Change is difficult: Making it happen and making it stick

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Monash University is transforming its educational offering with a focus on students actively engaging in their learning experiences with educators changing their teaching practice so as to make that happen. The disruption to traditional approaches to education through innovative curricula, multi-faceted modes of delivery and purposeful learning spaces is challenging our educators to think about how students learn, and how to provide students with a quality educational experience. The University has employed a group of Educational Designers (EDs) and embedded these in each of the ten faculties to lead the change. The EDs interpret and implement the University education agenda within their faculties, partnering with academics to innovate teaching and learning across the University.

This paper draws on case study methodology utilising two case studies, from the Arts and Science Faculties, to demonstrate how the EDs have enabled sustainable educational transformation. Despite working across ten faculties with various foci for enhancement, the EDs have coordinated their efforts to build staff capacity and resilience through a range of practical support strategies and programs. The strength of this support is grounded in the relationships that they are able to develop with our academic partners over time.

Introduction

Education transformation at Monash University commenced in response to the challenges of 21st century education (Trilling & Fadel, 2009) and as a means to improve the use of technology as a support to the teaching environment (Siemens, G., Gašević, D. & Dawson, S., 2015). Monash University is a research-intensive Group of Eight university with 73 000 students and 16 000 staff. Crucial to the University's education strategy is the quality of our student experience and graduate outcomes. To that end, Monash University is transforming its educational offering with a focus on students actively engaging in their learning experiences, guided by expert educators, using the best educational technologies and spaces, and informed by industry and community. The education agenda aims to disrupt traditional approaches to education through innovative curricula, multi-faceted modes of delivery and purposeful learning spaces. In 2015, the centrally-located Office of Teaching and Learning asked each faculty to 'enhance' units via the Unit Enhancement (UE) project, with a target of reaching 60% of full-time student load by 2018. Accordingly, Educational Designers (EDs) were employed by the portfolio of the Vice Provost (Teaching and Learning) and embedded within the faculties, partnering with academics to undertake this pedagogical work.

Coinciding with the UE agenda was the unveiling of Monash's state-of-the-art 'next generation' Learning and Teaching Building (LTB) which was purpose-built to promote an active learning pedagogy by removing the lectern from the front of the room and putting students at the centre of their learning - literally and figuratively. EDs supported the academics through this change by running training sessions in the different LTB rooms and giving them the practical hands-on guidance. Academics, who mostly attended in teaching teams, were presented with a variety of scenarios to help them practise using the space effectively to enhance the learning opportunities made possible by the affordances of these innovative teaching spaces.

Change is difficult (Lawson & Price, 2003). In this paper, we detail the process of EDs engaging with academics in a new culture of learning; their own and their students'. Academics are challenged as they navigate the unfamiliar educational landscape eschewing didactic teaching in preference for active and blended learning. This new paradigm is in opposition to many teaching academics' practice, as it takes them from the central position and brings the learner into the limelight. Lecturers may experience a form of 'culture shock' and may require support and direction to implement change. Change *is* difficult, but educators can seek support for this change from the EDs in their faculty.

EDs guide and support academics to fundamentally change the way they think about teaching and learning; to reconsider how they assess their students' learning outcomes; and to develop their content for delivery across a variety of modes in a more accessible and interactive way. The importance of supporting educators and

increasing their levels of resilience cannot be overstated. Many have taught in a set manner and style throughout their entire careers. As such, they are anxious about change and reticent to embrace it, often simply because they do not know how, or they are afraid of failure (Brownell & Tanner, 2012). EDs are very sensitive to this anxiety and tread carefully to build trust, confidence and resilience so as to promote success.

In this paper we investigate two case studies to demonstrate that EDs embedded in the faculties have enabled sustainable educational transformation across a large university. Despite working across ten faculties with various foci for enhancement, the EDs have coordinated their efforts to build staff capacity and resilience through a range of practical support strategies and programs. The strength of this support is grounded in the relationships that they are able to develop with their academic partners over time.

Methodology

We have used case study methodology, in this instance, as it is well established in the Humanities and Social Sciences. This approach informs practice by delving into evaluation and review to illustrate efficacy, achievement and any issues encountered (Yin, 2009). Through inquiry we examine the impact EDs have had, across a large university, as they work in their strategic roles. We attempt to show, through two examples of very different faculties, how EDs rise to the challenge of making change to an established, didactic teaching and learning culture.

Case study - Arts Faculty

Monash University's Arts Faculty is large and diverse, with ten schools and seventy disciplinary areas. 13 000 students from over eighty countries are enrolled in Bachelors, Masters and PhD programs. We have 300 tenured academic staff, as well as sessional lecturers and tutors. In order to approach the UE project in a strategic and coordinated manner, our UE efforts focused on the more than thirty areas of Major study in our Bachelor of Arts (BA).

Each BA major is centred around a suite of core units that students take at first-, second- and third-year level. These units are the gateway, cornerstone and capstone units. They establish a learning pathway that students navigate as they progress through the program. By focussing our UE activities on these units, we identified the 'teaching moments' through a student's learning pathway where innovation could reap the most rewards.

The Associate Dean, Education and Senior ED implemented a model of constructive alignment to map the learning pathway that students navigate through our programs (Biggs, 2007). We constructed 'major maps', collecting on one page the unit learning outcomes, teaching and learning approach, and assessments in the core units of the major, that is, the gateway, cornerstone and capstone units, taken in first, second and third year respectively. This process was repeated for each of the thirty majors, and served as a 'conversation piece' in meetings with the teaching team - often the first time the teaching team had come together around a table to discuss the major.

In these meetings, we challenged educators' approaches to teaching and learning across three broad pedagogical areas: unit design for student engagement; diverse and meaningful assessment; and content delivery across a variety of modes (Boud, 2000; Boud, 2007; Wiggins & McTighe, 2005; Laurillard, 2012). We helped educators to reflect upon the skills and knowledge required by graduates in the major, and whether these skills and knowledge are developed with appropriate levels of clarity and rigour through the major. Unit coordinators reflected upon the place of their own unit in that pathway. Teams identified any gaps and opportunities for change at the major level. The results of these discussions enabled us to prioritise, for enhancement, the points at which students should develop, practice and be assessed on the knowledge and skills necessary for their disciplinary profession, in line with education frameworks (French et al., 2014).

The skills gaps that the Music major team identified in their students coming into the capstones - and in the curriculum of the core units in the major - were critical reading skills, digital literacy skills and group work skills. These skills are now developed through the major. For instance, critical reading skills are introduced in the gateway units with a 'guided reading activity' in Semester 1 and in Semester 2 with an 'annotated bibliography'; further developed in both capstone units with a more sustained 'reading assignment' and 'critical analysis' assessment; culminating in the research capstone with a guided, independent research essay. Digital literacy and group work and skills are introduced, developed and assessed in a similar way. Students undertake a podcast assessment in Semester 2, and depending on which pathway they choose, they undertake a podcast in Year 2, Semester 2, and a vodcast in Year 3, Semester 2. Group work skills are introduced in Year 2, Semester 2

units and culminate in group projects in both capstone units in Year 3. In this way innovations are implemented as part of an holistic approach to the learning pathway that a student takes through our program – rather than enhancements occurring in a vacuum.

The ED team worked with Music staff at the school level, providing targeted and dynamic teaching and learning (T&L) workshops, online resources for both teaching staff and students, and 'at-the-elbow' support to transform their T&L practice. We can see the results of UE in one of the Music major gateways units, "Popular music in global perspective". In 2016, the unit coordinator introduced weekly online quizzes to test students' engagement with readings, and a guided reading activity that develops students' critical reading skills. The unit coordinator adopted the new faculty LMS theme designed by the ED, and began to build towards a blended approach to delivery with some of the unit content delivered online to facilitate students' deeper learning in class. By 2018, the unit coordinator was ready to transform their face-to-face delivery to a genuinely active learning experience, and was invited to teach in the University's new LTB, with the entire cohort of students taught in a large flat-floor teaching space in a 2-hour workshop rather than smaller 1-hour tutorials. The traditional lecture has been abandoned.

Each week, pre-class materials are delivered via the LMS and consist of a 30-minute online lesson made up of mini-lectures and curated videos; one key reading; a curated 1-hour documentary film; and a quiz to test the students on all the pre-class materials (see Figure 1 of the LMS layout below). Each in-class workshop starts with a 'reveal' of the quiz results and small group discussion of the pre-class materials, culminating in groups posting responses to the questions: what are the key takeaways from the online lesson and key readings; what's clear; and what's unclear. Any issues or misunderstandings are addressed on the spot. The remainder of the workshop is spent with the students working in small groups on a variety of activities, for instance, playing African drums together to learn how traditional style inspires popular music; peer review, editing and feedback on guided reading responses and essay drafts; writing on the whiteboards and passing the microphone around to report back to the class; with time set aside to work together on a group assignment.

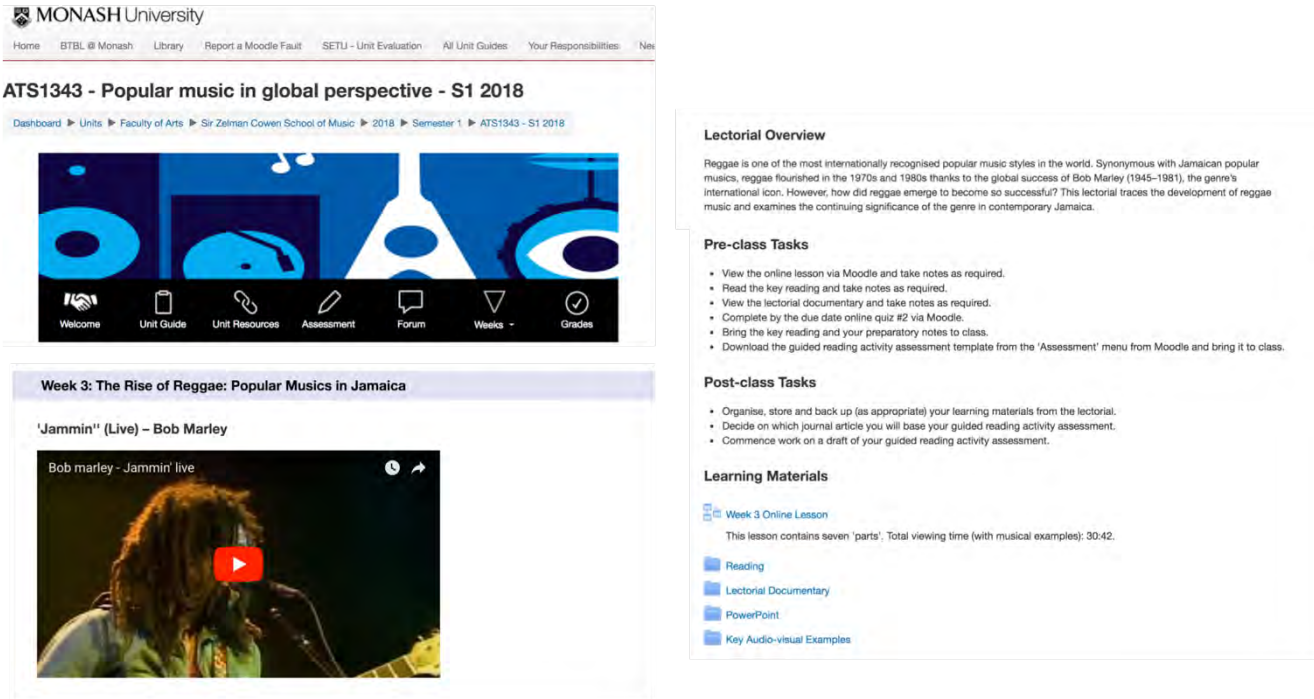

Figure 1: Popular Music - LMS layout

Student feedback on the blended approach to delivery and the focus on active learning in the workshop was overwhelmingly positive. The following comments are in response to the question 'Which aspect(s) of this unit did you find most effective?':

- "The resources for each week were of a high academic standard. Summating with a weekly quiz was a great way of forcing study and incentivising internalisation of the materials"
- "The online lesson and the interactivity of the lectorials"

- "Being able to discuss things every class"
- "The lesson prep is very beneficial"
- "The online lesson, documentary and reading made the information we needed to know for each week and each quiz very clear. There was never any confusion with what we needed to do each week."
- "The online lessons were much more effective than lectures in relation to the content being learned"
- "The online lessons were useful for me. I have issues with auditory processing and being able to pause and repeat the lesson until I understood was far more useful to me than a lecture"
- "The incentive to comprehensively engage in the unit through the weekly quizzes."

There were however, some students who did not enjoy the focus on group activity and engagement:

- "The amount of group work during each 2 hour lesson became quite overwhelming for myself who is quite introverted."
- "It is difficult if everyone sits at the same table every time and people do not want to talk to you"

Comments such as these flag the need for the careful orientation of students to a constructivist approach to teaching and learning (Piaget 1953; Vygotsky 1962). As Biggs (2007) argues, it is the role of the educator to shape the teaching and learning context and enable all students to engage in higher order learning processes in the classroom. The unit coordinator will better guide students in the active workshop environment next semester.

Student performance for the period 2015 to 2018 had been consistently high. There has been a slight improvement in some of the indicators: the proportion of High Distinctions and Distinctions has risen from 70% to 72%, and the average mark has increased from 72.2% to 72.6%; while student enrolments remain between 49 and 60 students. These improvements in student performance are not solely attributable to the innovations implemented in the unit, but there is a correlation between enhancements and improved student performance, as demonstrated in the qualitative feedback from students above.

The student evaluation data for the period 2015 to 2018 reflects students' experience with the enhanced offering (see Figure 2 below). In what has long been a highly rated unit (above 4 on a scale of 1-5), overall student satisfaction dipped with the introduction of enhancements in 2016, but is recovering as these enhancements are further refined. Students have responded favourably on the 'plethora' of learning resources on the LMS site, and the clear organisation of resources. Evaluation of the assessment practice in the unit is markedly lower than other factors. This is likely to be due to the introduction of a group presentation task for the first time this semester. Student feedback indicates that they require clearer guidance for the group project. We will continue to work with the unit coordinator to provide resources for students as they prepare for the group task.

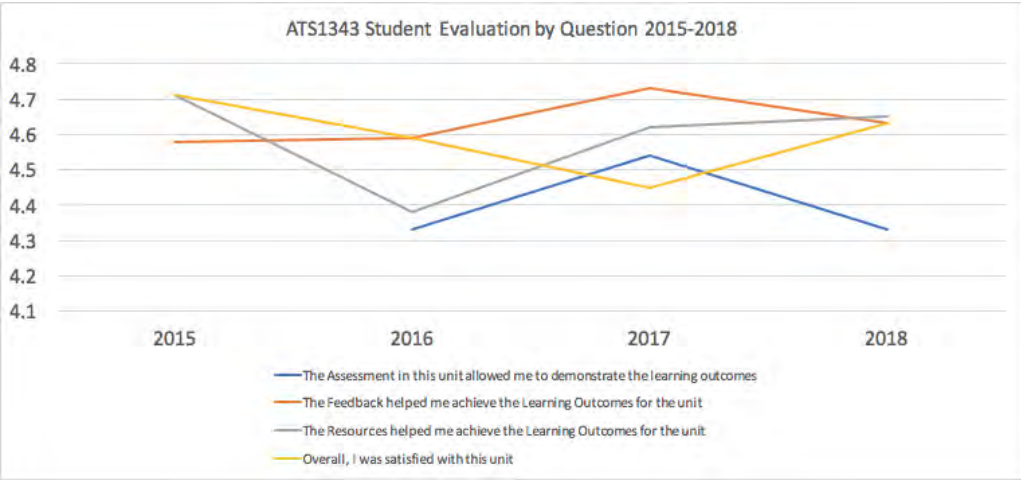

Figure 2: 'Popular Music' Student Evaluation Data 2015-2018

The unit coordinator is delighted with the changes:

> …the UE project has led to a revitalisation of the Music major…with a huge shift from knowledge to skills development…where students *apply* content in small groups in workshops…the students are pushed out of their comfort zone in a 'safe' way...the interactive

> time with teachers enables formative activities, related feedback, real-world assessment and improved quality of student submissions...I can see them building their analytical skills in class...I now receive so few email questions from students as most concerns are dealt with in class…
>
> ...with the focus on student-centred learning, I have extracted myself from the picture...it has been very exciting but has required a huge amount of planning...approaching 'blending' in a staged way has worked well for me, and I still have some tweaking to do, such as adding in a short video to each week's pre-class material to guide students through the reading...I will never go back to the [traditional] way I used to teach this unit. (Unit coordinator of 'Popular Music, and convenor of the BA Music major program, 2018)

Enhancements made at the unit level have been most successful when staged over a number of semesters. This incremental approach enables educators to trial and tweak innovations in response to student feedback and performance. It also allows a relationship to develop between the academic and ED, crucial in building trust for implementing change. Grounding these unit enhancements in the broader picture of the whole major through our model of constructive alignment - or 'major mapping' - has transformed education in the Arts Faculty. The approach has effected sustainable and scalable program-level change that is being adapted and applied to other contexts, such as our ten graduate coursework programs. The approach draws upon common understandings of best practice in constructive alignment across the ED Community of Practice (CoP), and the results have been shared with the CoP, with several EDs now preparing mapping documentation in order to implement this approach in their faculty.

Case study - Faculty of Science

The Faculty of Science, with over 314 academics and student numbers in excess of 5,600, is a large and complex organisation that incorporates five schools with each of these having its own culture and preferred methodology in teaching. This makes the task of introducing a changed teaching and learning paradigm a complex process; work done in one school is seen as irrelevant in another and the ED encountered comments such as, "it's different in [insert name of own school]", "our students are different", and "That might work in X but not here". Challenge accepted.

UE focuses on four areas of teaching that are critical to the successful transformation of traditional teaching into an active learning experience that is underpinned by learning theory and well-articulated pedagogic practice. These are constructive alignment, pre-class activities, active learning, and formative assessment (Biggs, 2007). It is through this process that the ED is able to guide and support the academics through a process to fundamentally change the way they think about teaching and learning; to reconsider how they assess their learning outcomes; and to develop their content for delivery across a variety of modes (face-to-face, online, industry).

This UE case study describes the work undertaken in a 3rd year unit of 27 students in the School of Earth, Atmosphere and Environment with an academic who has a high research profile and poor Student Evaluation of Teaching in Units (SETU) survey results. The ED and the academic met every week at first and then fortnightly throughout the semester. Together they formulated a strategy that would best approach the poor results and indifferent attendance. The strategy was compiled in an Issues Log and looked at the question "What aspects of this unit are most in need of improvement?" Students gave full and frank feedback. For example (paraphrased responses):

- Better organisation of the pracs
- Clarity and communication, the lectures were really hard to understand
- Unit is strongly disorganised.

Together the ED and the academic formulated responses to address these student concerns, one-by-one, in the Issues Log. Sample responses included:

> There are notes and instructions on Matlab in the Resources section and (academic name) has changed the way he approaches the Prac work. At first, the students will be given much of the formula and only produce a small section. (academic name) is also going to work through some problems in the lecture - making it a more interactive experience.

(academic name) communicates with the students through the Moodle forums and welcomes feedback. The contextualised content in Moodle should help students better prepare for the lectures and Pracs and a lecture has been included in Week 12 to help allay students exam nerves.

A customised blended learning strategy was developed by the ED for the academic and discussed in detail to determine the best approach for the learning materials, assessment, and importantly, the students. This included an increased presence in the online teaching space with opportunities for extended use of the forums, online assessment and feedback, and class voting all of which were seamlessly integrated into the face-to-face space. So, if students were asked to respond to a short online survey as a pre-class activity the results of this were brought into the face-to-face space and discussed to clarify meaning and extend understanding.

The online learning space was re-designed with a clear navigation to help students find their learning and assessment materials when they needed them. Figure 3 (below) illustrates this change from the online experience from no navigation and just the PowerPoints to a clear guide with icons and a drop-down menu for easy access to the weekly learning materials.

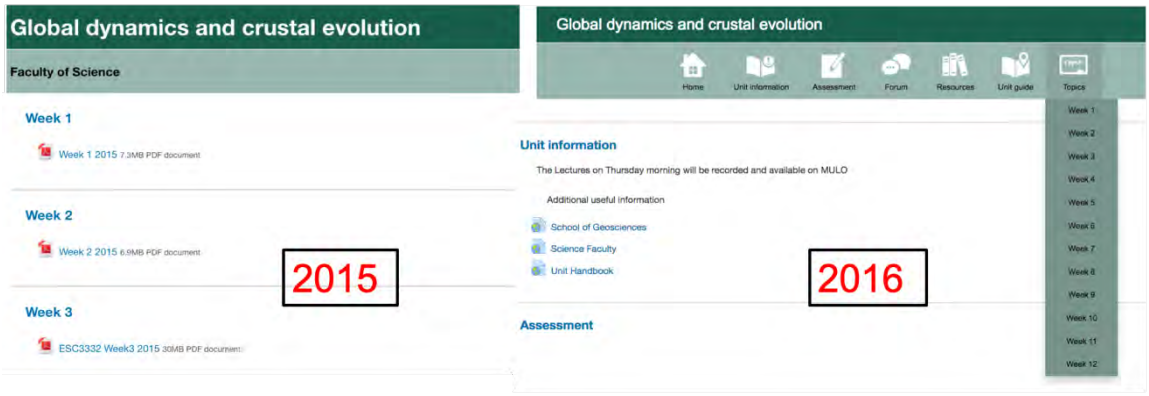

Figure 3: Better organisation and improved navigation

Thematic and weekly templates were designed for the online teaching space to guide the development of a contextualised learning pathway to maximise the learning opportunities. These set out the expectations for the week or topic, the range of learning pre-and post-activities to be completed, and any related assessments and practicals. Figure 4 shows the structure of Topic 4 with a contextualising explanation of what to expect, a page summarising the week's work with links to related materials (videos, voting activities, Prac materials, and readings) and Figure 5 is a snapshot of the weekly summary page with the learning objectives for the week, readings, and five other lecture tasks that are not shown. Figure 6 indicates the level of engagement in the online teaching space - students accessing the learning materials and activities more than once.

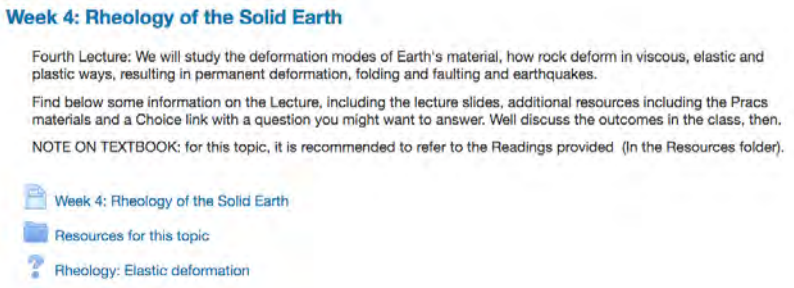

Figure 4: Overview of the week 4 learning activities

Figure 5:Weekly page summarising the learning and assessment activities

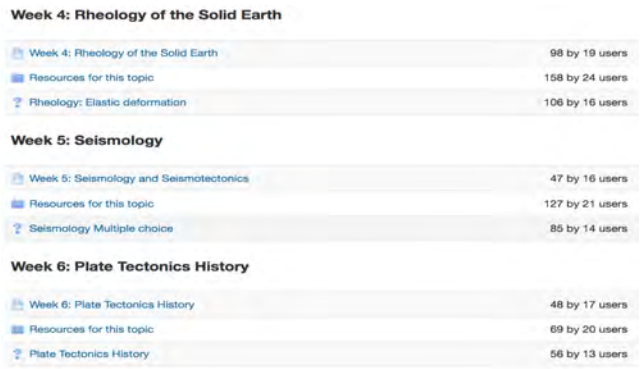

Figure 6: Student activity report

The learning materials did not change but rather the UE model of pre- and post-class learning activities, active learning, and ensuring that there was alignment of all learning activities and assessments to the learning outcomes changed the way the academic and students interacted across the face-to-face and online spaces. The academic re-designed the Practicals and scaffolded the learning to ensure that students had a better understanding of the key concepts to develop deep learning and better demonstrate this through assessments. As a result of this improved unit organisation and communication strategy the students had a better appreciation of the subject and this is represented through the improved SETU feedback shown in Figure 7. Although the University changed the SETU questions and moved some around, for example, Q4 on feedback is in both questions sets but the question on Assessment is Q9 (2013-15) and Q3 (2016). The chart also shows that overall students had a higher satisfaction with every aspect of the unit, Q5 (2013-15) is very low while Q8 (2016) is greatly improved.

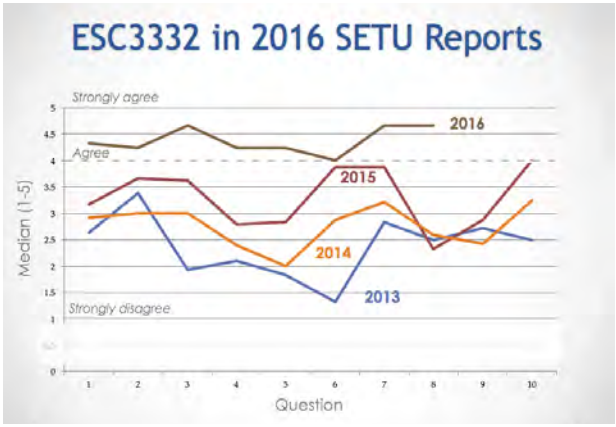

Figure 7: SETU data 2013-2016 showing improved student overall satisfaction with the new format

Key to the SETU questions:

Questions 2013-2015

1. This unit enabled me to achieve its Learning Outcomes
2. I found this unit to be intellectually stimulating
3. The learning resources in this unit supported my studies
4. The feedback I received in this was useful
5. Overall I was satisfied with the quality of this unit
6. The organisation and progression of the topics covered is sensible and coherent
7. The lectures helped me achieve the learning objectives
8. The tutors/practical classes/field work helped me achieve the unit Learning Outcomes
9. The assessment tasks helped me achieve the unit learning outcomes
10. Individual assistance (either face-to-face or online) was available when needed

Questions 2016 onwards

1. The Learning Outcomes were clear to me
2. The instructions for Assessment tasks were clear to me
3. The Assessment in this unit allowed me to demonstrate the Learning Outcomes
4. The feedback helped me achieve the Learning Outcomes
5. The Resources helped me achieve the Learning Outcomes for the unit
6. The Activities helped me to achieve the Learning Outcomes for the unit
7. I attempted to engage in this unit to the best of my ability
8. Overall, I was satisfied with this unit.

The qualitative comments were also very positive and reflected better engagement with the learning materials in the online and face-to-face spaces. Such comments included:

- "The lectures were informative and concise - the outlining of the learning objectives for each lecture helped guide what was important to note."
- "The layout of Moodle was really nice and made things more interesting"

Discussion and conclusion

The EDs, all of whom are engaged in UE, have formed a Community of Practice (CoP) to share expertise as they engage in the task of changing the culture of learning and teaching across the University (Wenger, 1998). This CoP is an essential element of the success of the UE initiative as each faculty has its own culture which requires a unique response to the changing education paradigm. Furthermore, the CoP provides support for its members with regular formal and informal meetings and communication for information-sharing, problem-solving and celebration of successes.

Embedding EDs in the faculties has been a highly successful strategy, measured by the number of units "enhanced" each year and reported to the centrally located Monash Education Innovation team . The model of embedding EDs in the faculties is not widely adopted across the HE sector; many institutions have a central model, in which EDs are sent out to the faculties according to perceived needs. Monash University's model is a sustainable innovation that builds staff capability, resilience and flexibility at the point of need. The embedded ED builds relationships based on trust and performance. The Faculty ED is there for the long haul, not 'fly-in, fly-out', and as such offers continual guidance and support where and when needed. Faculty EDs are called upon to be involved in wide-ranging learning innovation projects but UE is the core focus. The two case studies detailed in this paper demonstrate the process EDs in every faculty use when applying UE at a whole course level (as in Arts) and an individual level (as in Science). While they are typical, they are by no means the only work involved. There is a daily need for consultation on every aspect of teaching and learning, from managing the implementation of new educational technologies through to writing Learning Outcomes and developing authentic assessments to challenge and inspire our students to perform at their best.

Transforming the educational offering from a didactic paradigm to active engagement even when guided by EDs using the best educational technologies and spaces, is a long process of gradually changing priorities and developing a new culture of learning. A coherent approach to expand teaching strategies and develop the use of learning technologies for all teaching academics must address pedagogic issues. EDs strive to inspire, enthuse, support and teach the skills our educators need to implement innovative and engaging educational learning experiences into their methodology.

Change is difficult, but it is, as we have found, very possible. It can even be, in the words of the Music unit coordinator, "exhilarating".

References

Biggs, J. (2007). *Teaching for quality learning at university: What the student does*. Buckingham: Society for Research into Higher Education: Open University Press.

Boud, D. (2000). Sustainable Assessment: Rethinking Assessment for the Learning Society. *Studies in Continuing Education*, 22:2, 151–167. https://doi.org/10.1080/713695728

Boud, D. (2007). Reframing assessment as if learning were important. In D. Boud & N. Falchikov (Eds.), *Rethinking Assessment in Higher Education: Learning for the longer term*. London: Routledge, 14-28.

Brownell, S. E., & Tanner, K. D. (2012). Barriers to Faculty Pedagogical Change: Lack of Training, Time, Incentives, and…Tensions with Professional Identity? *CBE Life Sciences Education*, *11*(4), 339–346. http://doi.org/10.1187/cbe.12-09-0163

Trilling, B., & Fadel, C., (2009) 21st Century Skills, Enhanced Edition: Learning for Life in Our Times, San Francisco, John Wiley & Sons

French, E., Summers, J., Kinash, S., Lawson, R., Taylor, T., Herbert, J., Fallshaw, E. & Hall, C. (2014). The practice of quality in assuring learning in higher education. *Quality in Higher Education*, 20:1, 24-43.

Laurillard, D. (2012). *Teaching as a design science : Building pedagogical patterns for learning and technology*. New York, NY: Routledge.

Lawson, E., & Price, C. (2003). *The psychology of change management.* McKinsey Quarterly, 30–41

Piaget, J. (1953). *Logic and psychology*. Manchester: Manchester University Press.

Ryan, J. (2011). Teaching and learning for international students: towards a transcultural approach, *Teachers and Teaching*, 17:6, 631-648. https://doi.org/10.1080/13540602.2011.625138

Siemens, G., Gašević, D. & Dawson, S. (2015). *Preparing for the Digital University: a review of the history and current state of distance, blended, and online learning.* Arlington: Link Research Lab. Retrieved October 24, 2016 from http://linkresearchlab.org/PreparingDigitalUniversity.pdf

Vygotsky, L., Hanfmann, E., ed, Vakar, G., ed, & American Psychological Association. (1962). *Thought and language.* Cambridge, Mass.: MIT Press. https://doi.org/10.1037/11193-000

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity (Learning in doing)*. Cambridge, U.K.; New York, N.Y.: Cambridge University Press. https://doi.org/10.1017/CBO9780511803932

Wiggins, G., McTighe, J. (2005). *Understanding by design* (Expanded 2nd ed.) Alexandria, VA : Association for Supervision and Curriculum Development

Yin R K (2003) Applications of case study research. 2nd ed. London: Sage

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