

CHANGING HORIZONS: LOCAL LEARNING FOR GLOBAL IMPACT

HERGA CONFERENCE 2014
ADELAIDE 24-25 SEPTEMBER



HIGHER EDUCATION RESEARCH
GROUP ADELAIDE



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GROUP ADELAIDE

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.

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ACKNOWLEDGEMENTS

Karl Larsen
this big design

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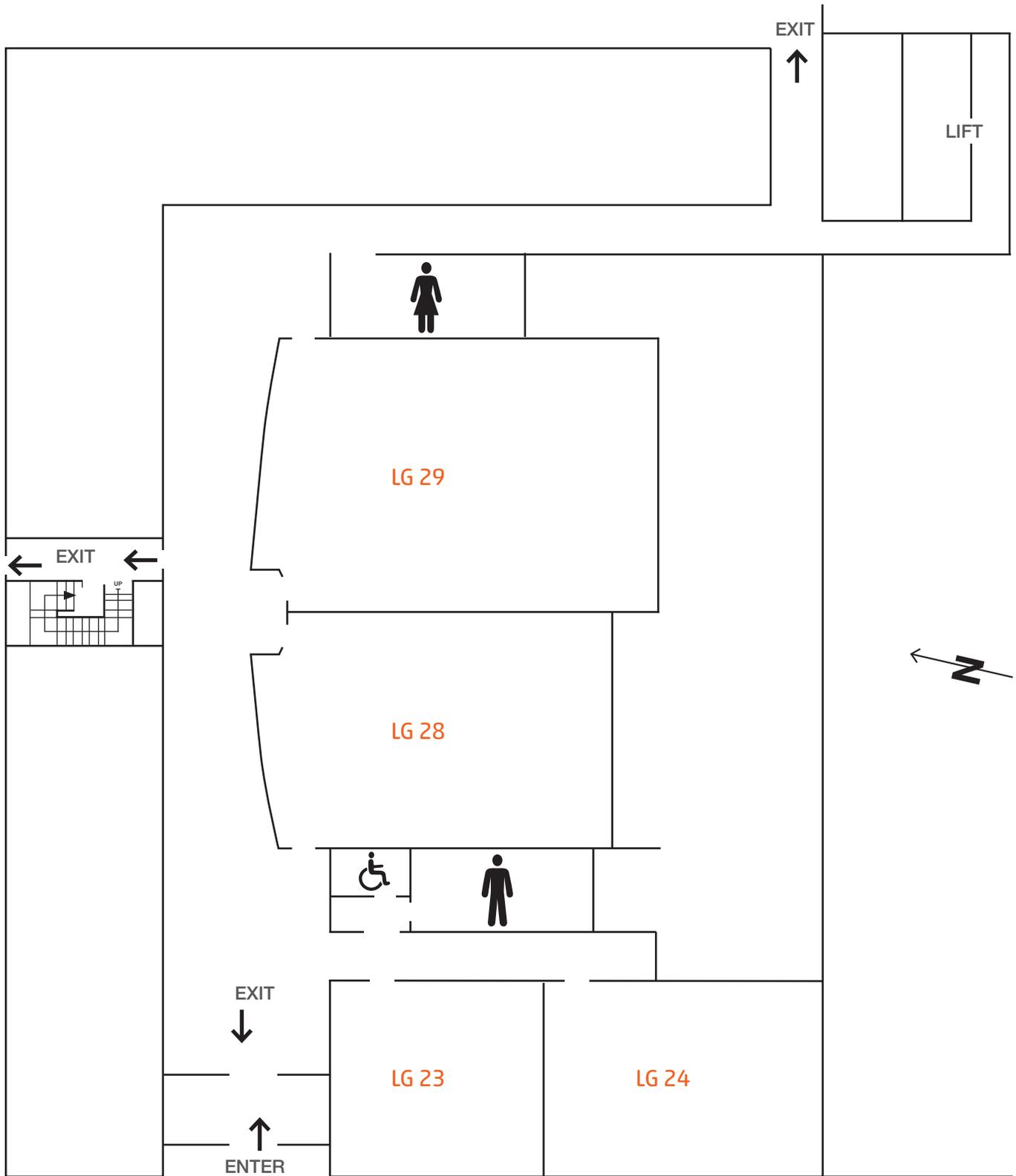
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MAP: NORTH TERRACE CAMPUS/ADELAIDE CBD



MAP: LOWER NAPIER BUILDING



Venue: xxx Date: 24 September 2014

START	DURATION	EVENT		
		CONCURRENT SESSIONS		
		Social Media/New Technologies LG 28	21st Century Classroom LG 29	Learning through practicals LG 24
2.00	30 MINS	xxx xxx	xxx xxx	xxx xxx
2.30	30 MINS	xxx xxx	xxx xxx	xxx xxx
3.00	30 MINS	xxx xxx	xxx xxx	xxx xxx
3.30	30 MINS	xxx xxx	xxx xxx	xxx xxx
4.00	1 HR	DRINKS		

DAY 2

TIMETABLE

Venue: xxx Date: 25 September

START	DURATION	EVENT		
08.00	1 HR	REGISTRATION		
9.00	1 HR	KEYNOTE ADDRESS 1 xxx Navigating young people's online behaviour Dr Shanton Chang		
		CONCURRENT SESSIONS		
		xxxx xxx	xxxx xxx	xxxx xxx
10.00	30 MINS	Developing better graduates through individualised learning: A case study of a Paramedic Capstone Experience Thompson, Grantham and Houston	Developing teaching capability - the missing link for global employability of post-doctoral students? Luzeckyj and Hood	Widening student horizons through creative online resources Miller
10.30	30 MINS	MORNING TEA		
11.00	30 MINS	A Virtual Community: The pedagogy that informed the development of a web-based resource Smith, Grech and Parker	Increasing retention through tutor training in supporting students from low SES backgrounds Schedneck	Two outta three ain't bad: Three ingredients and a rule of thumb for designing online discussions that encourage participation Gould and Zutshi
11.30	30 MINS	Changing horizons for new RHD supervisors: Participant responses to mandated induction into the complex world of research supervision Houston	Teaching Values Based Decision Making Mitchell and Zutshi	Assessment of an e-Learning simulation for the teaching of enzyme kinetics Costabile

Venue: xxx Date: 25 September

START	DURATION	EVENT		
		CONCURRENT SESSIONS		
		xxxx xxx	xxxx xxx	xxxx xxx
12.00	30 MINS	SQWIGLES: supporting one-on-one teaching for independence Crouch and Butler	Leave the recipe in the kitchen: Redevelopment of laboratories in the Biological Sciences to improve student experience and learning outcomes. Smallhorn, Young, Burke Da Silva and Hunter	Expanding the boundaries of teaching: integrating a MOOC within a tertiary course Hunter, Smallhorn and Young
12.30	1 HR	LUNCH		
1.30	1 HR	KEYNOTE ADDRESS 2 xxx Student engagement and teaching like a pirate James Arvanitakis		
2.30	30 MINS	Connecting for Math confidence: Pilot project Thompson, Thompson and Chilvers	Inconceivable misconceptions Butler and Crouch	Approaches to Building Academic Confidence in Commencing Students from low-SES backgrounds: Considering the Work (in Progress) of the Faculty of HUMSS' Study Skills Support program at the University of Adelaide Hester
3.00	30 MINS	Considering flipping Schmidt	Looking Back and Feeding Forward to Build Laboratory Practical Skills Charter, Brown, Schmidt and Bain	Developing a teaching and learning community of practice in a multidisciplinary environment to build academic confidence and skills. Abigail

Venue: xxx Date: 25 September

START	DURATION	EVENT		
		CONCURRENT SESSIONS		
		xxxx xxx	xxxx xxx	xxxx xxx
3.30	30 MINS	AFTERNOON TEA		
4.00	30 MINS	Evaluation of the utility of a novel 3D electronic resource on the cranial nerves for improving student outcomes in a third year undergraduate neuroanatomy course Collins-Praino, Burton and Johnson	Is there a difference between domestic and international students in their understanding of health issues and health services? A cross-sectional study. Law, Young, Jones and King	Global Impact: Professional Recognition as a Influence on the Quality of University Teaching Beckmann
4.30	30 MINS	Coping with EFL university teacher's anxieties in ICT integration: triple agents to meet triple standards Ngo and Picard	Factors that influence undergraduate nursing students' consensus about learning and end of life nursing care Blackman, Adesina, Zannetino and Debellis	Principles underlying the development of an online tool to support classroom skills in beginning secondary school teachers. Matthews, Winser, McGowan and Thomas

Pre-HERGA Conference Symposium: Putting the RSD to Work

Wednesday September 24th, 2014

Putting the RSD to Work Symposium provides you with the opportunity to learn about how educators have used the Research Skill Development framework to inform the learning of research skills in university curricula. Specific RSD Working Issues that will be addressed in the Symposium will be chosen from the following:

- Assessment and feedback
- Discovery learning in small groups
- Student ownership of learning
- Flipped Classroom design
- Student Problem Solving
- Masters course design for AQF9
- Institution-level implementations
- Optimising Problem Solving Skills
- PhD learning and supervision
- Introducing the RSD to students

The symposium will provide you with time to plan and develop ideas and resources based on the Research Skill Development (RSD) framework, with guidance from experienced users.

LOCATION

Napier, University of Adelaide, North Terrace Campus.

REGISTRATION

Register for the Symposium as part of the HERGA conference www.adelaide.edu.au/HERGA

Visit the RSD site in advance at www.rsd.edu.au to be better informed about the RSD framework in advance.

You will be sent a Survey Monkey link after you register. This is to provide information that will be used to make the Symposium work for you.

If you have queries about Putting the RSD to Work Symposium, please contact John Willison

E: john.willison@adelaide.edu.au

T: (08) 83133219

PROGRAM

8.30	Registrations and coffee/tea
9.00	Introduction and purpose of the symposium
9.30	Pecha-Kucha Session 1 Four RSD Working Issues: 5 minute presentations, 5 minute Q&A.
10.15	Working Issue Session 1 Attend one of the Working Issues portrayed in Pecha Kucha Session 1.
11.15	Break
11.30	Pecha Kucha Session 2 Four more brief presentations on Working Issues.
12.30	Emerging Issues from the morning
12.45	Lunch
1.30	Working Issue Session 2
2.30	Whole Group Interactive session based on emerging issues.
3.30	Wine and align Ideas, possibilities and new thinking in small groups.
4.30	Report back from each group and where to from here?
5.00	Finish. Depart for drinks/ dinner.

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Dr Shanton Chang
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James Arvanitakis

Navigating young people's online behaviour

Dr Shanton Chang

Senior Lecturer, Department of Computing and Information Systems; Assistant Dean (Exchange) Melbourne School of Engineering
The University of Melbourne

Young people today 'live' much of their life surrounded by technology. Most of them spend what seem to be inordinate hours online. Yet our understanding of online behaviour is only starting to take shape. This is not surprising as technology, online content and applications are shifting at a phenomenal speed. How do we understand online and information seeking behaviour amongst young people? What challenges exist and what impacts do they have on higher education in terms of curriculum delivery, communication with students, and service provision? This session discusses the initial understandings of young people's online behaviour and how they might influence teaching and learning in higher education.

NOTES:

Student engagement and teaching like a pirate

James Arvanitakis
University of Western Sydney

Currently Australia is struggling as 'an economy in transition': from manufacturing to the knowledge economy, computer programming and engineering. The emergence of these opportunities does little to solve the exclusion of a number of vulnerable communities. Though this transition is occurring, we seem to be following the same patterns of education that may mean we fail to actually prepare people for the jobs and opportunities within emerging industries of tomorrow. As such, we must ask whether our education system equipped to solve this challenge? Are our institutions prepared to prepare us for a new era that requires creative thinking and cross-disciplinary skills?

Building on my research on citizenship and innovative pedagogical approaches, in this session I will highlight how we can prepare students for the opportunities of tomorrow. Focussing on how to better engage students who are too readily typecast as disengaged and disinterested, I look at the changing nature of engagement and demonstrate how curriculum innovation can promote not only good teaching practices, but a sense of active citizenship. Given the changing environment, I argue that promoting a sense of active citizenship is fundamental to the future of universities. Drawing on a number of interactive exercises, I will aim to reflect on student engagement and how we can teach like pirates.

NOTES:



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Abigail

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- 58 **Is there a difference between domestic and international students in their understanding of health issues and health services? A cross-sectional study.**
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Developing better graduates through individualised learning: A case study of a Paramedic Capstone Experience

James Thompson, Hugh Grantham and Don Houston ^{xxx}

Graduates in many disciplines face often challenging transitions from student to beginning practitioner in their chosen field. With potentially alarming consequences linked with a paramedic graduates inability to recall their learning, or effectively apply their learnt skills, often within an emergency situation, the need to be certain of graduate competence is essential. For the completing paramedic student, employment prospects are uncertain, and if employed any knowledge or performance weaknesses will be readily exposed. Following a review of the Paramedic degree program at Flinders, which confirmed industry concerns about a perceived theory-practice gap, the highly pragmatic final subject 'Applied Paramedic Practice' was developed and represents a type of 'finishing school' for paramedic undergraduates.

An innovative redesign now sees the student placed at the centre of the learning experience. Each student receives a personalised learning pathway uniquely targeting specific learning requirements. The student experience is built around key design features

- diagnostic assessment at the beginning of the subject as the basis for a differentiated learning experience for each student
- the formation of small study groups to encourage engagement and peer-to-peer interaction and learning
- the use of Problem Based Learning (PBL) scenarios supplemented by student generated wikis as the core learning experience in the subject
- a mid-subject assessment to provide further diagnostic feedback to guide individual student learning pathways
- the involvement of practicing paramedics in assessment of clinical skills and reasoning
- a concluding field day paramedic challenge

By closely integrating all learning activities with the paramedic process, students are encouraged to draw from all areas studied previously. The student-identified learning needs emerging from the PBL are reported on wiki pages which in turn inform the content of a midway exam. Analysing the areas of student performance within the exam then determines the subject of a final viva interview. Practical assessments are run continuously throughout the program and are validated and conducted by industry stakeholders. The result is a truly differentiated pathway for each student. Learning and assessment is unique to each student need and the standards of performance are judged in accordance with industry expectation. As many disciplines possess a specific business model or process, there is scope for this education framework to be applied outside of paramedicine.

Student response to the learning experience, indicated by the extent of their engagement with particular learning opportunities, has been very positive. The introduction of Wikis proved to be one of the major successes of the design. Concerns about student engagement with this tool were shown to be completely unfounded: the volume of data entered by students onto the wikis was so extensive that it actually crashed the computer network allocated to the course. Prior to this time, students had worked largely in isolation with no access to the educational value of learning from their student peers. Of particular note was the online confidence it afforded the international student cohorts. The wikis evidenced an eagerness of this cohort to become involved in these group activities.

KEY WORDS

- Paramedic Education
- Capstone
- Differentiated Learning
- Active Learning
- Graduate Qualities

NOTES:



“Developing teaching capability – the missing link for global employability of post-doctoral students?”

Ann Luzeckyj and Cassandra Hood xxx

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Widening student horizons through creative online resources

Julia Miller xxx

Increasing numbers of Australian students are studying overseas for at least part of their degree programs, and thousands of international students continue to enrol at Australian universities in both onshore and offshore courses. As graduates of Australian universities take their place on the world stage as global citizens, it is imperative that they be provided with transferable skills that facilitate their learning at an international as well as a purely local level. Digital technologies are ideal for enabling students to develop their academic skills and confidence, or self-efficacy (Bandura, 1994), no matter where they are studying.

This paper reports on a suite of online resources, funded by an OLT Innovation and Development Grant, that aims not only to facilitate skills building for local students but to offer high quality materials for students anywhere in the world, enabling them to develop their English grammar and academic literacy skills and thereby build their academic self-efficacy. The resources are useful for speakers of English as an Additional Language and for speakers of English as a first language, as they cover areas such as essay writing, oral presentation skills and English grammar. Each grammar resource is based on thorough research into different areas of grammar, such as articles (a/an/the) (Yoo, 2009), tenses (Swales & Feak, 2012) or the passive voice (Hinkel, 2004). This distinguishes the materials from many other English teaching sites, which rarely cover difficult concepts in such depth. The other distinguishing feature of the site are the humorous videos which introduce language items by means of popular culture in the form of gameshows, a cooking show, a talent contest and a dating show. Evaluation is being conducted based around Biggs' SOLO taxonomy (Biggs, 2011). Focus groups and online surveys have revealed a very positive uptake of the materials, with hundreds of pageviews weekly from Australia and many other countries. Feedback includes such comments as "convenient: it's good because we can do it at home, when we want to do it" and "comprehensive, concise and successful". Evidence from the focus groups indicates that many users are progressing from what Biggs (2011) terms a 'multistructural' to a 'relational' level of understanding of the content areas when they use the resources, evidenced by their ability to apply what they have learned to different areas of academic writing. A control test in two lectures (n=400), in which one group was taught using one of the new resources and the other was not, also revealed higher scores and greater enjoyment of the lecture by the experimental group.

While it is not known what global impact students accessing the website will have, the focus groups' comments show that the resources themselves are undoubtedly widening the horizons of many users, enabling them to move from a "multistructural" level to a "relational" or even "extended abstract" level as they "generalize [their knowledge] to new domains" (Biggs, 2011, n.p.). This paper will discuss the evaluation of the website so far, showcase the resources and discuss possibilities for their use by lecturers of any discipline who wish to build the academic confidence and skills of their students so that their students' local learning becomes more transferable to the global stage.

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NOTES:



A Virtual Community: The pedagogy that informed the development of a web-based resource

Colleen Smith, Carol Grech and Barbara Parker xxx

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Increasing retention through tutor training in supporting students from low SES backgrounds

Jillian Schedneck XXXX

Important research has been done on the relationship between student retention and the ways lecturers can support students from 'at risk' groups, such as those from low SES backgrounds (Devlin, et al 2012). Tutors, who represent the face of the university to students, can also do a lot to support their students, and increase student retention through their practices. Through my work as Retention and Transition Officer in the Faculty of Humanities and Social Sciences at the University of Adelaide, I have initiated a live workshop and online module for new tutors on best practices for supporting students from low SES backgrounds, with the aim of increasing retention among this group. This is a HEPPP funding initiative that addresses the Bradley Report's key targets by empowering tutors to support students from all backgrounds, including those from equity groups. This initiative clearly fits with the university's goals of retaining more students, particularly those from low SES backgrounds, in line with the Bradley Report goals.

The one-hour online module (designed using Articulate Storyline software) and two-hour workshop was based on the research conducted by Devlin, et al (2012) and adapted to the context of Humanities and Social Science (HumSS) tutors at the University of Adelaide. The module also draws upon Gale (2009) who states that people from low SES backgrounds have potentially different but equally valuable knowledges about the world and how to interact with it. A strategy Gale advises is to allow people to participate in learning from those knowledges, and this one of the strategies promoted in the online module. Above all, the module and workshop encourages tutors to practice flexibility, accessibility, availability and reflection in their approaches and interactions with students. These practices were identified by Devlin et al (2012) as among the key strategies to addressing the needs of students from low SES backgrounds.

New tutors first completed the online module, and then took part in the interactive workshop, which took place on 1 August 2014. The module aimed to be comprehensive, focusing on four key areas: encouraging participation in tutorials (focusing on confidence building for all students), preparing students for assessment tasks (focusing on using accessible language), instilling a practice of pedagogical reflection (using work by Brookfield (1995)), and connecting students to the appropriate resources available on campus. Like the flipped classroom, the module was designed to cover a great deal of content so that the workshop could then be interactive, focusing on what tutors learned in the module, as well as their actual experiences as learners, colleagues and teachers.

In the HERGA presentation I will argue for the need for such a workshop in all disciplines, the rationale for my approach to the module and live workshop, and how these key areas of teaching were explored within the module and workshop. I will provide recommendations for how such training could be adapted to fit the needs of other faculties and universities.

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NOTES:



Two outta three ain't bad: Three ingredients and a rule of thumb for designing online discussions that encourage participation

Jonathan Gould and Samar Zutshi Swinburne Online (AUSTRALIA)

It has been recognised for some time now that fostering student-student and student-teacher interaction is a method that can enhance both student learning and the student experience in online and blended learning (Wallace 2003). Designing online discussion activities that students will actually engage in over the course of their studies remains challenging, although there are frameworks around online interaction for learning (e.g. Salmon 2013; Cleveland-Innes & Campbell 2012). While it can be tempting to dismiss low student participation purely in terms of a lack of student motivation, it should be remembered that designing online discussions that students both learn from and would want to do is a complex task. There may also be structural properties of online discussion boards that restrict their usefulness (Edmondson 2008). Based on our experience, and in the light of the literature, we propose three ingredients that are needed for an online discussion space to encourage participation. The first ingredient is “A strong incentive to participate”, which we argue can be effected by links to assessment (not by directly assessing online discussion work) or community building or a combination of the two. The second is “An external source of engagement”; this has its origin in an intrinsic interest in the topic, or in instructor activity that is able to spark a high interest level in the student cohort. Possibly ways to introduce this include the use of contemporaneously topical issues e.g. events being covered in the media, considered use of a controversial topic relevant to the learning activity. The third and final ingredient is “A sense of ownership over the space”, which refers to the phenomenon of students having the comfort and confidence to engage freely with each other and the instructor through the discussion space, sometimes in ways that are more sophisticated than was originally envisaged. To achieve this ingredient requires striking a balance between having an overly structured discussion space (which inhibits student ownership) and a very loosely structured space (which doesn't provide sufficient 'hooks' for student discussion). We discuss these ingredients in connection with aspects of motivational theory (Bernard, Mills, Swenson & Walsh 2005; Vroom & MacCrimmon 1968; Dysvik & Kuvaas 2012). We further posit a rule of thumb: to ensure engaged and active discussion, any online discussion space needs to have at least two of these ingredients. To justify our rule, we explore the dynamics of the discussion that can occur when all the possible six pairs of these ingredients are found in online discussion spaces. We also explore why each one of these ingredients by itself is insufficient to ensure a high degree of student engagement. Finally we conclude with some

recommendations for instructors and learning designers and thoughts on how our proposed framework can be validated empirically.

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- Keywords: Online Learning, Discussion Forums, Student Participation, Student Engagement

NOTES:



Changing horizons for new RHD supervisors: Reflections on induction into the complex world of research supervision

Don Houston xxx

Research higher degree supervision is an expected responsibility for academics that sits at the intersection of the transnational worlds of teaching, research practice, disciplinary knowledge and cultures, and the knowledge society.

Over the last two decades, internationally and in Australia retention and timely completion by research higher degree candidates has been placed at centre stage by government policy and funding settings (Baptista, 2011; Deuchar, 2008; Kiley, 2011a). Research has demonstrated the influence of good supervision on completion (Kiley, 2011b). However, supervision, from the student perspective has been described as 'the most variable of variables' (McAlpine and McKinnon, 2013). That variability reflects what the literature says: supervision is complex and occurs in a complex environment. It is increasingly recognised as a higher form of teaching involving multiple roles and responsibilities, foci and often cross-generational and cross-cultural relationships and interactions.

Most new supervisors come to this role with a view of supervision shaped by their own experience of having been supervised, perhaps supplemented by some experience of having seen others supervised: a very narrow perspective bounded by a very narrow horizon. How can new supervisors be prepared to negotiate the much larger supervisory terrain remains a critical question.

The literature grapples with the implications of complexity for the initial training and education of supervisors (Pearson and Brew, 2002; Firth and Martens, 2008; Manathunga, 2005). But there seems to be little in the literature that captures the voice of new supervisors on their needs as they transition to this role and their responses to development opportunities offered to them to assist them to work with the next generation of research students.

This presentation is intended to contribute to the scholarship of teaching and learning in research higher degree supervision and supervisor development. Responding to the emphasis increasingly placed of quality supervision, Flinders University, like many other Australian universities (Kiley, 2011b) provides an induction program for staff new to supervision which is design to introduce them to the context, scope, challenges and possibilities of supervision. This presentation reflects on the intent and structure of the program and the responses of new supervisors to it. Observations are drawn from the analysis of voluntary feedback from participants between 2011 and 2013. The data shows participants come to the sessions with extremely diverse hopes and expectations: from the very

broad - 'anything that will help', to the precise - 'tips on dealing with problem students'. Overall, despite this diversity expectations, responses to the offerings have been overwhelmingly positive: when asked 'would you recommend this session to others?' more than 90% of respondents said 'yes'.

The complexity of supervision is only likely to increase, or rather become more explicit, as a consequence of increasing internationalisation of research education and the amplifying effect on both good and poor teaching of digital technologies. It seems that our program goes at least some way towards widening the horizons of new supervisors to help them appreciate effective local teaching and learning likely to impact on global research communities.

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NOTES:



Teaching Values Based Decision Making

Matthew Mitchell and Samar Zutshi xxxx

Management and Information Systems courses in higher education often include Simon's (1977) decision making process or more recent variations such as provided by Champoux (2006). This process consists of four phases of decision making: Identifying the problem (intelligence); Generating Alternatives (design); Choice and Implementation. However, the behaviour of decision makers within each phase has been the basis of much literature (e.g. Brugha, 2004; Toporkov, 2004). How should alternatives be generated? How then to choose between them? Further, decision making in the work place and other organisational settings often requires decision making in groups (e.g. Black and Gregersen, 1997). This paper presents an approach to getting students to develop decision making skills in a group context while giving them a language and framework to articulate how underlying values and principles inform the generation of alternatives and the choice of the 'best' option. The paper also outlines the structure of the assessment tasks set for the students. The approach has been taught to online undergraduate students for over 3 years. The approach taken is based around first generating a set of values and principles, which can be done either in the first phase or before the four phase model begins. For the purposes of the unit, a value is defined as "the large-scale criteria we use to judge what we see, think, and do" (Beck and Andres, 2005). Ideally ones' values are universally applied. Principles are domain-specific guidelines that relate to the values. Principles allow the aligning of practice with the values.

The approach involves placing students in small groups with a complex decision making problem. Students must agree on a set of values and some principles that allow those values to be applied to the decision problem. Students then use these values and principles in the choice phase to help choose between alternatives. By mapping choices to principles, a basis is provided for ranking choices and resolving conflicts. The mapping serves an additional purpose of providing a reasoned justification for the final choice. This is done as a structured task, including two synchronised group meetings using online support tools. We argue that the values and principles approach is suitable for students to understand the fundamentals of decision making and the source of potential conflicts. We also argue that this approach is appropriate for value-based and multi-stream management curriculums (Dyck, Walker, Starke & Uggerslev, 2012; Harung 2010). Finally, we describe the structured task which has been used online over several years in units with up to 130 students enrolled.

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Assessment of an e-Learning simulation for the teaching of enzyme kinetics

Maurizio Costabile xxx

An understanding of enzyme kinetics is fundamental to any biochemistry course. The theoretical knowledge is typically delivered in lectures. However, to better understand the principles of enzyme kinetics, assessing the impact of manipulating key variables such as substrate concentration, is best taught in a laboratory class. Biochemistry (BIOL 2014) is a core course taken by 2nd year students in the School of Pharmacy and Medical Sciences at the University of South Australia. The student population varies in their background, GPA and program. Experience has shown that students find the laboratory demonstration of enzyme kinetics, using the well characterized enzyme (Dean, 2002), alkaline phosphatase, conceptually difficult. In an attempt to overcome this difficulty, students were provided access to an interactive e-Learning simulation prior to the practical laboratory session. E-Learning resources are widely acknowledged as an excellent means to support student learning (Greenhalgh, 2001; Ruiz et al, 2006). Several studies have compared the effectiveness of e-resources with that of lectures (Bhatti et al, 2011; Mehrdad et al, 2011; Peroz et al, 2009). There are, however, very few reports on the use of e-Learning as an adjunct to laboratory-based teaching. The simulation closely mirrored the wet lab session and required students to enter data correctly to progress. Background help was included if students could not perform these steps. Of the 125 students enrolled in this course, the cohort included students in Nutrition and Food Science (40/125), Laboratory Medicine (28/125), Medical Science (26/125), Science (12/125), Pharmaceutical Science/ Pharmacy (10/125), Applied Science (5/125) and non-award (4/125) students. Of the 125 students, 73 students (58%) completed the simulation and 30 (41%) students provided written feedback. The impact of the simulation was assessed by a 13-point online questionnaire containing Likert items evaluating the e-Learning resource as well as 3 free text questions. Prior to its implementation, there was a mixed response from students as to its potential benefit, however after its implementation; there was a strong agreement with it being "a good idea". A thematic analysis identified that students found the simulation a novel and worthwhile addition to their learning. A strong theme revolved around the provision of help with mathematical calculations and manipulation of experimentally generated data. They appreciated the ability to preview the wet lab session as well as the provision of multiple choice questions to review and test their understanding of the material presented. Student's also used the simulation on multiple occasions during their practical write-up. When compared to 3 years of previous student results, there was a statistically significant increase in mean score for the laboratory report (8.42 ± 0.07 vs. 7.7 ± 0.05 p, 0.0001). In addition the

minimum score increased from 4.5 to 6.5 and fewer students were found in the bottom quartile. In addition, there was a smaller yet still significant difference in mark between students that had used the simulation vs. those that had not within the current cohort. It is proposed that e-Learning simulations are a useful addition to the teaching of complex laboratory based demonstrations. Future studies will assess the impact of using simulations in all 2nd year courses taken by these students.

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SQWIGLES: supporting one-on-one teaching for independence

Nicholas Crouch and David Butler xxx

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Leave the recipe in the kitchen: Redevelopment of laboratories in the Biological Sciences to improve student experience and learning outcomes

Masha Smallhorn, Jeanne Young, Karen Burke Da Silva and Narelle Hunter ^{xxxx}

The landscape of the Biological Science laboratory is changing. Research suggests that learners benefit from experiencing the hands-on activities in the laboratory and that these activities are vital for their development as independent learners and as future professionals (Gott and Duggan 2002, Hofstein and Lunetta 2004, Matz et al. 2012). Students have the opportunity to engage in investigation and inquiry, to learn how to design experiments, write hypotheses and how to ask scientific questions (Hofstein & Lunetta 2004). The laboratory encourages students to make accurate observations, problem solve, gain technical skills and importantly gives students the opportunity to implement concepts already taught through the lecture series (Jamie et al. 2007).

In recent years there has been much discussion about the role of the science laboratory in higher education and whether the traditional step-by-step nature of laboratory activities promote the skills fundamental to research science (Herron 2009, Wood 2009, Gormally et al. 2011, Alozie et al. 2012). The introduction of inquiry-based laboratories has been shown to result in a deeper understanding of scientific content, increase confidence in understanding, improve students' attitudes towards science and act to lower attrition rates (Myers and Burgess 2003, Weaver et al. 2008, Wood 2009, Beck and Blumer 2012, Brownell et al. 2012).

At Flinders University we have a large first year Biology student cohort, with approximately 800 students enrolling in the first semester topic. To improve the learning experience and student outcomes of our first year student cohort, the laboratories in both first year Biology topics, Molecular Basis of Life and Evolution of Biological Diversity, were redeveloped as guided inquiry-based laboratories. The format of the laboratories was changed from three hour laboratories per fortnight to two hour laboratories per week. This meant that students had at least twelve weeks of laboratories for each topic which increased the time students spent in the laboratory over the semester. Laboratories of 100 students were divided into teams facilitated by a member of teaching staff. In teams, students worked together on a guided inquiry-based laboratory which either ran over two weeks or one week depending on the activity.

A research project was designed to assess the student experience in the redeveloped laboratories and to understand the student perspective of the laboratory in their learning. Students were surveyed using both Likert and open response questions. A preliminary analysis of the data (n=400) suggests that students thought the laboratories improved the quality

of their University experience, challenged them intellectually and helped to develop their data analysis skills. Many students commented that the laboratories allowed them to apply the content taught in the lectures which improved their understanding of the material. The future directions of this study include analysing whether there is a change in student learning outcomes for the topics through an examination of student results before and after the redevelopment. The outcomes of this study will be used to improve the student laboratory experience at Flinders University.

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Expanding the boundaries of teaching: integrating a MOOC within a tertiary course

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Since 2008 the development of the first Massive Open Online Course (MOOC) has changed the landscape of higher education (Flynn, 2013). The classroom is no longer restricted to a single campus or even country; we can now reach our students through a variety of online technologies removing the limitations of location, time and teaching resources. MOOCs have provided a new platform to engage with students and are increasing in popularity.

Seemingly the development of MOOCs is an altruistic endeavour with little possibility of benefit to the Universities who host them or the academics who develop them since by their very nature the content is open to the public, often at no cost. Whilst it should be recognised that many Universities now approach MOOCs as a marketing venture, there is rarely any direct monetary gain associated with them. The benefits for universities that offer free MOOC access are still unclear, but they include access to education for all, experimentation, and building an international reputation (Samar et al, 2013). In this paper we suggest an additional benefit; that of developing an engaging MOOC that is incorporated into a traditional curriculum. Rewards can be reaped both by students outside of the University and by students who are enrolled in courses within the University.

We often hear the potential of MOOCs to reach millions of students worldwide (Dennis, 2012) however these benefits are not limited to students who cannot otherwise access university education (Sandeen, 2013); there may be an advantage to encouraging our currently enrolled students to participate in the world of MOOCs. Flinders University graduate attributes include an expectation that our students will engage positively with people and ideas beyond the limits of their own geographical, disciplinary, social, cultural or other boundaries. MOOCs provide access to education on a massive and international scale. Most students who enrol in MOOCs are internationals and/or professionals rather than enrolled university students (EDUCAUSE, 2012). Engaging students with a broader community where many participants may be located in different countries and offer different perspectives, increases the diversity of the student cohort.

This paper focusses on the development of a MOOC within the topic Biology & Society in the School of Biological Sciences at Flinders University of South Australia. The MOOC Science Friction was developed to address the lack of suitable content-specific discussion available at the required time in the semester. Science Friction was developed to encourage participation of students in online discussion of topical issues in science including Climate Change, Obesity, Stem Cells and

Genetically Modified Organisms. The MOOC was developed based on connectivist principles and specifically sought to address learning as an opportunity that transforms students into experts, equally capable of sharing their knowledge and expertise with other individuals (Sangra & Wheeler, 2013). By incorporating the MOOC into the on campus topic it is hoped that students will gain a greater understanding of the global impact of the issues discussed. The MOOC will be open to the public and run concurrently with traditional lectures available to students at Flinders University. Its success will be evaluated using multiple tools including pre/post critical thinking evaluation tests, a satisfaction survey at the conclusion of the topic, as well as a satisfaction survey upon completion of the MOOC. Learning analytics will also be recorded for the MOOC to enable targeted future improvements.

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Connecting for Math confidence: Pilot project

Deryn Thompson, Emma Thompson and Maria Chilvers xxx

Can face-to-face maths tuition for beginning nursing students with poor math skills decrease maths anxiety? Does acting as maths helpers facilitate connectedness of International students?

Aim: To determine if:

- three face-to-face weekly math instruction sessions for students with poor basic math skills (SPBMS) reduced math anxiety (MA) and increased nurse self-efficacy (NSE)
- international students with good math skills, new to nursing and Australia, improved their connectedness and engagement with nursing peers by helping with maths instruction.

Background: Some nursing students are starting university with limited understanding of the basics math concepts of multiplication, fractions, decimals, percentages and ratios. Conceptualisation of math for medication calculations is also poor (Hunter Revell &McCurry 2013). Self-directed, online activities in math may provide insufficient instruction for these students who require 100% score in medication calculations to pass their nursing program. This creates great anxiety. These students must be identified early and math tuition and support provided (McMullen, M., Jones, R & Lea, S. 2012).

Many International nursing students, new to Australia, have good math skills, but find difficulty in connecting and engaging with their new peers (Ryan & Dogbey 2012). This project also aimed to see if students could improve their connectedness by helping fellow SPBMS practise math activities, in a supported environment.

Method: A descriptive survey of demographic details of the sample.

Quasi-experimental design compared outcomes after three maths tuition sessions using Maths Anxiety Scale-Revised [MAS-R] (Bai 2011) and Nurse Efficacy scale NSE [truncated version] (Andrews, Salamonsen & Halcomb 2009) and a telephone questionnaire 10 weeks post intervention. Participants were identified from results of a Grade 5-7 multiple choice math test, undertaken by beginning nursing students. International Students who scored 20/20 were invited to participate as 'maths helpers'.

Results: Forty one SPBMS who gained a 60% or less score and 6 international students who gained 100% score in the same test registered to participate in the project. The small sample size of 47 (pilot project) means results must be interpreted with caution.

All SPBMS scored very low on the initial 7 item NSE Scale and had high Math Anxiety. The post intervention score showed a significant improvement for NSE with an increase in the mean

score of more than one standard deviation from 24.1 to 34, although none moved from the poor NSE category. There was statistical significance in post NSE indicating students felt more competent after the intervention ($t(19)=4.78, p\leq 0.05$). However, MAS-R increased $t(29)=5.38, p\leq 0.05$, indicating increased anxiety. Students wished the sessions had continued longer than three weeks.

Students who undertook Year 12 math at school demonstrated less MA and increased NSE than students studying math at year 11 level or below. A third of the international students maintained contact with peers they helped.

Qualitative data suggests improved connectedness for the international participants.

Discussion/Conclusion: This pilot project identified that poor basic math skills, MA and poor NSE must be considered in beginning nursing students and identified at the start of their nursing program.

A robust study to determine the effectiveness of regular face-to-face maths support for struggling students is needed using international students' whose connectedness with new nursing peers may be facilitated by helping SPBMS in a supported learning project.

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Inconceivable misconceptions

David Butler and Nicholas Crouch xxx

At universities we have academics who are experts in their fields, and we understandably want these experts to pass on their knowledge to students. However, the fact that they are experts makes it difficult for them to communicate with people who are new to the area – the very people we are wanting them to teach. This paradox is known as the “expert blind spot” (Nathan & Petrosino, 2003). The condition can be quite pernicious, because the expert can be completely blind to the ways that novices learn, and they can institute ways of teaching that the expert thinks are helpful but are actually detrimental (Nathan, 2012). In our experience, a particularly common form of the expert blind spot is when a teacher cannot even imagine the sorts of misconceptions that a student might have.

Being aware of the problem is the beginning of an expert becoming a better teacher (Hogan, Rabinowitz & Craven, 2003). However, simply knowing that there might be misconceptions they had not considered will not tell the teacher what they actually are. Indeed, the very nature of these misconceptions is that they are inconceivable by an expert! This information can only come, directly or indirectly, from the students themselves. Schoolteachers grow in their knowledge of student understanding over time as they gain more experience with students (Mulholland & Wallace, 2005). University academics, however, do not have the same opportunities to be in contact with students in a setting where they are able to listen to student thinking.

In this presentation, we will discuss the expert blind spot phenomenon and give examples of inconceivable misconceptions in several different disciplines. We will also describe how academics can engineer more opportunities to learn about student misconceptions. In particular, we will discuss how the Maths Learning Centre environment and philosophy has allowed several academic staff to combat their own expert blind spot and create better outcomes for their students.

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Approaches to Supporting Learning in Commencing Students from low-SES backgrounds: Considering the Work of the Faculty of HUMSS' Study Skills Support program at the University of Adelaide

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The transition period can be a 'rollercoaster' ride for many commencing students [2008, p.10]; it can prove especially challenging for those from non-traditional backgrounds. Christie suggests many students from LSES (low-SES) backgrounds experience a 'bewildering' loss of 'academic confidence' during the first few months of their studies, as they seek to adapt to a learning environment that is not immediately 'familiar, usable or negotiable' [2008, p.13]. Research suggests students from LSES backgrounds often have 'deficits' in the types of knowledge, or 'academic capital', that are valued in Higher Education [Gale&Parker 2011, 2]; these 'deficits' can impact on their academic performance, affecting every aspect from how they use language to how they engage with their course material and peers. Such findings indicate the need for Higher Education institutions to offer learning support that facilitates the transition and retention of LSES students by building their confidence and capacity to operate within the tertiary environment.

This paper will consider some of the ways in which such support can be delivered, looking at the example of the Faculty of Humanities and Social Sciences' Study Skills service, an initiative that in 2013 received a University of Adelaide Commendation for its support of the student experience. The paper will examine the positioning of this service as a Faculty-wide initiative, considering the scope for its learning support approaches and practices to be transferred to and embedded in the curricula of course coordinators working in specific disciplines. The paper will examine some of the practicalities of designing such a service; it will reflect on the challenge of offering learning support that affirms a student's previous experience and knowledge, importantly allowing them to 'contribute from who they are and what they know' [Gale&Parker 2011, p.33], while also prepares her or him for an academically rigorous environment. It will consider how a support service such as the Study Skills service must aim to consider the diversity of the cohort it is working with, rather than creating a single initiative or program on the assumption it will be equally effective for all; it will demonstrate how Devlin et al's work on the need of LSES student for flexibility in learning and support programs [2012] has informed the design of the service. It will also suggest the experience of LSES students can be said to reflect that of the wider student body in many ways, and that the work of the Study Skills service, and similar programs, may accordingly

be relevant to current conversations around student-centred learning, and the need for institutions to offer flexible, blended curricula and pedagogy.

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Considering flipping

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The 'flipped classroom' is currently being promoted as a form of teaching that universities should be adopting but there are multiple definitions of what it means and even more examples of practice (Johnson, Adams Becker, Estrada, & Freeman, 2014). A recurring theme though is that in a flipped model, students are provided with preparatory resources and materials that allow them, before class, to engage in a substantial way with content. This in turn liberates the classroom meeting time from content delivery and enables it to be used for applied and interactive learning activities. This paper will explore some of the current definitions of the flipped classroom and the assumptions underlying them.

While 'flipping' may seem like a new educational innovation, this paper will also examine what is old and what is new about the flipped classroom. For example, in the old Oxbridge model, students 'read' history, literature, etc. They would do their readings or prepare a piece of writing before class and then meet with their tutor who would probe and extend their understanding. So some elements of the flipped model are deeply familiar in the university context. However, the modern situation of large classes, diverse students and the availability of educational technology, introduces new dimensions to the flipped curriculum.

Having explored the background to flipping, the paper will then provide practical suggestions for how to design flipped classrooms. It will look at the flipped curriculum as a series of design spaces including:

1. embedding the learning culture;
2. activating the students to learn;
3. encouraging student preparation;
4. delivering active learning classes.

The paper will also propose some questions to consider when designing a flipped curriculum, share some lessons learnt so far and discuss some of the implications for resources, academic development, and infrastructure. The evidence suggests that a flipped curriculum should improve student learning but the onus will still be on academics to carefully design and evaluate each flipped class.

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Looking Back and Feeding Forward to Build Laboratory Practical Skills

Debbie Charter, Melissa Brown, Lisa Schmidt and David Bain ^{xxxx}

The aim of this project was to help students improve their basic microbiology laboratory skills. To improve both practical skill mastery and the assessment process, this project utilised online exemplar videos of standard techniques, video-capture of students performing these techniques, and self-review. Although this approach has been used in other disciplines, such as health sciences (Maloney et al, 2013), allowing for reflection, assessment and feedback opportunities, it does not appear to have been used within science laboratories. This innovative approach gave third year microbiology students the chance to see what they did or didn't do well, to reflect on their performance, and to give and receive feedback to improve their learning in the laboratory. Previous assessment of skill mastery has been based on grading the end product. All that the student, and those marking the mastering of these skills, had are the end results and some guesses about what may have happened along the way. For example, it is not possible to replay the moment s/he added the wrong volume or brushed the sterile tip against a dirty bench. This project allowed science students a chance to look back at their laboratory performance, really see what they did well and identify what they need to do better. As a starting point, the skills of streak plating, serial dilutions and spread plating were the focus of this study. The skills tests were weighted at 5% of the final grade, as in previous years. Exemplars of these standard microbiology techniques were prepared and provided on the topic page of Flinders Learning Online (FLO), allowing students to watch as often as required. Students had the opportunity to practice these skills multiple times during the semester as part of their usual practical exercises. Students could choose to video-capture all three skills tests at the same time, or in separate sessions, most choosing to do them at the same time. They could have as many attempts as required to master the procedure. A ruggedised outdoor video camera was set up at a work station in the laboratory to record at bench level, focussing on hand manipulations and avoiding head shots. Students identified themselves verbally and recorded their skills. The videos were then renamed for student identification. A self-assessment activity was built into FLO to achieve the intended learning outcome of student reflection on their skills with reference to the exemplar videos, which can be fed forward to improve performance. An issue was found with loading the video files onto the FLO site, however this was overcome with one-on-one appointments with the demonstrator to assess each skill together. Students were able to watch their video and record their responses online. The demonstrator could also watch the students performing the techniques on the videos and provide informed

verbal comments, thus helping to reinforce student reflections. Anecdotal feedback suggested student's initial reluctance at being filmed was soon overcome by the beneficial learning experiences they had when visualising their techniques. Preliminary results suggest that this approach of video capture can have a positive outcome in student mastery of standard microbiology skills.

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Evaluation of the utility of a cranial nerves application for student outcomes in a third year undergraduate neuroanatomy course

Lyndsey E. Collins-Praino, Joshua Luke Burton, Ian P. Johnson xxxx

Health science and medical students traditionally struggle with the topic of the cranial nerves since it involves integrating knowledge of complex, three-dimensional neuroanatomical circuitry with the physiological function and the pathological consequences of damage of twelve distinct cranial nerves. Recently, there has been increased focus on developing digital/online teaching resources to help resolve these difficulties (Estevez et al. 2010; Nowinski and Chua, 2013; Pederson et al. 2013; Richardson-Hatcher et al. 2014). Unfortunately, many resources, not developed by experts in the field, are anatomically incorrect (Berry et al. 1998; Hamza-Lup et al. 2009) or are not interactive (Kim et al. 2003). Other such electronic resources focus in depth on individual brain areas, losing the critical 3D aspect of the circuitry and its integration with other key components of the body as a whole (Kim et al. 2003; Richardson-Hatcher et al. 2014). The aim of the current study was to improve upon existing teaching resources in the field by developing a novel electronic, anatomically correct, resource on the cranial nerves that is also visually stimulating and engaging.

The cranial nerves resource prototype was developed through in-house creation/manipulation of anatomically accurate 3D models (Autodesk 3DS Max), before exporting the relevant components and embedding them, coupled with appropriate teaching material, into a Prezi presentation platform. The resource was then deployed in a third year Integrative and Comparative Neuroanatomy course. Following completion of the course, students were administered a brief, anonymous survey (10 item, 7-point Likert-scale, with space for free comments) in which they were asked questions related to their attitudes towards the resource and whether they believed that the resource increased their knowledge of the material.

36 out of 50 (72%) students in the course completed the questionnaire, with 74% broad agreement (BA) that the cranial nerves are a difficult and challenging neuroanatomy topic. 15/36 (42%) students reported that they had used the cranial nerves resource. The main reason given for non-use was inability to open the resource on a Mac computer. Of those that used the resource, there was only 57% BA that the resource was easy to use, highlighting a need for more user-friendliness. Nevertheless, there was 86-93% BA that the resource was useful, with 71% BA that the resource improved learning. Furthermore, there was 86% BA that the resource improved understanding of the cranial nerves specifically. The aspects of the resource that were particularly useful were the visual layout and 3-D nature of the images (93% BA). The vast majority of students (86% BA) agreed that the resource should

be utilized in future years and that additional resources should be developed for other neuroanatomy topics (93% BA).

The results suggest that, while more students need to be encouraged to use the resource and while cross-platform compatibility needs to be improved, the students who did engage with the tool thought that it was helpful and would like to see additional similar resources developed. Since self-selection bias may influence these findings, further work is needed to investigate the degree to which the resource actually improves learning outcomes and enhances student engagement compared to traditional teaching methods. Nevertheless, it emphasizes the critical importance that novel electronic resources may serve in the teaching of neuroanatomy and highlights the potential wider utility of such resources in other fields that rely on 3D knowledge, including engineering, architecture and general anatomy.

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Is there a difference between domestic and international students in their understanding of health issues and health services? A cross-sectional study

Yee Tiing Law, Janette Young, Sara Jones and Sharron King xxx

Background

Increased numbers of international students promotes cultural diversity on the campus, enriches the educational environment and allows lasting international connections to be generated with the international graduates. However, given their disparities in demographic and cultural background, international students may face exceptional challenges such as cultural and language adjustment as well as lack of social support, which in turn influence their health and utilization of healthcare services (Sherry, Thomas & Chui 2010; Wilton and Constantine 2003; Poyrazli et al 2004). While there has been some research undertaken regarding international students' psychosocial adaptation and academic stressors, little is known about international students' self-perception of health needs and awareness of available health services. In addition, there is a scarcity in the literature in exploring these differences between domestic and international students in an Australian context. Therefore, the aim of this study is to obtain baseline data of physical and mental health of domestic and international students within the School of Health Sciences in University of South Australia (UniSA). It is also our aims to identify students' knowledge and barriers in accessing health services, with respect to sociodemographic variables (including international student status) and behavioural factors.

Method

This study is a cross sectional study surveying students enrolled in the School of Health Sciences at UniSA. Students were invited to participate in an anonymous survey using an internet survey instrument, called QuestionPro. The survey consists of four major domains, including sociodemographic information, physical wellbeing, mental wellbeing and utilisation of healthcare services. International Physical Activity Questionnaire- Short Form (IPAQ-SF) and Warwick- Edinburgh Mental Well-Being Scale (WEMWBS) which have been proven to have high validity and reliability were included in the survey as a measure of the students' physical and mental wellbeing respectively. Data collected is being analysed using SPSS version 21. Preliminary findings can be seen however and these will be discussed.

Significance of research

As this study provides baseline data and comparative data among domestic and international students in School of Health Sciences, it will be useful as preliminary information for larger project in the future. In addition, findings from this research can be beneficial to health promotion programs or relevant healthcare providers for them to understand the underlying barriers of students' reluctance in accessing healthcare services. This is vital in providing healthcare services which are accessible and conform to the needs of both domestic and international students. Moreover, the findings from this study may also bring certain implications to the policy makers, so they could modify or design a framework that supports higher education sector in providing the best services to their students. By concerning and meeting health needs of the students, this can potentially contribute to stronger student retention rate in an Australian higher education institute.

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Global Impact: Professional Recognition as a Influence on the Quality of University Teaching

Elizabeth A. Beckmann xxx

The keystone of quality teaching is an academic's own belief that she can teach well, and can thus ensure that her students learn successfully. Imagine Susan, newly-graduated with a PhD: confident of her abilities in her discipline, and highly motivated to make a good start to her new academic career, is she sure she can teach undergraduates so as ensure effective, enjoyable learning? Crucially, confidence (self-assurance from an acceptance of one's abilities) and motivation (the driving force that initiates, guides and maintains goal-oriented behaviours) are not the same as self-efficacy—the belief that one can achieve precise, desired outcomes in specific situations (Bandura 1977). Self-efficacy is domain- and task-specific, and determines the relative effort, perseverance, emotional response and resilience shown by an individual (Bandura 2000, Beltman et al. 2011).

In sport, self-efficacy appears a reliable predictor of performance (Feltz et al. 2008). In teaching, the interactions between beliefs and performance are clearly multi-faceted, and strongly influenced by individual traits and values as well as workplace characteristics. Though widely explored with school teachers (e.g. Denham & Michael 1981, Klassen & Chiu 2010), self-efficacy and performance are less well understood among university teachers (Bailey 1999, Postareff et al. 2008). Nonetheless, the self-efficacy of teaching academics is clearly a critical factor for the individuals concerned, and for their university's overall teaching quality, not least because self-efficacy contributes to an individual academic's resilience in difficult times (Beltman et al. 2011). To Susan, being given a first year course to design, teach and convene will almost certainly constitute 'difficult times'. Her success in that course, and her motivation to become first a 'good', and then a 'better', teacher will be strongly influenced by the value placed on teaching capability by her institution and peers (Gagné & Deci 2005) and by the sources through which she can build her self-efficacy. Bandura (2000) identified four such sources: i) successful experiences; ii) affective or physiological states (e.g. satisfaction/frustration); iii) verbal persuasion (e.g. feedback); iv) vicarious or social experiences (e.g. modelling, group norms).

How could universities fuel these sources? Award-winning US professors reported having developed relatively stable self-efficacy in their earliest years of teaching (Morris & Usher 2011), so targeting early career academics makes sense, even though the greatest impact on teaching self-efficacy appears to be past teaching success and positive student feedback (Prieto & Altmaier 1994, Morris & Usher 2011). This presentation will examine the hypothesis that recognition of an individual academic's teaching experience, engagement and reflective practice in the context of professional group norms might help ensure that the crucible of experience works directly to improve self-efficacy. If such recognition is available from the very earliest stage of an academic's career (ideally coupled with teaching development programs), and provides a framework against which to measure future successes, could it help to heighten self-efficacy?

The nature of the relationship between recognition, self-efficacy and teaching quality is the subject of the author's recently awarded National Teaching Fellowship, funded by the Australian Government Office for Learning and Teaching. The focus will be especially on the Higher Education Academy (HEA) recognition scheme based on the UK Professional Standards Framework for Teaching and Supporting Learning in Higher Education, through which more than 51,000 academic and professional staff have been recognised. The Australian National University recently became the first non-UK institution to be accredited to award recognition in all four HEA categories, and the author will draw on this experience.

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Coping with EFL university teacher's anxieties in ICT integration: triple agents to meet triple standards

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Over the past few decades, ICT has been widely employed by English as a Foreign Language (EFL) university teachers worldwide. However, these teachers have been faced with many challenges in using technology in their professional practice. Generation Y/Z students are becoming increasingly digitalized in their daily lives. Therefore, they expect the university environment to be similarly digitalized. This places increased pressure on university teachers to integrate ICTs. However, it is not sufficient to merely use more technology, flexibility in pedagogy or 'adaptability to change' (Fleming, 1978, p.111) is required. In this Net-environment, flexible integration involves a 'just-in-time', 'just-for-me', 'anywhere', 'anytime' and on 'any device' learning experience. We explore how university lecturers respond to this pressure to be both adaptive to change AND responsive in terms of meeting students' learning needs and expectations. Data were derived from three observations and follow-up one-on-one interviews with EFL university teachers at a public university in Vietnam. Then, they were analyzed using the 'thick description approach' (Geertz, 1994; Ponterotto, 2006). We made use of the flexibility dimensions (Betty Collis, Moonen, & Vingerhoets, 1997; B. Collis & Wende, 2002) as a theoretical framework to unpack factors determining teachers' flexible integration of ICT. From the data, it was clear, that, although the university teachers all made a real attempt to integrate ICTs, the flexibility of their integration was limited by institutional factors such as resourcing as well as individual factors arising from their anxieties in responding to the challenges they faced. The drivers for flexible integration were associated with teacher's teaching passion, institutional support and professional development opportunities. However, the barriers to flexible integration included a lack of resourcing and training in using technology and the fact that students also required training and support in technology use. University teachers were expected to perform as experienced EFL teachers, as tech-savvy higher education teachers/integrators and as ICT guides for students. These multiple roles involve significant challenges when university teachers may be new to technology themselves. Based on the concept of the 'double standards' expected of EFL teachers suggested by Siedlhofer (1999, p. 234), we coined the terms 'triple agent' and 'triple standards' to describe the role of EFL university teachers. We argue that these EFL teachers act as triple agents because they are expected to have a good command of the source language/culture, an accepted knowledge of target language/culture, and basic understanding of ICT application in higher education which they then have to convey to students while scaffolding their learning and that institutions should provide a supportive

institutional environment with provision and training for teachers and students in the use of available technology tools, staff development in implementation and pedagogy related to ICT integration and most particularly support for teachers in adapting to changing circumstances and being responsive to student needs.

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Factors that influence graduating nursing students' consensus about learning and end of life nursing care

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Background

Graduating nursing students' attitudes and behaviours towards learning about end of life nursing care are reflective of their personal values and educational preparation.

Aims

To identify factors that can predict graduating student nurses' attitudes regarding end of life care nursing learning and subsequent practices.

Methods

A non-experimental survey method using a convenience sample of third year undergraduate nurses in one university was employed. The consensus measures are confirmed by Rasch analysis and then estimated against a range of end of life nursing care practices, using Path Modelling.

Results

Outcomes demonstrated that 43 per cent of the nurses' consensus scores about their end of life nursing practices can be directly predicted by their self-rated knowledge about end of life care, prior learning, family experiences of death and dying and their religious beliefs. Other influences including their personal and professional values and their age have added indirect effects but the nurses' gender, country of birth, and their professional exposure to patients who were dying, demonstrated no influence on their final consensus scores. These outcomes suggest graduate nursing abilities about end of life care could be enhanced when nurse educators embrace alternative learning process, other than predominantly using didactic processes.

Conclusions

Reliable consensus estimates about end of life nursing practices can be obtained, scaled and used to evaluate completing nurses' confidence to engage in end of life nursing care practices and concurrently inform the undergraduate curriculum.

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Principles underlying the development of an online tool to support classroom skills in beginning secondary school teachers.

Robert Matthews, Bill Winser, Ursula McGowan and Judith Thomas

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This presentation concerns a project designed to support beginning secondary school teachers in their understanding and control of classroom discourse. Its aim is to develop an online tool that is to be used by these student teachers in their final year of study in a subject concerned with classroom interaction. The paper presents the theoretical and conceptual principles the project is concerned with.

Underlying this project is a reorientation of how we understand educational interactions by applying some principles derived from socio-cultural and functional linguistic approaches to our understandings of these interactions. It is this new orientation that informs the project and that will be discussed in this presentation.

The project is based on an examination of the role of language in classroom interaction and content development. Two principles of meaning are invoked: 1. meanings that can be understood in everyday language of students' existing, personal and classroom knowledge and experience; and 2. meanings that are expressed in condensed, often abstract, technical and subject-specialist language.

The role of language in the classroom therefore takes centre stage. Successful teachers are able to move back and forth between common-sense, informal, personalised, subjective language on the one hand, and technical, abstract and more objective language on the other. Thus students are inducted into discipline-specific terminology as part of developing content knowledge. Awareness of this process of shifting 'gears' in classroom talk is a key skill for beginning teachers to master.

The final stage of the project will involve the programming of the tool for online use by the students. It will use Articulate to present video and audio examples of relevant teaching practices illustrating the principles and criteria discussed in this presentation. Some examples will function as models and others will be used as the basis for activities that the students will be required to undertake.

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Flexible Learning, Flipped Classrooms and Frantic academics: Reflections from the precipice

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Flexible and flipped learning and the 'flipped classroom' are current buzzwords in higher education. They reflect current educational changes in which teaching and learning is moving away from teacher centred pedagogies and practices to more student-centred and student-directed ones in which students are more actively involved in the learning process, and where there is increased provision and use by students of fully online and blended (a combination of online and technology enhanced learning and face-to-face components) university courses (Hamdan et al., 2013). The flexibility of learning and course delivery has an important component – the assessment process – which also needs to be more student-driven and more flexible. Teaching in new ways in higher education through providing more flexible learning and delivery of courses and through 'flipped classrooms' requires that we rethink assessment procedures and make assessment also more flexible for students. As Boud and Associates (2010) stated at the end of an Australian Learning and Teaching Council research project about Assessment Futures in Australia, assessment is "a central feature of teaching and the curriculum. It powerfully frames how students learn and what students achieve. It is one of the most significant influences on students' experience of higher education and all that they gain from it." They argued, that "assessment will need to be rethought and renewed" in Australia higher education landscape and that an important element of this change is that "assessment for learning is placed at the centre of subject and program design" (Boud and Associates, 2010).

Recent studies have shown that increased flexibility of assessment and increased input and choice of students into the assessment process can have positive effects on student engagement and motivation (Pacharn et al., 2013). As Zepke and Leach (2012: 170) have argued, active and collaborative learning are essential for achieving better student engagement and hence better learning outcomes, and a critical part of this is the ability of teachers to stimulate intrinsic rather than extrinsic motivation of students and students' self-beliefs through encouraging "the exercise of choice and self-direction, leading to a greater feeling of autonomy" and control. These points express the significance of looking at how assessment is done at universities and how it could be made more flexible so that student experience and achieving learning outcomes are increased.

Based on these current pedagogical and theoretical trends in higher education, Dr Wanner decided to 'flip' his advanced undergraduate course in the Social Sciences and include flexible assessment as central part of the course. Students only had two face-to-face lectures (one at the start and one at

the end of the course). In contrast to the usual teaching model, student had to go through learning modules with resources (such as short mini-lectures, web links, quizzes) before their 2-hour tutorial each week. The tutorials were designed for interactive, collaborative activities to reinforce the concepts and content of the week. The flexible learning approach also included more flexibility and choice with the assessment, for example, student could negotiate when to submit within a set 3 weeks period two of the major assignments. Surveys at the beginning and end of the course and focus groups were conducted by Dr Palmer. The results show that the overwhelming majority of the students enjoyed the 'flipped classroom' model of teaching and learning. In particular, students enjoyed the two-hour tutorial and the flexibility around submission of assignments and the various choices each of the assignments provided.

The views and experiences of academics about flexible learning, the flipped classroom and flexible assessment were also investigated so that the different 'worlds' of student and teachers in this area can be more aligned for future course design and for changing the culture around assessment in higher education. It became evident that many academics have tried or are considering the flipped classroom but are wary of the time commitment it requires and whether it is overall beneficial to student learning outcomes. The paper concludes with recommendations about flexible assessment for other course instructors.

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