

## Day 1: Tuesday 1 June

10:00am

Theme 1: Engaging students

### **Communicating and Engaging with Students during Online Learning**

Dr Jessica Welch (MDHS)

Establishing and maintaining good communication with a student cohort is essential for effective subject delivery, but also for students to feel supported in and informed about their learning. While important, building a sense of community in large classes is challenging, and shifting to online learning can make this even more difficult. The move to online teaching in 2020 provided opportunities to implement and assess methods for student communication and engagement. Synchronous and asynchronous approaches were implemented in both a third-year undergraduate core subject in the Bachelor of Biomedicine (semester 1, 600 students), and a second-year subject available to both Bachelors of Science and Biomedicine students (semester 2, 240 students). While the timeframe of the shift to online learning made formal evaluation of these changes impractical, implementation was assessed via Canvas analytics, feedback from student representatives, and end of semester university and in-house anonymous student surveys. Based on this evaluation, several of the engagement methods deployed enhanced the student experience, while others were less effective. This interactive presentation will demonstrate the synchronous and asynchronous strategies deployed in these subjects in 2020 and reflect on the success of these techniques in improving student well-being and subject management. Improvements and suggestions for incorporation of these techniques into other subjects will be proposed based on the 2020 experience. During a global pandemic and a dramatic shift in subject delivery, having a connection to teaching staff and consistent, reliable sources of information had a positive effect on student learning and well-being. This process has shown that the student experience of online learning can be enhanced by the careful selection, evaluation and deployment of tools for engagement and communication.

### **Creative collisions: Engaging doctoral students and supervisors in creativity in doctoral writing contexts**

Mr Steven Thurlow (University Services)

This paper investigates how a group of doctoral supervisors working in the Faculty of Arts understood the notion of creativity in doctoral writing contexts; both in relation to what it is and where it is found. From the literature, it appears that, with a few notable exceptions (for example, Badenhorst et al, 2015, Brodin, 2017; Frick & Brodin, 2019), the notoriously slippery notion of creativity is rarely combined with doctoral education and even more rarely with academic or doctoral writing.

This occluded area was investigated qualitatively through interviews with eight Arts academics who were asked to read and comment on three, short thesis extracts. Written by doctoral candidates in Arts, these texts had been identified by their writers as being creative in some way. Results were analysed utilising a framework of indexicality and orientation (Lillis, 2008) which helped identify the specific discourse conventions and other contextual influences that characterised creativity for these critical

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readers. Intriguingly, the collected data reflected widely varying levels of receptivity to the presence of creativity in doctoral writing. It also highlighted the concerns - even occasional discomfort - these professional readers had regarding creativity.

This presentation will present snippets from this research project and ruminate on how we might better prepare doctoral students at Unimelb with an awareness of the hidden, yet significant role of creativity holds in both the process and products of doctoral education. This could include providing discipline-based or generic workshops for doctoral writers or expanding supervisor training into this area. All of these pedagogical innovations could utilise powerful new technologies in the online teaching space. Ultimately, it is believed that increasing understanding in this area is important due to creativity's role as a valuable - and some would say, necessary - precursor to the emergence of originality, a key criterion for successful doctoral completion.

### REFERENCES

- Badenhorst, C., Moloney, C., Dyer, J., Rosales, J., & Murray, M. (2015) Thinking creatively about research writing. In T. Lillis, K. Harrington, M. Lea & S. Mitchell, (Eds.), *Working with Academic Literacies: Case studies towards transformative practice* (pp. 97-106). Fort Collins, Colorado: The WAC Clearinghouse.
- Brodin, E. (2018). "The Stifling Silence around Scholarly Creativity in Doctoral Education  
**Mapping the planet into the curriculum: Co-development of a "planetary health - organ system map" for graduate medical education**

Dr Kenneth Winkel & Grace Simpson (MDHS)

#### Introduction:

Doctors and other healthcare workers are key mediators between patients and the broader sociopolitical, economic and environmental 'upstream' determinants of 'downstream' health status. Whilst planetary health encompasses these factors, Universities have struggled to successfully integrate planetary health into healthcare curricula. Within the context of the current review of the Melbourne Doctor of Medicine (MD) graduate curriculum, an opportunity arose to partner with medical students to co-develop a curriculum resource for teaching medical students about the planetary determinants of health.

#### Methods:

We undertook qualitative methodologies to engage both students and staff in generating, reviewing and refining an evidence-informed planetary health map to address planetary health learning outcomes for the first-year medical curriculum. This focused on a planetary health literature review and curriculum mapping exercise in three parts between April 2018 - May 2020.

#### Results:

In Part one, a student focus group at the Melbourne Medical Student Conference (MDSC 2018) sought students' perceptions on opportunities for climate-change related health teaching. Part two involved

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two 5-hour mapping workshops conducted in May and June 2019 where planetary health principles were mapped to classical body systems based teaching modules. Participatory workshops involved 26 students and positioned students as leaders and partners in curriculum development, alongside academics and clinicians. Part three consisted of curriculum mapping review and editing from October - May 2020. Final synthesis of the mapping document has exemplified the opportunity for medical curricula to achieve clinically focused and cross-cutting integration of planetary health themes and a novel model to involve students in curriculum design.

### Conclusions:

The co-production method promotes higher order relational and extended abstract reasoning by students [Blooms' taxonomy Levels 4-6], the ultimate task of any curriculum. Moreover, this particular project addresses the University "Sustainability Charter and Strategic Plan 2017-2020" intent to "inspire and support students to be leaders for a sustainable future".

## Theme 2: Innovation in online teaching and learning

### **Learning in context: Incorporating practical examples into theoretical content**

Dr Marcus Phipps (FBE)

This presentation reports on a Learning and Teaching Innovation (LTI) grant that focused on incorporating industry relevant examples into the subject MKTG90008 Consumers and Consumption. To achieve this, seven interviews of around 1 hour were conducted over Zoom with students who had completed the subject over the last 10 years. Interviews discussed the graduates' career journeys and how the theory learnt from Consumers and Consumption had influenced their work lives.

With help of Learning Environments, interviews were edited into 10-15 minutes videos to provide practical industry examples to the subject's theoretical discussion. These videos were scaffolded into the online learning content so that current students watched the interviews in combination with theory focused lectures. For example, an interview with a Strategic Marketing Director discussed her role in creating a campaign for Guinness that challenged female stereotypes and the role of woman in sport. This interview and the campaign provided a dynamic background to the week's theoretical discussion into culture and the role of brands that was picked up across the subject's discussion boards and zoom workshops.

This learning approach builds from the understanding that students learn best when relevant and inspiring context is provided to the theoretical discussion (Hansman 2001). The incorporation of recent graduates was intended to provide relatable content as well as inspire students towards consumer behaviour related careers. Furthermore, the flipped learning model of incorporating content prior to the workshop transferred the learning intention from solely the lecture as a method for transferring information, to a focus on opportunities for student learning (Biggs and Tang 2011). The presentation will report on the first round of analysis on the data collected during semester 1 2021 that sought to measure the effectiveness of incorporating these practical videos.

**What happens before live teaching? Asynchronous flipped classroom engagement**

Dr Monique Webber (Arts)

Engagement in the face-to-face teaching aspect of the flipped classroom model is well-attested and researched. But what about the students' preparatory time? What is their experience when watching pre-recorded lectures, reading set materials, and considering pre-seminar questions? And how can this experience be not only improved, but even made a dynamic teaching and learning activity that flows into the synchronous teaching session?

"What Happens Before Live Teaching? Asynchronous Flipped Classroom Engagement" will explore behavioural and cognitive engagement in asynchronous learning activities. It will use as an example current redesign of a large-cohort Arts subject that includes both breadth and core students, and draw upon student response to this new approach as well as current scholarship. The traditional approach to pre-seminar material is a single lecture block and a similarly dense reading. In the subject featured in this presentation, the pre-seminar lectures have been divided into a series of short videos of various formats including guest interviews and modelled analysis. These are interspersed with active readings, quizzes, and opportunities for students to represent the material visually and structurally as well as textually. This presentation will demonstrate how reimagining the design and delivery of online material creates opportunities for co-creation, curriculum alignment, and cross-disciplinary study.

Participants will assume the students' role in an abbreviated asynchronous learning activity held on Canvas during the presentation. As they experience a redesigned flipped classroom model, participants will test how these principles could translate to their own teaching and to a more engaged student cohort across the University.

**Taking work integrated learning online using the 4DVirtualFarm and DookieVR**

Dr Stuart Barber (FVAS) & Dr Samantha Marangell (MGSE)

Work integrated learning (WIL) is becoming a more commonly accepted part of many University degrees to provide students with industry-based experience prior to their graduation. In several science, technology, engineering and mathematics areas, WIL has been used extensively in the past and is a requirement as part of external accreditation of some degrees. In a veterinary science degree in Australia students must complete the equivalent of 12 weeks of extramural WIL placement in the preclinical part of their degree. The arrival of COVID-19 stopped any physical placements being available. To ensure students could continue with their degree progression and allow both domestic and international student participation virtual WIL placements were created at two properties in northern Victoria. These properties had already had images collected in 360 degrees through time in the 4DVirtualFarm and DookieVR allowing students to move across the farm from paddock to paddock and through season to season. After an initial trial week of virtual WIL, veterinary students from five different universities participated in two weeks of virtual WIL with 172 and 211 students enrolled in the different weeks at the separate virtual enterprises. All students were invited to provide feedback via a survey at the end of each week. A range of software tools were used during the week with the main meeting room being Zoom and students subsequently broken into groups of 5-7 students in breakout rooms. Each day students were involved in submitting real world examples of learning and the following day providing feedback to separate groups on their submissions. This presentation covers the overall design of the weeks of WIL and reviews early outputs from student feedback from the surveys.

Theme 3: Assessment and feedback

**Assessment for learning and practice: Fostering generic skills and feedback literacy of first-year undergraduate students through a data analysis report**

Dr Wasana Karunaratne (FBE)

This paper discusses the design and the impact of an assessment reform initiative introduced to Quantitative Methods 1 (QM1), a large scale first-year undergraduate subject under the University of Melbourne's FlexAP project in 2020. The learning and teaching initiative transformed a summative assessment task into a formative assessment aiming to develop students' analytical and presentation skills, critical thinking, written communication skills, and collaborative learning skills. These generic skills are promised under the Bachelor of Commerce program and are expected by employers in the field of business and economics. The task provided students with the opportunity to apply the concepts and techniques they learnt in the subject to solve a real-world problem, as they analysed a set of discipline related data and presented their findings to a non-expert audience. The design included a dual submission process of the report aiming to promote effective use of feedback provided to students. Feedback were given in the forms of personalised written feedback provided by the tutors on the draft report, online learning modules and a workshop provided with the support of the academic skills unit targeting to improve the expected skills. Students were required to incorporate feedback provided for the draft report they submitted when they work on the final report. Students completed this task in groups fostering collaborative skills. We find overwhelmingly significant evidence for improvements in the measured generic skills between the two submissions. Students who seem to have taken feedback onboard have shown significant improvements in the expected skills compared to those who had not followed the structured feedback. The assessment provided vital opportunity for students to apply their learning into practice, work on generic skills and to receive timely feedback that help further development of these skills. This design can be applicable for assessment of any subject.

**Effectiveness of simulation training and learning in first-year Doctor of Dental Surgery students at the Melbourne Dental School**

Dr Anu Polster & Dr Kwang Meng Cham (MDHS)

Aim/objectives:

This project seeks to evaluate the efficacy of Simodont Dental Haptic Trainers (SDHT) for training of first-year Doctor of Dental Surgery (DDS) students at the University of Melbourne.

Methods

A total of 99 participants attended a lecture, were provided instructional notes and a video link prior to attending the study. They were divided into two groups: Group 1 ( $n = 50$ ) trained with the SDHT, whereas Group 2 ( $n = 49$ ) used standard dental blocks (DB). At the first visit, both groups undertook a 45-minute theoretical and manual dexterity assessment session to establish baseline competencies. Six 1-hour sessions were allocated over four weeks for students to practice in their assigned training environment. Assessments were conducted on both groups under both training conditions at 2-hour and 4-hour timepoints. Student-perceived proficiency and confidence were evaluated pre- and post-study via surveys and assessment outcomes.

Results:

High internal consistency and reliability of the responses was indicated by a Cronbach's alpha of 0.89. Students in Group 1 (SDHT) reported a perceived 20-30% increase in confidence and proficiency with their clinical skills post-training. 100% of the students found that the feedback was useful and would change the way they perform the technique. 90% of the students felt that simulation would improve their visual and motor skills and should be incorporated into future training programs. The reported perceived confidence in Group 2 (DB) was similar, albeit lower (10% increment). 90% mentioned that simulation should also be incorporated into future training programs, even though they were only exposed to simulation during assessments.

Conclusions:

Preliminary findings suggest that incorporating SDHT into the curriculum may enhance the preclinical training of dentistry students and may improve the delivery and structure of the curriculum.

**It's not just maths: Setting the standard for engineering writing**

Dr Phillip MacKinnon & Dr Elisa Lumantarna (FEIT)

The University of Melbourne states that Melbourne graduates are "effective oral and written communicators" in its published graduate attributes. This claim raises two questions: what constitutes effective communication, and do all our graduates meet that standard?

To answer the first question, what constitutes effective written communication, we have sought to identify the industry standard expected of engineering graduates.

We constructed two questionnaires in Qualtrics to allow assessment of writing samples by industry personnel. Respondents were asked to rate each sample for writing quality and were then asked to respond in detail as to why they had given their rating.

Two common forms of engineering writing were evaluated in separate instruments by a total of 30 industry personnel: executive summaries for a short technical report and student e-mails to industry employers. We selected these genres because they are central to professional engineering writing and they are concise forms of communication.

We were able to discriminate between what was considered satisfactory and unsatisfactory writing by our industry respondents. We used a 'content', 'expression', and 'structure' framework to identify and present the reasons for each sample's evaluation.

We presented our findings for review to a reference panel of 13 Faculty staff members and a representative from Academic Skills.

The outcome is a collection of industry-evaluated samples of writing which can be used for teaching and learning purposes, including establishing consistent standards of assessment and supporting the improvement of written communication. To that end, we are developing an online written communication module intended for students within the Faculty.

11:00am

Theme 1: Engaging students

**Let's speak Spanish together: Co-creating the start of a learning journey**

Mr Isidro Martinez-Garcia & Dr Wajeehah Aayeshah (Arts)

Co-creation is a design approach that allows students to engage with their educational journey by actively developing educational design with their academics. Co-creation offers an engaged student cohort, inclusive educational design, and a better educational experience. It allows students to have a voice in and agency over their learning. Academics engaging in co-creation offer students skills, that enhance their leadership, management, collaboration, and critical thought processing. Arts Teaching Innovation, ATI, has developed a project for embedding co-creation iteratively in curriculum design. This paper will showcase co-creation in a Spanish language subject.

The pilot project was implemented in Spanish 1, the beginners' level Spanish subject. This program attracts one of the largest enrolments in the School of Languages and Linguistics at the University of Melbourne. Co-creation activities included in this subject can be categorised into three general types: group discussions, collaborative activities and student-produced videos.

In the group discussions, students analyse and reflect on the content, delivery, and assessment components of the program. They provide feedback and suggestions for improvement, both in the short and longer term. Collaborative activities involve students in the sharing of student-created resources and Spanish language music playlists. Furthermore, a series of videos have been produced by two former Spanish students. These are aimed at offering a student-centred insight into weekly content to current learners. They also provide advice on how to successfully complete the assessment tasks.

So far, co-creation in Spanish 1 has resulted in engaged students. They are enthusiastically involved in actively developing their learning. As well as demonstrating co-creation in practice, this paper will also discuss the importance of offering educational design support for such initiatives.

**Bring on blended learning: Students evaluation of their online learning resources**

Dr Kristina Anevská & Dr Joseph Rathner (MDHS)

PHYS30001 Cardiovascular Health is a content driven subject taught in semester 2 of each year to third year undergraduate students (enrolment 2020=384). The course design is in three self-contained themes, including teaching and assessment. In the transition to online, the design of each theme was driven by the preferences of the theme lead and provided consistent content delivery style within each theme, but style varied between themes. This allows us to evaluate the student perception of different online teaching styles. The presentations in each theme were (i) live, synchronous (simulcast) lecture webinars, (ii) recorded 30 minutes mini-lectures and (iii) shorter (15 minutes) recorded videos with pop-up interactions (H5P). We surveyed the students attitude to the learning resources. Forty-seven students responded to the survey (12.5% response rate - 39 BSc, 8 BBMed). When asked to rank their preferred online instruction style; 62% of students nominated short interactive videos as their preference, followed by live PollEverywhere driven webinars (32% as second ranking), and live web simulcast lectures were the least preferred (44% least preferred). Reflecting on their learning experiences throughout their degree, 38% of students ranked H5P style videos and 30% of students

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ranked live lectures as their preferred learning experience. In future learning, 42% of students would prefer “self-directed learning modules” (H5P), while 30% opted for live lectures with only 15% indicated a preference for Live Web based lectures. Finally, when considering the length of videos: 29% of the respondents indicated video length should be determined by the content learning outcome. Two thirds of the respondents agreed that embedded interaction in the videos prompted them to watch the videos through to completion. These data indicate that while there continues to be a demand for live lectures, when designing online learning videos, interaction in videos enhances student perceived quality of learning.

### **Blended learning and participation: A qualitative examination of the interaction of technology and student participation**

Dr Lauren Bliss (Arts)

This paper explores the paradoxical role of the teacher in the blended classroom in order to measure and analyse student participation. It considers how technology can converge with the role of the tutor and argues that students may participate more in a blended environment to compensate for the perceived absence of the teacher. Building on observations of blended seminars and preliminary interview data from students undertaking a Masters in Global Media and Communication, this study seeks to understand how students try to compensate for issues in technology when learning. Findings are tentatively linked to research that shows students might pick up roles or leadership tasks in the classroom to compensate for the ‘lack’ or absence of the teacher’s input where they perceive technology is serving as a barrier (De Laat & Lally, 2004; Hammond & Wiriyapinit, 2004; Light et al., 2000; Vonderwell, 2003; De Laat et al 2007; Herbert 2017)

### Theme 2: Innovation in online teaching and learning

#### **An ode to artists that teach (online in a pandemic) and what we gained**

Dr Celeste Chandler (FFAM)

The VCA art Breadth program comprises 8 art making subjects. In 2021 we will teach approximately 2200 students across 50 deliveries as intensive and semester subjects.

Before Covid we taught all subjects face to face, in studios and workshops delivered by 16 practicing artists who teach as casual academics, none had taught online previously.

By the end of 2020, 6 subjects were fully online, and some had already been delivered 4 times over - we learned a great deal about teaching art via a screen, about engagement, feedback, curriculum design, assessment and how to get students to keep their bloody cameras on in a zoom class!

Most significantly we witnessed the creativity and inventiveness of artists who teach.

When the studio moved online, students were invited into the homes and studios of our teachers. Each subject posed challenges: how to teach printmaking without a workshop? How to teach Animation without equipment? How to conduct tours of galleries, herbariums, print collections and gardens? Because we teach hands-on visual stuff, we had to find ways to emulate the experience of looking over the teacher’s shoulder as they demonstrate a technique, manipulate materials, hold a brush, or create a print. How to assess the quality, liquidity, stickiness or stiffness of a material.

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What we discovered, besides the tenacity of our staff, was that it was still possible to teach art making and creative thinking online.

In 2021 more than 1000 of our students will continue to study online. We made this decision in order to provide predictability and security for our staff and students and to accommodate the significant number of international students who enrol in our program.

This presentation will focus upon what we did, what we learned and how this has created both strength and opportunity.

### **Off-campus but hands-on: Synchronous mail-out practicals**

Dr Chris Honig & Dr Catherine Sutton (FEIT)

Teaching resources provided online are often expository (they provide learning through instruction). Examples could include video lectures or subject notes that are typically designed to 'teach by telling'. But many academic disciplines require complimentary practice-based activities to enable heuristic learning models (learning by doing). For example laboratories, workshops, industry internships, clinical placement or site visits.

In STEM education, the pivot towards greater online teaching has brought accompanying online equivalents for 'hands-on' activities, for example virtual practicals, online simulations or remote-controlled laboratories. These online equivalents can better cater to off-campus students and also offer lower overheads, smaller campus footprints and greater flexibility to students. But research studies indicate that student engagement is often lower in online replacement practicals and heuristic learning outcomes are typically poorer (hands-on learning become mediated through a computer screen).

This presentation looks at an alternative for off-campus, hands-on learning model: mail-out practicals with synchronous online activities. Mail out pracs are not new; they have long featured in correspondence distance education. But when combined with new synchronous online compliments, they offer a range of new possibilities. In its simplest form this could be live interaction with teaching staff through video conferencing software during a remote hands-on activity. But it could also mean more sophisticated online activities, such as a virtual student partner simulating the experimental results in real time to predict the experimental outcomes. The presentation draws on 2 case studies from new Chemical Engineering practicals developed in 2020, in response to campus closure, that blend mail-out practicals with complimentary online learning activities. Findings are informed by student survey results.

### **Team work and Zoom. Can it really work?**

Dr Angelina Fong (MDHS)

Teamwork is a major employability and transferrable skill sought by future employers, even more important in the socially distanced and isolated online environment. We have previously deployed strategies and tools in Face-to-Face teaching (F2F) and explored the efficacy of these tools in the online environment. The activity deployed was a classic survival scenario requiring the student to work independently, then as a team to arrive at a consensus survival strategy. We deployed these activities in a 2nd and 3rd yr Undergraduate Physiology subjects (enrolments = 30 - 300 students) in F2F groups, and in Zoom breakout rooms. At the completion of the in-class activity, the students were surveyed on a 5-

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point Likert Scale (12 questions) on their perception of the activity ( $n = 125$ , F2F; 95, online). The survey was voluntary and students in F2F classes received paper surveys, while online classes were provided a link to an online survey. Survey completion rate was >98% in F2F class, but down to 20% in the online cohort.

In both F2F and online classes, students found the activity was a good ice-breaker (93% F2F, 82% online positive responses). Respondents found the activity helpful in improving their team communication and identify team dynamics, although this effect was stronger in F2F classes compared to online classes (82% vs 69% positive responses). Students agree that this activity should be included in this and other subjects with teamwork (F2F 80%, online 64%). In a follow up survey, students enjoyed working with the same team and found the inclusion of webcam videos in the breakout rooms important for team cohesion (93% positive responses). Despite the challenges of online teamwork, this data suggests well-designed team building activities can alleviate some of the stressors and fear associated with teamwork and provide students with a better learning experience.

### Theme 3: Dual delivery and what's next

#### **Dual delivery and the studio: Finding lessons in unusual places**

Dr James Thompson & Dr Pippa Soccio (ABP)

What has it been like to learn and teach in dual delivery style? How might the recent experiences of students and educators refine new approaches for subject delivery? What does this new mode imply for specific pedagogies and for broader application?

In preparation for the new dual delivery approach in Semester 1, 2021, the Built Environments Learning and Teaching (BEL+T) group in the Faculty of Architecture Building and Planning (ABP) developed 'Guidance for Dual Delivery' (BEL+T, 2021). This online guide aimed to anticipate some challenges on the horizon for teaching staff, identifying a set of key considerations following themes of 'learner equity and access', 'cohort building' and 'staff and student perceptions'. Informed by global scholarship and ABP student perspectives on great teaching, it linked the general guidance of the University with BEL+T's DIA framework and model developed for ABP, and delivered practical strategies for use by teaching staff.

During semester, staff and student perspectives on dual delivery modes were collected through facilitated discussions. These focused on design studios, a signature pedagogy of creative disciplines that often includes focused delivery, interaction and assessment approaches; as well as place-based, object-based and dialogical pedagogies (Crowther, 2013). The productive and candid conversations allowed examination of some of the emerging complexities and opportunities of the dual delivery studio approach, as well as implications for teaching activities and student experiences elsewhere. Findings from the discussions outlined in this presentation will inform further refinements of the BEL+T guide whilst offering a perspective that may be translated to other disciplines and faculties at the University of Melbourne.

Built Environments Learning and Teaching Group. (2021). 'Guidance for Dual Delivery.' The University of Melbourne. <<https://msd.unimelb.edu.au/belt/abp-teaching-toolbox/online-teaching-and-learning/guidancetiles/belt-guides/dual-delivery>>

Crowther, P. (2013). 'Understanding the signature pedagogy of the design studio and the opportunities for its technological enhancement.' *Journal of Learning Design*, 6, 18-28.

**Scalable approaches to team-based design**

Mrs Kate Mitchell (SAS) & Ms Samantha Roberts (FVAS)

During 2020 and 2021 the Learning Environments (LE) Learning Design team have partnered with and supported academic and professional staff from the Faculty of Veterinary and Agricultural Sciences (FVAS) to undertake 'light touch' redesigns and improvements of their subjects to support remote, blended and dual delivery. Through this process, the LE and FVAS teams have been trialling a number of approaches for building more scalable and sustainable approaches to learning design through a model of working in discipline teams rather than a more traditional 1-1 learning designer to teaching academic format. This innovative approach has supported the LE team to provide tailored, just in time group-based training and resources while enabling the faculty more active involvement in the learning design process for increased skills development, knowledge sharing and sustainable practice.

We are now into our third round of subjects and have a number of lessons learned from each round that can inform learning design approaches with other disciplines and more broadly.

We will present some key lessons learned and development approaches as well as some of the resources we have developed, including a short walk through and activity using our interactive curriculum mapping template tool and activity ideas board developed in Padlet. The tools can be used by anyone wishing to map and redesign their subject but are particularly useful for blended or dual delivery and for considering active learning and the appropriate synchronous and asynchronous blend.

**Examining the online learning experiences of accounting students to inform post-Covid teaching practices**

Dr Sarah Yang Spencer & Miriam Edwards (FBE)

Since the Covid-19 pandemic abruptly and dramatically altered higher education, lecturers have been attempting to replicate learning experiences online. This has resulted in both synchronous and asynchronous learning activities occurring remotely. While borne of necessity, these new delivery strategies present pedagogical opportunities and are undoubtedly shaping the expectation of university students going forward. With that in mind, this study aims to draw on the experiences of both undergraduate and postgraduate accounting students to inform future learning designs.

This study presents the findings from interviewing ten accounting students based on their subject experience in an online setting during Semester 2, 2020. Students were asked to reflect on the benefits and challenges from their online study of the subject, as well as their perceptions of the future state of teaching delivery in post-Covid. Applying Moore's interaction taxonomy (1989) and Redmond, Abawi, Brown, Henderson and Heffernan's online engagement framework (2018), we reviewed the students' responses. We identified the key elements that influenced the students' online learning experience to inform the future teaching and learning design.

We noted that interactions between the student and their peers, the student and instructor, and the student with the learning materials were perceived as meaningful interactions. Specific learning technologies complimented both synchronous and asynchronous learning experience. However, we also found that certain learning designs, though meaning to support interactions, were not considered meaningful by students if we did not implement them appropriately. Furthermore, some interaction that students were subconsciously seeking, for example, social interaction, was not likely to be created at the subject level; instead, the university campus that brings everyone together may become part of

the solution. Finally, we propose to understand student subject engagement via the lens of the student learning experience.

## Day 2: Wednesday 2 June

2:30pm

Theme 1: Engaging students

### **Trident!: Gamification of a revision tutorial for Doctor of Optometry student**

Dr Jessica Welch & Ms Louise Adams (MDHS)

Doctor of Optometry students at the University of Melbourne attend a series of lectures and practical sessions in the fields of microbiology, immunology and pharmacology in their second year of study (OD2). The sessions are delivered by academics in each area and aim to give OD2 students a grounding in the basic science underpinning diseases of the eye, and best-practice diagnosis and treatment. A revision tutorial was introduced in 2017 to consolidate concepts from these three different fields using case studies of common eye infections. This is conducted as a competitive case study game called Trident!, where the overall concept emphasised is the ‘race’ between the onset of infection and immune system defences. Students are divided into three teams of Microbe, Immune System and Antimicrobial, each with an expert academic as assistant. Students must strategically deploy knowledge taught in their lectures and practicals to beat the other teams by successfully: establishing an infection using specific virulence factors; deploying appropriate immune responses to prevent infection; or selecting the correct type of antimicrobial to treat an established infection. Academics moderate the case study discussions by prompting further information and explanation of concepts when needed, but do not lead the session. The resulting discussions are lively and organically cover many concepts taught in the associated lectures. Trident! is an excellent example of student engagement in active learning, and innovations of this type extend from online delivery and maximise learning in face-to-face sessions.

### **Embedding a Community of Inquiry within a flipped learning environment to encourage student engagement**

Mr Matt Dyki & Maggie Singorhardjo (FBE)

In 2019, the presenters received a FlexAP Plus 300 grant to “flip” ACCT20007 - Accounting Information: Risks & Controls. Due to the impact of COVID-19 and the resulting shift to a virtual campus, this flip occurred online. This presentation will explore how the Community of Inquiry (CoI) Framework was used to enhance student engagement in such an environment.

The CoI Framework (Garrison, 2007) is based on three “presences”: social, teaching and cognitive. The presenters will share how these presences were established, which may provide a template for other academics to adapt.

Social Presence was established through the formation of study groups, in which students discuss tutorial works before class. This presence is further enhanced through the use discussion board (Piazza). The presenters will discuss how the curation of this presence fostered peer-to-peer engagement within the subject.

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Teaching Presence was established by having teaching staff engage with the students through formative feedback across various tasks and provide direction and support in synchronous and asynchronous activities.

The flipped learning environment enabled Cognitive Presence. Cognitive Presence is the exploration, construction, resolution and confirmation of understanding through collaboration and reflection in a Col (Garrison, 2007). Having students explore content individually (i.e. through videos and readings) and work collaboratively in study groups enabled the exploration and construction of knowledge to occur. Consequently, teaching staff can facilitate resolution and confirmation during synchronous classes.

Participants will have the opportunity to see this in action through participating in a Miro activity.

Presenters will conclude with the lessons learned by introducing this model and the implications for future deliveries.

### **Socially distanced but socially connected - humanising a biomedicine capstone subject in Covid-times and beyond**

Dr Saw Hoon Lim & Dr Rosa McCarty (MDHS)

Frontiers in Biomedicine is a 3rd year Bachelor of Biomedicine capstone subject, undertaken in the final semester of the degree. This subject is interdisciplinary and covers four main global health issues - metabolic syndrome, stem cells, respiratory disease and mental health. Unlike many other subjects they have taken, Frontiers in Biomedicine analyses more than just scientific content. We envelope the science with all aspects of health with a large emphasis on population and global health. We have a large cohort of over 600 students who are highly motivated and ambitious and as such, it is crucial that we build a strong connection with the students and encourage camaraderie within the cohort and be inclusive of students who are studying remotely.

Our approach was to humanise the subject via a range of approaches. We acknowledge that some students may still be in and out of lockdown in their countries while others are able to move more freely. As global health issues affect each and everyone of us, we started each block with personal stories from the block champion in a 'setting the scene video', providing personal insight in our journey related to the theme of the block. We also publish a weekly gazette to share in their weekly achievements and to look forward to the week ahead. These weekly gazettes were curated in a daily newspaper style. The online publication was topic specific but set in a humorous and engaging manner complete with corresponding memes. We also canvased contribution from students as guest writers. The gazette was the highlight of the subject and provided everyone an outlet for their creative juices. Unbeknownst to the students, this was our way to keep everyone connected and on track. Our last lecture ended with a subject graduation event thanks to Zoom video filters.

## Theme 2: Innovation in online teaching and learning

### **Virtual site visits as a pedagogical tool: A review of viable workflows**

Ms Nancy Samayoa (ABP)

Across disciplines and curricula, site visits offer pedagogical opportunities for experiential place-based learning (Coslett and Thompson, 2017). Even prior to the pandemic-related requirements for remote learning, logistical challenges like site accessibility and capacity limits strengthened the appeal of virtual

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site visits for offering students meaningful and engaging learning experiences (Maca and Viñals, 2017).

In 2019, as part of the University of Melbourne's Flexible Academic Programming (FlexAP) initiative, the Built Environments Learning and Teaching (BEL+T) group in the Faculty of Architecture, Building and Planning (ABP) was engaged to assist with investigating virtual site visits as part of a blended learning strategy for a large, introductory Bachelor of Design subject. The project aimed to develop an approach that could provide students with an immersive virtual site visit experience illustrating the different stages, locations and roles involved in a typical building construction process. The solution demanded a platform that allowed content (i.e., videos/images, text and links to assessment items) curated by subject coordinators and Learning Environments to be overlayed on virtual recreations of site visit scenes.

This presentation will review BEL+T's investigation into the feasibility of potential technologies against our aim of developing a viable workflow for upskilling academics. During the disruptive move to remote teaching and learning in 2020, the value of this project magnified. In addition to technical considerations, these efforts raised critical questions on the relative pedagogical value of virtual site visits, around student equity and access, offering valuable lessons for academics and learning designers across faculties.

### **Authenticity in teaching music online**

Dr Bradley Merrick & Dr Carol Johnson (FFAM)

The challenges facing tertiary music teachers during 2020 went beyond moving assessments and examinations into an online mode: how to approach teaching music performance online through the lens of disciplinary authenticity (i.e., music performance) had to be addressed. Bridging the research-informed practices of Anderson et al.'s (2001) Community of Inquiry model (i.e., teaching presence, social presence and cognitive presence), with Johnson's (2017) pedagogical approach for teaching music online, music can be taught online with effective student learning outcomes.

In this workshop, there will be an overview and practical teaching demonstration provided by two Melbourne Conservatorium of Music staff members from the MMUS PT graduate program. Together, the short demonstrations will highlight music performance teaching strategies and technology device management to support effective student engagement, assessment and feedback mechanisms with students when dual mode teaching instrumental group lessons. The teaching samples will support how the use of camera angles, technology -based setups, and approaches to teaching interaction can support teaching presence (Garrison, 2011) and begin to address the complexities of teaching a practice-based subject in dual mode through meaningful visual and audio connectivity.

Specifically, these in situ examples will explore small components of a group woodwind and a group guitar music class with both instructors describing and demonstrating how they realise authentic teaching connectivity in a dual-mode learning environment. Audience participation is encouraged throughout the demonstrated group lesson examples--musical expertise not required. The demonstrations will allow for a glimpse into the real world of dual music teaching as we create new ecosystems to sustain music learning beyond COVID.

### References

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Anderson, T., Rourke, L., Garrison, D.R. and Archer, W. (2001) 'Assessing teaching presence in a computer conferencing context'. *Journal of Asynchronous Learning Networks*, 5 (2), 1-17.

Garrison, D.R. (2011) *E-Learning in the 21st Century: A framework for research and practice*. 2nd ed. New York: Routledge.

Johnson, C. (2017). Teaching music online: Changing pedagogical approach when moving to the online environment. *London Review of Education*, 15(3), 439-456. DOI:10.18546/LRE.15.3.08

### **Online case studies in Veterinary Microbiology using Qualtrics**

Ms Joanne Allen (FVAS)

Case studies are used extensively in VETS90137\_2021\_SM2: Veterinary Bacteriology and Mycology to link lecture content with activities undertaken in laboratory practical classes and the field. Presented online, students choose when to work through each case study; whether it's to preview an associated lecture or afterwards to consolidate key concepts. We have 40 case studies, each featuring a different pathogen, delivered on the Qualtrics survey platform. Our students record relevant information from a case history, select the most appropriate sample collection technique, develop the differential list of possible microbiological causes, and work through the conventional identification process (similar to what they would experience in the practical laboratory) to ultimately diagnose the disease. The platform has provided many benefits that have changed the way we teach and improved the quality of feedback that we can communicate to our students. It has enabled us to build online activities that showcase the latest bacteriological diagnostic techniques, providing engaging opportunities for students to interpret test results to solve clinical problems. Qualtrics is a tool that made pivoting to teach content online a whole lot easier.

### Theme 3: Innovation in online teaching and learning

#### **'Communicating Covid-19 – Helping Clinicians Answer Challenging Questions' an online short course**

Associate Professor Rosemary McKenzie (MDHS)

##### **Background**

Throughout the COVID-19 pandemic health care workers have been faced with a tsunami of information and rapid changes in government policy and community sentiment. Misinformation has been rampant. A short course for the health workforce was developed by Melbourne School of Population and Global Health in partnership with the Doherty Institute and Royal Melbourne Hospital, with the objective of empowering frontline health and community care workers to communicate clearly and accurately about COVID-19.

##### **Methods**

The course was designed around four pillars of interprofessional knowledge: Epidemiology, Science, Clinical care and Ethics, law and society. Interprofessional production and editorial teams were established, drawn from health professions and academia. A medical communication expert advised on framing evidence in plain language. The novel structure for each online module included: "heralding" questions for the topic from frontline workers; experts from diverse disciplinary backgrounds answering the questions, with each set of expert commentary supported by a fully referenced summary of the latest evidence-based information.

## Results

Enrolments reached 2, 552 within 10 weeks of launch. While the majority of learners were based in Australia, learners were based in more than 40 countries including over 50 participants in India and 20 in Nepal. Of the 158 learners who completed an evaluation of the course, feedback was positive across six domains of satisfaction, with averages of 3.6 or higher on a 4-point scale. Qualitative feedback emphasised the appropriateness of the content to workplace needs, enhanced confidence in answering client questions, utility of information provided and a greater sense of professional confidence in relation to knowledge of COVID-19.

## Discussion and conclusions

The short course met an urgent workforce need for evidence-based, rigorously curated information on COVID-19. The interdisciplinary nature of the course resulted in uptake across diverse settings. The inclusion of practicing clinicians and experts answering questions in plain language ensured the course was immediately applicable in practice. The interprofessional focus and frontline worker involvement provides a model for interprofessional education.

### **Experiences of online music therapy placements in response to COVID-19: Pedagogical considerations for supporting student learning**

Dr Megan Steele & Dr Imogen Clark (FFAM)

**Introduction:** Clinical training in music therapy at the University of Melbourne was rapidly redesigned to create alternative online placement opportunities in response to restricted face-to-face music therapy provision caused by the COVID-19 pandemic. With little previous literature to draw upon, we took the opportunity to gather data to explore experiences of online placements and develop understandings of the pedagogical considerations needed to plan for future quality online music therapy placements.

**Method:** Student and supervisor participants were recruited by administrative staff external to the research team. We collected quantitative data via the Satisfaction with Simulation Experience Scale (SSES) and qualitative data via open-ended surveys and semi-structured interviews with participants about their experiences of online placements. We applied thematic analysis to qualitative data and reflexively interrogated findings in response to our own experience as educators.

**Results:** Eight second year students, 22 first year students, and 11 supervisors completed the SSES and survey questions. Six first years, 5 second years and 9 supervisors completed focus group interviews. SSES results indicated high satisfaction from all cohorts with the online placement experience. Analysis of qualitative data highlighted many synergies between student, supervisor and teaching staff experiences.

**Discussion:** Innovation and peer support were key in the evolving context, and technical support and additional learning content required to supplement traditional modes of supervision. While online placements were not always understood to provide “authentic music therapy” experiences, we argue that this perspective may need further consideration given the potential ongoing need for online music therapy service provision.

### **The Covid19 Assistance Project: An innovative, interdisciplinary experiential subject benefitting students and the community**

Kate Fischer Doherty (Law) & Associate Professor Jonathan Liberman (Law/MDHS)

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The Melbourne Law School Clinics program coordinates a diverse range of clinical legal education subjects available to later year students in the Juris Doctor program at MLS. The twin aims of the program are experiential student learning and public service: promoting justice and addressing unmet legal need.

The Covid19 Assistance Project ('the Clinic') was developed in rapid time in April 2020 as a wholly online, interdisciplinary, project-based clinic, offered in semester 2 2020. Students worked in small groups on a project proposed by a public-interest organisation, supervised by the subject coordinators and with guidance of an 'academic mentor' drawn from across the University, generally from the health sciences. Students 'met' regularly with their partner organisation and mentor and at the end of semester formally presented their completed projects. The project work was complemented by teaching and real-time collaborative analysis of the legal aspects of Covid19.

Subject design drew on best practice clinical methodologies (adapted for online) with an explicit focus on developing students' sense of professional identity and enhancing goals of autonomy, mastery and purpose. Synchronous as well as asynchronous teaching methods were used, and reflective practice was emphasized.

While the completed projects were the main tangible product of the Clinic, there were also less tangible but significant benefits. The Clinic was largely conducted during the extended lockdown in Melbourne in 2020. For many students - isolated from peers and sometimes family, as well as from the University - the small group, intensive contact model of the Clinic, as well as the sense of contributing to the pandemic response effort played an important role in their engagement and overall wellbeing in a challenging period.

We believe that the Covid19 Assistance Project offers a useful and flexible model for engaged and interdisciplinary experiential learning adaptable to multiple future contexts.

3:30pm

Theme 1: Engaging students

### **Online and blended learning model for teaching Physiology in Biomedical Sciences**

Dr Joseph Rathner & Professor David Williams (MDHS)

Previous research on the efficacy and student affinity to blended [1] and flipped classroom [2] is ambivalent at best. The unique circumstances of 2020 has accelerated the 'modernization' of university teaching practices, overcoming inertia in the use of modern technology in teaching. Key issues commonly seen with "online" teaching are lack of student engagement, attrition and high fail rates [3]. Working in isolation has a demotivating impact on student engagement with the learning activities and is one of several underlying factors contributing to high failure and attrition rates in online subjects. Here we describe the strategies we used to facilitate active learning and student engagement in a large (600+) online undergraduate STEM subject that is core in the Bachelor of Biomedicine program. This 25cpt subject is multidisciplinary, incorporating physiology, anatomy and pharmacology disciplines. In our trial we focused on developing new active learning resources , both synchronous and asynchronous presentations, within the Physiology discipline. Using the university-provided tool H5P we created pop-up quizzes and interactions embedded in the asynchronous teaching content. These asynchronous activities were deployed in conjunction with synchronous 2 hour weekly Zoom workshops. These

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workshops were designed around student generated questions (over 1223) raised in the subject's discussion forum. During the workshop, discussion on challenging content was prompted by Polleverywhere-based audience response questions. The student responses guided the zoom sessions in real time and allowed both academics and students to identify key misconceptions. A key feature of these workshops was ongoing dialogue and debate between multiple academic moderators, reducing the didactic feel of the workshop. Students were encouraged to contribute ideas and questions to the discussion via the Q&A or Chat tools in Zoom. Our model of synchronous workshop activities improved student outcomes in the subject and improved student satisfaction in the subject.

- [1] J. Page, T. Meehan-Andrews, N. Weerakkody, D. L. Hughes and J. A. Rathner, Advances in Physiology Education, vol. 41, no. 1, pp. 44-55, 2017.
- [2] J. A. Rathner and M. Schier, Advances in Physiology Education, vol. 44, no. 1, pp. 80-92, 2020.
- [3] B. Papia, SAGE Open, January-March, pp. 1-11, 2016

### **Discovering Biomedicine: Student reflection to enable authentic engagement with the Joining Melbourne Module**

Dr Lisa Godinho (Science) & Associate Professor Karena Waller (MDHS)

In semester 1 2021 our academic team, together with the first-year Bachelor of Biomedicine cohort (~700 students), began a journey of discovery in a brand new dual delivery subject, Discovering Biomedicine. Intended to inspire and engage students in Biomedical Science and Health, this core foundation-level subject aims to welcome and orient students in their transition to university. The curriculum of this subject has been purposefully designed around the six Joining Melbourne Modules - an initiative arising from the Student Life White Paper - which challenge commencing students to engage with the expectations and values of the University. The academic team's philosophical approach to the design of Discovering Biomedicine enables exploration of the core themes and content of the Joining Melbourne Modules through the lens of Biomedical Science and Health, while simultaneously facilitating students to develop important transferrable skills for the transition to University life and their future beyond. One of the key skills we are teaching students is Reflective Practice.

In our presentation, we will describe the use of a simplified version of 'Gibbs' Reflective Cycle' (1) in assisting students to reflect upon their experiences and to recognise how they may shape their future actions as they begin their degree. In response to framing questions that are aligned with the themes of the Joining Melbourne Modules, students are assessed on five short (200-word) intra-semester reflections, as well as a longer (1000-word) final 'whole of subject' meta-reflection.

We will outline the implementation of Discovering Biomedicine alongside the initial qualitative subject evaluation from the perspective of both teaching staff and students.

#### References:

1. G. Gibbs (1988), Learning by Doing, A Guide to Teaching and Learning Methods, Reprint: Oxford Brookes University, 2013; ePUB ISBN: 978-1-873576-87-0.

### **Encouraging engineers to read with Perusall**

Dr Glen Currie & Dr David Wilson (FEIT)

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Many teaching staff will recognise the challenge of encouraging students to complete reading tasks before class. There is often a critical paper that the class pivots upon and students need that information to enable their learning. We have a particular challenge in Engineering and Information Technology where students tend to be more numerical and less literate. We have found that using the tool Perusall with an incentive of a small mark (as little as 1% of the total subject mark) can motivate 3-4 hours of reading....on average!

Perusall integrates into Canvas and marks the student engagement with the reading task using artificial intelligence. This automatic administration of marking makes a weekly reading task feasible for larger classes (we use this in classes with 300 students).

The problems we face include some delay in the Perusall transfer of marks and that a slight inaccuracy in the naming of the task can cause the sync to fail. In our interactive session we will help others learn from our experience. We plan to use breakout rooms and run a short discussion on the role of pre-reading in different parts of the University. We will then work through a 5 minute demonstration of Perusall to show our setup.

### Theme 2: Innovation in online teaching and learning

#### **From connection to community: Building learning environments for high quality motivation and student belonging**

Ms Rachel Colla & Lara Mossman (MGSE)

The impact of student engagement and connection to their institution, particularly in an online environment, has been a pressing issue for universities long before the COVID-19 pandemic (Baik, Naylor & Arkoudis, 2014). These issues have no doubt been exacerbated as a result of the impact of the pandemic, with social distancing, a rapid shift to online learning, and increased feelings of stress, anxiety and social isolation among students and staff alike. However, this unfolding environment has also afforded some important opportunities to ‘break down the walls of the classroom’ and create an online learning community that facilitates student connection. Drawing on the literature of a Community of Inquiry (CoI) approach (Bektashi, 2018) and autonomy supportive teaching practices (Slemp, Field & Cho, 2020), we will highlight how these pedagogical approaches can facilitate high quality motivation and student connection. This pragmatic session will draw on the insights developed through a large-scale FlexAp project, as well as the wisdom of participants attending the session. The session will demonstrate a number of the key practices through its learning design, moving from experience to scholarship, including the use of technology to build an ongoing community of practice for educators across the university. Our hope is to ignite a strategic focus on developing thriving graduates and a learning culture that has the capacity to enhance the student experience and demonstrable positive impact on optimal academic performance.

#### **Online by design - translating hands-on practicals to mixed-mode classes**

Dr Michelle Rank (MDHS)

The progression toward increased flexible learning opportunities at Universities is not new. Although we were poised to move gracefully into online teaching via FlexAP initiatives, we were shifted unceremoniously into this space in 2020. This sudden shift was especially challenging for subjects that relied heavily on demonstrations and hands-on practical experiences, such as undergraduate and postgraduate anatomy subjects. In response the anatomy teaching team designed a suite of

asynchronous and synchronous resources that, deployed together, translate anatomy practicals into an online delivery format. From the beginning of the design process, the team ensured each piece of the online learning package was constructed using evidence-based best practice in teaching and online subject design, and additionally incorporated ongoing student feedback to continually improve the learning experience.

We deployed a combination of bespoke resources made with new technologies (3D scanning) alongside curated existing online resources (online anatomy atlases and apps) within eLearning modules developed using a responsive course authoring app (Articulate Rise). Our asynchronous eLearning modules were paired with online synchronous zoom sessions with expert demonstrators. At each stage of the creation process we involved our students and demonstrators as testers and co-creators. Using simple surveys and discussion board forums, we created a community of iterative improvement where students could provide regular feedback on their learning experience. This allowed us as instructional designers to be responsive to student learning needs and for students to engage as co-designers of their learning experiences. This talk will showcase the online design process and the outcomes achieved while highlighting the components that are worthwhile to keep and evolve for dual delivery formats.

**Innovating Pathology practical classes for dual delivery teaching and learning**

Dr Sophie Paquet-Fifield (MDHS)

In 2021, practical classes in our 3rd-year undergraduate Pathology subject were transitioned to dual delivery teaching. Here, we report on our strategies, experiences and outcomes, as well as student feedback regarding the synchronous dual delivery of these practicals. We will also discuss how challenges encountered were constructively overcome to effectively and synchronously deliver the practicals to a cohort of approximately 10% wholly online and 90% on-campus students.

For the wholly online practical class (WOC), the conversion into a synchronous online delivery via Zoom required specific Audio Visual and digital equipment, as well as staff proficient in online delivery of teaching. Zoom breakout rooms were used exclusively for individual feedback. As compared to the face-to-face class, lesson plans and T&L resources of the WOC were modified. In both delivery modes, pre-designed task management lists were designed to structure groups' goals, experimental schedules and learning milestones allowing consistency in the T&L. During the experimental procedures, WOC students were following on Zoom life activities of the Demonstrator, and thus were generating their own group results that they could compare and discuss with the on-site cohort. In contrast, on-site students were performing themselves their experiments. All students learnt experimental and technical procedures, critical evaluation of experimental results, discussion of anatomical, teamwork, scientific communication, and critical analysis of scientific literature. We provide evidence of an effective strictly online practical class, tinted with incompressible challenges (direct experimental handling) and rewarded with unexpected successes (collaboration, critical thinking). Crucially, the WOC fostered social bonding and a dynamic, healthy online learning community. Data also indicate that students gain essential knowledge and skills and perceive this online learning experience as worthwhile. Sharing our teaching practice will constructively support implementing effective online classes in other practical subjects.

Theme 3: Assessment and feedback/Innovation/Engaging Students

**Using a video-based assignment to assess employability skills essential for a continually evolving future brought forward by COVID-19**

Mr Matt Dyki & Dr Valerie Cotronei-Baird (FBE)

The 2019 Melbourne CSHE Teaching and Learning Conference empowered us to develop a team-based video presentation followed by a live question and answer (Q&A) component. The new assessment item was incorporated into a 300-plus FlexAP project. The student video presentation, with live Q&A allowed for the assessment of both discipline content and employability skills (also known as generic skills), in a large (500 student) cohort.

During this year's conference presentation, we will focus on how the student video assessment contributes to students' acquisition, development and enhancement of employability skills that are central for preparing students for continually evolving future and thus the "new normal" brought forward by COVID-19 (Dyki, Singorahardjo and Cotronei-Baird, 2020). This is an important outcome of assessment as previous research has shown that academics often lack confidence and experience in assessing these skills (Cotronei-Baird, 2019). In doing so, we will share our experience of developing the team-based video presentation assignment and relevant assessment rubric where a proportion of the grading is assessing individual students' employability skills. These include oral communication (presenting, conversing, and listening), teamwork, and presentation skills. We will also outline how teaching staff are provided support and professional development to assess the students' employability skills during both the video presentation and live Q&A.

The significance of our presentation is that we will integrate an interactive activity of using Poll Everywhere so that attendees are given the opportunity to grade a sample student video presentation using our assessment rubric. This activity will be followed by an open discussion of the experience of using the assessment rubric as a means to grade and give students feedback on these skills. We will also reflect on the value of such an assessment task in the post-COVID future that will require modifications to assessment practice.

**Re-imagining science education in 21st century - The art of engaging digital native learners**

Dr Sathana Dushyanthen (MDHS)

The cancer sciences are a complex field of study that have conventionally been taught in a highly didactic and two-dimensional manner. Established in 2019, the newly developed wholly online Master of Cancer Sciences program aims to challenge these traditional pedagogical perspectives of adult learning in graduate education. In developing this new wholly online degree, the cancer science team has catered specifically to 'modern era' learners who have been conditioned through exposure to the swipe and scroll culture and the bitesize #learnonTikTok arena to need shorter, higher yield and more engaging materials to hold increasingly volatile attention spans.

Compounding this issue is that while the professional healthcare workforce is composed of highly motivated learners, they are notoriously time poor individuals, who have little dedicated time to spare and instead prefer materials that can be absorbed 'on-the-go'. As such, in our program, we have aimed to re-imagine the teaching modalities traditionally used in oncological medicine, to deliver succinct, engaging presentations that can be viewed on demand, are produced to studio quality and which bring to life, the complex concepts underpinning the biological understanding of the sciences. Using fully

animated, dynamic presentations with expert guided interaction, opportunities for peer-to-peer learning and online discussion, students are provided with an immersive, multidimensional learning experience.

This presentation will explore the educational perspectives of learning design in the online environment, challenging the pedagogy of traditional teaching practices. It will discuss challenges involved and the approaches taken to develop a contemporary and dynamic program, particularly through the use of short, animated videos as a replacement for the traditional 'one-hour lecture'. Ultimately, the goal is to create memorable learning experiences, that demonstrate the depth of knowledge, allow students to engage both with the education and experiential peer learning, resulting in high quality multidisciplinary healthcare perspectives and better patient outcomes.

**Engaging students with co-creation: The case of the Create-a-Subject challenge at the School of Biomedical Sciences**

Mr Ger Post & Ms Lily Nguyen (MDHS)

The University of Melbourne Student Life white paper identified an urgent need to develop new initiatives to connect undergraduates with the University's academic community. Here we report on the Create-a-Subject Challenge as one such initiative towards that goal. Student teams were invited to competitively propose a new subject for the School of Biomedical Sciences via a range of means: videos, posters or written text. The winning team received the opportunity to develop their subject idea together with staff to bring their subject to academic submission. We received 14 subject applications across the faculty and shortlisted 5 ideas by open voting by students and staff via Qualtrics ( $n = 583$ ). The selected teams then pitched their subject ideas to a jury of academics and students in an online Zoom event (held during lockdown in 2020). As this is a new initiative at Melbourne, we aimed to understand the student demographic, reasoning and motivation of those who expressed interest to become partners in subject co-creation. This understanding is critical to further develop processes and outcomes in such projects. Our data suggest that students are motivated to engage in subject design, even if it is a subject outside of their discipline, and the main reasons for students to engage was that they were interested in education design, that they thought it would be an enjoyable way for self-development and to network with other students and teaching staff. Our findings imply that the Create-a-Subject Challenge is not only a promising way to embed the student perspective in subject creation and design, but also provides an opportunity for undergraduates to connect with the academic community.