THE UNIVERSITY OF MELBOURNE

melbourne cshe

Melbourne Centre for the Study of Higher Education

The University of Melbourne Teaching and Learning Conference

30 - 31 May 2017

Melbourne School of Design

University of Melbourne

Contents

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In line with Melbourne CSHE's commitment to the University's Sustainability Plan this program will only be available electronically.

Welcome

On behalf of the Conference organising committee, we would like to welcome you to the inaugural University of Melbourne Teaching and Learning Conference.

This conference is an opportunity for academic and professional staff of the University to meet and exchange ideas and information on the diverse range of approaches to teaching and learning. We acknowledge Academic Services for sponsoring the conference.

Teaching and learning at the University of Melbourne prepares well-rounded graduates who are academically outstanding, practically grounded and socially responsible. Presentations were selected to broadly fit within the five themes that reflect our teaching and learning culture:

- Challenge – Developing graduates who enjoy and embrace intellectual challenge
- Inquiry – Developing graduates skilled in critical thinking, inquiry research and discovery
- Application – Developing graduates skilled in applying knowledge and ideas to practical problems
- Collaboration – Developing graduates skilled in working collaboratively with others
- Self-direction – Developing graduates who are self-aware, reflective and self-directing learners

We encourage you to vote for the best oral and poster presentation at the conference using the voting app (information on page five). The three most popular oral presentations will be developed as a publication in the Melbourne CSHE Occasional Paper series. An award will also be given to the most popular poster presentation.

We hope you enjoy the inaugural Teaching and Learning Conference and it provides you with an opportunity to network with colleagues, forge new collaborations and share and gain new insights into teaching and learning.

We acknowledge the Wurundjeri people as the Traditional Owners of the land upon which this conference will be held and pay respect to elders past, present, and future.

Professor Sophie Arkoudis and Dr Julie Blasioli
Conference Co-Chairs

Organising Committee
Associate Professor Kristine Elliott
Ms Nina Grange
Professor Marilys Guillemin
Professor Richard James
Ms Deborah Jones
Professor Gregor Kennedy
Professor Angela Paladino
Mr Neil Robinson
Ms Erin Turner

Academic Services

Academic Services is very pleased to support the inaugural University of Melbourne Teaching and Learning Conference. The achievement of many of the Growing Esteem objectives for teaching and learning depends on close collaboration between Academic Services, Chancellery and Academic Divisions, particularly those goals to increase opportunities for global mobility, create innovative blended learning, consider how we can optimise teaching timetable and infrastructure, increase student accommodation, expand scholarships, attract and retain Indigenous students, and support the development of student employability.

On a day to day basis, many of our staff work in partnership with academic staff to optimise use of the University's scholarly resources and collections, to create online tools and communities for the virtual classroom, and design and embed programs to support the development of learning, professional and scholarly literacy skills. With more than 700 passionate staff, we also deliver a wealth of services that support teaching and learning, and help students to achieve their academic success, connect to their University community, and understand, grow and fulfil their potential.

We hope you enjoy the conference and look forward to creating new connections with you, and extending these opportunities to work closely with the academy for the benefit of our students.

Neil J Robinson
Deputy Head, University Services and Registrar

Keynote

What works best in higher education teaching and learning

Laureate Professor John Hattie will give the keynote presentation at this conference. John Hattie is Deputy Dean of the Melbourne Graduate School of Education, Director of the Melbourne Educational Research Institute at the University of Melbourne, Chair of the Australian Institute of Teaching and School Leaders, co-director of the Science of Learning Research Centre. His areas of interest are measurement models and their applications to educational problems, and models of teaching and learning. He has published and presented over 950 papers and 26 books, and supervised 195 research higher degree students.

General Information

Voting codes

Best Poster: http://bit.ly/2rsVld3 *(Voting closes 31 May 11.30am)*

Best Presentation: http://bit.ly/2pVQNKK *(Voting closes 31 May 1.10pm)*

Please note the voting links are best viewed through a smart phone.

Internet / WIFI

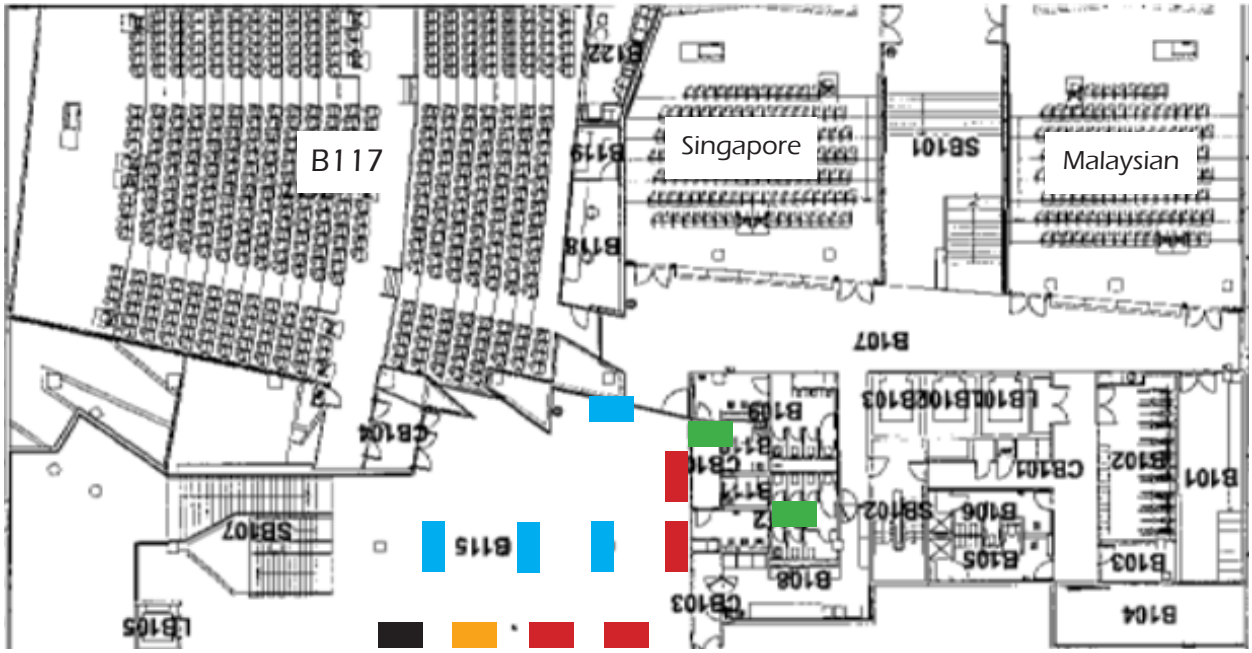
To log onto the WIFI :

1. Go to WIFI on your device and select Uniwireless
2. A pop up will appear
3. Use your Unimelb username and password to connect

Mobile devices

As a courtesy to other participants, please ensure that all your mobile devices are on 'silent' mode during presentations.

Venue floorplan and map



Key

Dietary Requirements

Catering

Tea / Coffee/ refreshments

Bathrooms

Poster Presentations

Program day one

8.30am - 9.00am		Registration	
B117 Theatre	***9.00am - 9.10am***	Welcome to Country	Aunty Diane Kerr
	9.10am - 9.25am	Introduction to the Teaching and Learning Conference	Vice-Chancellor
B117 Theatre	***9.25am - 10.25am***	What works best in higher education teaching and learning	Laureate Professor John Hattie ***(MGSE)***
B117 Theatre	***10.25am - 10.45am***	The Melbourne Way	Dr Chi Baik ***(MGSE)*** Professor Gregor Kennedy
10.45am - 11.15am		Morning tea and poster presentations	
11.15am - 1.20pm		***Concurrent sessions***	
		Stream one	
Alice Hoy Rm 242	**11.15am - 12.15pm**	CrowdCare: An innovative, online platform to transform the teaching of critical appraisal ***(Workshop limited places 40)***	Dr Laura Downie ***(MDHS)***
Singapore Theatre	**12.20pm - 12.35pm**	Students as partners towards work-ready planners: Perceptions on a sequential technology-enabled curriculum design	Dr Iderlina Mateo-Babiano ***(ABP)***
	12.35pm - 12.50pm	Gamified mobile learning platform in large size engineering subjects: An overview and qualitative assessment	Ms Olga Mikhaylova ***(MSE)***
	12.50pm - 1.05pm	Transitioning to the flipped classroom: Our experience in veterinary science	Dr Laura Dooley ***(FVAS)***
	1.05pm - 1.20pm	Academic Skills Hub: An interactive online resource for student reflection and self-directed learning	Mrs Ariana Henderson ***(UniServices)***
		Stream two	
B117 Theatre	**11.15am - 11.45am**	'Teaching on video' vs 'teaching through video': Strategies to support and enrich teaching and learning through inquiry and discovery	Mr Jamie Morris ***(UniServices)***
	11.45am - 12.15pm	Rebooting teaching and learning - Arts West case studies	Ms Meredith Hinze ***(Arts)***
	12.20pm- 12.35pm	Using role-play to facilitate problem based learning	Ms Miriam Edwards ***(FBE)***
	12.35pm - 12.50pm	Capture and use of 360 video for teaching and learning	Dr Stuart Barber ***(FVAS)***
	12.50pm - 1.05pm	Integration of technology and simulation to enhance student educational experience	Dr Kwang Cham ***(MDHS)***
	1.05pm - 1.20pm	Demonstrator development: Is there a role for effective questioning techniques for tertiary education practical activities?	Miss Wenjing Hu (Angela) ***(MDHS)***
		Stream three	
Malaysian Theatre	**11.15am - 11.45am**	A flipped classroom to teach the principles of envenomation: Enhancing medical students' application of biomedical science knowledge to the clinical context	Associate Professor Kristine Elliott ***(MGSE)***
	11.45am - 12.15pm	The tyranny of distance? Digital object-based learning in the Australian tertiary context	Dr Monique Webber ***(Arts)***
	12.20pm - 12.35pm	Object-based learning in a foreign language classroom - a few pedagogical and practical considerations	Ms Diane de Saint Leger ***(Arts)***
	12.35pm - 12.50pm	Educational technologies review: Enabling flexible opportunities for teaching, learning and assessment	Mr Patrick Stoddart ***(UniServices)***
	12.50pm - 1.05pm	Reconfiguring the value proposition of the teaching-research nexus: A strategy for affirming the significance of co-created research from the design studio	Dr Rebecca McLaughlan ***(ABP)***
	1.05pm - 1.20pm	Object-based learning with the University's cultural collections	Ms Sophie Garrett ***(UniServices)***

Program day one continued

1.20 pm - 2.20pm		Lunch and poster presentations	
2.20pm - 5.00pm		***Concurrent sessions***	
		Stream four	
Alice Hoy Rm 242	**2.20pm - 3.20pm**	Taking the pulse of student thinking and learning: Using live polls and quizzes to collect student feedback ***(Workshop limited places 40)***	Ms Fiona Broussard ***(UniServices)***
Alice Hoy Rm 242	**3.25pm - 4.25pm**	Introducing skills workshops in first year biology ***(Workshop limited places 40)***	Ms Lynette O'Neill ***(Science)***
Singapore Theatre	**4.30pm - 5.00pm**	Tell us what you think: Creating opportunities for self and peer evaluation of group activities	Ms Bronwyn Disseldorp ***(UniServices)***
		Stream five	
Theatre B117	**2.20pm - 2.50pm**	Exploding custard and flying pigs – the 3 minute lecture	Professor David Shallcross ***(MSE)***
	2.50pm - 3.20pm	Going online - opportunities and challenges	Dr Ralph Hampson ***(MDHS)***
	3.25pm - 3.40pm	Preparing our students to be graduate ready – how do we do it?	Dr Leonie Richards ***(FVAS)***
	3.40pm - 3.55pm	Partnering with industry to address the graduate skills gap using MOOCs	Ms Susan Batur ***(UniServices)***
	3.55pm - 4.10pm	Creating A Better Educational Video Experience For Student Learning	Mr Peter Mellow ***(University Services)***
	4.10pm - 4.25pm	Exploring the top paddock: Professional development for Bachelor of Agriculture students	Dr Sarah Frankland ***(FVAS)***
	4.30pm - 5.00pm	Tackling the employability challenge: Practical learning in the Arts	Ms Annelies Van de Ven ***(Arts)***
		Stream six	
Malaysian Theatre	**2.20pm - 2.50pm**	"Ready for glory": Assuming student success in starting a first year at Melbourne	Dr Catherine Mann ***(UniServices)***
	2.50pm - 3.20pm	Helping English as additional language students get to first base and beyond	Dr Andrea Truckenbrodt ***(MGSE)***
	3.25pm - 3.40pm	Travelling together: Reflection on a problem-based learning in a Japanese language subject	Dr Yasuhisa Watanabe ***(Arts)***
	3.40pm - 3.55pm	Applying non-violent communication principles to marking and assessing	Dr Melanie Plesch ***(VCA&MCM)***
	3.55pm - 4.10pm	I command thee thou shalt speak: Dealing with silence and language anxiety in the L2 classroom	Mr Riccardo Amorati ***(Arts)***
	4.10pm - 4.25pm	Challenging science students to communicate differently: Does blogging improve writing skills?	Dr Jenny Martin ***(Science)***
	4.30pm - 5.00pm	Creative challenges: An inquiry into the critical intersections between creativity and academic	Mr Steven Thurlow ***(UniServices)***
5.00pm - 6.00pm		Networking drinks	

Program day two

8.30am - 9.00am		Registration	
Theatre B117	**9.00am - 9.20am**	Strategic directions in teaching and learning	Professor Richard James Professor Gregor Kennedy
Theatre B117	**9.20am - 10.20am**	Panel: Peer review of teaching: Challenges, practices and possibilities	***Chair*** Dr Chi Baik ***(MGSE)*** Professor Marilys Guillemin ***(MDHS)*** Professor Angela Paladino ***(FBE)*** Dr Justin Bilstza ***(MDHS)*** Dr Ilkka Ojansivu ***(FBE)***
Theatre B117	**10.20am - 11.00am**	The University of Melbourne Excellence Awards presentations	Dr Annabelle Murphy ***(VCA & MCM)*** Dr Charles Sevigny ***(MDHS)*** Dr Antonette Mendoza ***(MSE)*** Dr Judi Humberstone ***(MDHS)***
11.00am - 11.30am		Morning tea	
11.30am - 1.05pm		***Concurrent sessions***	
		Stream seven	
Alice Hoy Rm 242	**11.30am - 12.30pm**	Using visual arts for professional ethics education: A workshop ***(Workshop limited places 40)***	Dr Clare Delany ***(MDHS)***
Singapore Theatre	**12.35pm - 1.05pm**	Designing for learning with technology: Scaffolding an integrated suite of professional development activities for University staff	Associate Professor Kristine Elliott ***(MGSE)***
		Stream eight	
Theatre B117	**11.30am - 12.00pm**	Beyond the classroom: Finding and surviving the third space	Dr Mitch Goodwin ***(Arts)***
	12.00pm - 12.30pm	Creating a creative project-based assessment option in urban legends	Dr Michael Schmitz ***(Arts)***
	12.35pm - 12.50pm	Physical Biochemistry: Using performance in teaching and learning	Dr Terry Mulhern ***(MDHS)***
	12.50pm- 1.05pm	Engineering pre-lab material development	Dr Asal Bidarmaghz ***(MSE)***
		Stream nine	
Malaysian Theatre	**11.30am - 12.00pm**	Richer or deeper? Comparing inquiry-based workshops with traditional tutorials in the new Bachelor of Agriculture	Dr Michael Santhanam-Martin ***(FVAS)***
	12.00pm - 12.30pm	Do old habits die hard? Testing for sustained impact of an assessment model that encourages greater student engagement in learning	Professor Raoul Mulder ***(Science)***
	12.35pm - 12.50pm	The accuracy of standard setting using the borderline regression method for varying cohort sizes	Dr Michael Pianta ***(MDHS)***
	12.50pm - 1.05pm	Exploring misconceptions as a trigger for enhanced student learning	Dr Heather Verkade ***(MDHS)***
Theatre B117	***1.05pm - 1.20pm***	Wrap up and best oral and poster awards	Professor Sophie Arkoudis ***(MGSE)***
1.20pm - 2.00pm		Lunch	

Abstracts

Stream one

Alice Hoy Rm 242

60 Min Workshop

Title: CrowdCARE: an innovative, online platform to transform the teaching of critical appraisal

Presenter: Dr Laura Downie

Co Authors: Dr Michael Pianta

Faculty: Faculty of Medicine, Dentistry and Health Sciences

Abstract: Evidence-based practice (EBP) is a dominant paradigm in healthcare that aims to provide the highest quality patient care. EBP involves clinicians integrating the best-available research evidence, with their own expertise, and to consider patient's needs and preferences, when making clinical decisions (Sackett, et al., 1996). Using EBP in clinical contexts is challenging. Key barriers to adopting EBP in healthcare settings include a lack of skills, insufficient time and the quantity of published evidence. We have developed a novel, online digital platform, CrowdCARE (Crowdsourcing Critical Appraisal of Research Evidence), which both contributes to overcoming these barriers and provides a stimulating environment for teaching critical appraisal. CrowdCARE supports an interdisciplinary community of students to share the burden of critical appraisal, and to learn from each other. CrowdCARE enables students to acquire appraisal skills through compulsory online training modules, as a foundation for them to contribute 'ratings' (appraisals) for any of the 26 million studies available in PubMed. 'Ratings' are based on the NHMRC Evidence Hierarchy and use validated tools. The platform provides clear, timely feedback to students on the quality of their 'ratings' by comparing their appraisals to those of peers and experts. CrowdCARE supports inquiry-based learning by enabling students to identify high-quality evidence relevant to their inquiry-based and/or research projects. This year, CrowdCARE was incorporated in the Doctor of Optometry program, through integration into the EBP curriculum and student research projects focusing upon evidence synthesis. We propose to host a workshop to demonstrate the functionality and capacity of CrowdCARE as an interdisciplinary teaching tool. The workshop will be interactive, enabling attendees to register, undertake the pre-requisite training and begin contributing to the database. We will also share how we have embedded CrowdCARE into our curriculum, as a model for this novel platform to be broadly used across UoM health-based teaching programs.

Singapore Theatre

15 Min Oral Presentation

Title: Students as partners towards work-ready planners: Perceptions on a sequential technology-enabled curriculum design

Presenter: Dr Iderlina Mateo-Babiano

Co Authors: Associate Professor Yan Liu (UQ), Dr Sebastien Darchen (UQ)

Faculty: Melbourne School of Design

Abstract: Spatial skills (i.e. spatial thinking, spatial planning, spatial modelling, spatial reasoning and visualisation) are key graduate attributes in the Urban Planning (UP) discipline. However, it becomes a challenge for UP students to plan for several design options, assess and compare the impacts of these design options prior to implementation, or visually communicate a planning output to the general public. Addressing this need for improved UP students' spatial skills, a virtual dynamic learning platform was introduced as a learning design intervention which transforms three core but discrete courses in a UP program. By using the "students as partners" framework, this paper reports on the results of a focus group discussion to elicit student perception on the said learning design intervention. Students provided barriers and facilitators as well as opportunities to improve curriculum design, and inform the enhancement of the sequential learning design and implementation and enhance students' capacities for transitioning from being students to skilled practitioners, matching the skills requirements by industry and community.

15 Min Oral Presentation

Title: Gamified mobile learning platform in large size engineering subjects: An overview and qualitative assessment

Presenter: Ms Olga Mikhaylova

Co Authors: Mahdi Miri Disfani

Faculty: Melbourne School of Engineering

Abstract: Gamification of learning processes is a fairly novel approach to boost learners' motivation and engagement. Recently, this approach has been tried for teaching across different levels of education including tertiary level. For the first time this year, a gamified mobile learning platform was used in teaching of graduate engineering students in Geotechnical Engineering subject in Department of Infrastructure Engineering, Melbourne School of Engineering. This subject is a final year core subject of the Master of Engineering (Civil) and (Structural) degrees with, typically, more than 200 enrolled students. Over several past years, students have commented that the subject is "difficult" and that they would benefit from more feedback during semester. There has been also lack of engagement with learning activities, in particular lectures. A mobile app Quitch was used to organise an ongoing assessment of students learning with the aim of improving their engagement with the subject and learning during semester as well as to provide them with rapid feedback on their learning progress. The app challenges students with short questions about most recently taught topics. By answering these questions, students earn points and badges and compete with each other. At the same time, they can self-evaluate their understanding of topics and correct their answers if needed. This presentation summaries first-hand experience with the gamified mobile teaching tool and discusses benefits and challenges of implementing this learning method for a large group of students in an advanced engineering subject.

15 Min Oral Presentation

Title: Transitioning to the flipped classroom: Our experience in veterinary science

Presenter: Dr Laura Dooley

Co Authors: Sarah Frankland, Elise Boller, Elizabeth Tudor

Faculty: Faculty of Veterinary and Agricultural Sciences

Abstract: Theme: Self-direction. As technology is increasingly integrated into the daily lives of students, there is a growing interest in blended learning approaches that incorporate both face-to-face and online delivery methods. The 'flipped classroom' approach evolved from a pedagogical ideal to utilise face-to-face class time for active learning. However, this approach does rely on students developing the capacity for independent self- regulation of their learning, which can present a challenge for students unaccustomed to this teaching practice. Using funding from a Learning and Teaching Initiative grant, an established veterinary pre-clinical course was transitioned from a traditional didactic lecture delivery mode to a 'flipped classroom' approach with core lecture content delivered online. Online learning resources included short video segments and a variety of short activities and problems. Online materials were complemented with face-to-face weekly small group case-based learning classes facilitated by academic staff. The experiences of two cohorts of students who studied the course in consecutive years and received the different delivery modes were compared. Outcomes of this transition were assessed using student grades, surveys and focus groups to compare student academic performance, satisfaction and engagement in the two cohorts. The flipped classroom cohort achieved significantly higher grades in the written answer section of the final examination. Student satisfaction with learning resources also improved in the cohort who experienced the flipped classroom approach; however satisfaction with other aspects of the course remained largely unchanged. Our findings also highlighted some of the challenges associated with implementing such a pedagogical transition, in particular the risk of students feeling disconnected or isolated when using the online resources rather than attending live lectures. The outcomes of this study have implications for teachers considering the implementation of teaching approaches which require learners to develop skills in independent self-regulated learning.

15 Min Oral Presentation

Title: Academic Skills Hub: An interactive online resource for student reflection and self-directed learning

Presenter: Mrs Ariana Henderson

Co Authors: Morag Burnie

Faculty: University Services

Abstract: In an effort to reach as many students as possible in a sustainable way, Academic Skills has created a set of interactive self-access learning modules to encourage students to engage in self-directed learning and reflection. The Academic Skills Hub project was an opportunity for us to develop students' academic literacy, focusing on reading, note taking, academic writing, critical thinking, research, referencing and exam preparation skills. The Hub allows us to collaborate with academic and professional staff to embed tailored resources within specific subjects using a developmental approach. The self access modules have been built in the LMS and allow students to manage their own study path and develop the skills they need most for their specific context and level. To enable self reflection, feedback quizzes have been integrated throughout. We developed the resources in the LMS to build capacity within the team to continue to develop future online resources independently, and to ensure ease of embedding within subjects. Student engagement with the modules is being monitored and reviewed via analytics and tutor and student feedback. We plan to expand our embedding to graduate and undergraduate subjects across the university and further develop the community to incorporate opportunities for peer-to-peer collaboration and communication.

Stream two

B117 Theatre

30 Min Oral Presentation

Title: 'Teaching on video' vs 'teaching through video': Strategies to support and enrich teaching and learning through inquiry and discovery

Presenter: Mr Jamie Morris

Co Authors: Susan Batur

Faculty: University Services

Abstract: Are universities currently making the most of video as a teaching medium? What does the difference between 'teaching on video' and 'teaching through video' look like in practice? Using two recent University of Melbourne case studies, this presentation will illustrate how both approaches can support and enrich teaching and learning by facilitating inquiry and discovery based learning designs. Film as a tertiary teaching tool has a long history, and The University of Melbourne has maintained a dedicated video production team since 1977. Further strategic expansion into video was led by the implementation of a MOOC programme in 2012, followed by online graduate programmes in 2014. Unlike traditional face-to-face settings, MOOCs have relied heavily on video content for directed instruction and knowledge transfer, thereby resulting in the need for more innovative, creative, and engaging use of video. Based on practical pedagogical experience and growing research, the University's Learning Environments department has developed an approach to video design based on a distinction between 'teaching on video' and 'teaching through video' (Woolfiitt, 2015), pedagogic video design principles (Koumi 2006) and strategies (Thomson, Bridgstock, & Willems, 2014), the affordances of video as a medium (Hansch et al., 2015), best practice alignment (Winslett, 2014) and empirical testing (Lodge, Horvath, & Hortin, 2016). By shifting the emphasis from video lecture conversion toward video integrated learning designs, and underpinned by evidence based research principles for effective video usage, the University's video and learning design teams have supported, enriched and extended inquiry and discovery based learning and teaching for both on-campus and globally dispersed student cohorts.

30 Min Oral Presentation
Title: Rebooting teaching and learning - Arts West case studies
Presenter: Ms Meredith Hinze
Co Authors: Faculty of Arts eTeaching Team (Meredith Hinze, Mitch Buzza, Cameron Dunlop, Jordan Old)
Faculty: Faculty of Arts
Abstract: The design of the new Arts West building teaching spaces reflects a shift in focus to create an environment conducive to supporting active learning in the humanities and social science disciplines. This session will share insights and experiences from the exciting journey of supporting the redesign of several subjects that transitioned into seminar-style teaching in Arts West in second semester 2016. It will look at several case studies, with interviews and summaries of the experiences of teaching staff in rebooting the relationship between the virtual (online) space and the classroom (physical) space. The shift in curriculum model opened up new opportunities to incorporate innovation in teaching. We will provide an overview of the processes, workflows, training and support involved in the eTeaching Unit working together with academics to rework and remodel their existing courses.

15 Min Oral Presentation
Title: Using role-play to facilitate problem based learning
Presenter: Ms Miriam Edwards
Faculty: Faculty of Business and Economics
Abstract: This presentation steps participants through the process of implementing Problem-Based Learning (PBL) through role-play. Strategies for designing and implementing role plays in both the face-to-face and online learning environments will be introduced. Participants will be encouraged to consider how they might incorporate similar practices within their teaching. PBL encourages students to be self-directed while also providing opportunities for collaboration. By asking students to assume a role when resolving a real-world problem, the lecturer allows them to make connections between theory and practice. As a result the student is demonstrating professional readiness. Although role-play involves groups of students, individual assessment can still occur – eliminating the dreaded 'group project' (Shapiro and Leopold, 2012). The PBL model includes four stages: a 'trigger' which could be a problem or scenario students must respond to, structured learning events such as readings or lectures, self-directed learning which may include independent research and group communications, and finally the original situation is revisited and resolved. Assessment may be incorporated throughout the process or it may occur afterwards, as a larger personal reflection or essay (Yeh, 2010). Since role-plays may occur within face-to-face classes, online or in a combination of delivery modes (blended), lecturers have a variety of design choices. Considerations such as timing, group formation, and the use of technology will be raised. In conclusion, participants will be provided with related resources.

15 Min Oral Presentation
Title: Capture and use of 360 video for teaching and learning
Presenter: Dr Stuart Barber
Faculty: Faculty of Veterinary and Agricultural Sciences
Abstract: For many subject areas it is useful for students to be able to immerse themselves in learning by visiting places at certain times. The challenge for educators is that it may not be possible to take students to a range of environments due to the timing of semesters, cost of transport, dangerous environments and a range of other issues. An example of this in veterinary science is that it may not be possible for more than a small group of students to watch a particular surgery at once. The "next best thing" to being there is the use of 360 degree images or video to allow all students to see and hear the full 360 degree range. Staff and students can then look at these images using Google cardboard, Oculus Rift, HTC Vive or other hardware. Rapid advances in imaging equipment in the last five years makes the collection of video or photographs in 360 degrees much easier and also allows the viewing of these images easily and at high quality. Viewing images can be accomplished using virtual reality head ware or using a standard computer screen. This presentation will review options for collection of 360 degree images and then how these can be presented in a range of formats for staff and student use both in lectures and via the LMS using veterinary and agricultural science examples.

15 Min Oral Presentation

Title: Integration of technology and simulation to enhance student educational experience

Presenter: Dr Kwang Cham

Co Authors: Anthea Cochrane

Faculty: Faculty of Medicine, Dentistry and Health Sciences

Abstract: Background Improvements in technology have allowed new approaches to be used in teaching and learning. In alignment with changes in Australian optometric education and advancement in allied health education, we explored the use of technology to provide feedback to students and implemented a simulation-based program in the preclinical environment. Methodology we evaluated student perception in using an application (app) to deliver feedback to first-year students following case seminars, and a simulation-based program for second-year and third-year students. The app generates immediate constructive feedback, which forms an individualised report emailed to students. The simulator integrates a realistic 3D experience, providing students with real-time feedback to refine and consolidate a clinical technique. In second year, students are rostered to work in groups of three to use the simulator for six two-hour self-directed sessions for the year. A final-year student is allocated to provide peer trouble-shooting advice and critique for the first session. In third year, students again have access to the simulator for six two-hour self-directed sessions for the year, but this time on an individual basis. We obtained ethics approval to conduct anonymous surveys over a two-year period to assess students' perception of the app and the simulation program. Evaluation 90-100% of the students reported that the app-generated feedback was timely, relevant and specific. It allowed critical self-reflection and identification of strengths and weaknesses. When evaluating the effectiveness of simulation, students identified the simulator as being valuable in contributing to them being more confident and proficient in performing the technique.Outcomes we have utilised technology that provides highly-valued effective feedback. In our opinion, implementing a simulation-based environment has provided students with a deeply interactive and immersive learning experience. We anticipate that improvement in students' communication and clinical examination skills will ease transition from pre-clinical training to a real patient in the clinical setting. Effectiveness by embedding technology and simulation into our teaching and learning culture students have reported they have received feedback that is helpful and simulation has improved their clinical skills. Our observations demonstrate that students are more proficient in practical application, able to collaborate effectively in group work, and are independent self-motivated learners at the same time.

15 Min Oral Presentation

Title: Demonstrator development: Is there a role for effective questioning techniques for tertiary education practical activities?

Presenter: Miss Wenjing Hu (Angela)

Co Authors: Ann Osman (MGSE); Dr. Amber Willems-Jones

Faculty: Faculty of Medicine, Dentistry and Health Sciences

Abstract: Laboratory demonstrators are pivotal to successful undergraduate science teaching, due to their close contact with the students usually in small groups during practical classes. Despite their multifaceted role, the educational background of demonstrators is often that of laboratory research with no formal teaching training, and minimal pedagogical understanding. This study explored the understanding and use of questioning techniques of eighteen laboratory demonstrators, in a second year practical-based subject (Techniques in Molecular Science) in The University of Melbourne, before and after the provision of a one-hour professional development workshop on effective questioning techniques. The suite of questioning techniques included in the workshop was drawn from evidence supplied from research and literature studies. Both qualitative and quantitative data was obtained from the participants' initial self-evaluation survey, their feedback from the workshop, and follow-up observations of their practical classes. Analysis of the data showed an improved appreciation and pedagogical understanding of the role of questioning in teaching and learning from the demonstrators following the workshop. It was also shown that the demonstrators were concerned about the quality of the learning experiences they provided to their students. This study shows that it is feasible and fruitful to develop and evaluate a short professional development workshop for casual teaching staff involved in tertiary science education. The present study contributes to the literature by suggesting important directions for enhancing practical class demonstrators' teaching capacity, through a short, yet effective workshop. Further research will focus on examining how demonstrators' prior teaching experience influences their beliefs in teaching and learning, as well as the assimilation of information from professional developments.

Stream three

Malaysian Theatre

30 Min Oral Presentation

Title: A flipped classroom to teach the principles of envenomation: Enhancing medical students' application of biomedical science knowledge to the clinical context

Presenter: Associate Professor Kristine Elliott

Co Authors: Kenneth Winkel

Faculty: Melbourne Graduate School of Education

Abstract: The diagnosis and management of venomous bites and stings, particularly snakebite, is important for clinicians working in rural and tropical locations. An understanding of the principles of envenomation brings together knowledge from several biomedical science disciplines, applying it to the clinical context. Traditionally, the topic was taught to year 1 MD students in a two-hour session where information was delivered via a transmission model. However, the content expert was interested in adopting an approach that: reinforced the clinical differential diagnosis process; demonstrated clinical applications; incorporated active learning strategies; made the learning process more engaging; and could potentially improve student performance. For these reasons, we implemented and evaluated a flipped classroom to teach the principles of envenomation to year 1 medical students in the MD program (n=367). An online resource was developed to help students prepare for the face-to-face component of the flipped classroom, which was made available 1-2 weeks beforehand (taking 1 hr to complete). It began with a pre-test of eight questions to gauge students' prior understanding. The face-to-face session used a Q&A format centred on discussions of real-life clinical scenarios of snakebite (1.5 hrs long). Immediately after class, students completed a post-test (of the same eight questions) and questionnaire, rating their perceptions of the resource and flipped classroom on five point Likert scales (1 strongly disagree, 5 strongly agree). Most students (84%) came prepared to the face-to-face class, having completed the entire resource beforehand. Students reported positively about learning the principles of envenomation with the online resource and found it useful to prepare for class. Student responses also indicated that the interactive class was beneficial to their learning (mean = 3.9), particularly in relation to the clinical relevance of envenomation (mean = 4.0). Importantly, these findings were supported by comparisons of pre- and post-test scores that showed significant learning gains by students across the eight questions.

30 Min Oral Presentation

Title: The tyranny of distance? Digital object-based learning in the Australian tertiary context

Presenter: Dr Monique Webber

Faculty: Faculty of Arts

Abstract: In the mid twentieth century, André Malraux argued that changing technology had a formative influence on teaching art history. By dictating how students outside the physical museum interacted with visual sources, developments in photography and publication in turn defined what was studied, how, and to what outcome. As we approach the third decade of the twenty-first century, how is broader object-focused tertiary education being altered by new technologies, what are the challenges of these approaches, and what are the benefits? Education in all but Australia-focused disciplines has long depended upon international fieldwork being conducted by academics and then communicated to students. Reliance on static images and text cast students as passive recipients of edited knowledge, and often suggested that Australian education was merely a placeholder. 'Real' study would be undertaken overseas at graduate level – by those that could afford it. This model fostered elitism in the graduate and postgraduate sector, and could fail in developing fundamental graduate skills. If students had not experienced the realities of object engagement in the supportive classroom environment, how could they independently apply the necessary skills to objects in the international context? The 'tyranny of distance' seemed an insurmountable obstacle. However, more recent recognition of object-based-learning (OBL) as a fundamental element of student engagement, and commensurate expansion in the digital humanities, has prompted us to redesign our teaching and learning activities while providing the pathways to do so. Using the teaching of ancient visual culture as a case study, this paper will discuss the different approaches to digital OBL currently being explored and their broader applications in the tertiary sector. It will question how the digital humanities can not only model practical skills in the classroom, but also offer our graduates deeper engagement with their disciplines and foster innovative problem-solving skills for confronting their challenges.

15 Min Oral Presentation

Title: Object-based learning in a foreign language classroom - a few pedagogical and practical considerations

Presenter: Ms Diane de Saint Léger

Co Authors: Katie Wood

Faculty: Faculty of Arts

Abstract: "Who knew I would find a much deeper understanding of and empathy for these stories through my studies of French!" So wrote a former student of French Cultural Studies (FREN20016) of their contribution to the online exhibition Somewhere in France. In 2012, Diane de Saint-Léger of the School of Languages and Linguistics approached the University of Melbourne Archives (UMA) with a novel proposal to use archival material in her French language/cultural studies subject. With the centenary of World War One approaching it was decided to focus on the experiences of soldiers who fought on the Western Front, whose papers were held at UMA. A key learning objective was to take the learners' knowledge of the French language outside the safe environment of the classroom and encourage them to embrace the bi- or multilingual, multi-skilled and new technologies literate subjects that they were learning to become. The governing principle of this project was thus conceived as an object based approach to learning: learners, under the guidance of their teacher and UMA staff were responsible for content development of the online exhibition. Students first engaged in the context of this period of history to make sense of the archive material presented to them. By developing their own critical awareness, they could identify gaps in the narrative and develop their own– in French. High quality assignments contributed to the online exhibition over a four-year period, followed by a major exhibition held in the Noel Shaw Gallery in 2016. To what extend did the project succeed? What lesson can we learn from this rather experimental approach to learning? What are the pedagogical and practical implications for both learners and staff involved in an object-based learning subject such as this one? This presentation will attempt to answer some of these questions.

15 Min Oral Presentation

Title: Educational technologies review: Enabling flexible opportunities for teaching, learning and assessment

Presenter: Ms Deborah Jones

Faculty: University Services

Abstract: An educational technology landscape review of 40 universities from across the US, Asia, UK, Australia and New Zealand was undertaken recently to contribute to the Flexible Academic Program Green Paper: Harnessing Virtual Infrastructure to help determine the 'location' of the University of Melbourne in this technology landscape. The selection of Universities was based on the 2015-2016 Times Higher Education listings, and diversity was reflected in a range of characteristics such as research intensive institutions (Russell Group, Group of Eight), or teaching and learning or online focus, or younger, technology focus universities (Australian Technology Network, QS World Rankings Top 50 under 50). The investigation focused on the range of institutionally supported technologies for teaching, learning and assessment at each University. These were classified into two main areas:

- Enterprise Level Technologies – primary platforms implemented at institutional level, such as Learning Management Systems, Lecture Capture Systems and Academic Integrity Systems; and
- Extension Technologies – tools beyond, but typically integrated with the LMS, for example: Summative Assessment Systems, Peer Assessment Systems, Clicker/Polling Systems, Adaptive Learning Tools, Web and Video Conferencing Systems, Screen Capture Systems and Video and Media Production tools.

The review identified the somewhat narrow and typical range of enterprise level technologies currently available which will be useful to inform the University's 2017 review of its own teaching and learning systems. In addition, the review of tools included in the extension technologies class has led to a consideration of how these tools can be applied in support of teaching learning and assessment, particularly in four key pedagogical areas:

- Content authoring and media production
- Interactive classrooms
- Assessment and peer review
- Collaboration

This short presentation will provide a summary of these findings and explore the potential to introduce educational technologies designed to stimulate a wider range of flexible opportunities for teaching staff to enhance engagement with students in interactive and collaborative learning.

15 Min Oral Presentation

Title: Reconfiguring the value proposition of the teaching-research nexus: A strategy for affirming the significance of co-created research from the design studio

Presenter: Dr Rebecca McLaughlan

Faculty: Melbourne School of Design

Abstract: Higher education is witnessing a greater utilisation of sessional and teaching only academics in response to increasing pressures on our leading researchers to publish, engage, secure funding, commercialise their research and justify its impact. Students risk becoming distanced from the researchers engaged in cutting edge work within their disciplines. This paper reflects on ongoing experiments in reconfiguring the architectural studio in order to engage students as co-creators of research and the resistance we have faced in convincing the wider research community that this research presents a serious value proposition in terms of new knowledge. We learnt very quickly that creating the learning space was the easy part. A manifold strategy has been developed in response to the challenge of validating this work. It includes situating the learning environment within contemporary research problems, iteratively refining our resourcing and delivery model, deciphering the real value of this research and suitably positioning it, locating and appropriating a relevant research methodology to substantiate this approach (including the steps taken to disseminate and validate this methodology within disciplinary contexts that currently do not recognise it) and determining avenues for the dissemination of this research that can act to reinforce its significance. Reconfiguring the value proposition of this co-created research remains challenged by current academic-led practices whereby student work is disseminated within low quality journals and student-specific conference sessions (focusing here on the work itself as a research outcome, as distinct from the pedagogical processes that underpin its making). This work begins the process of a wider investigation of how we can close the gap between research and teaching within the current constraints of higher education. What new teaching methodologies are necessary to enable students and academics to work together to advance research across the campus; enriching learning through increased exposure to our top thinkers?

15 Min Oral Presentation

Title: Object-based learning with the University's cultural collections

Presenter: Ms Sophie Garrett

Co Authors: Ms Katie Wood, Mary-Louise Edwards (Arts Librarian), Heather Gaunt (Curator, Grainger Museum), Jen Hill (Curator, Music), Olivia Meehan (Ian Potter Museum), Fiona Moore (Coordinator Object-Based Learning, Arts Faculty), Kerrianne Stone (Curator, Prints), Susan Thomas (Curator, Rare Books)

Faculty: University Services

Abstract: This workshop will offer participants an introduction to the theory and practice of Object-Based Learning (OBL) using the University's remarkable Cultural Collections. The University is home to a unique and vast set of over 30 Cultural Collections. They include the Archives, Grainger Museum, Ian Potter Museum and the Library's Special Collections. These collections have been acquired over the life of the University for the purposes of research, teaching and display. Their subjects cover not just history and other Arts, but medicine, dentistry, anatomy, architecture, law and the sciences including botany, physics, engineering and earth sciences. They are an invaluable teaching resource for University staff. Object Based Learning is a pedagogical concept that draws in elements of active and experiential learning. The objects can not only enhance the subject matter of a course, but also the experience of working with objects in an active way engages a wide range of skills including communication, teamwork, observational and analytical skills. OBL can encourage students to apply abstract ideas to a practical problem through analysing an object. Furthermore, OBL can and has been used as the basis for 'blended learning', an amalgamation of hands-on practical exercises, research skills and digital literacy skills. In this workshop, we will outline the resources available through the Library to assist in the development of digital assessment and skills. The workshop will bring together curators and experts from across the University's Cultural Collections to outline the resources on offer. Much like an OBL classes, participants will work in small groups on an object from one of the many collections. They will, with the assistance of the curators, devise a student activity and discuss the learning outcomes and assessment criteria that such an object could address. In this way the workshop will be a practical introduction to the concept of OBL and provide inspiration for current and future courses.

Stream four

Alice Hoy Rm 242

60 Min Workshop

Title: Taking the pulse of student thinking and learning: Using live polls and quizzes to collect student feedback
Presenter: Ms Fiona Broussard
Co Authors: Bronwyn Disseldorp, Catherine Manning
Faculty: University Services
Abstract: Welcome to the Sustainable Hypothetical – or Hype. This is an experiential learning process that draws on the tradition of participatory scenarios and role-playing activities. These methods have been used as learning tools for decades and centuries to encourage and facilitate the development of increased metacognitive ability, critical thinking skills, reflexivity, adaptive and transdisciplinary learning skills. In this workshop session, the focus is on transformational sustainability science research, and specifically the ability to navigate wicked problems. For 45 minutes, the panellists and audience are taken on a journey through a fictional future – a future over which they have some control. Sessions begin with an introduction to a hypothetical future scenario that closely resembles reality, or is cognitively accessible in terms of its physical, technological, and ethical characteristics. Each panellist is assigned a role, based on their own background and expertise, in the scenario – they must act in character. The narrative is developed through a series of escalating 'pivot points'. Each applies specific ethical, political, and practical pressures to the unfolding storyline. The panellists must respond in character. Audience members are also enlisted as active participants in the unfolding drama, contributing via the use of digital-media. Panel and audience decisions are incorporated into the unfolding storyline. The Hype is designed to be confronting, and to challenge assumptions and values whilst also being humorous and engaging. Following the conclusion of the narrative, the audience and panellists engage in a reflective discussion, exploring their responses, and considering how and why certain decisions were made. The panellists and selected audience members also provide confidential feedback to inform research questions on public perception, understanding of sustainability challenges, and pathways to sustainable futures. The Hype is thus not only a powerful educational tool, but a novel and valuable investigative format in the context of normative, anticipatory, and transformative sustainability.

Alice Hoy Rm 242

60 Min Workshop

Title: Introducing skills workshops in first year biology
Presenter: Ms Lynette O'Neill
Co Authors: Dawn Gleeson and Lisa Godinho
Faculty: Faculty of Science
Abstract: Introducing Skills Workshops in First Year Biology Assoc Prof Dawn Gleeson, *Dr Lisa Godinho, *Lyn O'Neill School of BioSciences *presenters Proposal for a 60 minute workshop The School of BioSciences is undergoing a curriculum review and the changes to the first year Biology program will be staged over two years. In 2017 we are introducing a new presentation format while in 2018 the content of the two mainstream Biology subjects will be integrated via two consistently interwoven themes. The format this year has reduced the number of lectures per week from three to two and there has been an increase in the level of online content delivery via short videos and an interactive textbook. The topics have been modularised with a short test at the end of each. Students continue to attend a one hour tutorial every week and a two hour practical every fortnight. A recommendation of the School of BioSciences curriculum review was to move from implicit to explicit teaching of generic skills to undergraduates. In response, the first year Biology course now includes five hours per semester of explicit skill development which we have called "Skills Workshops". The five workshops include data presentation and visualisation, asking scientific questions, designing experiments, critical analysis and evaluating resources, and communication. The Skills Workshops are held in a refurbished space that holds 52 students sitting in groups of up to six. A tutor leads the group, but there is a strong emphasis on student activity and participation. The workshop commences with stimulus material, usually an activity which engages the students in the topic and with each other. This is followed by a series of discussion questions or group activities. So far the students have been visibly engaged in the activities. No formal evaluation has occurred at this stage but a student written report, due on April 7th, will require the use of some of the skills the students have been practising in the Workshops. We will be able to compare the performance on this activity

in 2017 with the 2016 cohort. Postscript The outcomes we would like from this conference workshop are:

1. To give participants a student perspective on our Skills Workshops by completing a sample of the activities.
2. Create an opportunity for participants to share their own and give feedback on others' skill development strategies.
3. Foster a community of practice around the teaching and evaluation of skills in our undergraduates, particularly at the first year level when cohort sizes tend to be larger.

Singapore Theatre

30 Min Oral Presentation

Title: Tell us what you think: Creating opportunities for self and peer evaluation of group activities

Presenter: Ms Bronwyn Disseldorp

Co Authors: Dr Natalie Courtman. Faculty of Veterinary and Agricultural Sciences

Faculty: University Services

Abstract: Background Doctor of Veterinary Medicine students at University of Melbourne are regularly involved in working collaboratively in small groups to discuss case studies and produce a shared report. Group work presents numerous challenges including variable engagement and participation, and issues regarding respect of other people's opinions. To deal with these challenges we need to identify dysfunction when it occurs, and then assist individuals and the group to improve their skills in working as an effective team. Methodology To evaluate how well groups were collaborating and to help identify students who lacked engagement or had difficulties interacting, we developed a series of feedback quizzes in the Learning Management System. The feedback quiz provided students with the opportunity to reflect on the quality of their own case study participation and confidentially give feedback on the performance other group members. The quiz response data was collected automatically and packaged into various report formats for staff review and feedback to students. The quiz consisted of Likert Scale questions, scoring the level of agreement with statements addressing enthusiasm, knowledge, respect for others, participation, preparation, and overall contribution to group discussions. An additional question invited further comments. The quizzes were customised for each group (16 groups of 8 students). The self and peer feedback activities were conducted twice, early and later in the semester. Students were provided with statements of their self-assessed score per question, the class average, average of peer scores per question as awarded by their group members, and summaries of average scores of all the groups. Open comments were viewed by staff but not shared to students. Explanations and interpretations of the feedback were provided to the class. Students were invited to reflect how they were interacting with, and contributing to, group discussions and consider how they could improve their group work skills, and invited to contact staff to discuss any aspect. Outcomes Individuals and groups with significant dysfunction were identified through evaluation of average scores and the comments assisted instructors with identifying the likely reasons for group dysfunction. This presentation will reflect on what was learned through providing feedback opportunities for students and the practical development of the activities.

Stream five

B117 Theatre

30 Min Oral Presentation

Title: Exploding custard and flying pigs – the 3 minute lecture

Presenter: Professor David Shallcross

Faculty: Melbourne School of Engineering

Abstract: During their academic formation, student chemical engineers need to develop an appreciation of the importance of, and knowledge around, personal and process safety. They need to understand their future roles and responsibilities in ensuring safety in their future workplaces, not only in terms of maintaining the personal safety of staff, but also the safety of the processes for which they are responsible. Since early 2013 every lecture in a second year chemical engineering has begun with a safety share, a 3 minute discussion on some aspect of safety. This reflects the practice in many engineering industries today in which all meetings, no matter what the topic, begin with a safety share. The content of the safety shares were not strictly relevant to the remaining lecture material, and students were advised that the content would not be examined. The safety shares covered general advice on safe practice including the importance of situational awareness, the value of precise communications, the permit-to-work system and many case studies. A survey conducted over two years has found that students found the safety shares

to be a good way to introduce the importance of safety in the work place. They found the shares interesting and did not consider the time spent on them at the start of the classes to be wasted. The students recommended that the safety share become a permanent feature of the lectures. The use of safety shares has now been piloted in chemical engineering at the University of Sydney. If the safety share can improve not only student awareness of the importance of safety, but also the safety culture within the School, would sustainability shares work equally well across the University?

30 Min Oral Presentation
Title: Going online - opportunities and challenges
Presenter: Dr Ralph Hampson
Co Authors: Professor Louise Harms, Professor Lynette Joubert, Ms Karyn Giglietta, Dr Nicole Hill, Dr David Rose, Ms Lauren Kosta
Faculty: Faculty of Medicine, Dentistry and Health Sciences
Abstract: Online teaching is one of the major disruptors to the delivery of university education. The University of Melbourne has invested in the development of a range of graduate online programs in Social Work. This builds on the strong foundation developed over 75 years when we delivered the first social work qualification in Australia, and we continue to be a leading provider in the field. The Social Work Department is working closely with Graduate Online to develop new and innovative ways of delivering our suite of qualifications, which includes Specialist Certificates, Graduate Certificates and Masters degrees through the online platform. To date we have developed and successfully delivered six subjects. Eight further subjects are under development or in the pipeline. Developing online courses has engaged the Department in reviewing its pedagogy for an online platform. The Department's academics have been engaged in developing and using new educational approaches, especially through their close work with the educational designers and project managers from Graduate Online. This workshop will be led by the Department and Graduate Online. It will provide participants with the opportunity to consider how to:

- Develop effective partnership between an academic department and the Graduate Online team? This will include administration, educational design, student engagement, marketing and evaluation.
- Create subject structures that provide a consistent approach for students undertaking the degree.
- Use innovative teaching tools and resources in the online platform.
- Address some of the challenges encountered in teaching clinical skills in an online platform.
- Create safe online classrooms where students can practice their clinical skills through case studies.

The workshop will interactive and allow participants to learn through a mixture of information and hands on learning.

15 Min Oral Presentation
Title: Preparing our students to be graduate ready – how do we do it?
Presenter: Dr Leonie Richards
Co Authors: Elise Boller
Faculty: Faculty of Veterinary and Agricultural Sciences
Abstract: The concepts of professionalism and professional identity are often said in the one breath. So why do we think it is so important for our students to graduate with these qualities and what are some strategies to impart this knowledge and teach it? How do we prepare students to be employable and graduate ready? The four year DVM course at the University of Melbourne has a framework for career advancement embedded throughout the course. The University created a curriculum- integrated program to aid in the development of professional identity and skills, professional portfolios and self-representation. The program starts in year one and at this point focuses on career options, challenging students to think how they can plan towards career options, maximizing their CV and employability at the end of year four. Year two focuses on resilience and professionalism through a series of workshops. Year three has the focus of communication practicals and the practitioner in residence program. The communication practical's are graduated from simple themes to difficult conversations, and also focus on difference in communication with lay people versus the scientific community. The intended learning outcomes of the practitioner in residence program are that of professional portfolio, professional socialization, mentorship and resources. The final year is lecture free and aims to highlight and maximise resources from the preceding three years.

15 Min Oral Presentation
Title: Partnering with industry to address the graduate skills gap using MOOCs
Presenter: Ms Susan Batur
Faculty: University Services
Abstract: The graduate skills gap is one issue that has dominated academic discourse in recent times. Organisations and corporations hiring new graduates have for some time now expressed concern about the divide that exists between what one studies at University versus the knowledge and skills one is expected to have when entering the workforce. The issue highlights the need for Universities to work more closely with industry to ensure the needs of students are met not only during their time at University but also on the 'outside' when putting their knowledge to use. This presentation aims to provide examples of the way on which MOOCs (Massive Open Online Courses) are being used to address this issue. Increasingly, MOOC providers (Universities across the world) are collaborating with corporations across the globe interested in enhancing employment opportunities for new graduates as well as providing professional development opportunities for existing employees.
Although limited research currently exists in describing the role of MOOCs in professional work settings, reports from industry and the popular press are beginning to emerge about the rise of corporate MOOCs.
Using their recent experience in developing a MOOC in partnership with BNY Mellon, a world recognised banking corporation based in New York, the authors of this presentation will describe the benefits, limitations, and future direction MOOCs have in addressing the graduate skills gap. The authors will share their experience in working with industry to provide contextual content, the challenges associated with copyright and intellectual property laws, examples of some of the authentic learning activities developed and the feedback received from all involved – industry partners, the University and the students enrolled.

15 Min Oral Presentation
Title: Creating A Better Educational Video Experience for Student Learning
Presenter: Mr. Peter Mellow
Co Authors: Jason Lodge, Jared Horvath, Linda Corrin, Alex Horton, Jamie Morris, Susan Batur, Grace McCorkell.
Faculty: Faculty of Business and Economics
Abstract: A recent Cisco study states that by 2019, 80% of the world's Internet traffic will be video (Marshall, 2015). This growth in video use has been mirrored in education. More teachers are wishing to use video to assist with creating effective learning activities for their students. Institutions are investing in self-service video studios and capture software to meet this demand. Much of this video produced comes in two dominant styles; 'talking heads' and 'voice over PowerPoint'. These are just a digitisation of a face to face lecture, and doesn't take advantage of the full scope of delivery options that video can offer. This is using a new technology in an 'old' paradigm. A number of researchers (Guo, et al. (2014), Hansch, et al. (2015), and Lodge, et al. (2016)) have categorised different video production styles in order to assist in discovering if one style is more effective for student engagement and learning. The literature on the success of these differing styles is lean. More research is needed in this area. The instructional design of the video appears to be more important than the typology or gene for both learning effectiveness and engagement. A poster has been developed as a quick reference guide to get teaching staff to consider other styles when they make their production style decisions. It outlines many of the different styles of video production used in the University of Melbourne MOOCs over the past four years. These videos have received many positive feedback comments from students about their high video quality as well as their engagement compared to videos from other institutions.

15 Min Oral Presentation
Title: Exploring the top paddock: Professional development for Bachelor of Agriculture Students
Presenter: Dr Sarah Frankland
Co Authors: Laura Dooley and Elizabeth Tudor
Faculty: Faculty of Veterinary and Agricultural Sciences
Abstract: The Faculty of Veterinary and Agricultural Sciences has recently undertaken a renewal of its three-year Bachelor of Agriculture degree. As part of this process the Faculty consulted widely with stakeholders to determine the graduate attributes most sought by employers. Employers are looking for graduates who can demonstrate personal

awareness and growth. To assist our students to attain these capabilities, we have developed a series of professional development events that will encourage them to reflect on their career interests and personal and professional development needs graduation These events run intensively over three days in the first semester of second year. Consistent with the principles of Flexible Academic Programming, learning activities in all second year agriculture subjects are suspended for these days. Students will participate in small group activities to explore their personal strengths and values. They will be able to explore and reflect on these further as they interact with the artworks in the Ian Potter Gallery. They will have a number of presentations from Industry representatives, will participate in workshops designed to develop their networking skills, and will have the opportunity to put these skills into practice as they meet with guests at an Industry Roadshow. The objectives of this series of events are:

- To provide the opportunity for students to reflect on their personality type, how they work with others and contribute to teams, their work preferences, their values, and how these might determine the “must haves” for students in their future workplace.
- To explore the range of career opportunities available, and to consider how best to position themselves for the graduate position of their choice.
- To assist students to develop their professional identity, and to express this through their resume, and social media presence.

30 Min Oral Presentation

Title: Tackling the employability challenge: Practical learning in the Arts

Presenter: Ms Annelies Van de Ven

Faculty: Faculty of Arts

Abstract: One of the greatest fallacies of arts education is the idea that those engaged in the arts just value learning for the sake of learning. In its most positive reading, this statement suggests that the arts are connected with a higher calling for knowledge. At its worst, it implies that unlike students enrolled in STEM or business degrees who are striving for job security and practical outcomes, students in the arts pay no heed to real-world concerns. However, there is actually a whole plethora of skills and attitudes that can be imparted through arts education, and these are not just learned from reading books, attending lectures, or writing essays, but through practice, taking the time to solve problems as they would emerge on the ground. As educators it is our job to work together with students, administrators, policy-makers and employers to develop a setting, content, structure and evaluation plan for our courses that create an environment in which this form of education is possible. In order for this to succeed we need to rethink our teaching strategies and develop programs that address the possible real world needs and problems that students will face. Taking teaching and learning out of the classroom and into the field of practice. This workshop aims to develop a series of proposals for course formats that will approach the arts through practical learning strategies, a resource for university staff in the process of establishing or altering an arts based course. Using examples from my own projects in classics, history and archaeology, as well as proposals from workshop participants, we will consider course plans that address particular skills and attitudes that could help our students market their own employability and apply their skills in a wide range of jobs extending outside the academic sphere.

Stream six

Malaysian Theatre

30 Min Oral Presentation

Title: “Ready for glory”: Assuming student success in starting a first year at Melbourne

Presenter: Dr Catherine Mann

Faculty: University Services

Abstract: This presentation will focus on the outcomes of a successful new transition initiative at the University of Melbourne aimed at improving the student experience for entering first year undergraduate students across the institution. Drawing on recent scholarship in the First Year Experience in Higher Education (FYHE) focussed on the importance of early engagement practices and a whole-of-institution approach to transition pedagogy and student success (Kift, Nelson and Clarke, 2010), First Year at Melbourne provided peer-to-peer learning in small,

facilitated, cohort-based groups to harness student readiness for and expectations of engagement in the pre-commencement period. Drawing on data from individual student evaluations and institution-wide surveys, as well as responding to peaks in student enrolment and service expectations, this pilot built on a set of personalised and coordinated communications that started once students had placed their preferences for university. Pedagogically and methodologically, it assumed that students would successfully navigate their own transition into the university in collaboration with others, building connectivity with students, staff and their new learning environment.

30 Min Oral Presentation
Title: Helping English as additional language students get to first base and beyond
Presenter: Dr Andrea Truckenbrodt
Co Authors: Dr Julie Choi
Faculty: Melbourne Graduate School of Education
Abstract: Successful postgraduate study is predicated on students having the capacity to read, comprehend and critically reflect on academic literature and research. This task is particularly challenging for international students who are still developing their academic language proficiency in English. The challenge for academics is to address both the content and literacy needs of a diverse group of learners within a teaching and learning context of reduced face-to-face instruction time and increased class sizes. Academic readings are typically content vehicles that contextualise, contribute or challenge big ideas within a particular domain. Understanding the content represents the metaphorical first base in academic development; it is material that students must 'own' and then use to become self-directed, critical and creative thinkers. This presentation reports on teaching strategies and techniques my colleague and I have used with students in the Melbourne Graduate School of Education to build their academic literacy. The tools described in this presentation require students to read purposefully, identify key ideas, synthesise and represent content in their own words and connect the content of the reading material to their own experience, other literature or the real-world. The tools scaffold and make visible the thinking processes that highly-skilled readers use to gain meaning from texts. This close engagement with text prior to participation in seminars or lectures is potentially empowering for English as additional language students, particularly when they also have the opportunity to co-construct their learning with other students. The pre-, while- and post-reading approach described by Wallace (1992) frames our pedagogic choices. We have drawn on and adapted materials from the work of the Harvard Visible Thinking project, Loughran (2010), Kruse (2010) and others for the tertiary context.

15 Min Oral Presentation
Title: Travelling together: Reflection on a problem-based learning in a Japanese language subject
Presenter: Dr Yasuhisa Watanabe
Faculty: Faculty of Arts
Abstract: In this presentation I reflect on a problem-based project conducted in the lower-intermediate level Japanese subject over the last 4 years. In this project, students are to make an itinerary for a travelling in Japan together with a group of 3 from different cultural backgrounds, using various internet resources in Japanese, including train timetable and hotel search engines. Through this project, it is intended that students acquire necessary vocabulary to search the internet, develop understanding of Japanese geography and transportation system, research various Japanese cultural events, negotiating differences with peers from different backgrounds, while synthesising information and creating something real – an itinerary that you can actually use with costing for the trip. While most students find the project an exciting opportunity to apply their language learning, cultural knowledge and past experiences in a real task, not all students share the same sentiment. Some find the task too time-consuming, while others have problems with the concept of group work. While successful groups benefit from all of the aforementioned learning

outcomes, others struggle to work with their peers, which can have a direct impact on the marks they receive. Various steps were incorporated to avoid disappointment through the life of the project with some success. While the project still has issues that need to be solved, it gives students an opportunity to develop the graduate skills needed as Melbourne graduates, i.e., “applying knowledge and ideas to practical problems” and “working collaboratively with others”. The project has been reviewed each year, incorporating feedback from students and tutors over the last 4 years. The presentation will focus on how the project evolved over 4 years and what triggered those changes, through collaborative work of the coordinator and tutors.

15 Min Oral Presentation
Title: Applying non-violent communication principles to marking and assessing
Presenter: Dr Melanie Plesch
Faculty: Faculty of VCA and MCM
Abstract: Nonviolent communication (NVC) is an interaction and communication model developed in the 1960s by psychologist and peace activist Marshall Rosenberg. Drawing on the humanistic (or person-centred) approach of Carl Rogers, NVC promotes empathetic interpersonal communications and seeks transformative responses. Four concepts are key to NVC: observation, needs, feelings and requests, which match stages in the communication process. Of particular relevance to education feedback is the replacement of judgemental criticism with observations, and identification of feelings and needs of both parties. The final stage in the process replaces demands with clear and specific requests. The application of NVC to educational contexts, mostly in Sweden, Denmark, Germany and France, has been thus far limited to primary and secondary schools, and mostly centred on teacher-student and peer-to-peer relationships, as well as a model for conflict resolution. Considering the feedback process in higher education as a communication act, this paper proposes that NVC provides a valuable framework from which to question the top-down, monological and hierarchical approach to writing comments on students’ assignments. It is illustrated by the author’s experience applying NVC practices to the development of marking comments and feedback in two project- and essay-based core subjects in the Bachelor of Music at the University of Melbourne. It suggests that NVC-based feedback practices improve the quality of feedback and is more successful in eliciting transformative responses from students.

15 Min Oral Presentation
Title: I command thee thou shalt speak: Dealing with silence and language anxiety in the L2 classroom
Presenter: Mr Riccardo Amorati
Co Authors: Beatrice Venturin
Faculty: Faculty of Arts
Abstract: Until high levels of proficiency have been reached, language learners cannot have full control over what they say in the L2, how they say it and what image of themselves they project. Hence, learning and using a foreign language might pose a threat to one’s self-image. This may explain why language anxiety is a widely researched area in Second Language Acquisition. The term refers to the feeling of apprehension, tension and even fear in situations in which students are asked to use the L2 (Dewaele, 2007). The construct is linked to individual self-perceptions (Onwuegbuzie et al. 1999), cultural and contextual factors and has negative consequences for those who experience it: from low L2 achievement, to a propensity to engage in risk-avoiding behaviours, such as speaking less or being silent (Steinberg and Horwitz, 1986; MacIntyre et al. 1997; see: Gknou et al. 2017 for a recent overview). As reflective practitioners (Schön, 1983) we interrogated ourselves on how we can maximise students’ participation by minimising language anxiety in the L2 classroom. This paper situates itself in the field of participatory action research (MacIntyre

et al. 2008) and presents our critical reflection in action and on action (Stephpenson et al. 2012), outlining how both processes informed our teaching practice for intermediate learners of Italian. First, we discuss our initial perceptions of quiet or silent L2 students and we problematise them in relation to the literature in the field (e.g. Bao, 2015). Second, we critically review examples of good practice: from re-negotiating one's own role and identity in the classroom, to modifying instructional practices and classroom procedures. Finally, we consider the advantages in having students reflect on the affective factors impinging on their L2 learning process and we present suggestions with regard to how this can be achieved.

15 Min Oral Presentation
Title: Challenging science students to communicate differently: Does blogging improve writing skills?
Presenter: Dr Jenny Martin
Co Authors: Dr George Aranda, Deakin University
Faculty: Faculty of Science
Abstract: More than ever, scientists must tackle the intellectual challenge of mastering their ability to communicate the relevance and importance of their work to different audiences. For science students, a common barrier to successful communication beyond their own discipline is the style in which they are trained to write (1). Science students typically learn to write in a formal, technical style, which is mandated by scientific journals, but often alienates non-specialist readers. In contrast, blogs are written in an accessible, conversational style and are a primary source of science information for a large, more diverse spectrum of the community (2). Being able to communicate science in easily-understood and engaging language is an essential employability skill for science graduates. Although research has assessed blogging as a tool of reflection and collaboration (3), there has been little investigation of blogs as a tool for improving communication skills. We explored the ability of science students at different stages of their science training to write in the accessible and readable style required by blogs. We assessed the writing of three different cohorts of science students: second year undergraduate students (Melbourne University and Deakin University) and research-active Masters–level students (University of Melbourne). All students wrote a series of blog posts on STEM topics of their choice published on publicly-available websites (https://deakincomsci2016.wordpress.com/ and https://blogs.unimelb.edu.au/sciencecommunication/). To assess whether students became more skilled at writing about science in a conversational style over the course of a semester, we analysed a variety of readability measures across each students' sequence of blog posts. We observed up to 10% improvement in readability scores, indicating blogging is an extremely valuable tool to improve students' communication skills. With instruction, guidance and practice, science students are skilled at developing and adopting a more engaging writing style, a certain asset in their future careers. (1) Stephen B Heard (2016) The Scientist's Guide to Writing. Princeton University Press. (2) Batts SA, Anthis NJ, Smith TC (2008) Advancing Science through Conversations: Bridging the Gap between Blogs and the Academy. PLoS Biol 6(9): e240. (3) Wolf, K. (2010). Bridging the distance: the use of blogs as reflective learning tools for placement students. Higher Education Research & Development, 29(5), 589 - 602.

30 Min Oral Presentation
Title: Creative challenges: An inquiry into the critical intersections between creativity and academic
Presenter: Mr Steven Thurlow
Faculty: University Services
Abstract: All western higher education systems expect doctoral candidates to produce a written thesis that is sufficiently complex, stylistically proficient and, above all, outstandingly original and creative. Despite a sizable body of work on the writing practices of doctoral students, (for example, Aitchison & Guerin, 2014), creativity and doctoral writing remains an under-researched combination. Current literature on this topic generally neglects to foreground the growth of creativity and creative practices when compared to other aspects of the writer's academic literacy development. This paper investigates perceptions of the place and affordances of creativity by a small group of L1 and L2 doctoral thesis writers in the Faculty of Arts at the University of Melbourne. It explores how writers attempt

to introduce specific types of creativity into their doctoral writing practice, such as the creative use of writer's voice and strategies to ensure heightened reader engagement in their work. Data was gathered through observation of a six 'creative' academic writing workshops, subsequent interviews about the notion and practice of creativity and textual analysis of selected 'creative' thesis extracts. Findings from a Pilot Study conducted in 2016 reveal clear acknowledgement of the crucial role creativity and strategic use of creative practices can play in the production of a suitably original thesis. However, before thesis writers can usefully tap into creativity as a force in their doctoral writing, they face sizable constraints that typically occur in the form of 'blocking' disciplinary conventions, possible ambivalence from supervisors and, possibly most detrimental of all, self-censorship of their creative urge.

Stream seven

Alice Hoy Rm 242

60 Min Workshop

Title: Using visual arts for professional ethics education: A workshop

Presenter: Dr Clare Delany

Co Authors: Heather Gaunt and Eleanor Flynn

Faculty: Faculty of Medicine, Dentistry and Health Sciences

Abstract: A common goal of ethics education is to equip students who later become professionals to not only know about ethical principles guiding their practice, but also to independently recognise when and how to use them for ethical decision making. There is also increasing interest in teaching methods which assist students to move beyond normative ethical principles and professional rules towards capabilities to recognise ethical dimensions of their work in different workplace contexts. This means ethics education needs to nurture moral imagination and courage so students can apply ethical principles with independence, imagination, empathy and accountability. Visual Arts is one educational method which can promote observation skills and foster a deeper understanding of and compassion for self and others. This workshop will present an innovative pedagogical approach using the visual arts, to foster students' moral imagination, empathy and independent critical thinking about ethics for their future professional practice. We will present two examples from health disciplines (medicine and physiotherapy) describing how visual arts was used to facilitate imaginative, emotional and conceptual thinking about ethics and professional experience. Participants will have the opportunity to discuss their own disciplinary ethical norms and goals of education and to apply the visual arts pedagogy and methods to design a learning activity for their specific professional disciplinary practice. Perry M, Maffuli N, Wilson S, et al. The effectiveness of arts-based interventions in medical education: a literature review. Medical Education 2011;45(2):141-48; Naghshineh S, Hafler J, Miller A, et al. Formal Art Observation Training Improves Medical Students' Visual Diagnostic Skills. Journal of General Internal Medicine 2008;23(7):991-97; Dolev JC, Friedlaender LK, Braverman IM. Use of Fine Art to Enhance Visual Diagnostic Skills. JAMA 2001;286(9):1020-21. Delany, C and Gaunt, H. "I left the museum somewhat changed": visual arts and health ethics education. (2017-in press). Cambridge Qaurterly of Health Care Ethics

Singapore Theatre

30 Min Oral Presentation

Title: Designing for learning with technology: Scaffolding an integrated suite of professional development activities for University staff

Presenter: Associate Professor Kristine Elliott

Co Authors: Ms Deborah Jones

Faculty: Melbourne Graduate School of Education

Abstract: The Flexible Academic Program Green Paper: Harnessing Virtual Infrastructure highlights the increasing use of educational technologies by University teaching staff. Staff are increasingly keen to try out new technologies and to help students develop technology-based skills. Indeed, enhancing student learning and engagement through technology based opportunities is an important factor for staff making decisions about using technology in their teaching practice. The Green Paper also points to the uncertainty felt by staff about integrating particular technologies and tools into practice, and identified a clear need for support and training in the pedagogical and practical use of educational technologies. A subsequent recommendation, therefore, is that the University "… expand the opportunities for professional development of staff in the design, development and implementation of technology for teaching,

learning and assessment". As an initial response, the MCSHE in collaboration with Learning Environments is scaffolding an integrated approach to professional development delivery, by creating tailored pathways to support the development of teaching staff capability, and to encourage and consolidate growing expertise in designing for learning with technology. A broad professional development program has been designed, compiled and scheduled to support a diverse cohort of teaching staff who find themselves at varying levels of expertise and confidence in using educational technologies. In particular, a new series of integrated Designing for Learning workshops is presented as a linked sequence of professional development sessions based on theoretical foundations for using certain digital technologies in teaching, learning and assessment. The workshops include supporting case studies and evidence from research, and strategies and tips for practice. Workshops focus on key topics related to designing for learning with technology, including, Learning design, Flipped Classrooms, Video, Feedback and Assessment, and Learning Analytics. The success of the workshops will be evaluated through staff surveys, and feedback will inform refinements for the 2018 series.

Stream eight

B117 Theatre

30 Min Oral Presentation

Title: Beyond the classroom: Finding and surviving the third space

Presenter: Dr Mitch Goodwin

Co Authors: Kaye Are, Bryonny Goodwin-Hawkins, Maxx Schmidt, Wajeehah Aayeshah

Faculty: Faculty of Arts

Abstract: Is the 'third space' the future for fostering and supporting the delivery of teaching and learning innovation in higher education? As universities expand and 'traditional' academic career opportunities contract, third space academics – who serve not only scholarship but institutional priorities – are emergent. Third space academics are neither exclusively teaching-focussed nor research-orientated, yet they participate in intellectual communities and bring an academic skill base to bear on their provision of university services. (MacFarlane 2011) They can be spotted online, with their ranks including the prominent bloggers Inger Mewburn, editor of The Thesis Whisperer, and Chris Friend and Maha Bali at the online journal Hybrid Pedagogy. They can also be spotted at the University of Melbourne. The third space has been defined as a space that exists between academic and professional roles and modulates both (Whitchurch 2012). Commonly, such definitions refer to professional staff with minimal – if any – teaching experience and who are rarely research active. We argue that, to be effective and cognisant of teaching and learning pedagogies, third space academics need to operate fluidly and constructively across both territories. In this paper, we will draw upon our work in the Curriculum Design Lab (CDL) within the Faculty of Arts, to evaluate the present and possible future directions of third space academics in the HE sector. We will also examine the CDL model in the context of its intersection with other professional services and research initiatives that share similar aspirations for meaningful change in the classroom, the curriculum and beyond. Drawing upon our convergent roles as internal curriculum consultants, education media developers and facilitators of professional development, we will attempt to describe what this third space looks like and the unique challenges it presents.

30 Min Oral Presentation

Title: Creating a creative project-based assessment option in urban legends

Presenter: Dr Michael Schmitz

Co Authors: Meighen Katz

Faculty: Faculty of Arts

Abstract: Project based learning is an approach in which students are required to actively apply their learning in order to produce intellectual and creative material in response to authentic situations and problems. However, while there is an appetite to adopting creative project-based learning into a wide range of disciplines within the University of Melbourne there remain concerns with this approach. These include issues surrounding student uptake, degree of scholarly rigour and manner of assessment. This presentation will report and critically reflect upon a co-operation between the Curriculum Design Lab and academics from SHAPS to provide a creative project-based assessment option within the summer intensive history unit taught at the University of Melbourne – Urban Legends. Within this presentation, we will discuss the assessment itself, which requires students to develop an historical interpretation of

Melbourne aimed at the general public and based upon the unit's core themes. We will discuss how we scaffolded this assessment by having students critically analyse an existing interpretation employing the same criteria as is used to mark their final assessment. We also look at how many students chose to try the creative assessment option and provide examples of the types of student submissions received in the most recent running of this assessment. Finally we will discuss our analysis of this assessment option and highlight plans to further support creative project-based assessment in the unit. This presentation provides an example of one working model in which students are given the opportunity to demonstrate their learning in an authentic project based-activity. It is our aim that through discussing our experiences, we will encourage further discussion into to the ways in which this approach allows students to recognize the real-world applications of their studies without sacrificing academic standards.

15 Min Oral Presentation
Title: Physical biochemistry: Using performance in teaching and learning
Presenter: Dr Terry Mulhern
Co Authors: Rinske Ginsberg
Faculty: Faculty of Medicine, Dentistry and Health Sciences
Abstract: The performing arts, such as music, dance and drama are often incorporated into science teaching at primary and secondary school (Pozzer-Ardenghi & Rolf, 2010; Abrahams & Braund, 2012). This is because they stimulate creativity and imagination, while helping students reconceptualise knowledge, which promotes engagement and deeper understanding (Metcalfe et al., 1984; Ødegaard, 2003). However, performance is rarely employed in higher education, though the benefits should be similar. In a collaboration between the School of Biomedical Sciences and the Victorian College of the Arts, we are exploring the use of physical theatre to teach concepts in Biochemistry to 2nd year undergraduate students. The first project is a teacher-centred "embodiment" of the amino acids, with students using in-class polling to interact with the performance and test their understanding of the structure and function of these fundamental biomolecules. We plan to develop this performance into an interactive multimedia teaching and learning tool. In the next phase, we will transition to student-centred performances targeting specific biological concepts and processes, scripted and presented by class members. Abrahams, I., Braund, M. (ed. 2012) "Performing Science: Teaching Chemistry, Physics and Biology through Drama", Continuum Books. Metcalfe, R. J., Abbot, S., Bray, P., Exley, J. & Wisnia, D. (1984) "Teaching Science Through Drama: an Empirical Investigation", Research in Science & Technological Education, 2:1, 77-81. Ødegaard, M. (2003) "Dramatic Science. A Critical Review of Drama in Science Education", Studies in Science Education, 39:1, 75-101. Pozzer-Ardenghi, L., Rolf, W-M. (2010) "Staging and Performing Scientific Concepts: Lecturing is Thinking with Hands, Eyes, Body and Signs", New Directions in Mathematics and Science Education (Vol 17), Sense Publishers.

15 Min Oral Presentation
Title: Engineering pre-lab material development
Presenter: Dr Asal Bidarmaghz
Co Authors: Mahdi Miri Disfani, Graham A. Moore
Faculty: Melbourne School of Engineering
Abstract: According to Kolb's experiential learning theory, a complete learning cycle consists of 4 stages of concrete experience, reflective observation, abstract conceptualization and actual experience. To achieve an acceptable learning outcome, all four stages require adequate and equal attention. Being involved in the engineering field, the significance of the laboratory activities in enhancing the engineering skills of the students (e.g., analyse, design, optimise, etc.) is non-negotiable. Therefore, to enhance the learning outcome of the engineering laboratory activities, pre-lab preparation and pre and post-lab assessment for the students are considered and investigated with the ultimate aim of providing the students with better understanding of the experiment which improves the efficiency of the learning process and reducing the required time for demonstrators to explain the basics of the experiment to the students. In summary, these pre-lab material comprises of an introduction to the theory of the experiment, videos showing the testing procedure, safety hints for the lab experiment as well as the lab environment and a brief step-by-step guideline. Moreover, tests, quizzes and reflective questions to be attempted before and after the lab session

assists the students in a better reflection (an often missing stage of the learning cycle) on what they have observed and learnt in the Concrete Experience stage (pre-lab session) as well as reflecting on what they have learnt in their Active Experimentation stage (hands-on session). Providing the video briefings and assessment before the lab enables the demonstrator to concentrate on interacting with small groups of students rather than give a mini-lecture at the commencement of the practical exercise. With the assistance of a small LTIF grant, this development has been implemented across several MSE engineering subjects in 2016 with relatively positive feedback from the students. It was claimed by students that these pre and post lab activities helped them to achieve a higher quality learning outcome as they have been able to better link between the theory (lectures) and the practice (lab practical) as they had a fully hands on experience.

Stream nine

Malaysian theatre

30 Min Oral Presentation

Title: Richer or deeper? Comparing inquiry-based workshops with traditional tutorials in the new Bachelor of Agriculture

Presenter: Dr Michael Santhanam-Martin

Co Authors: Sarah Frankland

Faculty: Faculty of Veterinary and Agricultural Sciences

Abstract: The Faculty of Veterinary and Agricultural Sciences (FVAS) is two years into the implementation of our redesigned 3-year Bachelor of Agriculture (B.Ag) degree. In response to stakeholder feedback elicited through an external review, and building on existing teaching methods in our Doctor of Veterinary Medicine degree, one feature of our new B.Ag degree is the use of inquiry-based learning. This occurs in two-hour workshop classes where students work in small groups, around a shared group computer, to apply their theoretical knowledge and problem-solve, in response to highly realistic agricultural situations. The situations are presented through a combination of texts, audio-visuals and numerical data sets. The analytical activities require students to practice cognitive flexibility by moving between different disciplinary lenses – which we call the 'learning domains' of the degree. In this presentation, drawing on our own observations and on student feedback, we reflect on the experience of designing and delivering these workshops, and on the advantages and disadvantages of this type of teaching and learning activity, in comparison to a more traditional small group tutorial. Student feedback indicates that our workshops succeeded both in contextualising and applying new knowledge, and in providing an opportunity to develop and practice teamwork skills. Staff reflect that the physical arrangements in the workshop class allow for diversity and flexibility in the social arrangement of learning. We are more ambivalent about the role of the computer: while it facilitates presentation of rich material for the inquiry, and can support a diversity of learning tasks, it also influences the social nature of the learning interaction in subtle and not so subtle ways.

30 Min Oral Presentation

Title: Do old habits die hard? Testing for sustained impact of an assessment model that encourages greater student engagement in learning

Presenter: Professor Raoul Mulder

Co Authors: Therésa Jones

Faculty: Faculty of Science

Abstract: There is widespread concern about decreased engagement in learning by university students. Two common symptoms of disengagement are declining lecture attendance and lack of preparation for classes. We evaluated whether changes to the assessment and mode of delivery of a third-year Science subject, Animal Behaviour, improved a) students' preparedness for class; b) class attendance; c) in-class participation and d) student feedback. We also assessed whether behavioural changes in students were purely strategic or reflected changed attitudes to learning or motivation. We motivated students to prepare for class by inviting them to access the course text via an online

social annotation platform (Perusall). This platform enabled discussion with peers in the class about upcoming topics (intrinsic motivation), but students were also graded on the quality of their annotations and discussion, using an automated (machine learning) grading system (20% of final mark), and could be randomly selected in an upcoming class to discuss aspects of their learning. We also provided further extrinsic motivation for students to attend class by conducting live polls in class, which contributed another 20% of the overall mark for the subject over the semester. Our changes resulted in high levels of preparation for class, with students spending on average 3 hours per week on pre-reading and annotation of the prescribed text; increased attendance (>90%) in classes, and active participation in class discussion. At the time of submission of this abstract, data on student feedback and behavioural change were not yet available, but these will also be presented.

15 Min Oral Presentation
Title: The accuracy of standard setting using the borderline regression method for varying cohort sizes
Presenter: Dr Michael Pianta
Faculty: Faculty of Medicine, Dentistry and Health Sciences
Abstract: Background: The borderline regression method (BRM) is a standard setting method that is commonly used for objective structured clinical examinations but has also been applied to other types of assessment (e.g. portfolio assessment). However, there is some doubt about whether this method is suitable for use with small cohorts. Aims: To investigate how the accuracy of cut score estimates obtained using the BRM varies with cohort size. Methods: This study analyses three years of pre-existing data from portfolio assessment in the Doctor of Optometry program at the University of Melbourne. A bootstrapping approach is used to estimate the standard error in the cut score, the coefficient of determination, and Cronbach's alpha for cohort sizes from 15 to 480 candidates. Results: For larger cohorts (480 candidates), the standard error in the cut score for individual portfolio sections is in the order of 0.5-1%. These errors increase as the cohort size decreases, and for cohorts of less than ~30 candidates the standard error is typically >2%. A similar deterioration is seen with small cohorts for the coefficient of determination and Cronbach's alpha. Conclusions: Bootstrapping is a simple and robust method for understanding the accuracy of standard setting, which can inform quality assurance for assessment. The BRM method is unacceptably inaccurate for cohorts of less than ~30 candidates.

15 Min Oral Presentation
Title: Exploring misconceptions as a trigger for enhanced student learning
Presenter: Dr Heather Verkade
Co Authors: Terrence D Mulhern, Jason M Lodge, Kristine Elliott, Allen A Espinosa
Faculty: Faculty of Medicine, Dentistry and Health Sciences
Abstract: As information becomes easier to access via the Internet, there is an increasing need for students and future graduates to develop high-level conceptual knowledge. The complex issues and problems faced by graduates in the 21st Century cannot be addressed through rote memorisation of facts or processes, but through the development of epistemic fluency in complex and interconnected ideas (Markauskaite & Goodyear, 2016). However, the development of complex knowledge of this kind is not straightforward. Factors such as students' prior knowledge, confidence and capacity to self-regulate and monitor their learning all have an impact on how effectively they are able to acquire conceptual knowledge (Author, 2016). This difficulty has long been evident in higher education research around threshold concepts and troublesome knowledge (e.g. Meyer & Land, 2003). The conceptual nature of STEM disciplines in particular means that students often enter university with well-established, but incorrect assumptions about phenomena (Cordova, Sinatra, Jones, Taasoobshirazi & Lombardi, 2014). Folk ontologies are a form of prior knowledge that can be particularly troublesome, as students can have difficulty overcoming intuitive notions

that interfere with the development of more sophisticated understandings (Chinn & Brewer, 1993). Misconceptions can be difficult for designers and teachers to manage, particularly in large classes where helping students to achieve conceptual change by fostering higher order thinking is difficult or impossible (Hornsby & Osman, 2014). We are conducting a project addressing this issue across STEM disciplines. We have examined ways to bring about conceptual change in a range of disciplines, year levels and teaching modalities. Some common themes of these approaches is that they often generate 'ah-ha' moments of surprise, and that often student interaction and peer discussion are harnessed so that students can work through moments of confusion. In this workshop we will demonstrate some of these techniques, and discuss their effectiveness in catalysing conceptual change.

Poster presentations

Title: Arts West teaching intersections: A self-guided QR tour
Presenter: Dr Kay Are
Faculty: Faculty of Arts
Abstract: This poster points to a number of ways in which the Arts West building intersects with and advances teaching and learning initiatives across the University. It presents as an infographic map of the facilities and an invitation to take an interactive, self-guided tour across five of the building's levels. The map provides for each level a QR code, which connects participants to a teaching and learning support resource or services. These include the Teaching@Library web page, literature unpacking the object-based-learning labs, and Curriculum Design Lab's video room guides highlighting the pedagogical potential of classroom features. One aim of the map is to promote familiarity with the building's learning spaces, by clearly foregrounding the pedagogical purpose and value of its architectural features and inviting personal interaction with them. In this sense the tour doubles as professional development. In aid of this purpose, the poster is also made available as a portable, bookmark-sized flyer. Another aim of the map is to increase the visibility of the support resources the University offers to teaching staff, whether they teach in Arts West or not. This aim is met by presenting the map as an A3-sized poster at the conference with which staff can interact independently of a tour. The poster has been developed by the Curriculum Design Lab, and responds to a need we have identified to raise awareness of an interconnecting web of teaching and learning resources, especially for sessional teaching associates. The poster's reach extends beyond the Arts West building, but mobilises this new development as a catalyst to embracing these initiatives.

Title: Collaborating in real-time using web conferencing technology
Presenter: Ms Susan Batur
Co Authors: Ruth Jelley
Faculty: University Services
Abstract: With advances in internet technology and bandwidth capabilities, web conferencing or webinars as they are commonly referred to, is increasingly being used across the university to foster online collaboration between geographically dispersed students and staff. Drawing on examples and case studies from online subjects where webinar technology is routinely used by academic staff, such as The University of Melbourne Graduate Online program, the authors of this poster will demonstrate how webinars are used in place of face-to-face tutorials. This poster will demonstrate how tools such as real-time polling, virtual whiteboards and online break out rooms can be used to encourage students from across the world to come together to work on problem solving or peer to peer review activities. Using examples from ZOOM, the preferred web-conferencing platform supported by The University of Melbourne and freely available to all staff, this poster aims to provide staff of the University – be it academic staff interested in using webinars with their students or professional staff wanting to run online training session for staff across multiple campuses – with the practical skills and knowledge required to adopt this technology in own setting.

Title: A web-based movie library and PeerMark benefits student learning
Presenter: Dr Kwang Cham
Co Authors: Anthea Cochrane
Faculty: Faculty of Medicine, Dentistry and Health Sciences
Abstract: Background: The Department has developed a movie library of clinical procedures and trialled PeerMark. Both of these teaching tools have enhanced student learning of clinical techniques. Methodology: We have developed

a comprehensive and interactive web-based movie library of clinical procedures comprising of three tiers: model videos, videos with scripted errors, and student videos. In addition, an integrative on-line peer and self review process using Vimeo and PeerMark was created involving multiple year levels. The benefits of these educational tools were evaluated by written and/or practical assessment and surveying students.
Evaluation: Students new to patient history taking with access to the movie library scored higher on their recording of a patient history (n=24, 28.9±6.0) relative to students without access (n=22, 22.8±5.7; ANOVA p=0.05), but students revising history taking did not score significantly higher. Students new to examining the eye's anterior chamber demonstrated less spread in theoretical knowledge in written assessment after watching the videos (n=24; 9.6±1.3) relative to controls (n=24; 8.5±2.9; var ratio=4.9; Levene's test p=0.001). Approximately 90% of students found the movie library helped them prepare for clinical training, and the addition of videos with scripted errors was found to be helpful. More than 80% of students who participated in the peer and self review process reported it helped to identify their strengths and weaknesses, and also improved their confidence to perform a clinical technique.
Outcomes: The web-based movie library has enriched student clinical training, with students performing better in assessment of newly learned techniques and reporting that this innovation has better prepared them for class and supplemented their learning resources. It has facilitated and enhanced both self–directed in-situ and off-site learning. Students reported that they felt prepared and understood the peer and self review process. They commented that reviewing and critiquing both self and a peer's performance helped to identify own strengths and weaknesses in performing the clinical technique, and feedback from both a same year peer and the mentor were equally useful.
Effectiveness: Overall, students recommend that both video recording of clinical techniques and peer-assisted learning activities should be incorporated into the curriculum. These innovations have increased student-student interactions, promoted self-evaluation, maximised student learning through engagement with teaching and learning resources and peer feedback.

Title: Developing skills - new ways of working at Academic Skills
Presenter: Mr Guido Ernst
Faculty: University Services
Abstract: Since the start of this year, Academic Skills has implemented a new model to teach students' academic and professional skills. Supplementing existing extracurricular and adjunct services, the team now has an additional focus on embedding skills development into the curriculum. Embedding has been identified as best practise in language and academic skills development and presents an opportunity to increase scale without additional resources. With a growing student population, the new ways of working allow Academic to reach more students while at the same time offer services that are sustainable. This presentation will explore the principles for the reorientation that aims to develop graduates who are academically outstanding. It will also highlight examples of collaboration with academic staff and other student services to embed skill development in the curriculum.

Title: Blended Learning Bootcamp in Arts West
Presenter: Ms Meredith Hinze (& eTeam)
Faculty: Faculty of Arts
Co Authors: Arts eTeaching Team (Mitch Buzza, Cameron Dunlop, Jordan Old)
Abstract: The Arts eLearning/eTeaching unit supports Faculty of Arts teaching staff integrate technology in their teaching and learning. The design of the new Arts West building teaching spaces reflects the shift in the humanities and social science disciplines to create an environment conducive to supporting active learning. There are many different approaches to professional development and skills building in eLearning / eTeaching. This often follows models of a workshop series, showcase events, individual and small group consultations and the development of online resources. A pre-semester three-day Blended Learning Boot Camp with teaching staff has proven to be a successful approach for transforming eTeaching/eLearning professional development in the Faculty of Arts, fostering design thinking, tangible and incremental changes. This poster describes the planning, development and outcomes of this professional development approach. The Boot Camp model can be easily adapted for implementation in programs for teaching staff in other faculties. Keywords: Blended Learning, Learning Design, Curriculum Design, LMS, innovative teaching, interdisciplinary, professional development, educational technology.

Title: Making the right choice - informing student enrolment choice through LMS subject
Presenter: Ms Deborah Jones
Faculty: University Services
Abstract: Student decisions for subject selection and enrolment can be inhibited by a lack of useful information about the subject, beyond the somewhat minimal information typically available in the University Handbook. Subject selection is a particularly important decision for our first year students new to the University, and uninformed decisions can result in confusion and poor experience as students find themselves negotiating re-enrolment changes early in Semester.
Re-enrolment also becomes an institutional administrative and technical issue, with many thousands of re-enrolments before Census date each semester, and can significantly disrupt teaching activities due to the 'shopping around' by students before settling in to their classes.
A trial of LMS subject previews of around 220 Semester 1 first year subjects has just been completed. These sites were copies of previously taught subjects, and provide a 'preview opportunity' to see more detail about the subject, for example subject outline material and information about assessment and learning activities, a recorded introductory lecture, staff information and a welcome page.
These previews were deemed useful to prospective students in better informing subject choice.
This poster will outline the LMS subject preview trial, student activity observed and report on next steps.

Title: WhizQuiz - gamifying student learning
Presenter: Dr Natali Krekeler
Co Authors: Dr Sarah Frankland
Faculty: Faculty of Veterinary and Agricultural Sciences
Abstract: Lacking and untimely feedback is an issue raised commonly in student experience surveys. Large class sizes prevent the increase of individual feedback and complicate providing immediate feedback to students. Innovative strategies to provide quality summative and formative feedback to large cohorts are required. As a means of providing a versatile engaging feedback tool for students, a gaming app is being developed. "WhizQuiz" is an iOS quiz application that encourages students to answer questions in competition with each other. Players can challenge other users for a game choosing from several topics. Questions need to be answered in a certain time frame that can be easily adapted by the administrator. A single player option is also available. At the end of the game it is revealed to the students how they have performed in comparison to their opponent and also in comparison to other players that have answered those questions. Statistics tracking will be incorporated, which will enable staff to collect data on student engagement and participation as well as data on learning analytics and question performance statistics. Straightforward upload of question packages will be facilitated so that changes to content can easily be undertaken. More information can be found and download requests can be made on the website: www.whizquiz.com.au

Title: Creating a better educational video experience for learners
Presenter: Mr Peter Mellow
Co Authors: Jason Lodge, Jared Horvath, Linda Corrin, Alex Horton, Jamie Morris, Susan Batur, and Grace McCorkell.
Faculty: University Services
Abstract: A recent Cisco study states that by 2019, 80% of the worlds Internet traffic will be video (Marshall, 2015). This growth in video use has been mirrored in education. More teachers are wishing to use video to assist with creating effective learning activities for their students. Institutions are investing in self-service video studios and capture software to meet this demand. Much of this video produced comes in two dominant styles; 'talking heads' and 'voice over PowerPoint'. These are just a digitisation of a face to face lecture, and doesn't take advantage of the full scope of delivery options that video can offer. This is using a new technology in an 'old' paradigm. A number of researchers (Guo, et al. (2014), Hansch, et al. (2015), and Lodge, et al. (2016)) have categorised different video production styles in order to assist in discovering if one style is more effective for student engagement and learning. The literature on the success of these differing styles is lean. More research is needed in this area. The instructional design of the video appears to be more important than the typology or gene for both learning effectiveness and engagement. This poster has been developed as a quick reference guide to get teaching staff to consider other styles

when they make their production style decisions. It outlines many of the different styles of video production used in the University of Melbourne MOOCs over the past four years. These videos have received many positive feedback comments from students about their high video quality as well as their engagement compared to videos from other institutions. Supporting research and justification of each style is provided where available. Also, a simple rating system assists in selection and choice of the best video tool to use for the learning outcomes for the students.

Title: Pedagogy perspectives: MOOC case studies
Presenter: Mr Peter Mellow
Co Authors: Sandra Milligan, Jimmy Lee, Susan Batur and Grace McCorkell.
Faculty: University Services
Abstract: Using case studies from three successful MOOC specializations, this session will explore the importance of framing your learning and teaching activities around a specific pedagogical perspective to improve the learner experience and increase student success and engagement. Case study one explores the use of authentic learning activities in the Financial Specialization taught by Paul Kofman, Dean, Faculty of Business and Economics, and Sean Pinder, Associate Professor Faculty of Business and Economics. Paul and Sean developed a powerful authentic learning experience for their learners in the specialization capstone by simulating 'real world' video conference calls between the learner, who plays the role of 'Jess', a financial analyst based in China, and two more senior managers (Paul and Sean) in UOMBank. Each weekly video call sets the scene for the assessment tasks ahead. Authentic learning adds context and reflects real world challenges and situations. It is experiential learning that increases learner engagement by putting learners in work like situations to do their study and assessment tasks. Learners have "highly appreciated the practical examples throughout the courses and the overall Capstone approach". Developmental learning using a student progress map is the second case study from the Assessment and Teaching of 21st Century Skills (ACT21S). The third case study will explore the use of fable based learning in the new UniMelb/CUHK Modeling for Discrete Optimization specialization taught by Peter Stuckey and Jimmy Lee. Developed from the onset with each video lecture introduced and concluded with a short animation, that creates a challenge that the video lecture will show a technique to solve. While all approaches have been successful, it must be remembered that the medium does not eclipse the message. The learning and teaching created in each lesson is elegantly framed to encourage the learners to gain more than knowledge.

Title: Embedding academic literacy in supervising and supporting RHD students in thesis writing: Discrepancies, challenges and strategies
Presenter: Dr Ha Nguyen
Faculty: University Services
Abstract: Over the last few years Academic Skills has developed programs in conjunction with MCSHE to support RHD students at different stages of thesis writing. Although some programs have involved academic staff in interacting with students with regard to academic writing, the main perspective taken has been an institutional one. This means teaching and advising students about what is expected of them and how they can deliver on this. However, since research contexts, frameworks and subjectivities are often unique, an alternative perspective is needed that could allow for balancing institutional expectations and student-centred approaches to thesis writing. The literature in this field also points to a gap for looking at thesis writing from the students' perspective of what they need from supervisors and the institution at large. This paper explores key discrepancies between supervisors' and students' expectations of the thesis writing and learning process, key challenges in academic literacy facing thesis writers and strategies academic and support staff can use to help students deal with these. The themes presented are based on a combination of the literature on academic literacy support in thesis writing and my own observations and data on RHD students' needs. The distinction between international and home students in this respect is treated with great caution, because both groups could benefit from a better understanding of academic writing, although international students may encounter greater cultural challenges to writing. All students can become better thesis writers with appropriate academic literacy support from discipline-based staff because content and language necessarily intertwine. Academic writing advice has traditionally been thought of as belonging to a service outside the discipline itself. While this service is important, its resources are usually limited, and embedding academic skills advice in disciplinary discourse has been found to work very effectively alongside this service.

Title: Fieldfriend: A multimodal app for field-based mobile learning
Presenter: Mr Alexis Pang
Co Authors: Anthony Weatherley, Gordon Yau, David Vasjuta
Faculty: Faculty of Science
Abstract: Fieldfriend is an Apple iOS app and website combination developed to support mobile learning pedagogies where iterative and experiential field-based learning episodes help to enable effective and engaged learning. Developed in collaboration with the University's Learning Environments technology team, Fieldfriend leverages upon current smartphone technology and ubiquitous mobile networks to afford scaffolded, situated field-based learning for novice learners. The iOS app enables location-based self-guided learning, user-generated multimodal multimodal digital learning objects and flexible re-use of digital content for learning. The database-driven Fieldfriend website enables flexible design of learning trails, assessment of students' progress, data security and sharing of user-generated content. Fieldfriend can alternatively be used to scaffold students' data recording and reflections at set time intervals through the day. We will demonstrate how Fieldfriend was used to support learning about the earth's natural systems and processes in the Natural Environments subject. Because of the Google Maps spatial interface and smartphone GPS-enabled location services, and web-based design environment, Fieldfriend can be flexibly contextualized and designed for a wide range of mobile learning scenarios and requirements in different localities. Fieldfriend for Android smartphones is being developed at the time of writing. This project has been supported by a University's Learning and Teaching Initiative (LTI) Grant.
This Interactive Workshop session will have the following sequence:
1. Curriculum overview and Fieldfriend design, functionality (15 min)
2. Installation of app and familiarization (10 min)
3. Campus trail using Fieldfriend (20 min)
4. Workshop discussion and collaboration opportunities (15 min)

Title: Student-sourced online resource bank: Can students critically evaluate webpages?
Presenter: Dr Lauren Salo
Faculty: Faculty of Science
Abstract: Today's students are faced with an unprecedented array of online resources of variable quality. Throughout their higher education and graduate careers they will need the skills to evaluate the veracity and validity of these resources, and this essential skill needs to be explicitly fostered. This study seeks to provide students with some basic evaluation guidelines to allow them to build a collaborative, online collection of resources to support their learning in animal physiology. This project aims to: i) provide students with the skills necessary to evaluate websites and identify those which are 'reputable', and, ii) compile these webpages into a group resource for the subject cohort and as an online resource contribution to Encyclopaedia of Life (EOL). Students in ZOOL20006 Comparative Animal Physiology will receive a tutorial and LMS-based resources on evaluating websites. They will be allocated a physiological process to research online and must identify two 'reputable' websites illustrating this process in an animal of their choice and a native Australian animal, and outline their evaluative reasoning. Students are assessed on this work and the webpages will form an online cohort resource through the EOL community. This study will examine pre- and post-task understanding of critical evaluation concepts and student perceptions, the sites chosen and associated student reasoning, as well as whether online research and/or amount of time spent accessing the online resource bank affects subject marks and/or changes in the sources referenced in written report. This study explicitly develops student's critical analysis and judgement of online information which represents an essential, universal, graduate outcome. It informs on how students currently make these decisions, permitting formative changes to future teaching, and demonstrates a form of collaborative learning asset generation not reliant on group work. Finally, the subject-specific model described here can easily be applied to any subject/discipline.

Title: Hands on teaching and learning: Getting started in object based learning using the University's unique cultural collections
Presenter: Ms Susan Thomas
Co Authors: Collaborative team of Heather Gaunt (Curator, Grainger Museum), Olivia Meehan (Ian Potter Museum), Fiona Moore (Coordinator Object-Based Learning, Arts Faculty), Kerrianne Stone (Curator, Prints), Jen Hill (Curator, Rare Music), Susan Thomas (Curator, Rare Books), Katie Wood (Access and Outreach Archivist, University of Melbourne Archives), Mary-Louise Edwards (Arts Librarian)
Faculty: University Services
Abstract: Specialists from the University of Melbourne Archives, Arts West, Ian Potter and Grainger Museums and Baillieu Library will develop a poster presentation to showcase the University's approach to Object Based Learning, as an exemplar of best practice in quality teaching and learning. The session will draw on the experience and achievements of these OBL practitioners, and incorporate examples from the University's rich Cultural Collections to demonstrate elements of the theory, practice and effectiveness of this form of experiential learning. The poster will be richly illustrated to promote interest, impact and understanding, and draw on a selection of the many rare and unique items in the University of Melbourne Archives, Grainger Museum and Special Collections as examples for implementing 'OBL in action'. The poster will employ text blocks to introduce major concepts – such as 'what is object based learning', 'how OBL is being used at the University of Melbourne', 'key learning outcomes' and 'how OBL can be used to enhance teaching and learning', as well as setting out in easy steps how to get started in OBL. The poster and presentation will embrace the conference themes - challenge, inquiry, application, collaboration and self-direction - by encouraging the discovery and interrogation of objects, showing how curiosity and critical thinking can be applied to stimulate inquiry and interpretation, and highlighting the intellectual outcomes for students working collaboratively in classes or stimulated by individual research. The platform will also introduce the 'Teaching with Unique Collections' website which has been developed as an online resource for academics wanting to incorporate OBL in their classes. The poster presentation will be designed to complement a proposed OBL Interactive Workshop (60 minutes) which is the subject of a separate CSHE 2017 submission. Depending on the session location and setup, it is possible that the poster presentation can be augmented by the display of a real object, which can be used to 'bring to life' the concepts presented, and to provide a catalyst for stimulating further questions and discussion. It is hoped that the poster presentation will inspire academics to incorporate OBL in their teaching, and to stimulate further discovery and learning using the University's rare and unique collections.

Title: Embedding research ethics and integrity into undergraduate practical classes
Presenter: Dr Karena Waller
Co Authors: Daniel P Barr, Paul M Taylor, Odilia L Wijburg
Faculty: Faculty of Medicine, Dentistry and Health Sciences
Abstract: The principles of research ethics and integrity (RE&I) that underpin responsible conduct of research (RCR) are critical to the performance of high quality research that can be confidently trusted. Although many senior researchers have an in-depth understanding of the importance of RE&I in RCR, many undergraduate students in science and technology disciplines do not obtain a basic knowledge of relevant principles as part of their degrees. To directly redress this issue for undergraduates in Microbiology and Immunology majors at The University of Melbourne, we introduced a RE&I curriculum component into our third year practical subjects comprised of a 1hr introduction focusing on the principles connected to microbiological and immunological research and a 1hr interactive workshop for students to apply their newly acquired RCR knowledge. At the completion of these subjects we administered a questionnaire to assess the student's thoughts on the utility of the component in relation to their understanding of RCR. Quantitative graphical analysis of Likert-item responses collected over two years demonstrated students agreed the component was useful (in 2015, 52.8% students agreed compared to 8.8% disagreed). These data also indicated the component provided students a better understanding of the importance of RE&I in RCR (58.4% agreed), what constitutes responsible research (59.1% agreed) and knowledge of who they could speak to if they had concerns about RCR (59.7% agreed). Qualitative review of the open-ended responses collected over two years revealed many positive (and few negative) comments from students regarding the utility of the component and its impact on their understanding. Collectively, these data demonstrate the beneficial impact of incorporating a RE&I into undergraduate curricula on student understanding of RCR, before many students go on to seek employment or research opportunities in science and technology disciplines.

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