The University wishes to acknowledge the Kaurna people, the original custodians of the Adelaide Plains and the land on which the University of Adelaide’s campuses at North Terrace, Waite, Thebarton and Roseworthy are built.

HERGA EXECUTIVE
Edward Palmer
The University of Adelaide
Sarah List
The University of South Australia
Karen Burke da Silva
Flinders University

CONFERENCE CHAIR
Edward Palmer and Thomas Wanner
The University of Adelaide

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Sophia Karanikolas
Sarah List
Thomas Wanner
John Willison
Jeanne Young

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HERGA WOULD LIKE TO THANK THE FOLLOWING SPONSORS:

THE UNIVERSITY OF ADELAIDE

University of South Australia

Flinders University

TAFESA

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Feedback for Learning: closing the assessment loop

Associate Professor Michael Henderson
Digital Education Research, Faculty of Education, Monash University

ABSTRACT
Feedback is arguably the most important component of an instructional process. Feedback (during and after) assessment tasks is critical for effectively promoting student learning. Without feedback, students are limited in how they can make judgements as to their progress, and how they can change their future performance. Feedback is thelynchpin to students’ effective decision making, and the basis of improved learning outcomes.

However, it is deceptively complex. Despite a substantial body of literature exploring the subject, and countless models, principles and strategies aimed at improving practice, feedback remains a consistent source of dissatisfaction for both students and educators. Feedback regularly receives the lowest course satisfaction ratings in student surveys, with students reporting that feedback is meaningless, confusing, and too late to be useful. However, data also suggest that there are pockets of excellence in feedback across Australian higher education. What are they doing that is so good, and what is enabling their success?

In this keynote, I will challenge traditional conceptions of feedback and explore a new framework that both encapsulates leading-edge notions of feedback as well as their implications for our practice. Drawing on the OLT-funded Feedback for Learning project, I will share examples of effective feedback designs currently in use in Australian universities, and examine the underlying conditions that can assist effective feedback practices to develop and flourish. In doing so I argue that we need to not only carefully design our feedback events, but also pay attention to how we can develop staff and student capacity as well as nurture our classroom and institutional cultures for feedback.

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Let’s talk about assessment and systems. We can see assessment as a system itself – distinguish formative and summative elements and qualitative approaches, debate the relative merits of exams, for example. We might talk about rubrics as a tool for marking, clarifying expectations, or even linking assessment to the wider (and perhaps?) more complex system of curriculum. We could talk about assessment design, which seeks to produce a fit for purpose system that plans for specific inputs and outputs and seeks to balance them as best as possible. ‘Alignment’ is a common refrain, such that assessment should match intended learning outcomes such that students are ‘entrapped in’ a web of effective curriculum design (Biggs & Tang 2011). Assessing groups – there’s a ticking package if ever we’ve seen one.

However, assessment is a complex, open, adaptive system, not a machine: it is a garden, not a factory. What about the student at the centre of the endeavour? Or employees from industry who this assessment is ultimately intended to serve? Or the institutional system with all its assumptions, culture, history and modes of being? Each one of these adds an extra order of complexity that becomes almost mind-boggling to comprehend. How do we begin to make sense of the broader systems within which assessment practices operate (Boud 2013)? We may begin by adopting an ecological approach, considering the complexity of these systems and their interdependency with other systems (Barnett 2017). This is beginning to acknowledge that complex systems cannot be controlled, even if we may ‘dance with’ them (Meadows 2002).

Using Snowden’s Cynefin framework (2007) fairly loosely, this workshop seeks to probe participants’ understandings of this complex system. We will consider the students whose work is being assessed – who are they before they enter (presage), and who do we want them to be when they leave (product)? What are our institutional priorities, expectations, edicts, and conventions around assessment? What is this ‘world of work’ that we are preparing students for, and how does assessment link to ecosystems outside of higher education?

To facilitate these conversations we will use the LEGO Serious Play (LSP) method and materials. LSP was used as a key tool in the fundamental re-envisioning of the LEGO Group in the mid-2000s to become the most powerful brand in the world. It has been used in the corporate sector for teambuilding, strategy and shared vision building, and its applications are now being broadened to education, health, and other contexts. In fact, there have been recent calls to ‘reclaim’ LSP now being broadened across to education, health, and other sectors.

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A Colleageate Approach to Best Practice Group Work in Law

Margaret Castles, Mark Giancaspro, Beth Nosworthy, Anna Olijnyk and Jessica Viven-Wilksch
Adelaide Law School, University of Adelaide

Group work. It’s a valuable assessment method. It’s also strewn with traps for the inexperienced teacher. There are significant pedagogical challenges that affect equity,1 assessment,2 and student engagement.3 This panel will showcase the Adelaide Law School’s collegiate approach to avoiding those traps while maximising the benefits of group work for students. By doing so, not only will we share our insights and teaching practice; we will also show how this simple collegiate model can foster good practice and support new teachers.

From the first day of their professional life, most university graduates will work closely with others: colleagues, clients, professionals from other disciplines, project teams, and consultants. Group work skills are essential for all graduates4 and, indeed, are expected by employers.5 They can be the key to assisting students to open their eyes to alternative ideas and strategies, while fostering a critically reflective lifelong approach to learning.6 Group work also has social advantages in that it encourages interaction with peers, strengthens communication while fostering a critically reflective lifelong approach to learning.7 Australian law schools have long accepted the mandate to teach and assess group work as an integral part of transitioning to professional life. Yet there are well-known challenges associated with group work. These include ‘freeloading’, unequal contributions,2 conflict management, disengagement, time management, and perceptions of irrelevance among the student body.3 Planning, management, motivation, and equity around any group work experience is essential.

Over the last decade the Adelaide Law School has introduced, evaluated, and refined a diverse range of group work learning experiences each with specific pedagogical goals. Recognising emerging pedagogical theories of nurturing autonomy,2 peer support,4 and intergroup dynamics, the Group Work Working Group is an informal group of Adelaide Law School academics who have pooled their knowledge and experience of group work to benefit each other, other academics, and students. The Group has developed and tested diverse initiatives in group work practice, sharing resources, techniques, innovations, and war stories. It is currently working on a best practice guide to group work for use in the Law School. Integrating theory and experience, our observations add a valuable layer of insight for academics exploring effective group work learning in diverse contexts.

This panel will present the Group Work Working Group’s approach to key issues associated with group work. This panel will consist of the following sections:

1) Introduction to the Group Work Working Group
2) Why group work?
3) Setting expectations
4) Online tools
5) Dispute Resolution

Keywords
Group Work, Law

REFERENCES
8 Susan Or Collaborating or fighting for the marks? Students’ experiences of group work assessment in the creative arts (2010) 35 Assessment and Evaluation in Higher Education 301.
When examining feedback, verbal or written feedback within courses is often a primary concern and means of investigation. However, these are not the only methods by which students receive feedback and learn to improve their work. This panel looks at the feedback strategies used in non-compulsory academic support services. The Writing Centre, Maths Learning Centre and Peer Assisted Study Sessions (PASS) program all provide feedback to students and course coordinators through varied but connected approaches. In this panel, we propose to discuss the methods we use, why we use them, and their intended effect. We aim for this panel to have practical application for other academic support centres, as well as inform academics why we do it, and what we aim for students and course coordinators to gain from our feedback.

The purpose of a Writing Centre is for students to receive feedback on their writing. The way students receive and interpret that feedback is critical to their success, and thus a considered approach must be taken in order to encourage students to revise their drafts and work toward becoming better writers. One aspect of our approach comes from Mackiewicz and Thompson’s (2013) model of Motivational Scaffolding. This is a set of rhetorical techniques, applied contextually, which demonstrate optimism, concern, and empathy, as well as reinforce feelings student ownership over their writing (Mackiewicz and Thompson 2013). In order for students to sustain the effort it takes to become better writers, we believe, alongside Mackiewicz and Thompson (2013), that motivation is key to maintaining that effort, and that we can influence that level of motivation through the kind of feedback we provide and the ways that feedback is expressed. This portion of the panel will discuss the theory behind Motivational Scaffolding, why we’ve chosen to use it, how it works in practice within our Centre, and what we aim for students to learn from this approach.

Students visit the Maths Learning Centre (MLC) in order to talk about their mathematics learning. Most of the time, they are worried about succeeding in an assignment with a mathematical aspect, where they are unsure how to proceed. Therefore, students are not so much seeking feedback on their written work as seeking feedback on their thought processes. In order to provide such feedback, we must somehow become aware of their thought processes and respond appropriately, which implies we must learn to listen to students. We follow a model proposed by Yackel et al (2003) which describes three levels of listening: evaluative, interpretive and generative. This model proposed by Yackel et al (2003) which describes three levels of listening: evaluative, interpretive and generative. This model proposed by Yackel et al (2003) which describes three levels of listening: evaluative, interpretive and generative.

We will report on local South Australian and national e-Exam trials conducted under the Transforming Exams project 2015-2018 (TEAA 2015). Australian universities have been exploring how to enrich the traditional exam room with authentic assessments (Mueller 2016). There is a growing recognition that current paper-based testing does not reflect the prevailing problem solving environment of the ‘real world’ where modern ‘e-tools of the trade’ are used in disciplines, schools and workplaces. A test that limits the problem-solving environment to pen-on-paper or multiple choice e-questions limits a student’s ability to demonstrate their best. Institutions need to provide stakeholders with an accurate picture of a student’s capabilities to operate in practical profession and the society of the 21st century. The higher education sector needs to modernise their exam rooms allowing assessment to better reflect the digital literacy and problem solving practices used in contemporary society. To do so we need to broaden the pedagogical landscape of the exam room. Researchers such as Crisp (2007, 2009) have been arguing for authentic e-assessment of higher order skills. This can be enabled by giving assessment designers and students access to contemporary software applications such as word processors, spreadsheets, algebra systems, software programming environments and multimedia capabilities in the exam room. Designing such an approach levers bring-your-own laptops and is resistant to network outages during the exam ensuring increased reliability.

We aim for students and course coordinators to gain from this panel to have practical application for other academic support centres, as well as inform academics why we do it, and what we aim for students and course coordinators to gain from our feedback.

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“Creating an ePortfolio can encourage teachers to think deeply about teaching, to acknowledge theories about their practices, and to engage in dialogues about teaching” (Butler, 2007 cited in Rowley, 2017, p.26). “Performances of understanding involving partnership are likely to be particularly effective in developing student learning” (Healey, Flint & Harrington, 2014, p.37). As indicated by the literature there are various theoretical models and practical approaches to enable student-teacher partnership through the institutional provision of an electronic dossier, or “ePortfolio” (e.g. see Rowley 2017). How such models and approaches deal with issues of student trust and privacy are important considerations in facilitating the use of ePortfolios. Do ePortfolios present additional challenges to the University’s academic integrity policies? What models of teaching and learning can guide academics in management of assessment using ePortfolios? In addressing the nature of assessment in online teaching and learning the purpose of this paper is to critically reflect on models of, and approaches to, teaching and learning as they relate to student agency in managing their own professional and career development. We have scoped this through reflecting on varying applications of ePortfolios within assessment and/or as a platform for professional development at the University of South Australia. The authors consider various models and practical approaches to developing students’ use of ePortfolios and the pedagogy and practice of critical self-reflection in assessment of professional development. The collective experience of the authors’ varied paths, explored by Sharp and Khan, These include the student-determined combinations of ePortfolios as reflective journals and/or assessment instruments as well as MS Word summaries which, unlike the Mahara ePortfolio platform, are compatible with the Tuntihn academic integrity tool. Amongst the mapping of all these paths our authors draw insights on student agency, partnership, student privacy, academic standards of citation and expediency in the marking of assignments, and the provision of useful feedback to students. Such are the issues raised and offered for sharing with colleagues at the seminar, including some suggestions for improvements in this teaching and learning terrain.

Keywords
ePortfolio; Career development tool; Reflective journaling; Feedback; Theories and models of assessment; Online assessment and assessment using technology; privacy

REFERENCES


Between base-camp and summit lie a number of intermediary paths, explored by Sharp and Khan. These include the student-determined combinations of ePortfolios as reflective journals and/or assessment instruments as well as MS Word summaries which, unlike the Mahara ePortfolio platform, are compatible with the Tuntihn academic integrity tool. Amongst the mapping of all these paths our authors draw insights on student agency, partnership, student privacy, academic standards of citation and expediency in the marking of assignments, and the provision of useful feedback to students. Such are the issues raised and offered for sharing with colleagues at the seminar, including some suggestions for improvements in this teaching and learning terrain.

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REFERENCES


Health professionals undertake postgraduate health care management training to gain skills and knowledge that can help further their careers. Postgraduate health management courses aim to provide students with a high level of analytical and conceptual skills, as well as practical knowledge, that covers a broad range of highly relevant subjects. This is consistent with the Halpern’s (2013) assessment of industry requirements. However, we have found that some students struggle to see the connection between subjects, particularly when undertaking their capstone project. Issues of ‘pulling the course together’ for students’ increasingly concern many disciplines. Capstone subjects help students to both look back over their course and look forward to life beyond study (Durel, 1993) but more maybe needed by students. In order to improve students’ learning and performance in assessment, and to better meet the needs of industry, we have developed a framework that underpins the health care management program. We have called this framework “know your business”.

The framework is a mental model (heuristic) that is intended to help simplify the complex world of health into a meaningful and easily digestible format. In its simplest form, it is simply: Policy → System Specification/Support → Business Operations → Outcomes & Outputs

Graphic descriptors of the model show how students can apply to facilitate their understanding of health care management across different situations. We support the model with “critical thinking” principles to highlight how much we rely on ‘our assumptions’ to interpret our world. The Know Your Business Model facilitates the students understanding of variations in stakeholders’ views of the business.

The need for this model was apparent when students were failing to draw together materials from prior learning. The individual subjects tend to focus on specific aspects of health care management and the know your business model helps students understand that an integrated perspective is required in order to become an effective manager. We have begun to use the model in various situations including introductory sessions and as preparatory reinforcement for those about to undertake their capstone project.

Keywords

Subject integration; Mental models; Business literacy

REFERENCES


Students’ Partnership vs Privacy in Assessment: The use of ePortfolios in online Professional Development courses

Colin Sharp, Huda Khan, & Nayana Parange

Division of Business, UniSA

This paper examines the extent to which the use of ePortfolios supports the concept of student agency in managing their own professional and career development in higher education. The use of ePortfolios across a wide scope of uses and assessment requirements is needed by students.

The scope of our experience enabled us to map out (rather than develop models per se) a teaching and learning terrain covering a variety of assessment and professional development uses of ePortfolios. At one end of the map (the base-camp) is the institutional prospective provision of student ePortfolios as a voluntary non-assessed tool within a first year undergraduate professional development course (Harvey’s courses). The other end of the map (the summit) is the compulsory use of ePortfolios and as a requirement for attainment of professional accreditation within an online post-graduate medical sonography program (Parange in Rowley, 2017).

In addressing the nature of assessment in online teaching and learning the purpose of this paper is to critically reflect on models of, and approaches to, teaching and learning as they relate to student agency in managing their own professional and career development. We have scoped this through reflecting on varying applications of ePortfolios within assessment and/or as a platform for professional development at the University of South Australia. The authors consider various models and practical approaches to developing students’ use of ePortfolios and the pedagogy and practice of facilitating critical self-reflection in assessment of professional development. The collective experience of the authors’ varied paths, explored by Sharp and Khan, These include the student-determined combinations of ePortfolios as reflective journals and/or assessment instruments as well as MS Word summaries which, unlike the Mahara ePortfolio platform, are compatible with the Tuntihn academic integrity tool. Amongst the mapping of all these paths our authors draw insights on student agency, partnership, student privacy, academic standards of citation and expediency in the marking of assignments, and the provision of useful feedback to students. Such are the issues raised and offered for sharing with colleagues at the seminar, including some suggestions for improvements in this teaching and learning terrain.

Keywords
ePortfolio; Career development tool; Reflective journaling; Feedback; Theories and models of assessment; Online assessment and assessment using technology; privacy

REFERENCES


Know your business – a mental model to improve learning and assessment

Mark Mackay, Ian Walton

Health Care Management, College of Medicine and Public Health, Flinders University

Don Houston

Centre for Innovation in Learning and Teaching, Flinders University

Students are now beginning to tell us the impact this having. For example, “When reflecting back on what knowledge I have gained throughout [the subject] in regards to budget setting in my workplace, the Knowing your business model is in the forefront of my mind …. Without knowing your business’s strengths & weaknesses, its policies, how it functions, the resources it has, how it is benchmarking with other businesses/providers, then you are not able to run the business effectively and efficiently to maximise your profit and ensure its success”. Without a framework upon which to draw their subjects together, students have struggled to see how subjects connect. The model has provided students with a tool that they can easily adapt and apply. We are seeing improved outcomes in student assignments as a result.

To date, we have not sought systematic feedback from students or lecturers regarding the value of the model. It is now appropriate to conduct research to determine the impact on student outcomes. We would welcome your thoughts on how this is best may be achieved.

Keywords

Subject integration; Mental models; Business literacy

REFERENCES


When teaching English as Foreign Language (EFL) students, self and peer-assessment is commonly used to promote independent learning in the class. Spiller (2012) and O’Neill and McMahon (2005) define that self and peer-assessment is the assessment type which is set by the teacher to encourage students’ autonomy and responsibility in learning. In EFL class, self-assessment helps with developing EFL learners’ language skills and encourages them to analyze their mistakes and judge their learning progress (Birjandi & Tamjidi, 2012). Similarly, peer-assessment encourages EFL learners to learn collaboratively and develops their language learning (Shams & Tavakoli, 2014). However, anxiety has become a significant problem faced by non-English learners in doing self and peer-assessment (Iraji, Enayat, & Momeni, 2016; Zakian, Moradan, & Naghibi, 2012). More specifically, EFL students often feel hesitation, or lack confidence, when grading themselves and their peers (Gurbano, 2016; Pope, 2005). They also feel anxious about the reliability and accuracy of their self and peer-assessment, typically due to existing friendships and relationships (Afaffley, 2004; Topping, 2008). Therefore, this study aimed to investigate EFL students’ anxiety with grading in self and peer-assessment in English as Foreign Language (EFL) classes.

This mixed-method study was conducted with 100 EFL students and 7 teachers of the Cambridge English College (CEC) Makassar-Indonesia. The students were the intermediate level learners who had completed writing classes. It means that they had the same level of English proficiency skill. Hence, they had the same level of learning anxiety (Sabichte, Quiles, Rodríguez, & Durán, 2017). Furthermore, the teachers were selected based on their experience in teaching writing and doing self and peer-assessment. To collect the data, the researcher used Gurbano’s self and peer-assessment questionnaire (2016) and conducted semi-structured interviews at the end of classes. The online questionnaire was delivered to the 100 students; at the same time, the teachers were interviewed about their perspective of their students’ anxiety, confidence and feelings about self and peer-assessment in EFL classes. The questionnaire results showed that most students felt more responsible when assessing themselves and discovered their strength and weaknesses through the self-assessment process. They were also less anxious when assessed by their peers; however, they still felt anxious about the subjective nature of grading themselves and their peers. Moreover, the semi-structured interviews revealed that the teachers agreed on the benefits of self and peer-assessment, namely, that it made students feel more confident in completing the in-class assignment. The teachers also argued that students were largely honest when providing feedback to their peers. Moreover, they suggested that providing a clear articulation of assessment criteria and rubrics can reduce the students’ anxiety with grading in self and peer-assessment.

Keywords
Self-assessment; Peer-assessment; Anxiety; Grading; EFL

REFERENCES

Evaluation of Student-Tutor consensus marking model in a 1st year Paramedic Undergraduate Degree: Developing skills in self-evaluation.

Anthea Cayetano, Simon Pope, James Thompson, Leah Couzner & Don Houston. College of Medicine and Public Health. Flinders University

Once students leave university they must be capable of examining their own practice and evaluating their own deficiencies (Eva, Cunningham et al. 2004). This is particularly important in the pre-hospital environment where the graduate paramedic will be working autonomously as an operational paramedic and the gravity of mistakes made can be significant (Zimmerman 1990).

Students undertaking the Paramedic Science degree at Flinders University have not been given any structured tuition in self-evaluation until the 3rd year of their education. Once students reach the 3rd year they are introduced to the Student-Tutor consensus model. This method employs a criterion referenced self-assessment formula to evaluate student performance in a structured simulation. Students are asked to consider their own performance in each area, then they grade their colleagues. They judge the performance of the student marked by their peers and compare their grade with that of their students. This process is repeated for each simulation. Students are also asked to consider the consistency of their performance across all areas of simulation and impact on the performance of their peers. Overall the results demonstrated that students felt that the student-tutor consensus marking to be a fair (87% of students) and effective (96% of students) method of assessment. They stated that they received feedback that highlighted industry-relevant skills (95% of students) and increased their self-confidence in their knowledge and practice (94% of students). Therefore it was determined to introduce the student-consensus marking to the entirety of the first year of the paramedic degree and conduct further research into its effectiveness as an assessment method.

Keywords
Self-Assessment; Self-Evaluation; Consensus Marking; Paramedic

REFERENCES
On formative assessment approaches that improve learning

Cruz Izu & Amali Weerasinghe | School of Computer Science, The University of Adelaide

Formative assessment should encourage a shift on formative assessment as well as a change of students’ unsuccessful attempts will not only foster learning, as observed at high and promote long term success. This is in accordance to reduce the chances of failure during instruction. However, to learning and to engagement, thus scaffolding is used to formative assessment. Failure is thought to be both detrimental to summative assessment, instead of maximising it for each help each student to achieve their highest performance during unreliable index of whether learning has occurred (Bjork & Metcalfe, J. (2017). Learning from errors. A 29(4): 693-715. https://Educ Psychol Rev Supports Learning.

REFERENCES


Keywords

Learning; Performance; desirable difficulties; formative assessment; scaffolding

Understanding Online MBA Student Behaviour: Examining the Intersection between Engagement and Academic Performance

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Within the MBA space, increased competition across the US, UK, and Australia has meant that providers are looking at ways in which to market courses to attract the best and brightest talent. Much of the discourse around Big Data and Education has been focused on efficiency and cost-effectiveness (Altbach, Reisberg & Rumbley, 2009, as a way to enhance education ‘delivery’ and as a means to collect research in our field (Eynon, 2013). Higher education institutions have also turned to technology in order to understand student motivations in order to ensure student retention and success (Collins, Glover, Myers & Watson, 2016). Whilst the use of learning analytics has become popularised within higher education institutions at an undergraduate level, questions still arise regarding their use and effectiveness in improving teaching capabilities within the postgraduate teaching environment. For adult learning environments, the use of workplace learning is effective in the ensuring co-creation of knowledge situating the academic theory in the workplace problems students have previously experienced and offering opportunities for student reflection of their personal learning journeys (Cunningham, 1998; Fung, 2017; Zuber-Skerrit & Abraham, 2017). MBA programs have often been criticised for their inability to balance practical application with theoretical knowledge (Mintzberg, 2004). Yet a trend towards ensuring relevant and applied practical understanding is beginning to become apparent. Some institutions are adopting work-applied or work integrated learning approaches to ensure balance between academic theory and practical experience (Abraham, 2012). To achieve, this, however, a structured learning experiences is needed to facilitate the students learning journey. Students often enter the MBA programs having not studied for a number of years, and the teaching methods have changed significantly. Gone are the days of pen and paper. Students are now required to fully engage with an LMS in order to co-construct knowledge with the assistance of facilitators and complete formative and summative tasks around busy work schedules. The use of a ‘supported open learning environment’ to assist learners through their program of study. Whilst formal learning elements exist within the curriculum, informal elements are embedded as a mechanism to increase student skill development with the aim of enhancing academic skills. Informal elements within a learning environment have been identified as foundational for learner abilities (Caza & Brower, 2015). The aim of the present study is to examine whether student engagement in learning materials contributes to student outcomes (i.e. assessment and exam grades). In doing so, the study tests a model of student engagement, in terms of access to learning materials, participation in learning activities, and forum participation, and the contribution of these activities to academic performance.

This study is situated in the context of a global private online provider. Findings demonstrate a number of significant factors that influence student performance in assessments. Implications of these findings are discussed to provide.

Keywords

Educational data; e-Learning; Learning analytics; Academic performance;

REFERENCES


Making progress: Helping students to know where they are going and where they have been with the use of progress testing: Design & Implementation

James Thompson, Dr. Don Houston & Dr. Leah Couzner
College of Medicine & Public Health, Paramedics, and, Centre for Innovation in Learning and Flinders University

Student assessments are recognised as key drivers of learning, although consequences linked to student performance, such as academic progress and GPAs, raise a question of whether some assessment design provides more motivational ‘stick’ than ‘carrot’. Written examinations have long been a standard of university teaching, despite ongoing debates about their efficacy with literature critical of the student experiences, test preparation tactics, retention of knowledge post the test, as well as stress and anxiety linked to the event. Additionally poor test design can leave students questioning an assessment’s value or relevance. Furthermore the growing debate regarding the use of summative, formative or blended assessment practices, underscores much current assessment discussion.

For over 30 years, progress tests have been used in medical education as a tool to link formative and summative assessment and to address concerns about more traditional assessment methods. Central to the approach is a single exam, comprised of comprehensive content reflecting expected graduate knowledge from a teaching program. Commonly, the test is administered at intervals throughout the entire study program, from start to finish, reminding students of the goals of the course, while also enabling incremental performance measurements. Despite some of the disciplinary parallels, we were unable to find any literature relating to progress test use within paramedic education. Flinders University recently piloted progress test assessments within a final year capstone undergraduate paramedic subject. The presentation describes the process the authors employed to design and validate a progress test suitable for paramedic education. Extensive curriculum mapping and consultation with the academic staff, topic tutors, recent graduates, industry advisors and clinical practice guideline documents, contributed to identifying content which faithfully reflects the teaching syllabus, specific learning priorities and essential requirements for practice as a paramedic. The second stage of test development witnessed the integrating of elements from differing topic themes, applying current evidence and recommendations on effective exam design, before reviewing each question within a series of academic forums. Forum members filtered questions across multiple criteria, with a mandate to ensure that each discriminator was relevant, and that it was likely that only students with the appropriate knowledge would be able to answer correctly. Careful consideration was also given to the grading of the exam. Negative marking was applied to the test, with students rewarded with one mark for correct answer, zero marks for indicating they didn’t know, and minus one mark if they were incorrect. The feature encouraging students to acknowledge when they are unsure while also discouraging them from guessing responses. This tenet directly reflects the risk adverse expectations of industry practice, where there are potentially catastrophic consequences of incorrect actions or decisions.

An additional stage of the process related to the integration of the test into the existing capstone subject. Students initially encounter the 100 multiple choice questions on the first day of the topic, with prompt feedback on their performance serving for diagnostic purposes: the intended learning outcomes are made explicit to students in feedback. These specific learning outcomes, underlying the MCQ exam, also underpin subsequent learning experiences through student constructed videos, practical scenarios and problem based learning, where students are required to demonstrate necessary skills and reasoning. At the end of the teaching/learning modules, students re-attempt the exam and receive further feedback on remaining knowledge gaps. A culminating assessment item of the subject involves an oral viva exam, which samples 3 questions at random from the student’s incorrect responses from their 2nd attempt at the progress test.

The introduction of progress testing marks the latest refinement to a course which is tasked with the primary goal of preparing graduates for industry readiness.

Keywords
Progress Test; Capstone Teaching; Individualised Learning

REFERENCES

Providing an equitable, engaging learning experience for off-campus students that improves opportunities for feedback and learning outcomes.

Sarah List & Bronwen Mayo, School of Pharmacy and Medical Sciences, Division of Health Sciences, University of South Australia

The central premise of engagement theory is that “students must be engaged in their coursework in order for effective learning to occur”. Miliszewska & Horwood 2004. However, off-campus study modes are becoming increasingly common, with many courses shifting towards being offered entirely online with no face-to-face contact or ability to use default face-to-face engagement methods. Michael 2012. These off-campus courses are also increasing in size, which raises several questions such as: how will we ensure that off-campus students are experiencing an equitable experience comparable to on-campus students; O’Shea, Stone and Delahunty 2015. Which will off-campus students receive equal opportunities for feedback; O’Shea, Stone and Delahunty 2015 and; how can we demonstrate that the academic outcomes for off-campus students are not impacted by their mode of study?

This paper explores how a large course (>700 students) with both on- (550 students) and off-campus (150 students) enrolled cohorts, utilises the virtual classroom and Lt kuraCloud to create a learning environment that aims to provide an equivalent experience for its off-campus students. Lt kuraCloud is a piece of visually intuitive, customisable, highly interactive software that incorporates summative and formative assessment options that include video, sound, multiple choice, drag and drop, categories, tables, graphs, annotate and free-text questions. Full feedback can be provided, with a mix of question types being auto marked or hand marked. The Virtual Classroom is a live discussion room with the ability for students to hear, see (via screen share) and respond to discussions during the sessions. In this example, the use of Lt kuraCloud in particular saw exam fail scores decrease with an increase in D and HD grades for both on- and off-campus students. An increase in final scores for the course were also noted. The course evaluation instrument (CEI) noted substantial increases in satisfaction for the course overall, with the greatest increases reported for the off-campus students in the quality of feedback they received (CEI evaluation question: I have received feedback that is constructive and helpful) and the quality of the assessments helping in their learning (CEI evaluation question: The assessment items assisted my learning in this course). This shows how the use of an online interactive tool in conjunction with the virtual classroom can improve the learning experience and opportunities for feedback, comparable to the on-campus experience, whilst retaining the desirable flexibility of asynchronous off-campus enrolment.

Keywords
Off-campus students; Online learning; Feedback; Assessment; Student experience; Equity

REFERENCES
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The use of self-assessment and recorded verbal feedback for learning in a purely online external environment: a case study.

Brooke Osborne University of South Australia

In a postgraduate Medical Sonography program, one of the key objectives is to develop independent and reflective health professionals. Given the online nature of this program, one of the greatest challenges has been to establish effective ways of providing feedback to students that they actually take on board and then use to improve performance.

Given recent work presented as part of the feedback for learning, closing the feedback loop work (Henderson et al., 2018; Broadbent, Panadero, & Boud, 2017), and in an effort to reduce the cry for ‘more feedback!’ in student evaluations, a more effective way for students to interact with the evaluation of a major unit assessment requirement was developed. This session will discuss the introduction of a mid-point self-evaluation and restricted feedback of performance in semester-long online tutorial activities. Key factors for consideration included: working around the ever-present restrictive allocated marking time for this assessment; the explicit instructions required for successful completion of the ongoing learning and reflection-of-learning; and, how best to start the process of weaning students from the reliance on feedback at every stage of their learning process.

Initial observations of the change in process were that mid-point evaluation did add significant time to evaluation of the assessment task. However, in the context of feedback for learning, the benefits of providing teaching moments far outweighed any pitfalls of the extra time being spent on assessment. The recorded feedback allowed for a personal touch which had been missing from the unit in previous years. Finally, student feedback in their unit evaluations indicate a greater understanding of how the tutorial activities were instrumental in their meeting the unit learning objectives.

Keywords
Self-assessment; Feedback for teaching; Online education

REFERENCES
Group work for 1st year students: student views and experiences

Thomas Wanner | Anthropology and Development Studies & Edward Palmer | School of Education, The University of Adelaide

Over the last two decades, small group learning experiences have increased rapidly in higher education (Fink, 2004). This trend is based on much research that group work and inquiry-based learning are worthwhile teaching and learning approaches through which students develop skills which are highly valued by Universities and future employers, such as working successfully in teams, critical thinking, communication, problem-solving, time-management and decision-making skills (Koles et al. 2010; Hazel et al., 2013; Blessinger and Cartora, 2014). Inquiry-based learning, where students work in small groups to research and provide answers to real world issues/problems, helps students to be more self-directed and more responsible for their own learning (Michaelsen et al., 2004).

There has been many studies about student perceptions and attitudes to group work and group assignments (Burdett, 2003; White et al., 2005), and many guides or ‘best practices’ on how to do group work. However, there is not much in the literature about first year students on how they view and approach group work and assessment and what is required to make their group work more effective and enjoyable. We designed a study to find out first year students’ views and experiences with group work and ‘small group discovery experience’ in a variety of undergraduate courses at the University of Adelaide.

In this presentation, we will report the findings of this two year study. Our study showed that students (and academic staff) are widely used.

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Construction of a root taxonomy to assess student attitudes towards educational technology

Andrew Kemp | Learning Enhancement and Innovation & Peter Strelan | School of Psychology, The University of Adelaide

Background

Technology acceptance models (TAMs) have been used to evaluate peoples’ attitudes to technology since Davis first introduced his Technology Acceptance Model in 1986 (Davis 1986; Davis 1989). Since then, much research has been undertaken which has resulted in a many different measurement constructs (Abdulah & Ward 2010) and different model architectures (Venkatesh et al., 2003). TAMs can be applied to educational technologies such as wikis, learning management systems, and virtual worlds in primary, secondary and higher education contexts. The application of measurement constructs has been ad hoc, often with limited justification for inclusion or exclusion, or the model architecture used, which reduces the external validity of much research beyond its immediate community. This project examines the fundamental behavioural theories and forms a root taxonomy of factors affecting attitudes to educational technology using an inductive qualitative method. This allows us to consistently assess student attitudes to educational technologies deployed in an educational setting.

Method

We re-visited the foundational behavioural theories upon which the vast majority of technology acceptance models have been based: Theory of Reasoned Action, Theory of Planned Behaviour, Motivational Model, Model of PC Utilization, Innovation Diffusion Theory, Adoption of Information Technology Innovation, and the Social Cognitive Theory. Semantic analysis of the constructs defined in these theories was applied, and similar constructs grouped and collated. This formed a root taxonomy that mapped the multitude of measurement constructs to primary, secondary and tertiary taxonomic groups. The two major technology acceptance models were also included in this analysis: Davis’ TAM (Davis 1986), and Venkatesh’s Universal Theory of Acceptance and Use of technology (UTAUT) (Venkatesh et al. 2003), since these are widely used.

Results

We present a total of four primary taxonomic groups that were identified: ‘Attitude & Affect’, ‘Social Factors’, ‘Usefulness & Visibility’, and ‘Perceived Behavioural Control’. On expansion, a total of thirteen secondary and tertiary taxonomic groups emerged from these four parents. These thirteen taxonomic groups then house the measurement constructs defined by the fundamental behavioural theories.

Discussion

This work differs from previous work in that it is an inductive qualitative model that measures a complete scope, whereas other models are limited to core constructs (Davis 1989) or by ad hoc quantitative parameters (Venkatesh et al. 2003; Abdulah & Ward 2016). A further difference is that the root taxonomy presented here has dimensional depth offering granularity of primary taxonomic groups and has been derived inductively.

Keywords

technology acceptance models; student attitudes; educational technology

REFERENCES


SESSION ABSTRACT

Visual recognition memory versus recall in Invigilated Online Exams

Colin Sharp
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While there has been an increasing literature on comparisons of learning outcomes of online versus face-to-face teaching and learning arrangements (e.g. Callister & Love, 2016), there seems to be little available on the assessment issue addressed by this paper concerning the relative perceptual and memory loads of the two approaches. Here the author is the Online Course Facilitator charged with the translation of hard-copy on campus exams into completely online versions. In this process he became interested in investigating the psychological theory underlying attempts to facilitate equivalence between a close-book hard-copy exams and the fully online versions of such exams. How does an academic responsible for delivery of an online exam translate the intention and cognitive skill level requirements (perception and memory processes) from a paper-based exam? In the present example of designing an online exam in the assessment of the undergraduate ‘Principles of Economics’ and ‘Quantitative Methods for Business’ courses, the author was confronted with the dilemma of determining the proper assessment of the graphical portrayal of quantitative data to be assessed by students’ creation of diagrams. For example of such as issue consider, how to construct an online equivalent of an on-campus course hard-copy closed-book exam question which requires students to “Explain and illustrate why the Average Total Cost curve is U-Shaped in the short run”, and the instructions stated: “Note: Answers that utilise graphics, where appropriate, will score higher marks”. In delivering an online remotely invigilated exam (video-proctored by a third party company) the difficulty of this translation of examination content and process was exacerbated in relation to the closed-book restrictions prohibiting note-paper, leaving the only tool available to students as a pre-formatted MS Excel workbook as their ‘scratch paper’ for note taking (to be the only tool available to students as a pre-formatted MS Excel). A further restriction was the feasibility (time available and difficulty) of using Excel graphics.

In this case the author sought guidance in Psychological theories of memory and perception as they apply to cognitive workload (e.g. Kantowitz, 2000; Prisacari, 2008; Danielson, 2017) to investigate the cognitive skill equivalences of the two modes of examination. In doing so this paper includes relevant literature reviews and relevant models on the psychological aspects of visuo-spatial memory and recent research on online exams and the factors associated with the use, or lack of ‘scratch paper’ (e.g., Prisacari, & Danielson, 2017), in aiding students’ workings during such an exam. For example, the paper discusses the issues associated with the difficulty of the design for equivalence of hard-copy and online exams. Indeed one main-stream theory, according to Baddley’s (2017a) working memory model, is that the brain functions like a “visuo-spatial sketchpad” (Baddley 2017b) which would enable ease of recognition testing using multiple choice arrays of visual images depicting potential economic models to give an advantage over the traditional hand-written graphical recall of such diagrams. The paper introduces a literature review and work in progress (with colleagues at UNSA Online) to explore these psychological aspects of online exams and gives examples of how the hard copy requirements for graphical illustration were addressed by a multiple choice of graphical arrays. The intention is to promote academic scholarship on these aspects of online assessment processes.

Keywords
Online examinations; Cognitive workload; Visualising memory; Recognition vs recall memory

REFERENCES

SESSION ABSTRACT

Role of Cognitive Load Theory in designing an assessment model for online postgraduate business courses

Donald Winchester & Kavita Goel
Australian Institute of Business

In this age of information overload and greater work complexities, academics are working towards creating an effective and learning environment which would result in better learning outcomes for students. Prior research has established the importance of analysing how students learn and their effort with learning different assessments (e.g. Paas & van Merriënboer 1994; Sweller, Ayres & Kalyuga 2011), ‘Cognitive load theory (CLT)’ posits that learners have limited processing capacity (Sweller, Ayres & Kalyuga 2011). The proper allocation of cognitive resources is critical in their journey of learning. A properly constructed assessment would be less demanding of these cognitive resources. The CLT literature is in favour of not overload the limited working memory of students, therefore assessment should be designed in a way to be able to retain learning and called upon when necessary e.g. quizzes, exams. According to CLT, a number of small and different tasks lead to a reduction of cognitive load (effort) and increased facilitation of learning when compared to single major item of assessment (Paas & van Merriënboer 1994).

A new assessment model was introduced during 2017 by the largest private educator of MBAs in Australia with a greater diversity of assessment items across subjects and integration of formative assessment. Each subject now uses a mix of assessment items appropriate to subject learning outcomes. Assessment items may include quizzes, forum participation, oral presentations, groupwork, reflection, knowledge checks, assignments and exams. Previously with two summative assessment pieces the cognitive load was high.

With a median age of 40 years, most of the postgraduate students are employed or operating their own businesses. They are different from the young undergraduate students in terms of the quantity and quality of practical experience. This difference has important consequences on assessment design. In all assessments, emphasis is on application of knowledge and skills. Assignments focus on a work-based issue or enable students to use a workplace as the focus of the assignment. Exams require discussion of theory as well as application of concepts. The new model mix permits more feedback through formative as well as summative assessments.

Reflection is also built into the courses in various ways. Students are encouraged to maintain a learning journal but are not required to do so. Within subjects, students may have a formal reflective assessment. Because students are from or in a work environment they can more easily apply practical experiences in assessments which facilitates in-depth, critical and reflective knowledge. These changes were expected to impact the student’s learning experience, their academic performance, and retention favourably as the new assessment model was designed to lower their cognitive load.

The methodology uses a mixed methods longitudinal case study (Yin 2014). Primary and secondary data collection techniques are used in this study. Primary data are collected from interviews and survey(s) of students and academics. Ethics approval and organizational consent were granted. Secondary data are collected from the organisation’s databases and reports. In conclusion, there is evidence that performance of students as measured by success rate improves significantly since the introduction of the new assessments model as compared to the earlier assignment and exam only assessments. It was identified that the new model helped students to better absorb the content of the subject, provides flexibility, keeps them motivated and enhanced their learning experience.

Keywords
Cognitive Load Theory; Postgraduate students; Assessment mix

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Yin, R 2014, Case Study Research: Design and Methods, 5th edn, Sage Publications.
The Assessment Kaleidoscope: optimising assessment equity for enhanced graduate outcomes

Jeffrey Naqvi
University of South Australia

There are many assessment types available for academics to use in their courses; yet how many of them accommodate the diversity of a student cohort, at the same time as connect to graduate outcomes and employability? This study centres on a course entitled “Industry and Practice”, a capstone course of several undergraduate degrees in the School of Creative Industries, and part of the University’s concerted focus on providing “work-integrated learning” (“WIL”) by getting students into a career-ready mindset. Students study a range of career management theories, learn about industry sectors and their drivers, understand the importance of self-awareness in navigating a career through a range of diagnostic tools, adopt personal branding techniques to craft their proposition to the market, and also interact with industry experts who share their perspectives on forging a career in the creative industries. The academic disciplines from where the students originate are broad – marketing, communication, media arts, journalism, and performing arts. With an academic breadth as broad as this course attracts, it is important to understand the different learning styles and skillsets of students. The concept of assessment equity and inclusivity has become very resonant, with increasing student diversity and multiple entry points into tertiary education. Bain (2004) establishes the importance of an adaptability to the needs of students as individuals, as well as a proactivity in the creation of learning and teaching materials. Moss et al (2008) focus on the social, economic, cultural, and special needs of individuals and the impact on assessment design and delivery. In changing the assessment design, the aim was to provide more equitable opportunity with assessments, but also to enhance student self-awareness of their employability skills. As a WIL course, the assessments had an opportunity to amplify their connection to real-world professional skillsets. Brown and Glasner (2003) validate this approach in their work looking at the diversity of assessments.

In large science classes the majority of factual content is still delivered via lectures. This limits the opportunity for students and staff to ask questions (Oblinger 2004), which impacts engagement and hence learning. Yet, it is well known that both small class tutorials (Wood & Turner 2012) and one-on-one tutoring (Bloom 1984) which enable a greater level of student-instructor interaction are more effective in increasing student learning and improving outcomes (Oblinger 2004). Hence, media-rich computer-based instruction in which the number of student-instructor interactions per hour can be increased dramatically (Bloom 2004) may offer a valuable opportunity to improve student outcomes in large undergraduate classes. Here we explore new online software to take the place of the one-on-one tutor in several large class settings in the Health Sciences to demonstrate improved student engagement and outcomes. We used the commercial cloud-based learning platform Lt hosted by kuraCloud, across a range of courses and study modes (> 2000 students), to improve student engagement with content, promote asynchronous self-directed flexible learning and afford consistent and equitable learning opportunities for large cohorts of on- and off-campus students. For the courses Human Physiology, Physiology Essentials, Human Body 2 and Scientific Basis of Clinical Practice weekly interactive online revision tasks were developed that were topic-specific and comprised guided interactive questions and activities for knowledge recall (multiple choice questions, categorisation, drag-and-drop labelling) which were followed-up with concept maps and unguided extended response questions requiring text answers. Interactive tutorials and revision sessions with a clinical context (authored case studies) were used to highlight the practice underpinning the theory. These activities were designed to engage students in their learning and simultaneously assessing their understanding of the content in summative and formative modes. For 2nd year Physiology, Lt was introduced to increase students’ preparation for practical classes. Pre-lab lessons included theoretical content presented in a modularised fashion with interactive questions and exercises that students undertook individually in a formative manner at their own pace. Student preparation was then tested in a pre-lab class quiz.

The introduction of Lt increased student engagement with course content (61% of Physiology Essentials; students completed 75-100% of all of the online revision tasks offered; >90% students completed all pre-lab activities for 2nd year Physiology; student satisfaction (7% and 84% improvement for Human Physiology and Physiology Essentials, respectively); and the number of students achieving a passing grade of 50% or more for the final exam in SBSP (10% improvement), Human Body 2 (8%) and Physiology Essentials (27%). Moreover, an overall shift in the Bell Curve to higher grades (>65% score) was evident. These results were comparable across both on- and off-campus cohorts. Lt can be incorporated as a versatile platform which has increased capacity for designing and implementing interactive tutorial exercises, case studies and summative assessment.

Our results suggest that the software, and the way that it is used, had a profound effect on the student learning experience and student performance and helped students to identify their knowledge strengths and weaknesses, and thus tailor their study practices to individual needs. Hence, Lt has the capacity to become the one-on-one tutor for students in large undergraduate courses.

Keywords
Lt; KuraCloud; Formative and summative assessment; Student engagement; Student outcomes

REFERENCES
Wood, B.W. & K.D. Tanner. 2012. The role of the lecturer as tutor: Doing what effective tutors do in a large lecture class. CBE-Life Sciences Education 11: 3-9
Flexible delivery and learning for students in higher education has been a strong trend in recent years at the University of Adelaide and globally. True flexibility in student learning means that there needs to be a move away from the traditional model of assessment where the lecturer/teacher decides when and how students are to be assessed. This leads to more personalised learning through flexible content, delivery and assessment (Gordon 2014, p. 10). Personalising education and learning means that the “learner is central” in that the needs, interests, backgrounds and learning styles of individuals are placed at the centre, and students are more empowered through more “choice and voice” in their learning (Keamy et al., 2007, p. 2).

In this presentation, we will first discuss how we have implemented flexible and personalised assessment in three different courses using Canvas. We will also report on the preliminary findings of a two year study about flexible and personalised learning where students had the chance to set their own submission date and weightings (within limits) of their assignments; and had input on how they would like to receive feedback (e.g. personal consult; audio/video; written feedback). Students overall made intelligent decisions about their assessment weightings and due dates for submissions; they did not automatically choose the last possible date but made decisions based on their desire to achieve early feedback and assessment requirements in other courses. Overall students saw the benefits of flexible assessment and valued the opportunity to influence their assessment and learning outcomes.

The presentation will include key lessons and strategies for other teachers to make their assessment practices more flexible and include students as partners in the assessment process.

Keywords
Flexible assessment; personalised assessment; student empowerment

REFERENCES

In peer assessment we may hope that students’ sense of calibration of academic standards converges towards our own, so that they provide each other with marks that are fair and equitable. This is unlikely due to the common experience of low inter-marker reliability (Campbell, 2005) and possible effects of social dynamics (Wu, Chand & Willison, 2014). So how do we manage the potential benefits of peer assessment, without inequitable mark allocation? One answer concerns assessment as a conversation (Willison & Buisman-Pijlman, 2016). This presentation will prompt the audience to discuss the following points, as well as their own ideas, to enable assessment to be more of a conversation and less of students as those who are judged by others’ criteria:

1. Assessment criteria must be or become familiar to students and actionable by them
2. Rubrics are like ice: defrost them with the warmth of conversation
3. Students provide feedback based on criteria to other students, but no mark allocation
4. Students are marked on i) their response to others’ feedback and ii) the feedback they give.

Specific examples of the above, based on the Research Skill Development framework (Willison & O’Regan, 2007) will be distributed as part of the discussion. Numerous examples from a variety of disciplines of RSD-informed rubrics are available at https://www.adelaide.edu.au/rsd/examples/discipline/

Keywords
Research skill development; peer feedback; formative assessment; summative assessment; assessment criteria as conversation

REFERENCES
‘Students-as-Partners’ digital strategies and social media enhanced co-creations for formative assessment and feedback tools to improve student engagement and attitudes in Anatomy

Amy Rees, Nicole Williams, Daniel Gutschmidt & Nicoleen Lettering. Adelaide Medical School/Faculty of Health and Medical Sciences - The University of Adelaide.

Based on 2016 Student Evaluation (eSELT) data, second year undergraduate students found the threshold learning concept associated with anatomy difficult to master, as content can be perceived as extremely difficult due to the large volume of knowledge and relies on acquiring new study methodologies. Student demographics consistently highlight a high percentage of generation Y and Z learners, who, as discussed in Jukes et al. (2015), have high visual-spatial processing capacity, and will therefore process videos and images before text. Learning analytics consistently demonstrate that students disengage from the management system (i.e. Canvas), therefore not accessing supplementary revision material.

As a result, the Peer2Peer Leadership Program, consisting of a select group of senior, high-achieving students, was created with an aim to support students to develop efficient learning strategies, foster a sense of belonging within the Program, and collaborate with lecturers. In 2017, peers co-developed a selection of digital learning tools to address the spectrum of student learning preferences, including “MSK Snapchat” for kinaesthetic learners, and a “Student’s Guide to Anatomy” Podcast Series for aural, aiming to promote a digital, “outside the classroom” learning environment - colloquially advertised as ‘Study without Studying’. Formative assessment was co-designed to provide students with revision questions and instant feedback opportunities on contemporary platforms which they regularly use. Reimagination of the digital strategy by the 2018 peer leaders, aimed to further enhance student engagement, address ‘just in time’ learning habits, and ‘reaching students in order to teach them’, by use of formative assessment, such as polls, and instant feedback, through the highly popular app Instagram. Consistent with elements of the Pedagogy of Care (Motta and Bennett, 2018) namely Constructivist, Students-as-Partners and Humanism theories, we hypothesized that social media tools would improve student engagement, due to high quality, visual, digital formative assessment content and feedback interventions, quantified through eSELT, learning analytics and focus group data.

Data demonstrated high engagement rates across all technologies. Over 130 students subscribed to the MSK snapchat account and 390 website views recorded for the SGTA podcast since its inception. Facebook analytics revealed a total of 89 posts, and over 2000 “reactions” made over the semester, exceeding student activity on previous discussion platforms. 69% of students followed the Instagram page, being under the age of 25. Student feedback through survey responses showed 80% of participants believe these tools aided their learning performance. Academic outcomes reflect this, with a drop in fail rates from 2016 (pre Peer2Peer leader program) to 2018. 100% of students found digital resources implemented in the 2018 semester aided their learning. 93% (2017) and 96% (2018) of students found they received useful and timely feedback using these technologies. The Peer2Peer Leadership Program has, therefore, helped improve academic outcomes, whilst, according to eSELT feedback, “helping to form a better sense of community” within the anatomy program, and created the foundations for interdisciplinary application at a Faculty and University level (Jukes et al. 2015). The usage, trends and motivations surrounding the use of these social media platforms will be discussed in detail, while possible future directions and challenges will be contested.

Keywords
Digital learning tools; Student engagement; Formative assessment; Instant feedback.

REFERENCES

Creating supportive learning environments on placements – where student learning feels facilitated not just adjudicated

Emily Ward, Margarita Tsios & Sophie Lefmann. School of Health Sciences, University of South Australia.

University students are reporting high levels of distress (1) and for students in health-related fields, one key source of distress is clinical placement. Up to 62% of health and social science students report placement related stress (2). These figures suggest the increasing number of students with mental health concerns the Paediatric Teaching Team are managing in the UniSA Physiotherapy program, which commonly emerge after students enter the clinical placement aspect of their program. These observations, paired with the supporting data, lead to a review of the clinical placement culture in the Physiotherapy with Children course in the Physiotherapy Program in 2014. Following this review a number of strategies were implemented to ensure students were consistently attending placement in a supportive clinical learning environment which focusses on the clinical educator as a facilitator of learning and not just being considered a gate-keeper to a student’s progression in their degree. Strategies to foster and maintain consistently supportive environments across 17 sites including tertiary hospitals, community clinics and preschool/schools with up to 15 different educators included:

• Developing professional development sessions for educators to enhance development of supportive clinic environments
• Educating students on appropriate expectations and how to approach their placement and feedback.
• Updating induction processes for new staff
• Refining and updating processes around clinical educator feedback

A clinical education-focussed Course Statement was developed to act as a guiding principle for the course: “At UniSA in our Physiotherapy with Children course we strive to provide a supportive clinical education environment where students feel comfortable to share and try out their ideas. Our Clinical Educators are approachable and we encourage our students to initiate conversations to gain constructive feedback.”

This presentation aims to outline the strategies implemented in further detail, including a focus on student and clinical educator feedback. It will also summarise the outcomes of the strategies implemented. This can enable other educators to use such strategies in relevant courses. It may also help to reframe and provide an alternative focus for the assessment model for clinical placement.

Keywords
Placement; Supporting Learning Environments; Strategies

REFERENCES
Immersive Technology, Biometrics and the Future of Authentic Assessment

Steven Cook & Edwad Palmer The University of Adelaide

Recent advances with immersive technologies, such as VR (Virtual Reality) and MR (Mixed Reality), have demonstrated that they are not only capable of providing realistic immersion into fully simulated environments, they are also capable of effectively combining elements of both the physical and virtual worlds (Huber 2017, Kim 2018). Couple these advances with the considerable improvements being made with human interfacing, biometrics and simulated physics, we are now seeing untapped potential in the ways that we are able to train and assess using immersive technologies (Matzke 2017, Plancher 2017).

We present a VR training simulation that was constructed in collaboration between the University of Adelaide and the Australian Government. Being that VR is increasingly seen as a technology that can enhance spatial awareness (Agrawal 2016, Farra 2015, Hardless 2015), the simulation incorporates both visual and auditory cues within an urban environment. Cues such as the sound of leaking chemicals or gas are strategically placed within realistic locations, or along side dangerous items/objects. Learners are encouraged to interact with items/objects throughout the simulation to mitigate risk and/or move away from danger.

Assessment within this VR environment is not only associated with what the learners touch or how successful they are moving through the environment (much like traditional simulations), it is also associated with what they look at while in the virtual world. Through the creation of an experimental gaze-based tracking engine, we are able to facilitate reflective output within the VR simulation itself that notifies the learner – and of course us – of what they looked at and what they missed. This gaze-based tracking engine is combined with mechanics to assess what learners have touched or if they’ve been successful completing tasks. If we were to attempt a similar assessment mechanic in the physical world, it would be 1) extremely difficult to replicate precisely for each learner at scale, and 2) track exactly how the user moves and what they look at.

Future work will include the addition of GSR (Galvanic Skin Response), EEG (electroencephalogram) and ECG (electrocardiogram) sensing technologies. These technologies will provide us with the emotional state of the user, which can then be fed back into the VR environment to trigger further interactions or additional assessment strategies.

Keywords
Virtual Reality; spatial awareness; assessment; reflection

REFERENCES


The Role of Innovative Peer Mentor Quizzes and Video Co-creations to Improve Student Engagement

Emily Squires, Nicole Williams & Nicoleen Lottering Adelaide Medical School/ Faculty of Health and Medical Sciences, The University of Adelaide

This presentation will focus on implementation of a students-as-partners content enhancement using an innovative drawing-to-learn platform coupled with online formative assessment to improve dialogic relationality for maximum student engagement and academic performance.

Modern technological advances have prompted educators to adopt new methods of teaching to respond to greater student demands on their education outcomes; in light of a tech-savvy generation that have access to a myriad of free courseware online. Using second year Anatomy courses as exemplar, 2016 eSELT data suggested that students found the vast amount of content overwhelming, resulting in only the most persistent and hardworking students achieving the best academic outcomes. Historically, this course has been plagued by unacceptable failure rates and low student satisfaction. To improve dialogic relationality and create a collaborative learning community to support students, a peer leadership program was implemented to address problem areas in student knowledge, using the drawing-to-learn framework (Quillin & Thomas 2015). The major benefit of this tool, is that it “humanizes” online learning, captures student attention through a modern and interesting manner, and these videos have global sharing capabilities via Youtube. Student feedback within the course, nationally and internationally has been overwhelmingly positive as evidenced through “the light board videos are AMAZING!!! They are so helpful at summarising important knowledge that can be really difficult to properly assimilate from textbooks”; while eSELT data demonstrates an increase in course evaluation criteria relating to the use of technologies (Δ5% from 2016-2018), establishing a learning environment that accommodates student diversity (Δ10%) and effective feedback mechanisms (Δ15%).

Using a spaced and paced approach, the peer leaders aimed to target disengaged learners by co-designing formative assessment in Canvas. Weekly authentic quizzes covering key concepts, provided students an opportunity to identify knowledge gaps through instant feedback (Haberyan 2003). To quantify quiz access patterns, analytics from Survey Monkey were utilised. Key findings demonstrate that students that completed 75% of the quizzes had an average final grade of 94%, in comparison to 57% for students who didn’t complete the quizzes in the 2 weeks of dissemination. Those who completed the quizzes before the in-semester summative exams drew an average final grade of 76.96% versus 53.27% for students that did not. Additionally, the 42% of students that never attempted/completed the quizzes had a final average grade of 50.9%. No relationship between the number of times students completed each quiz vs final course grade were evident. The ‘students-as-partners’ model not only enabled previous students to use their knowledge to inform their contributions, but saw students develop leadership qualities, resulting in empowerment, inclusivity and improved communication skills to prepare them for STEM related careers.

Keywords
Musculoskeletal Anatomy; Peer Leadership Program; Light-board Videos; Online Quizzes

REFERENCES
Social Media and Student Engagement: An example of Twitter as a learning adjunct in a practical based topic.

Brad Mitchell | Flinders University

This presentation outlines the promotion and use of social media to supplement learning and teaching within a practical-based topic of a paramedic science degree. By introducing Twitter and a hashtag at the start of the semester, and encouraging students to post and take pictures of classroom activities, there has seen a sharp rise in the number of students with Twitter accounts. The creation of topic/subject specific hashtags means that certain content is directed toward specific cohorts, and a record of class-related tweets is created.

According to Greenhow and Lewin (2016), use of social media aligns well with Social constructivism and connectivism in terms of learning, with varying attributes of formality and informality. This use of Twitter has afforded the opportunity to supplement traditional teaching methods by providing resources in a platform which is extremely relevant to the cohort, adding to the immersive nature of practical teaching. Students are constantly on their PCs and smart phones, and so educational opportunities are right at their fingertips at all times of day. This emerging field of scholarship is cost-effective, instantaneous, easily accessible, and has been well received by the student cohort, and could impact on the way assessment is undertaken. Student engagement with social media is increased when they believe it may impact upon their grades (Dommett 2018).

A Twitter feed was embedded into the online learning management system so that students who do not have a Twitter account do not miss out, and those who are distance education students can keep up with what is occurring locally in the classroom each week. Thus students are able to interact and collaborate with each other at their own time and within their own context, supporting the notion of informal learning as proposed by Billett (2002). It also opens them up to critique and peer assessment in an online environment.

“Social media is being presented not merely as a valuable way to participate in class, but as an essential part of preparing for a career” (Blankenship 2011, p. 41). The ambulance industry is growing within the Twittersphere, with the state-based ambulance services, local managers and paramedics having a stronger online presence. This gives the students access to these individuals, networking, and self-promotion opportunities. It also aligns with the current movement of #FOAMed – free open access medical education where medical resources, advice, and information are shared and discussed via the Twitter platform.

Rheingold (cited in Blankenship 2011, p. 42) discusses the five interconnected literacies of social media which participants must be aware of to ensure effectiveness of the social media tool being used – attention; participation; collaboration; network awareness; and critical consumption. He also mentions the most unescapable truth about social media in education – “no matter what we think of them, they aren’t going away” (Blankenship 2011, p. 42).

Anecdotally the inclusion of Twitter has been received positively, with no negative aspects identified. The use of social media has resulted in increased student engagement, and an appreciation for the concept of a professional online identity. “Harnessing the learning attributes of social media could enrich experiences of learning within institutional contexts” (Greenhow & Lewin 2016, p. 25). The paramedic science experience of Twitter sees it as an effective adjunct to the current high-quality teaching and resources offered. Is it the future of assessment?

Keywords
Social media; Technology; Twitter; Student engagement; #FOAMed; Alternative assessment

REFERENCES