success Group (SSG), was to ensure that QUT graduates have the core employability skills to self-manage their careers, navigate change and remain resilient in a world of work that is increasingly volatile, uncertain, complex and ambiguous.

One of three portfolios managed by the SSG is the Career Development and Engagement Portfolio, with the overarching aim to co-create initiatives to support students explore professional identity and develop their career profile. The aim of this presentation is to outline the Career Development Learning framework and how it has been embedded into teaching and learning activities, as required by disciplines.

The four pillars of the QUT career development learning framework include: professional identity, career self-management, connectedness & social capital and mindsets for innovation & enterprise.

In order to reach the stage of REAL world readiness, the leaning framework is scaffolded into four stages: early, middle, later and future stage.

The early stage guides students to reflect on themselves and how they fit in to their potential profession, possible pathways within the profession, career options and develop a connection to their peers and the profession. The middle stage is designed to encourage students to continue to explore career options, engage in career planning and management, participate in work integrated learning experiences and the development of key employability skills. The later stage of the framework is to refine and consolidate their career vision, engage in opportunities to gain additional experience and skills to support employability and effectively articulate unique points of difference to prospective employers. The future stage is to assist students to be life-long learners, adaptable, create employment and become a dynamic and productive member of the profession.

For the purpose of this presentation, the focus will be on examples of how the career development framework has been effectively applied and embedded in curriculum. Additionally, the impact of the teaching and learning activities on student experience will also be presented that include Career Exploration and Student Satisfaction in Learning Surveys.

The framework offers a new approach of providing authentic learning experiences that are more relevant and meaningful to students’ future profession as well as more integrated with the academic curriculum.


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Getting stuck in the cell membrane: Immersive 3D visualisations to enhance learning in biology

Abstract biological processes which occur at the sub-microscopic level, are inherently difficult for many students to conceptualise using traditional learning and teaching methods. Descriptions of concepts such as cell membrane structure and function have traditionally been accompanied by images in a 2D format, however, these cannot portray the dynamic 3D nature of the cell membrane. Understanding how molecules move across the cell membrane is a crucial threshold concept in biology which students need to master to attain broader and more advanced concepts. It has been proposed that 3D technology can help to promote visual-spatial literacy and higher order thinking in biology students (Ferdig et al., 2015). The “CAVE”, USC’s innovative teaching space, provides a 320°, 3D immersive experience where students are not just viewing a video or animation but also become engaged with the environment.

Cell Biology, LFS100, a first year course for science and allied health degree programs provided the ideal setting to develop and examine the efficacy of immersive 3D visualisation in learning. Students completed a conceptual assessment of their base knowledge, using an existing diagnostic test (Fisher et al., 2011) on cell membrane structure and function. A 3D immersive and interactive animation associated with the concept of osmosis (water movement across the cell membrane) was created by the research team to address misconceptions identified from responses to the diagnostic test. This animation allowed students to experience a virtual cell and visualise water molecules moving into and out of the cell, observe concentration gradients and travel through membrane transport structures (aquaporins). Upon exit from the “CAVE”, students completed a survey of their experiences and a formative worksheet testing the biology concepts.

Most of the cohort engaged with the immersive experience and 392 students agreed to participate in the research. Almost all (96.2%) participants surveyed reported that it promoted their understanding of the biology concept. Viewing the concept assisted 99.7% of participants to visualise the cell membrane and water movement. There was overwhelming agreement that the immersive 3D visualisation was a positive (89%) and interesting (91%) learning experience. Most students who engaged with the immersive experience and activities retained the knowledge until the final examination 11 weeks later.


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Immersive visualisation offers avenues to engage participants to achieve specified outcomes for deeper conceptual thinking for learning (de Freitas & Neumann, 2009), support problem solving skills, brain storming, and high-quality reasoning (Clapper 2010). Tupper, et al., (2013) describe immersive simulation as a learner centred approach that provides students with the opportunity to apply their knowledge and skills to a real-world problem. Experiential learning experiences can offer opportunities for participants to learn while doing thus support authentic learning explicitly linked to real life problems in non-traditional or designed/re-created environments (Girvana, et al. 2016).

This presentation explains the processes of immersing students via 360deg digital media, framed to support course learning outcomes. During the student experiences, cohorts engaged with the visualisation media to alternate between being inside the immersive/simulation facility and adjacent learning spaces. A survey was completed in person by participants directly after class. The surveys collected demographic information, statement agreement (5-point Likert-type scale) about participant attitudes and reflections on the immersive experiences and open-ended questions to prompt deeper reflection and more detailed information. Students were asked to indicate their agreement with eleven statements to evaluate their cognitive, physical and emotional engagement using 5-point scales.

Undergraduate students within three different courses took part. Immersive experiences were conducted in the Immersive lab and CAVE2 facility. A total of 142 (n=164) usable surveys revealed students rated the level of engagement they had with the respective immersive experiences positively (av 4.04 on a 5-point scale). Students felt the use of visual media made the experience useful for understanding the course content (4.32/5), was well-integrated into the course (4.22/5), worthwhile to learning (4.02), allowed interaction with others to enhance learning (4.14). Effective immersive experiences depend largely on commitment from the course instructor; embedding immersive experience via relative content that connect to course concepts.


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Educators’ reflections on education innovations: experiences of flipping classrooms

Dr Mieke Witsel, SCU; Dr Glen Croy, Monash; Dr Pierre Benckendorff, UQ; Dr Catherine Link, WSU; Dr Karina Wardle, WSU; Dr Anna Kralj, Griffith.

The re-valuing of higher education has highlighted a need to change education practice to improve student outcomes. This has brought new opportunities and institutional support for change, as greater resources are invested in teaching and learning, for example by appointing educational designers and funding education technologies. Roger’s (2005) diffusion of innovation model, and education studies, have predicted vast challenges for accelerated adoption of innovations. An innovation is taken as a change to practice. The changed narrative has meant those that chose to innovate will be vastly outnumbered by those directed to innovate. These changes and challenges have consequences for academics’ work and identity. Indeed, some Universities have undertaken sweeping changes, such as Western Sydney University’s Business School’s adoption of the flipped classroom approach. This suggests that it is valuable to focus on the educator experience.

This cross-institutional reflective research study seeks to discover what these experienced consequences of innovation are for educators, particularly within the context of adopting a flipped class approach. Based on the reflections of six educators, across five institutions, this study presents some of the challenges and successes in adopting flipped classrooms. Using Gibbs’ reflective cycle (Gibbs, 1988; Oxford Brookes University, 2018), the participating academics systematically reflected and reported on phases of the flipped classroom initiatives, by volunteering three structured reflections of critical innovation adoption and implementation events. The self-selected critical events demonstrated both successes and challenges with the flipped classroom innovation.

These challenges include the time needed to develop the approach, changing students’ learning perceptions, and engendering student buy-in and perseverance to the new learning style. So far, the educators experience does not marry with the key elements of the diffusion innovation process; as yet the themes do not demonstrate advantages to educators in terms of compatibility, or reduced complexity. This suggests the flipped classroom is not yet ready for diffusion to the majority. Therefore, early adopters need support to ‘iron-out-the-creases’ before there is readiness to diffuse the innovation. When ready to diffuse the innovation, the early adopters could be prompted to communicate the key diffusion elements (i.e. advantages to educators, or compatibility to academic’s role). Collectively, the reflections highlight important characteristics for educational innovation adoption and persistence, also of value to institutions encouraging educational innovations.

Student’s attitude and anxiety to chemistry can affect their learning ability

Lachlan H. Yee, Wendy Boyd, Alan Foster, Jubilee Smith, William E. Boyd

Research regarding pre-service students’ attitudes towards chemistry has revealed that many students feel anxious about the learning of chemistry, yet understand how important chemistry is to success in their bachelor degrees of study.

However, anxiousness (anxiety) and negative attitudes can inhibit learning and this is not unique to chemistry. Numerous studies have investigated negative attitudes to mathematics and related resistance to change (Trujillo & Hadfield, 1999 cited in Townsend et al., 1999). Consequently, studies such as these inspired our cross disciplinary enquiry into the field of chemistry and importantly further knowledge on the mitigation of anxiety.

Methods of reducing anxiety in chemistry education include a context based approach and curricula (Ultay, 2012). For example, an organic chemistry learning study by Black and Deci demonstrated mitigation of anxiety through autonomy support and students’ autonomous motivation (Black and Deci, 2000). Therefore, addressing anxiety towards chemistry could reduce barriers for students learning and improve their success in gaining new knowledge and skills.

In our study, we examined the anxiety and attitudes of students about to commence chemistry in first year, Southern Cross University, Lismore using a pre and post session survey method. Significantly different pre- and post- session survey results for both years 2012 and 2013 were:

• I understand chemical concepts well (p<0.001 both years)
• I feel confident about learning chemistry (p=0.03, p=0.01)

We revealed how the choice to address these attitudes, and anxiety, prior to chemistry content based learning, can have an effect on student performance and well-being.


Abstracts listed in alphabetical order by first author.

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Instant Feedback Assessment Technique Transforming Face to Face Teaching Techniques for use in Online Learning Environments

Student demands for flexible learning are driving more diverse delivery modes in post-secondary education. Large increases in participation in higher education and escalating student debt has resulted in more students combining work and study (Bexley, Daroesman, Arkoudis, & James, 2013). In response, many institutions have invested in OLEs that provide a platform for learning and assessment. However, OLEs require extensive upfront planning and design to engage students and provide them with the skills required by employers (Myers, Trevathan, & Gray, 2014). While most OLEs offer collaborative tools, such as discussion boards or blogs, their ability to replicate some of the learning outcomes achieved in traditional team-based learning (TBL) settings is limited. This limitation makes the development of graduate capabilities and soft skills such as teamwork, communication, interpersonal and cognitive skills challenging (Maddix, 2013; Michaelsen, 1997-98).

Blended and online learning environments (OLEs) have created challenges for the development and assessment of business skills and capabilities. The creation of both traditional and online environments that can develop teamwork and soft skills is vital to the production of quality business graduates. Employability requires students to have developed communication, cognitive and interpersonal skills, particularly when working in teams. The Instant Feedback Assessment Technique (IF-AT) is a social constructionist teaching approach that encourages individual engagement with the topic, student-student interaction and peer instruction in learning environments. The assessment technique encourages student-student interaction using a multiple choice answer form. As students answer a multiple-choice quiz, they are given instant feedback on their responses, which reinforces their comprehension of the topic being tested.

The use of IF-AT enhanced the students’ learning experience as they found this more interactive than other group testing methods and were rewarded with immediate feedback. When used in groups, the IF-AT is particularly effective as a means for encouraging individual engagement, student-student interaction (Cotner, Fall, Wick, Walker, & Baepler, 2008) and peer instruction. These are teaching techniques that are excellent for encouraging active processing of course material and for enhancing student learning (Crouch & Mazur, 2001). They valued the immediate feedback provided by the IF-AT as it revealed misconceptions and helped them to improve their exam preparation.


Blackstump. Animation – Formative assessment of the ethics of delinquent and guilty clients

Two-dimensional animation when combined with multiple-choice questions affords an interesting and innovative formative feedback tool for engaging law students in problem-based learning. This project investigated methods for making animation a much more accessible medium for legal academics, and to describe, evaluate and reflect upon the results of a survey of online law student perceptions on the use of animation, multiple-choice questions and feedback, all provided by academics, for learning legal ethics. The ethical issues surrounding delinquent and guilty clients was used as a context in which to describe an animation workflow and explore student attitudes to animation. The animations were included in a website to provide feedback on student’s understanding of legal ethics.

An online survey instrument was distributed to the entire student cohort of 77 students (30 male, 47 female) enrolled in LS320 Professional Responsibility with a 49.4% response rate. LS320 is a third year subject in legal ethics in an undergraduate accredited online law degree. A mixed method design using both qualitative and quantitative analysis based on the survey and small scale focus group was used for triangulation of the data. 44% of students found the exercise of excellent value, with 38% stating above average value. There was significant agreement (2-tailed t test) that the animations made the lesson more interesting to learn, helped visualise the problem, assisted in learning, helped remember the issues and advanced learning the lesson.

While students found the animations to be a creative and useful way of learning legal ethics several comments highlighted design features, which when refined, may improve the quality of both the animations and the student experience in studying law using animations.

Flashcards and spaced repetition – fending off forgetfulness

This research describes, evaluates and reflects upon the potential use of digital flashcards in education using traditional cards expressed in digital format and more interactive flashcards taking advantage of rich media and Web 2.0 technologies. A taxonomy of digital flashcards is developed together with a discussion on how flashcards may be used in education. An analysis of where digital flashcards sit within the HoTel, Biggs and Tang SOLO and Atkinson SOLE learning theory frameworks is presented. A new free cloud-based flashcard tool, FlashCram is presented enabling the easy assembly and sharing of digital flashcards. The research also compares two spaced repetition algorithms to determine which affords better outcomes for theory-based examinations in overcoming the forgetting curve famously developed by Ebbinghaus in 1885. This phenomenon has significant implications for education in the form of or based on the retention of knowledge.

A set of digital flashcards were created and randomly distributed to 47 students in LAWS11057 a first-year law unit. Students were separately randomly allocated into two groups. One group were given access to the Leitner spaced repetition system, the other group were given access to the SM2 spaced repetition system. The research hypothesis that the SuperMemo (SM2) algorithm would produce better outcomes for student learning as measured by assessment results than the older Leitner system was confirmed in relation to the examination results. The three earlier forms of assignment undertaken by students were practical tasks which relied less on retained memory than the final exam. It is possible that memory enhancement techniques such as spaced repetition flashcard systems are more useful for exam scenarios requiring recall rather than assessments not subject to the same short time constraints and which are of a practical applied nature. It may be that spaced repetition flashcards systems assist in retaining what has been learned, rather than helping students learn the materials in the first place.

The research concludes by showing how the traditional flashcard may be reinvented in the digital age into a useful tool for higher education.
Enhancing the Employability of non-traditional students through connectedness capability development

New career paradigms require non-traditional students to develop their professional networks to enhance their employability. Many social media platforms provide the opportunity for both students and educators to develop and grow their professional networks, yet few use this opportunity. For traditional students located in regional areas career choices are limited, therefore the capability to connect in this manner is critical.

We followed an action research approach to develop the connectedness capabilities of non-traditional students at a regional university in non-professional programs such as business, journalism, communication and creative industries and sport science. This project was undertaken at USC from 2017 to 2018. In the first cycle in 2017 we analysed student attitudes and pedagogical practices in place in these three programs using the connectedness learning model (Bridgstock, 2016). This was done through program leader focus groups and student surveys of the connectedness capabilities of 210 non-traditional students. The findings of cycle 1 revealed that most non-traditional students (94%) had work experience, which was divided into full-time and part-time work experiences. Students with work experience are more likely to have a professional profile, while students with part-time work experience are likely to use social media for non-professional purposes. First-year students are unsure of the benefits of professional networks, while final year students who have participated in work-integrated learning, have more confidence in their connectedness capabilities.

Based on these findings, a number of pedagogical practices were implemented within these programs to develop students’ career competencies by influencing career aspirations and developing self-efficacy, encouraging peer learning, utilising learning activities that facilitate the assessment of career competencies, and encouraging students to strengthen, maintain and leverage professional connections through work-integrated learning.

Data collected in action research cycle 2, through program coordinator focus groups and a student survey of 158 students, revealed that some practices implemented yielded positive outcomes, however a more consistent, long-term approach is needed. Implications for HE policy is to recognize the existing employability skills students have when entering university, similar to recognition of prior learning, providing the chance for students to evidence their existing ‘soft skills’ and connectedness capabilities. The outcomes of this project further raises the question of whether internship type opportunities are applicable and relevant for all students enrolled in degree programs, given some of them already have substantial career experience.

Adaptive eLearning case studies to engage students in clinical pathology

The future direction of engagement in learning will focus on blended learning pedagogy that is supported by an online environment. Traditional paper case studies and static images used to teach pathology in medicine and biomedical sciences will be replaced by a technology driven environment which provides interaction with the learning material and instant analytics. This pilot study utilised an eLearning platform to transform paper case studies into interactive and adaptive pathology lessons with virtual slides. Haematology and histology online lessons were created using the Smart Sparrow Adaptive eLearning software. The lessons were designed to be adaptive; the user chose the level of engagement, learning pathways of theoretical knowledge or example case studies. Each option the user made was recorded by an analytics tool that monitored which questions were attempted/correct/incorrect, if further information was sought, how long and which pathways the student took through the lesson and how many attempts were made.

The lessons were adapted after viewing the analytics to respond to the student needs. For the student, the online lesson provided a choice for learning, fast tracking concepts already known or spending more time on challenging topics. Along with the analytics, students completed a survey and commented that instant feedback throughout the lesson (quizzes, drop down/hover questions, MCQ and moveable virtual slides) enhanced learning.

Findings suggest students respond positively to online adaptive case studies. Development of the online lessons are a sustainable approach for academics to edit and update teaching material, while providing a pathology resource for sharing and adapting content with other medical and biomedical institutions.

Capture and Keep – Virtual Histology Portfolios

Traditional practical components of histology have been taught in a laboratory environment to a group of students, led by an expert in a face-to-face context. Current reduction in face-to-face teaching and increased student enrolment is consistent across biomedical science education, there are reported fewer contact hours and rising costs of traditional methods (associated face-to-face staff contact, demonstration of physical equipment and availability of tissue dissection material). While this restructure in resources has been challenging, it has encouraged advancements in blended learning that includes traditional face-to-face and non-traditional online formats.

Virtual histology lessons were implemented to learn i) tissue morphology and ii) technical skills outside of the traditional classroom.

Virtual morphology lessons using annotated moveable virtual slides, allowed students to learn online at any time in a self or group environment, upload their annotations to a portfolio and receive online feedback by an expert or peer without ever stepping into a laboratory.

Virtual technical lessons included: expert led video demonstrations in the histology laboratory; multiple choice/short answer questions; drop and drag morphology and/or histology equipment simulation created through an interactive software platform that allows the user to choose the level of engagement and interactive feedback.

After attempting the virtual histology lessons and capturing their learning in a portfolio, students demonstrated their practical skills in the laboratory. Their hands-on technical skills, demonstration of safety awareness and use of histology equipment was captured by video through first person ‘point of view’ recordings. Students could visually review their skills, receive captured feedback and have a visual copy of their learning. The video recording was uploaded into their virtual histology portfolio for further review of learning and progress.

Preliminary findings suggest students are engaged in learning histology in a blended learning format and respond positively to the use of virtual histology portfolios. For the academic, by developing a histology program that has a significant blended learning approach which includes: annotated virtual microscopy; video demonstration; and online interactive learning activities, a sustainable approach to learning histology can be achieved.

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An evaluation of 3D visualisation technology in midwifery education

Difficulties are often experienced by midwifery students to achieve a conceptual understanding of 3D anatomy, and misconceptions about physiological phenomena are often hard to address from reading a textbook alone. An essential part of midwifery education programmes is to facilitate the linking of theory to practice. The needs of students in the 21st century are increasingly being considered by university departments (Young & Randall, 2014) and the way education is delivered in order to address those needs for midwifery students are being addressed.

Initiative: The evolution of technology and 3D applications has the potential to change education (Frost, Delany, & Fitzgerald, 2017). A 3D artefact was developed by the Visualisation Development Team at the University of the Sunshine Coast under the guidance of midwifery experts, to address the issues highlighted by students. This artefact introduces second year midwifery students to birth of a placenta and the physiological processes that simultaneously occur. The 3D artefact was tested and evaluated by students enrolled in the Bachelor of Midwifery and dual degree Bachelor of Nursing/Bachelor of midwifery.

Evaluation: Students responses and attitudes towards this new technology and resource were investigated through completion of a short evaluation questionnaire and data were analysed.

Evidence: Results were overwhelmingly positive with 100% of students requesting more education using 3D technology as a pedagogy for teaching and learning in midwifery education.


This USC funded pilot project aims to examine existing Information Literacy skills of first year students enrolled in primary and early childhood initial teacher education programs, and explores how Information Literacy intervention influences students’ ability to engage with, and incorporate information from scholarly research to their knowledge and use in assessment tasks. This poster presentation summarises information gathered through pre and post Information Literacy questionnaires completed by the students across four campuses. Preliminary data analysis confirms some of the recognised challenges in engaging first year students in understanding and using academic information, as personal confidence of skills was generally rated high, but application of Information Literacy skills did not rate strongly. For example, 79% of students were confident when reading for information, but only 8% reported actually reading for information! Students scored low results in identification and searching for scholarly sources. However, more positively regarded learning about the library as very important. Initial analytics of students’ independent viewing of Information Literacy videos indicated 80% of students viewed the video on locating articles from a reference or citation, 55% viewed the video on building on a key word search. However, only 17% of students viewed the video on Information has value.

In this initial project early analysis suggests that more encouragement or supervised engagement with intervention strategies, such as watching short videos, attending library tutorials or undertaking coding strategies, would be likely to result in higher improvements in student understanding and Information Literacy skills when using information. These preliminary results provide clear guidance which will inform the improvement of intervention strategies, particularly as the skill and understanding level of students when using information is better defined.


Everyone knows the benefits of yoga, right? But you don’t often see yoga and higher education study, as companions. Within the STEPS Enabling Education Course there has always been an underlying philosophy that learning in higher education is a hero’s journey. A hero in this sense is not someone who saves the world, but really anyone who experiences challenges and overcomes them. In the same way, the story of yoga, and its practice, is its own hero’s journey. Working with these concepts, we created a 12 week series of 10 minute yoga and meditation videos that focus on navigating a term of study in higher education.

Each 10 minute video starts with a conversation about the current week of term, with the instructor focusing on feelings and emotions associated with study at key points in the term. An inspirational quote to frame the yoga practice follows and then more detail about the pose for the week, including explanations of yoga terminology. A clear demonstration of correct posture ensures that students are shown safe practice which is often as simple as power stretches at the computer desk! The meditation component focuses on the life force that is the breath, with voice cues leading students through beneficial techniques.

These are simple practices, but they all add to enhance our students’ learning potential and resilience.

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What’s the key to university students’ researcher potential?

Information Literacy—the ability to ‘find, retrieve, evaluate and apply information for academic purposes’ (CQUniversity, n.d.)—is considered essential for self-management and lifelong learning. Not surprising, it is frequently listed as a ‘graduate attribute’ at many universities. However, knowing how to go about research presents a challenge even to confident learners, with many undergraduate students lacking ability in this area (Taylor & Dalal, 2014). As lecturers in the STEPS enabling course at CQUniversity we work with students who are transitioning to undergraduate studies. These students have a limited background in academic research and formal writing; becoming ‘information literate’ can therefore be particularly challenging.

The sustained work to address this challenge and provide a series of innovative information literacy curriculum resources to STEPS students (STEPS: an enabling course at CQUniversity) has been recognised as transformative by these very students. Through a collaborative process involving librarians, cross-disciplinary colleagues and students’ suggestions via feedback streams, we redesigned curricula and resources for use in the STEPS course to create a model of information literacy that was highly relatable to STEPS students. Such is the quality of the resultant information literacy curricula and resources, some have been adopted by our colleagues across the University and have also attracted the interest of academics from other universities, thus impacting a much broader cohort.

CQUniversity (n.d.). Access (enabling) graduate attributes. Rockhampton, QLD: Central Queensland University.

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Better simulation by design: A best-practice in simulation framework

Simulation education has been widely incorporated in nursing education, in Australia and internationally. Simulation is valued because it allows the development of skills and knowledge in a safe, supported environment, with minimal risk to consumers or learners. Simulation is also valued professionally because of its reliability in meeting learning outcomes. It can deliver highly reproducible, common clinical experiences, as well as providing access to uncommonly encountered experiences, like critical events. When structured as a dynamic learner-centred activity, simulation can trigger reflective practice. However, such outcomes of simulation are not automatic. Simulations need to be carefully constructed, including scaffolding learning using appropriate pedagogy, and developing authentic and realistic scenarios. The use of a quality framework and a consistent approach to high-quality debriefing at the conclusion of the simulation experience can improve learning outcomes and ensure that undergraduate nursing students are exposed to evidence-based and high-quality learning experiences.

However, it can be challenging and time-consuming to develop effective learning experiences. Preparation is an important aspect of the development and implementation of high-quality and high-impact simulation, and to ensure consistency in nurse education. To improve this process, a comprehensive best practice framework, based upon international and Australian best practice in simulation guidelines (Arthur, Levet-Jones, & Kable, 2013; INACSL, 2016; Kelly et al, 2016), was developed. This presentation will explain and highlight the key components of a framework quality in simulation design and implementation, which can be used to scaffold the development of new scenarios or evaluate and improve the quality of existing simulation activities in nurse education.

This work was developed as part of my higher degree research studies under the supervision of Dr Amy Johnston (UQ) & Professor Amanda Henderson (QHealth)


Mastery motivation in first year optometry students

Mastery motivation refers to the drive that stimulates an individual to attempt and persist with challenging tasks. The Dimensions of Adult Mastery Motivation Questionnaire (DAMMQ) has been used as a measure of mastery motivation. The Daniels’ Mastery and Performance Goals Questionnaire (DMPGQ) assesses student goals and perceived control over outcomes on student achievement.

We sought to determine the motivation and goal characteristics of students commencing the Bachelor of Vision Science (BVS) and the impact of completing first year on this.

Research Method: Forty-five of 69 enrolled BVS first year students completed the questionnaires (24 question DAMMQ, 12 question DMPGQ, 5 point Likert scales) at two time points: at orientation and the end of first year. Student characteristics (gender, work hours) were collected.

At commencement overall commitment to the course (4.3±0.9) and predicted GPAs (5.7±0.7 out of 7) were high. Total DAMMQ Mastery score was 80.7±8.6 and total DMPGQ was 46.9±4.2 (these represent high values). By year end, overall commitment reduced (0.4±1.3, p=0.04) and amount of paid work increased (to 8.6 hour/week, p=0.02). Total scores and some components of the DAMMQ (total 3.3±9.9, p=0.03; task pleasure, p=0.02; self-efficacy p=0.02; task absorption, p=0.03) and the DMPGQ (total 2.5±7.2, p=0.03; mastery, p=0.001; secondary control, p=0.001) were significantly reduced. DAMMQ persistence and challenge, DMPGQ performance and primary control scores were not altered. No scores increased. A limitation was that data was not available for all students.

Mastery motivation in BVS students is high and remains so, even though it reduces across first year. Determining the reason for and preventing the reduction in motivation is important.


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Utilising Smart Sparrow for Interactive Pot of the Week (POW) Lessons

Medical education is evolving every day and there is a constant need to refine the learning tools to fit to specific student needs. Quality of the teaching material and the methodologies are improved, but changes are too small to be noticed. Role of students, in the evaluation of courses and learning material, has always been compelling and convincing. However, their role is often to evaluate and score the strengths, weaknesses, opportunities identified by the lecturers. A more direct involvement of the students brings a potential to design lessons particularly desired and enjoyed by the students.

With this in mind, we provided some senior medical students with the opportunity to design and develop pathology ‘pot of the week’ online lessons in collaboration with a pathology academic. These interactive lessons were developed using the Smart Sparrow platform and helped students learn through their active participation by solving clinical questions related to the pathological abnormalities in a displayed specimen pot. Feedback was built into the interactive session and so students learnt about complex pathological processes underlying a specific disease process in a time efficient manner.

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Un-mapping the Problematique: demystifying research for undergraduate nursing students

Contemporary literature demonstrates that undergraduate nursing students struggle with the concept of research, unable to relate it to “real life” or see its applicability to clinical practice (Bloom, Olinzock, Radjenovic, & Trice, 2013; Campbell, 2014; Davidson & Candy, 2016). As educators, the task then becomes how to engage students and make research real, using innovative and relevant pedagogical methods.

Pop-culture as a pedagogical device uses what people know and have experienced, even through media and story-telling via film and TV. It uses what has been described as the “self-referential effect” where an individual can relate to an idea or concept because they have lived it either physically or in their mind by processing a story (Rogers, Kuiper, & Kirker, 1977).

Using Kolb’s theory of experiential learning (1984) this study involved the design, implementation and evaluation of pre research-course skills workshops, using pop-culture as a tool to create a relatable framework for students to engage in and increase their confidence in research practice.

A descriptive qualitative study evaluated changes in student confidence with engaging in the research process. A focus group discussion was conducted, audio recorded, transcribed verbatim, and subjected to thematic analysis.

The focus group data identified six themes including, but not limited to: gaining confidence, understanding and demystifying the research process, and exposing the challenges of research, with an overall improvement in confidence identified.

Prior to the workshops, participants indicated that they found it difficult to understand the research process. After engaging in the workshops participants felt that research, as a subject, was more achievable and relevant to nursing, breaking down their perceived barriers.


**Snapshot of the Learning Design Profession**

This poster presents a visually attractive snapshot of current learning designer (LD) practices across Australian universities. Directors of learning and teaching units look to learning designers with creative digital experience and significant knowledge of educational theory and practice to meet changing sector drivers. Little is known, however, about how best to attract and retain these staff members from both an institutional and learning designer perspective. An initial scan of advertised learning (or equivalent educational, instructional) designer positions (n=38) advertised across Go8, RUN and other digitally innovative universities between July-mid Oct points to a diverse, ad hoc set of employment criteria and expanding suite of expected roles.

As a result, Dr Christine Slade and Dom McGrath, from the University of Queensland and Dr Ruth Greenaway, from the University of the Sunshine Coast, designed a larger project to investigate further. The project was funded by the Council of Australasian University Leaders in Learning and Teaching (CAULLT formerly CADAD). The researchers used two separate online surveys, using quantitative and qualitative questions based on the initial scan, to target 1) directors of central teaching and learning units and 2) LDs employed under the auspices of these units. Sixteen Directors and 103 LDs responded from across Australian universities providing a rich dataset about the types of roles undertaken and employment conditions, the relevant skills, knowledge, education and professional background of learning designers, challenges and enablers in these roles, career progression and areas for future attention. The researchers presented the findings and engaged in discussion about these issues with approximately 20 Directors at the CAULLT meeting in Melbourne, in March 2018 and across a number of LD communities of practice in 2017.

Dr Slade presented this poster to an international audience at the Advance HE (HEA) Annual Conference in UK, on 4 July 2018.

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**Student and Clinical Educator Experiences with Tele-audiology Service to Cairns and Hinterland Hospital and Health Service**

A student-assisted tele-audiology service was developed and evaluated in response to a significant unmet need for on-site audiology services to support ENT and other specialty services in the Cairns and Hinterland Hospital and Health Service. Prior to the introduction of tele-audiology there was no Queensland Health audiology service available in the health service and audiology was outsourced to a private provider. The aim of the study was to assess the acceptability of the new model to patients and other stakeholders (eg ENTs) and to investigate its effectiveness. Patients were given same-day appointments at the hospital for remote audiology assessment (conducted by students and clinical educators from the University of Queensland and facilitated by a local allied health assistant) and face-to-face ENT consultation. The outcomes of the service for the first 100 patients will be presented including patient waiting times, attendance rates, success or otherwise of remote testing, length of audiology appointments, and outcomes of the combined audiology/ENT appointments. The satisfaction of patients and ENT specialists with the new service will also be described. Preliminary findings indicate that the majority of patients are able to access a remote audiology assessment on the same day as their ENT appointment (91%) and that the assessment was successfully completed in 98% of cases with results immediately available to the specialists. To date, 97% of participants have indicated positive satisfaction with the service. Staff and specialist satisfaction data collection is ongoing and will be presented.
Third-Generation postgraduate research programs: The case for enabling personalised learning through Innovative work-based learning in Australia

Coined in the 21st century, these programs have been designed to enhance the learning experience by providing a service to the community, in addition to education and research, which recognises the co-production of knowledge. This is achieved through student-centred models that aim to address the needs of contemporary students and professionals. By general definition, third-generation postgraduate programs are characterised by providing a service to the community, in addition to education and research, which recognises the co-production of knowledge with non-academic groups whereby tacit knowledge can more easily flow through interactions. The USQ Professional Studies program continues to be differentiated from second-generation programs in that they extend the notion of being ‘personalised’ by encompassing reflection as a deep and integral approach to learning enhancement through the development of personalised and individually unique learning objectives. Through a strong emphasis on reflection, students have demonstrated an increased attention to develop their transferrable skill-sets in ways that make them attractive contributors to high impact research and knowledge construction.

Professional Studies programs are relatively new to Australia. An increased demand for high-level research skills indicates a renewed interest in identifying what form of postgraduate programs are most suitable to the needs of contemporary students and professionals. By general definition, third-generation postgraduate programs are characterised by providing a service to the community, in addition to education and research, which recognises the co-production of knowledge with non-academic groups whereby tacit knowledge can more easily flow through interactions. The USQ Professional Studies program continues to be differentiated from second-generation programs in that they extend the notion of being ‘personalised’ by encompassing reflection as a deep and integral approach to learning enhancement through the development of personalised and individually unique learning objectives. Through a strong emphasis on reflection, students have demonstrated an increased attention to develop their transferrable skill-sets in ways that make them attractive contributors to high impact research and knowledge construction.


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Enhancing student preparedness and engagement for laboratory sessions to facilitate deeper learning opportunities

Laboratory teaching provides a perfect opportunity to enrich the scientific learning experience and is one of the rare times during a university degree to simultaneously develop high level cognitive, strategic planning, group work and dexterity skills. To optimise the learning potential of laboratory classes they must be carefully designed so that students engage fully with the content to obtain the richest hands-on learning experience. Adequate preparation is vital both conceptually and procedurally for a laboratory session to ensure the retention of any long-term benefit from laboratory sessions. Schmid & Yeung (2005) highlight the high cognitive load of laboratory work – as it simultaneously competing provides theoretical and practical task. Adequate preparation affects confidence, attitude and success and learning outcomes (Croker, Andersson, Lush, Prince & Gomez, 2010).

The aim of this project was to redesign the pre-laboratory introduction to a wet laboratory session for a second year Structural Biochemistry class. Smart Sparrow learning platform using an interactive game format was used to facilitate engagement, learning and provide learning analytics.

An extensive library of resources including videos, quizzes, fact sheets to guide students through the pre-laboratory preparation had already been developed, however, we noted that students had a just in time attitude to laboratory preparation and did not engage with the material provided. In fact, many students arrived at the laboratory with very little understanding of what they would be doing or why, including practical techniques, the skills needed, or the chemistry theory behind the practical. Unfortunately, it was often after the event when students were writing up results and analysing data that they actually began to understand the purpose behind laboratory. Clearly this is not an optimal educational experience.

Resources were streamlined into the Smart Sparrow platform through a game themed on the Muppets with 3 doors; 1. Theory, 2. Experimental and 3. A quiz to check understanding that releases Beaker from the evil clutches of Constantine’s dungeon if successful. Students navigated through each of the three doors, answering questions and interacting with the information provided.

One unforeseen measure of the effectiveness of this intervention was comparison of the number of separation columns destroyed in class and having to be repacked. In 2017 29/30 columns were destroyed, compared to 2/20 after the Smartsparrow intervention. Anecdotally demonstrators said students were more confident and understood the laboratory sessions to facilitate deeper learning opportunities

Smartsparrow intervention effective.

Unfortunately, it was often after the event when students were writing up results and analysing data that they actually began to understand the purpose behind laboratory. Clearly this is not an optimal educational experience.


Retrieved from: https://pdfs.semanticscholar.org/532c/3feb8e361ae6a53ed2ddcde6bb818676b225.pdf

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QUES 2018
Educators’ reflections on education innovations: experiences of flipping classrooms.

The re-valuing of higher education has highlighted a need to change education practice to improve student outcomes. This has brought new opportunities and institutional support for change, as greater resources are invested in teaching and learning, for example by appointing educational designers and funding education technologies. Roger’s (2005) diffusion of innovation model, and education studies, have predicted vast challenges for accelerated adoption of innovations. An innovation is taken as a change to practice. The changed narrative has meant that those that chose to innovate will be vastly outnumbered by those that are directed to innovate. These changes and challenges have consequences for academics’ work and identity. Indeed, some Universities have undertaken sweeping changes, such as Western Sydney University’s Business School’s blanket adoption of the flipped classroom approach. This suggests that it is valuable to focus on the educator experience.

This cross-institutional reflective research study seeks to discover what these experienced consequences of innovation are for educators, particularly within the context of adopting a flipped class approach. Based on the reflections of six educators, across five institutions, this study presents some of the challenges and successes in adopting flipped classrooms. Using Gibbs’ reflective cycle (Gibbs, 1988; Oxford Brookes University, 2018), the participating academics systematically reflected and reported on phases of the flipped classroom initiatives, by volunteering three structured reflections of critical innovation adoption and implementation events. The self-selected critical events demonstrated both successes and challenges with the flipped classroom innovation.

The educators include innovators, early adopters and later adopters, though there is a focus on challenges they have faced (as compared to successes achieved). These challenges include the time needed to develop the approach, changing students’ learning perceptions, and engendering student buy-in and perseverance to the new learning style. So far, the educators experience does not marry with the key elements of the diffusion innovation process: as yet the themes do not demonstrate advantages to educators in terms of compatibility, or reduced complexity. This suggests the flipped classroom is not yet ready for diffusion to the majority. Therefore, early adopters need support to ‘iron-out-the-creases’ before there is readiness to diffuse the innovation. When ready to diffuse the innovation, the early adopters could be prompted to communicate the key diffusion elements (i.e. advantages to educators, or compatibility to academic’s role). Collectively, the reflections highlight important characteristics for educational innovation adoption and persistence, also of value to institutions encouraging educational innovations.


With the rapid evolution of smartphone and internet technology, social media has become a pervasive part of everyday life for many. While many studies have explored the perceptions and adoption of social media by university graduates, few studies have focused on the impact that social media behaviour may have on graduate employability. This study aims to inform university students, graduates and the wider community about employer perceptions in relation to unprofessional social media behaviour by employees and job-seekers and how it can influence an employer during the recruitment process. The study involved a survey of 430 employers of university graduates from a range of industries located predominantly in the Asia Pacific region and a focus group of employers based on the Sunshine Coast in Queensland, Australia. The majority of employers (85%) agreed that the way that a prospective employee presents themselves online would directly influence their decision to offer them a job at their business/organisation. Furthermore, using social media to intentionally cause harm to others, using social media to bully or intimidate others, and sharing confidential information about a former or current employer were identified by employers as the three most unprofessional social media behaviours. The findings from this study have been developed into an infographic and video to share with students (university and secondary), academics, teachers and the community to increase awareness on this issue.
Abstracts listed in alphabetical order by first author.

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English for Research: R wi reddy?

As a collaborative initiative, this innovative model could benefit other universities to support RHD candidates from non-English speaking backgrounds in using academic English for research purposes.

English for Research (E4R) addresses the need for additional academic English support for international students during their Research Higher Degree (RHD) studies. CQUni Research School recognised this need following RHD Supervisor and candidate feedback indicating they would value scaffolded academic English learning, and the opportunity to engage further with RHD peers. An on-line, interactive 12 week course was developed in 2016 and has been run three times with 26 international candidates successfully completing the Pass/Fail course.

E4R aims to improve skills and confidence in using academic English as candidates begin RHD studies in Australia. The course provides expectations of academic culture and practical English skills (Academic writing, Speaking, Grammar, Academic vocabulary) to embed into their RHD studies. The E4R resources were developed in-house and are accessed through an online learning management system (Moodle) and compulsory weekly (1 hour) video conferencing (Zoom) sessions. The RHD candidates are located all throughout Australia.

Collaborators can share other innovative processes / systems with a focus on continuous improvement for effective support for international RHD candidates at Australian universities.

Freirean pedagogy (1988) drives a differentiated curriculum by designing tasks that can link to the RHD student’s individual area of research. An unexpected ‘flow on’ from E4R was the creation of a metasite for the E4R Alumni. This online, self-directed learning environment is a depository for resources and encourages candidates to collaborate via discussion forums and Zoom sessions beyond the completion of this unit. RHD candidate’s model shared responsibility, collaboration and mutual to provide peer support and enjoy a sense of connectivity (Wang, Sierra, Folger, 2010). This network grows as new alumni join at the end of each term.

Opportunity to share approaches that create supportive, collaborative learning platforms for RHD candidates from NESB. This sense of connectivity to a local ‘learning community’ has been a significant motivator for engagement. Come share your experiences!


Social Capital in the University Context

Research into social capital within the educational context has generally focussed within the primary and secondary level, with limited coverage of the university experience. Our research on social capital has sought to address this limitation in knowledge and to create a better understanding of the nature of social capital within the tertiary environment. To date, the work that has been undertaken is as follows:

- Development of a specific scale to measure social capital within the university environment (including scale refinement and reduction, and validity testing).
- Delivery over multiple semesters of the survey to USC students within a large, mandatory first-year subject.
- Collection of preliminary results suggesting the following:
  - A model where respondents experienced social capital resources from three distinct sources: peers, institution and the tutor.
  - An increase in some of the above levels of social capital over the latter half of semester;
  - A link between some social capital elements and wellbeing and university life satisfaction.

The proposal to work with collaborators would enable data collection across institutions for the following purposes:

- To further develop a working model of social capital within the university context by determining whether the current model reflects students' perceptions of social capital across institutions, and to refine the model as needed.
- To determine the relationship between social capital and two outcomes – wellbeing and university life satisfaction.
- To gather sufficient data to explore demographic variables, such as whether certain students (first-in-family, mature-aged, with low wellbeing, at satellite campuses, etc.) tend to mobilise social capital differently, i.e. in terms of frequency, type, sources.

Timeframe: 1-3 years depending on availability

Role of collaborators: data collection, data analysis, scholarly production

Rationale: to support inter-institutional collaboration and produce data and a model of social capital which could inform future student support initiatives in the sector.

Benefits of participation: a better understanding of your own student needs; scholarly production across institutions; support from the authors of the survey/model.

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The mutual benefits of mentoring and observation in undertaking Higher Education Academy (HEA) Fellowships

You are invited to collaborate on the exploration of the mutual benefits and challenges of mentoring relationships and peer observations as part of channels for professional growth and critical reflection while undertaking the HEA Fellowship process. These channels have been pursued with the purpose of inducting early career academic staff into their roles or highlighting enhanced ways of responding to teaching issues and curriculum concerns, but not extensively investigated as the means to inspire and motivate critical reflection towards HEA Fellowship.

Over the next 2 years the proposal is to examine the advantages and challenges of mentoring relationships and peer observation to support critical reflection while preparing for HEA Fellowship. These channels are being adopted in many Universities as underlying support processes for the HEA Fellowship process. There will be benefits in sharing our experiences, learning from each other and collaborating on the ways in which these channels are implemented; including the guidelines for mentoring, prompts for professional mentoring conversations, phases for peer observation and reporting as contributions to the achievement of critical reflection and evidencing the Professional Standards Framework (PSF) dimensions as required by HEA fellowships.

Many higher education institutions in the UK and Australasia are embarking on pathways to support HEA Fellowships and it is important to learn from the key affordances of the supportive processes put in place, how effective they are, and where we can improve on the practicalities. Together we can discover what are the affordances of the mutual relationships and what features help cultivate peer-to-peer relationships and enable mentoring relationships to be most constructive and worthwhile.

Baume, D & Popovic, C, (Eds.) 2016, Advancing practice in academic development, Routledge, UK

Haigh, N. 2005, Everyday conversation as a context for professional development and learning, International Journal for Academic Development, 10(1), 3-16
Are you interested in integrating technology into your learning and teaching experience, but don’t know where to start? Do you watch the students buried in their smartphones and their tablets and wish you could include this level of engagement in your classroom? Do you see a future involving Augmented Reality, Mixed Reality and Virtual Reality and want to make sure you’re not left behind? Then you should come and join us in forging a future where technologies such as mixed reality can be used to inform innovative classroom practice.

The Mixed Reality Research Lab at Bond University (www.mixedrealityresearch.com), together with the The CREATE Lab at CQUniversity (www.thecreatelab.org), are looking for new collaborators from a range of different university learning & teaching disciplines to work our multi-institutional educational technology projects in the area of mixed reality. Building upon five years of successful practice in mixed reality education, including work in paramedic science, computer networking, architecture, construction management, and multimedia, we are looking to set up a series of 12 month projects with discipline experts from any discipline that wishes to investigate how technology can enhance their learning & teaching experience.

Building from a tested model that puts Pedagogy Before Technology in the pursuit of learning innovation, and implementing a comparative mixed reality pedagogy framework as tested in several design disciplines, we seek participants who can problem solve in their discipline and contribute to research studies and data gathering to verify results. Research experience and a strong work ethic is a must for participants, and in return our labs will contribute our expertise in educational technology and mixed reality, as well as our resources in staff expertise and infrastructure developed through five years of existing projects.

Outcomes will be a greater understanding of the use of technology effectively in your discipline, as well as potential greater engagement and learning outcomes for your students. Deliverables will be a set of publications on student experience and student learning outcomes, as well as involvement in future lab projects and grant opportunities. A stronger connection between institutions will also be established, allowing for future interdisciplinary work.

So, if you’re interested in seeing how technology and mixed reality can push forward your learning experience, and improve teaching in your discipline, come along to our pitch session and learn more, or contact us via the lab websites, or on e-mail at m.cowling@cqu.edu.au or jbirt@bond.edu.au.