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Interactivity, connectedness and 'teacher-presence': Engaging and retaining students online

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An increasing number of students entering Australian higher education are choosing to study in an online mode. Attrition rates for online students are considerably higher than for students studying primarily on-campus, with evidence suggesting that the isolation of online study combined with the challenges of technology, academic expectations and pressure from other areas of students' lives, are significant contributors to this. However, there is also evidence to indicate that a supportive and engaging online teaching and learning environment, can help to mitigate against these difficulties and lead to increased student retention. This paper outlines the findings from a recent study with 16 universities, which demonstrated the importance of online 'teacher presence', combined with engaging, inclusive and interactive design, content and delivery. One example is provided of changes implemented in an online unit of study at a regional Australian university, in response to these findings, with positive effects on student engagement. Such changes at the individual unit level can indeed

make a positive difference on a small scale; however, institutional commitment to improving the quality of online education is needed to extend such successes to the broader online student population.

Keywords: *student engagement, online learning, distance education*

Introduction

The number of external students studying online in Australian higher education (HE) has been growing steadily each year, with nearly a quarter of commencing domestic students now choosing to enrol in an external, online mode (Australian Department of Education and Training [DET], 2017a). It is concerning, however, that retention and completion rates for external/online students are at least 20 per cent lower than in face-to-face study (Greenland & Moore, 2014; Stone, O'Shea, May, Delahunty, & Partington, 2016), with a recent Australian HE Standards Panel (HESP) Discussion Paper (DET, 2017b) reporting that external students are 2.5 times more likely than on-campus students to withdraw without a qualification.

Beginning with an overview of the pertinent literature, this paper describes and outlines the findings from a research study that investigated the perspective of higher education practitioners on ways to improve outcomes for online learners. The paper concludes with a case example of how these findings have influenced changes within an Information Communication and Technology (ICT) Project Management unit, at one of the regional Australian universities that participated in the research.

Overview of the literature

Along with the continuing growth in online study, there has been an increasing amount of research into the online HE experience, particularly in relation to mature-age and part-time students, who are more strongly represented in online than face-to-face studies. Also strongly represented within the undergraduate online cohort, are students from the Australian Government-identified equity categories of: low socio-economic status (SES) backgrounds; regional and remote

areas; students with disability; and Aboriginal and Torres Strait Islander (Indigenous) students (Stone, 2017).

For students from lower SES backgrounds, studying online can alleviate both financial and time burdens, allowing students to continue working and/or caring for families (Michael, 2012; Shah, Goode, West, & Clark, 2014; Stone et al., 2016). For those from regional and remote areas in Australia (Cardak, Brett, Bowden, Vecci, Barry, Bahtsevanoglou, & McAllister, 2017), online education plays a role in 'enabling regional students to access higher education while remaining in their communities' (Regional Universities Network, 2017). Online study has also been shown to be 'a preferred way to access higher education' (Kent, 2015, p. 2) for students with disability; while for Indigenous students who have experienced decades of educational disadvantage (Behrendt, Larkin, Griew, & Kelly, 2012) studying online has the potential to assist those who are 'juggling family life, community responsibilities and financial issues of economic disadvantage while pursuing higher education degrees' (Smith, Trinidad, & Larkin, 2015, p. 23).

Certainly, there are many inherent challenges, as well as benefits, in studying successfully online. Understanding e-learning technology, technical problems, feelings of isolation, lack of interaction with tutors and other students, problems with instructional materials and students' own difficulties with time management, have been shown to be key issues for online students (Ilgaz, & Gülbahar, 2015; Yoo, & Huang, 2013), while other family and work responsibilities also appear to play a significant role in online student attrition (Moore, & Greenland, 2017; Müller, 2008; Park, & Choi, 2009). Despite such challenges, online study can provide real and rewarding opportunities for many students who may not otherwise have been able to undertake HE studies successfully; such opportunities may include improvements in employment prospects and the ability to change careers, as well as an increase in confidence and self-esteem (Stone, & O'Shea, 2019). Additionally, as studies of student diversity have shown (Devlin, 2013a; O'Shea, May, Stone, & Delahunty, 2017; Signor, & Moore, 2014), these students bring with them a unique set of skills and experience that add value to the learning experience for themselves and others. 'This diversity can enrich online programs when mature age students are encouraged to utilise and share their knowledge and experiences with peers and educators' (Signor, & Moore, 2014, p. 312).

There is also a weight of evidence to suggest that institutional policies and practices can do much to alleviate the challenges facing online students. Salmon (2014), for example, believes that universities need to develop clear institutional policies and strategies for online education to ensure that academics are equipped to teach online; that appropriate digital resources are both available and understood; and that students and staff are well supported in this new and often unfamiliar environment. Parsell's (2014, p. 22) 'Standards for Online Education' stress the importance of institutional support for staff 'in their online teaching with quality professional development, resourcing and technical support' as well as support for online education at an institutional level more broadly, 'through the provision of quality leadership, infrastructure and evaluation'. More recently, Moore and Greenland (2017, p. 57) make a strong case for greater institutional recognition of the 'fundamental differences between on-campus and online learners' including the provision of 'appropriate flexibility' around assessment dates and scheduled exams. Their research showed 'employment challenges [to be] the major cause of online student attrition' with many students forsaking their studies when exams and due dates clashed with work commitments.

Much discussion in the literature refers to the importance of engaging online students in an interactive learning environment, both synchronously and asynchronously, with strong 'teacher-presence' to encourage interactivity in discussion boards, blogs and other media (Boton, & Gregory, 2015; Canty, Goldberg, Ziebell, & Ceperkovic, 2015; Kuiper, Solomonides, & Hardy, 2015; Oh, & Kim, 2016; Verenikina, Jones, & Delahunty, 2017; Vincenzes, & Drew, 2017). For example, Verenikina et al. (2017, p. 27) refer to the importance of 'lecturers' presence, expertise and commitment to ensuring quality learning takes place'. When teachers take the trouble to connect with online students through such means as introductions, welcome activities and/or videos when a course begins, followed by active facilitation of discussion fora, ensuring that discussion progresses constructively towards meeting learning outcomes, as well as providing prompt feedback on students' contributions and assessment tasks, students are assured that their lecturer is 'present', interested in and supportive of their learning. Developing and maintaining a strong teacher-presence can be challenging however for teaching staff, given that online students

are likely to engage in study outside of 'normal' campus hours, with implications for institutional expectations and support of online teachers (Stone, 2017).

Hand-in-hand with teacher-presence goes 'the importance of using multimedia and of choosing formats and content that represent the students' experience' (Devlin, & McKay, 2016, p. 98). Other studies indicate that online courses must be designed for 'active participation and interaction' (Park, & Choi, 2009, p. 215); with academic and technical support embedded within the curriculum, 'taking into account the nature and diversity of the cohort and their particular needs when designing the unit' (Kuiper et al., 2015, p. 243).

The research discussed in the following section has similarly revealed that a strong and engaging teacher-presence, combined with engaging and interactive course design, can be a powerful combination in enhancing the online student experience.

Outline of the research

Background and aims

Through 2016 and early 2017, a research study was conducted under the auspices of two Australian institutions, the National Centre for Student Equity in Higher Education (NCSEHE) at Curtin University, and the Centre of Excellence for Equity in Higher Education (CEEHE) at the University of Newcastle. This research, funded by the Australian Government through the NCSEHE, aimed to seek the combined wisdom of practitioners directly involved in online education, on ways to most effectively engage, teach and support online students. Qualitative interviews were conducted with 151 members of staff, across 16 HE institutions; 15 were Australian metropolitan and regional universities, while the sixteenth was the Open University UK. From the findings, a set of national guidelines for improving student outcomes in online learning has been developed (Stone, 2017).

Methodology

Following ethics approval from the relevant universities, a purposeful approach to sampling was taken (Cresswell, 2012) in order to recruit

those with experience and knowledge of online education and online student needs. Hence, invitations to participate were emailed to those academic and professional staff who had been identified by their universities as being involved in online education delivery and/or support of online students. A snowballing approach (Babbie, 2001) was then used, with staff being encouraged to distribute the invitation to others; 70 participants were in academic and teaching roles, 75 in professional roles and six were at senior executive levels. Professional roles included library services, learning design, student support, retention, engagement and success, language and learning, equity and diversity, disability services, careers, training and development, planning and data analytics. Teaching staff were drawn from different disciplines, schools and faculties across each institution.

Interviews were conducted face-to-face and occasionally by phone or video-link, focussing on discussion of strategies that participants and/or others in their institution, were using to engage and support online students. Information about the impact of these on student retention and academic success (supported by evaluation data where available) was sought, along with participants' views on what else institutions need to do, to better engage, support and retain online students. An iterative approach to data analysis was used, involving a repetitive, cyclical approach of continually dipping between the interview and survey data. Emerging themes were checked against the data, which in turn led to further development of each theme as well as the emergence of new themes (Srivastava & Hopwood, 2009). Themes were then coded using NVivo.

Findings

A number of findings emerged from this research. The first of these concerned the crucial need to develop whole-of-institution strategies to improve the quality and consistency of online design, delivery and support – ensuring that it is part of the institution's core business. This finding effectively underpins the others, which can be summarised as:

- the importance of knowing, understanding and valuing the online student cohort, including recognising the skills, knowledge and strengths that they bring with them to their studies;
- intervening early to help incoming and first year students prepare for university study and connect with the university;

- communicating meaningfully and often with students, both within the online learning environment through teacher–student communication and more broadly through relevant and personalised institutional communication;
- course design that is specific to online learning, facilitating student connection and interaction with their teacher, other students and the course material, while also embedding academic and technology support; and
- using the analysis of data on student demographics and student behaviour within the learning management system (usually referred to as 'learning analytics') to inform institutional communications, ensuring they are appropriately timed and targeted.

These findings informed the development of ten guidelines for improving student outcomes in online learning (Stone, 2017, pp. 6–12).

The following section highlights the findings that particularly relate to teacher-presence and online course design. They are however inevitably connected to the other findings, so it is not intended, nor would it be helpful, to isolate any of these findings from each other. Therefore, reference is made to other relevant aspects of the findings throughout the discussion.

The vital role of 'teacher-presence'

The crucial role of the online teacher or tutor in enhancing online student engagement was mentioned more often in the interviews than any other single factor. It was generally agreed by participants that teaching online requires a different approach and a different set of skills than when teaching face-to-face. In the face-to-face environment, teachers and students can see each other and communicate with each other in real time, with teachers delivering lectures in person and/or generating in-class discussions and activities. However, within the online teaching and learning space, communication is largely asynchronous, via virtual discussion boards or other fora, with course content provided digitally through a learning management system (LMS) and teachers setting relevant digital activities to aid learning, such as online quizzes and discussion board postings. Teachers must therefore be highly attentive in this virtual learning space, in which

the usual boundaries of time and place are much less clearly defined. Instead, for instance, of the certainty of delivering a one-hour lecture in a particular lecture theatre at a fixed time on a certain day, an online lecturer or tutor has to be constantly aware that students will be accessing the learning content and engaging in the relevant discussion and activities at all different times of the day and night, across any or all days of the week.

It was stressed by participants that managing this very different learning environment successfully can be challenging. Participants describing the importance of 'creating your online presence'; providing 'regular and engaged and interested interventions'; 'a sense of personal contact'; ensuring that 'the student feels cared for and feels they have someone to go to'; that 'the online environment [is] a welcoming space'; and that each student has 'a personal touch point, so that they're not just a number'.

One experienced online teacher described how essential it is for students to:

> *… have an impression of there being someone on the other end of the system listening to them. So, communication and feedback, communication and feedback, communication … you can't communicate enough with online students.*
>
> (Senior Lecturer, Institution K).

The relationship with the online tutor was seen as key to building a sense of belonging to a learning community.

> *If you have great content and a poor tutor, student satisfaction is low. If you have great content, great tutor – high satisfaction… it comes back to that community of learning.*
>
> (Program Coordinator, Institution G)

Other research with online students has identified student isolation as a significant factor in attrition (Knightley, 2007; O'Shea, Stone, & Delahunty, 2015), made particularly acute when students experience 'little or no feedback, no discussion and "don't bother me" tutors' (O'Shea et al., 2015, p. 49). Not only are online students physically and, in many cases, geographically isolated from university campuses, they can also feel socially and pedagogically isolated through insufficient communication within the learning community. The negative

implications of a lack of responsiveness by online teachers similarly emerged in this research.

> *Where there's no responses to emails and no responses to discussion forums … the attrition rate's higher and the students are really unhappy.*
>
> (Unit Coordinator, Institution Q)

Participants saw a clear link between a strong teacher-presence and student retention.

> *They [tutors] are very consistent communicating – every day, every week and … this particular unit has a retention rate well into the 90 per cent.*
>
> (Faculty Dean, Institution G)

A Student Retention Coordinator spoke about a 'dramatic turnaround' in retention figures for a particular unit due to a new tutor taking over, who:

> *was a lot more engaging with the students … being a really open contact for students and really engaging with them in the conversations … and timely feedback.*
>
> (Student Retention Coordinator, Institution P)

Many participants stressed the difference in communication demands for online teaching compared with face-to-face teaching:

> *The engagement demands are completely different, the reliance of students on the instructor is much more intensive – basically you're it. The instructor is everything to the students.*
>
> (Course Coordinator, Institution M)

Other research supports the importance of 'interactive and connected learning' (Devlin, & McKay, 2016, p. 99) and talks of 'the fundamental role of interaction in bringing an online learning community into existence and for building and maintaining interpersonal relationships' (Delahunty, Verenikina, & Jones, 2014, p. 253). Hence, teachers need sufficient time to develop and maintain a regular presence and to build relationships. The insufficiency of allocated time to adequately meet the needs of students was frustrating for many.

> *It's very time-consuming and tutors aren't paid for it for that amount of time … we're not supposed to spend a lot of time on it … you're always chasing your tail because there's just not enough time.*
>
> (Lecturer, Institution K)

Both sessional and full-time academics talked about putting in extra hours, over and above their paid hours or workload allocation, in order to provide consistent interactivity and responsiveness, such as in forum discussions.

> *We're on duty seven days a week which I know we're not supposed to but we do because it's the only way that works is that if you keep the ball rolling. If they think "Okay, it's Friday night, I'm not going to get a reply till Monday" then they lose interest and they're all working so that's the time when most of them do study.*
>
> (Unit Coordinator, Institution P)

This ties directly into another of the key findings discussed previously – that of institutional responsibility for ensuring a 'core business' approach to online teaching and learning, in which workload is realistically allocated for online teaching. Many participants lamented the lack of formal institutional expectations, guidelines and processes to support online teaching, including training, mentoring and ongoing staff development. It also connects with the finding related to the impact of course design, which, when appropriately designed for online delivery, can serve to further enhance interactivity, connecting students more effectively with teachers and other students. The following section explores this further.

Content, curriculum and delivery – design for online

Participants made it clear that online course design requires a different approach from the outset. As described by a lecturer at Institution L, institutions need to be 'thinking about distance learning or online learning as a different animal to the face-to-face course … and designed completely differently for that mode of delivery'. This perspective is consistent with the views of many online students, illustrated by student quotes such as: 'What works in person is not the same as online … I

thought it would just be more, sort of, more tailor made for it than what it is' (O'Shea et al., 2015, p. 52).

Issues such as the interface on which content is delivered needing to be easy to navigate and as intuitive as possible were raised.

> *It's just got to work. It can't take time; it's got to be easily navigated, it's got to talk to me quickly and it's just got to be accessible.*
>
> (Student Support Project Coordinator, Institution F)

Many spoke about the pitfalls of simply uploading materials that have been designed for face-to-face students, without considering the implications for the online cohort.

> *If we're going to move more online, you don't just tape yourself for an hour and put it on there; that's terrible.*
>
> (Teaching & Learning Centre Director, Institution C)

As explained by a unit coordinator at Institution H, 'you cannot keep someone engaged for two hours online'. Others mentioned the disengaging experience for students of being expected to read and digest lengthy text documents which have been simply copied and pasted online. In the words of an equity officer at Institution Q, 'that whole thing of scrolling through … the tools are there now so there should be no excuse to this scrolling business'. Such comments are supported by other evidence (for example, Akarasriworn, Korkmaz, Ku, Luebeck, & Mayes, 2011; Devlin, 2013b; Parsell, 2014) that uploading content designed for face-to-face teaching, rather than material designed specifically for online, fails to provide an engaging learning experience.

There was also a recognition amongst participants that this should not be the responsibility of simply the individual course coordinator and tutors, but that it needs to be viewed as an institutional responsibility, with institutions developing 'a quality agenda' in which online courses 'are actually specifically designed for the online students' and not 'a retro-fit of an on-campus experience' (Senior Executive, Institution E).

Participants described many different ways in which a course can be designed to engage and connect students with their teacher, other students and the course material. It was repeatedly stressed that

effective online course design needs to include activities and assessment tasks that are not only directly related to learning outcomes, but that are also designed to engage students in communication and collaboration with each other through both synchronous and asynchronous means, without unnecessary technological complexity. Some of the many examples given by participants included: the use of blogs that 'are visible to all the other students so they're actually able to view other people's work and comment and have a bit of a discussion around that' (Unit Coordinator, Institution A); 'clear, explicit tasks … ways that peers connect with each other' (Teaching and Learning Manager, Institution M); 'bite-sized opportunities to engage, to learn, to be tested' (Senior Executive, Institution P); 'animated video where students can look at the video for three minutes and then go and answer the questions' (Unit Coordinator, Institution O); and 'a trickle feed of tasks … so it's step-by-step, a scaffolded start' (Senior Lecturer, Institution L).

Those with experience of working with students with disability, such as equity officers, disability advisers and a number of academics, stressed the need to 'provide online materials in multiple ways' (Senior Academic, Institution H) to improve accessibility and meet the needs of as many students as possible; similarly, the importance of truly accessible design.

> *If the unit is designed with universal access in mind … from a very grass root level and when the teaching module is being designed … a huge bulk of your challenges are addressed.*
>
> (Disability Advisor, Institution P)

There was a recognition that course design can positively impact on the meaningful participation of students from diverse backgrounds, if the course is designed and delivered to be as inclusive as possible.

> *Indigenous students… have basically said "Yes, we want Indigenous content in our courses but, more important are probably spaces; spaces in the curriculum where we can be heard and where we can hear other voices".*
>
> (Team Leader, Training, Institution N)

The issue of accessibility and inclusivity links to another of the findings from this research, that is, the importance of institutions' knowing,

understanding and valuing the diversity of their online student cohort. With this understanding comes the possibility of designing tasks, projects and assessments that are relevant to students from different backgrounds and experiences. There is evidence that this type of applied learning design, for example, 'links university study to the workplace more effectively and facilitates the development of graduate attributes' (Downing, 2015, p.vi).

Bringing it together

In the view of the participants in this study, a strong teacher-presence, in combination with effective and engaging online course design, led directly to stronger student engagement with the learning materials, their teachers and fellow-students; and that ultimately, this led to higher completion and retention rates. These findings align closely with aspects of Parsell's Standards for Online Education (2014, pp. 21–22), which specify that curriculum materials, learning activities and assessment tasks need to be 'aligned, available and engaging, [provided by] a variety of media … and appropriate technologies', also that students should be 'provided with opportunities to interact with staff … to be active participants in learning-focused interactions'.

Participants described many ways of achieving this, such as 'there should be a mixture … you have your learning in bite-sized chunks …' (Program Coordinator, Institution G); 'online synchronous sessions … and … asynchronous discussion spaces … questions you ask to get them thinking, to get them engaging in discussion with each other' (Lecturer, Institution O); and 'teacher presence in the blogs and discussion boards, responding to questions and comments …' (Online Curriculum Manager, Institution D). One academic recalled these words of a graduating student, 'the only thing that kept me going and the main reason why I am here tonight, was the weekly "Collaborate" [synchronous video] sessions' (Program Convenor, Institution G).

It was stressed by participants that building collaboration and interaction amongst students can be successfully achieved online, using creative approaches in developing collaborative exercises and assessment activities, such as those discussed above. One participant mentioned the importance of 'an interactive room … for the students to dip in and out of (Unit Coordinator, Institution H), with another explaining that, through such activities, it is possible to 'create really

very engaging environments for online students' (Senior Executive, Teaching & Learning, Institution P). In the words of Signor and Moore (2014, p. 312), the online environment 'has the potential to foster engagement and active learning beyond subject matter that can be rich and rewarding not only for the students but for the educators as well'.

Institutional barriers however can make this more difficult, such as large class sizes and insufficient time allocated to teaching, which can impede interaction and communication. 'Classes with 300 students with one single lecturer … it does not work' (Student Retention Project Manager, Institution N). In contrast, in an example where online class sizes were kept to no more than 30, the experience was very different. 'Having those small tutorial groups helps because they create a little community' (Senior Executive, Institution B). The need for a whole-of-institution approach towards online education, mentioned previously, which may include setting class sizes to more realistic figures, in consultation with teaching staff in Schools and Faculties, is relevant here.

So far, this paper has discussed in some depth two of the seven key findings from the research project under discussion; namely, the importance of building a strong teacher-presence, along with the development of interactive, engaging online course design. It has also mentioned another of the findings, that of an institutional 'core business' approach towards online learning, that supports an understanding of the online student cohort and implementation of appropriate learning and teaching standards.

The next section provides a practical example of how these findings influenced improvements in teacher-presence and course design within a unit of study at one of the regional Australian universities that participated in this research. In response to the findings that had emerged from the research, the lecturer of this unit implemented a number of changes; these are discussed below, along with the subsequent effects on student engagement and retention.

Putting it into practice

The university's participation in the research described in this paper, and the subsequent findings that emerged, provided the impetus for the lecturer of an ICT Project Management unit to update the unit's contents and the way it was delivered. The unit had been delivered in

first semester and summer school each year since 2014, as part of an ICT degree program. Apart from two face-to-face workshops, held over two separate days, the remainder of the unit content was delivered online. This content material included recorded lectures, readings and additional material organised into modules, plus compulsory module quizzes which assess that content. There were also two major assessment tasks – one on project management in entrepreneurship and one work integrated learning task, where students visit real businesses to identify their needs for ICT projects. While this was not a low-scoring unit in terms of student satisfaction, and had in fact scored relatively well in 2016, nevertheless the changes made led to a substantial improvement in student satisfaction for 2017.

Changes implemented

Up to and including the 2016 delivery of the online unit, the audio from the previous semester's 50-minute face-to-face lectures (from the on-campus delivery of the same unit) was recorded and turned into narrated PowerPoint slides. These were uploaded in modules as the online lecture content. An online summative quiz was used to assess the students' familiarity with the lecture content.

In the light of the findings from the research, a number of changes were made for the 2017 delivery of the unit. To begin with, there were changes made to the unit's design, making it more appropriate for online delivery. Each of the 13 lectures was broken down into three shorter videos, each one no more than eight-minutes long; these were recorded by the lecturer via a computer webcam. Additional supporting, but very short, videos, readings and activities associated with each lecture fragment were added to the LMS to provide a richer context, beyond the delivery of the lecture content.

Additionally, the importance of understanding the demographic makeup of the students in this unit was recognised, and an analysis of this was sought from the university's data team. With nearly a third of students coming from language backgrounds other than English, it was realised that steps needed to be taken to make the video content more accessible. To achieve this accessibility, closed captions were added to the recordings.

The next step was to write online quizzes for this material. Instead of writing a single large quiz for the end of each module, formative quizzes were created for each of the lecture fragments, additional videos and other materials. By completing these unassessed quizzes, students could determine their understanding of each topic. At the end of each module, students were presented with the module quiz that was assessed. To help manage the workload associated with creating these quizzes, the practice quizzes from the entire module were gathered into a question bank, and the module quiz was randomly drawn from those existing questions.

As part of building an engaging and supportive online environment with strong teacher presence, a commitment was made by the lecturer to answer student emails as immediately as possible. For example, in the case of the 2017 summer school class, which had only 32 students, it was possible for the lecturer to answer emails very promptly – many times within a few minutes of their being sent. If sent late at night or when the lecturer was otherwise not immediately available, they were replied to as soon as realistically feasible. The lecturer also implemented a system of personalised interventions with students, to help them to stay engaged and on-track. The LMS being used for this unit had the ability to identify students who were struggling and then to automate personalised messages to them. The lecturer made use of this technology to identify and reach out to students at risk with appropriate, personal messages of support.

Impacts of the changes

The changes adopted in this unit resulted in substantial qualitative and quantitative feedback under the university's student feedback process, which consisted of a student satisfaction survey distributed at the end of the unit. A request to complete the survey was sent to every student who participated in the online unit either during summer school or first semester. Table 1 below shows the survey questions and the overall impact of the changes to the unit, with improvements in Survey Percentage Agreement for every measured criterion between the 2016 and 2017 deliveries of the unit.

Table 1: Student Unit Evaluation Pre- and Post- Implementation of Changes

Student Unit Evaluation Survey Response Rate	2016	2017
No of Survey Requests	65	77
No of Survey Responses	37	36
Response Rate %	56.9%	46.8%
Student Unit Evaluation Survey Percentage Agreement		
The learning outcomes in this unit are clearly identified.	91.9%	97.2%
The learning experiences in this unit help me to achieve the learning outcomes.	89.2%	97.2%
The learning resources in this unit help me to achieve the learning outcomes.	91.9%	100.0%
The assessment tasks in this unit evaluate my achievement of the learning outcomes.	83.8%	91.7%
Feedback on my work in this unit helps me to achieve the learning outcomes.	89.2%	97.2%
The workload in this unit is appropriate to the achievement of the learning outcomes.	83.3%	100.0%
The quality of teaching in this unit helps me to achieve the learning outcomes.	89.2%	97.2%
I am motivated to achieve the learning outcomes in this unit.	86.5%	91.7%
I make best use of the learning experiences in this unit.	91.9%	97.2%
I think about how I can learn more effectively in this unit.	86.5%	88.6%
Overall, I am satisfied with this unit.	83.8%	97.2%
Overall Agreement %	**87.9%**	**95.9%**

Within the survey, students also had the opportunity to provide comments. The following quotes indicate students' appreciation of the shorter videos that delivered the lecture content:

> *Excellent use of 'broken-up' online modules, with a series of short videos.*
>
> *Online lectures are very easy to get through without losing focus.*
>
> *A combination of small videos and quizzes, are an excellent way to learn content without falling asleep.*

Students from language backgrounds other than English particularly loved the captioned videos and started requesting them in other units.

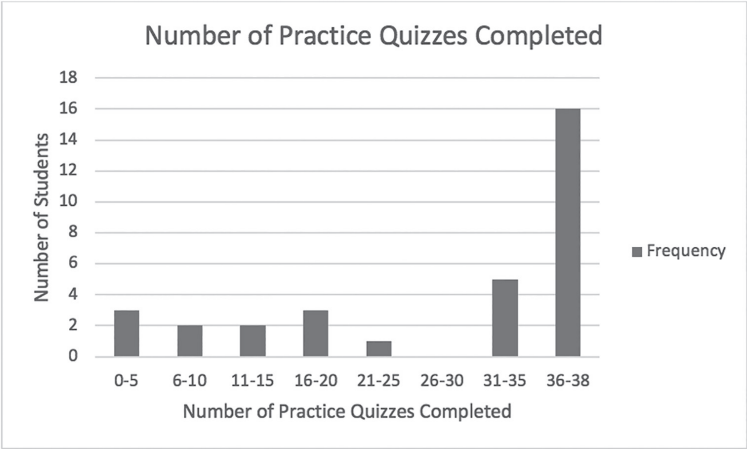
The use of formative quizzes also received excellent feedback.

> *Every module [quiz] encourage[s] us finished (-sic) the unit throughout the time line. And the quizzes help us understand the content of this unit.*

Despite the 38 quizzes being non-assessable, both the feedback and the actual usage of the quizzes indicated that students appreciated the curated sources of information that were provided for them in the modules.

Table 2 below shows the high level of student engagement with these practice quizzes.

Table 2– Student engagement with Practice Quizzes



Feedback on the prompt responsiveness of the lecturer to student emails was also very positive:

> *Despite the lack of physical lectures, questions were still very easy to ask, as [the lecturer] responds to email far more responsively then (-sic) the majority of all … staff and services.*

A key difference was that the lecturer was available to the students on *their* timetable, rather than only during the normal working hours of the university. As a result, a strong rapport developed between the lecturer and the students. A side benefit to this closer interaction and rapport was the increased number of students referred to the university's counselling and support services. The LMS technology, through its clear display of student marks across all assessments – both summative and formative – across the unit, allowed the lecturer to see which students were passing, failing and missing assessments. This made it very easy to identify and contact struggling students. Because of the clearly displayed statistics, not only did the lecturer find the workload of monitoring and supporting students more manageable, but the interactions with the students helped a number of them to get 'back on track' with their studies.

This one example serves to illustrate in a practical sense some of the measures that may be possible for individual lecturers to take to improve student engagement and satisfaction within online learning. This particular lecturer focussed on building a stronger teacher-presence through increased responsiveness to students, including personalised interventions for students who appeared to be less engaged or struggling; and also on improving the design of the unit through shorter, more engaging videos with closed captions, complemented by short activities and quizzes to further strengthen engagement and consolidate student learning. There was clear improvement in student satisfaction from the previous year in response to these changes.

Conclusion

The research findings presented in this paper demonstrate that, for online students, the importance of a strong teacher presence, along with course design that is specific to and appropriate for online delivery, cannot be underestimated. Through the combination of regular and prompt communication between teacher and students, along with

interactive and engaging course design, online students can be more effectively engaged, supported and encouraged to persist within the online learning environment. The example of changes made to one particular unit in response to these findings provides a small illustration of proactive approaches that are possible for individual lecturers and tutors to implement.

However, as positive as this undoubtedly was for this group of students, for such outcomes to be both scalable and sustainable, significant institutional commitment and support is required. The valuable and time-consuming work being done by dedicated teachers to improve online engagement amongst their own students, needs to be underpinned by a broader online strategy in which quality standards for online development, delivery and student support are established, monitored and continuously improved. As a priority, those who teach and support online students need to be given sufficient time, resources, training and ongoing support, to ensure that all students receive an equitable and engaging online learning experience. Only then can the quality and consistency of online learning across each institution begin to be assured.

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