Reality at the COAL FACE

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Online and blended learning modalities have made education accessible to those whose lifestyle, work obligations or geographical location would otherwise deny them such opportunities. The enthusiasm with which such approaches to learning have been embraced has often overlooked those factors within physical and virtual learning spaces that impact on the educational experience. This paper reports on the first phase of a study that sought to engender a Community of Active Learners who are Flexible, Adaptive, Connected and Engaged (the COAL FACE project). Through analysis of focus group data, the authors describe processes of participants getting access to the learning spaces and resources, getting comfortable in this environment, and getting connected to support mechanisms that enhance the learning and teaching.

Keywords: blended learning, learning spaces, multi-campus environments, nursing education

Introduction

In a competitive higher education environment, one regional Australian university is committed to providing a quality learning experience for students. For professions such as nursing, the need for accessible education is critical in ensuring the development of a relevant, sustainable and committed workforce (Birks, Cant, Al-Motlaq, & Rickards, 2011; Francis, 2012). In many regional universities in Australia a single program of study may be offered at a number of locations. One 'reality' for nursing education providers is the need to maintain curriculum consistency across sites to meet professional accreditation requirements (ANMAC, 2012). Another reality involves operating within financial and human resource limitations in all locations. Providing active learning experiences for all students within the context of very different affordances of the learning spaces, technology and physical resources can be challenging. The reality at the regional university discussed in this paper is the extensive reliance on videoconference as part of the necessary face-to-face contact in nursing programs.

This paper reports on the first stage findings of the 'COAL FACE Project'. This project aims to realise the potential of blended learning through the development of a **C**ommunity **o**f **A**ctive **L**earners who are **F**lexible, **A**daptive, **C**onnected and **E**ngaged. The project was funded by an OLT Extension Grant that built on the Spaces for Knowledge Generation (SKG) Project (Souter, Riddle, Sellers, & Keppell, 2011). The SKG project identified principles of physical learning space design that support an active, constructivist learning environment. The primary aim of this research study was to take the principles derived from the SKG project and explore their application to the physical and virtual learning spaces of a multi-campus, multi-modal university learning environment.

Methodology

The study design involved various phases of data collection over a period of 12 months. An initial qualitative phase was undertaken involving the use of focus group interviews. Analysis of data generated through this process informed the development of a survey tool that was then used in the second stage. Findings from the second phase survey informed the development of strategies for implementation in selected subjects during the second study period of 2014. In the third phase, journals maintained by lecturers will be coupled with evaluative data drawn from a final survey. The use of this staged and integrative approach to gathering and analysing data enabled the project team to identify and implement strategies responsive to the unique needs of their particular institution.

The findings below are drawn from the first phase of the project, which involved conducting a series of focus group interviews comprised of a total of 18 students, nine academics and three support staff. These interviews were conducted at the university's two main campuses and three remote centres across northern Queensland. The Bachelor of Nursing Science course is offered via internal (on-campus) mode on all these locations. The focus group questions were based on seven broad principles from the original SKG study, which focused on the design of physical learning spaces (Souter et al., 2011). These principles (summed up by the mnemonic *CAFÉ BAR* – Comfort, Aesthetics, Flow, Equity, Blending, Affordances and Repurposing) relate to aspects of the environment that support a student-centred approach to learning. For this project, these aspects were successfully extended to incorporate virtual (online) learning spaces of relevance to the institution where the study was undertaken. Analysis of the focus group interview data involved a constant comparative technique reflective of a hybrid approach to the use of grounded theory methods (Birks & Mills, 2011). Through the use of 'process' codes – codes that are expressed by the use of an active phrase - (Saldaña, 2012) categories were developed to generate a fluid perspective on the participants' experience of learning and teaching in the studied environment.

Findings

From the preliminary findings, three key aspects of the learning and teaching experience in the physical and virtual learning spaces of this multi-campus, multi-modal environment emerged as being important to the participants. These aspects were; *getting access* to the learning spaces and associated resources, *getting comfortable* in the use of those spaces and resources, and *getting connected* to support mechanisms both within and beyond the university environment.

Getting access

Getting access was characterised by the difficulties experienced by participants as a result of a lack of resources. Resources were in short supply as participants grappled with the issues caused by inadequate and inaccessible facilities, unavailable technology and equipment, dysfunctional technological aids, and staff shortages. For instance, participants reported that nursing laboratories were being used as temporary lecture theatres resulting in over-crowding:

> …everyone's got to fit in that area and you fit people sitting between the beds, sitting on the beds. There's no tables. You've got to put the book on your lap.

A lack of access marked virtual environments also whereby problems were not isolated to physical spaces. Unstable technology along with the unavailability of recording facilities often compromised the accessibility of learning resources in the online environment:

> …[the learning management system] crashed quite a lot when we were all on it at the same time, it was constantly closing, which was really frustrating trying to get access.

Limitations in resources resulted in participants having to pay extra to better support themselves in their studies. The issues presented by this lack of resources resulted in participants turning to a variety of sources to support them in their studies; the university, the library, public Wi-Fi, and parental and social supports. Accessing support was not strongly associated with a general expectation and demand for better services, rather, it was an act usually performed as a last resort when participants had expended all of their personal resources:

> …we probably let it [no support] go on a bit too far…it got to a point where we just went "enough of this, I need some help".

Once achieved, getting access marked the beginning of meaningful student engagement and interaction with the physical and virtual resources around them. Being familiar with such spaces was an essential part of being supported in their transition to tertiary life. As they adapted to a constrained environment, familiarity with spaces and the resources they housed was strongly associated with participants getting comfortable and even in some instances, beginning to thrive.

Getting comfortable

Getting comfortable for participants was strongly associated with the spatial ambience of their environment. In the quest for comfort, participants referred to disliking spaces that were small, uncomfortable, unsupportive, distressing, depressing and distracting. Often, basic resources such as tables and chairs were not sufficient to meet the needs of the learning space. Virtual spaces were also not immune to criticism as technological interruptions, constantly changing website design and poor orientation manuals made students uncomfortable with the online environment. Students reported a decreased desire to spend time online in such instances. This situation was mirrored in physical spaces as being uncomfortable impacted on participants' engagement with the learning process and the university environment:

> …you don't want to hang around before or after lectures, which I find is the main time that you connect with other people in your group and actually get discussions going.

In many instances, participants reported rooms that were unclean, dysfunctional, too small, poorly lit, garishly painted and distracting due to incessant interruptions and noise. The way participants felt sitting in lectures represented the emotive reaction they had with their environment. The function of a space clearly informed participants' feelings towards it.

In contrast, participants' relished user-friendly spaces that were comfortable, visually pleasing, spacious, supportive, social spaces that were conducive to study. Students reported the need to engage in social learning practices, which often required the ability to spread out in a study-friendly space. The need to consume food and drink was seen as an essential factor in such a space as the desire to use a space to interact with others in the learning process appeared paramount. Furthermore, some participants reported that high quality learning spaces exuded a subliminal message around expectations of teaching and learning.

Getting comfortable was strongly associated with an environment facilitative of a positive teaching and learning experience. Nevertheless, participants acknowledged that sub-optimal spaces were inevitable in a constrained environment and took a philosophical viewpoint that espoused an attitude of working with what you've got. Students and staff alike expressed that a positive learning experience was facilitated by their own resourcefulness.

In many respects, coping with limitations was central to the experience and fostered a resilient and oftentimes innovative spirit amongst disadvantaged students. Students reported struggling with poor technological and English literacy skills, isolation, unfamiliarity and limited peer support. These limitations hindered their ability to engage with the online environment; stymied their access to services; halted their student progress and distanced them from the rest of the student cohort.

> I think too what you find here though is because we are so remote and everyone's quite aware that what we use is limited, everyone is very accepting to just cope with whatever we have.

Despite the limitations of the environment, participants made clear differentiations between the spaces they deemed to be friendly and unfriendly to the learning process. Consistent across locations was participants' acknowledgement of the importance of the informal spaces outside the classrooms to the learning experience. These spaces varied from campus kitchens, to trees and outdoor tables, the learning commons and circulation spaces outside teaching rooms.

While getting comfortable was marked by coping with the constraints of a physical and virtual environment in the context of one's own limitations, it precipitated a progression towards meaningfully integrating with the university environment and getting connected with the learning spaces at hand.

Getting connected

Getting connected involved the implementation and use of support mechanisms within and separate to the university. Participants reported that the inadequacies of access, equity and comfort were overcome by creating a culture of helping. Numerous strategies were implemented to help overcome the limitations of context. In response to limited user-friendly spaces, students met in their homes, at public places, in online discussion forums or held sleep-overs to facilitate study sessions. In some instances student's circumvented shortfalls in the university's system by establishing a Facebook[®] forum to discuss their learning needs:

> …It's more effective for us than email because we're always on Facebook. Just finding important documents and things, somebody will already have found it and they'll put it on a link on Facebook, and we're just like, "Wicked!" you know?

The levels of support students afforded each other were acknowledged by academics who were pleased with their resourcefulness. Ultimately, creating a culture of helping not only supported students in their learning but also afforded them a collective and united voice to advocate for further resources aimed at enhancing their university experience.

Participants expressed gratitude at being able to receive same or next day correspondence from university staff as it made them feel connected with the university. This responsiveness was a central feature of improving communication that characterised the swift replies to student's inquiries and the support mechanisms for face-to-face and online learning modalities. At the remote campuses the on-site tutors were highly valued for their accessibility and versatility.

Through creating a culture of helping and improving communication, participants reported feeling a greater sense of connection with the learning process and the university environment. Although difficulties arose along the way, having been successful in getting access and getting comfortable, participants displayed an ability to transcend the limitations of context in getting connected to the university environment.

Conclusion and future directions

The university that is the setting for this study has determined that "[all] learning …will be increasingly enabled by online affordances and we need to engage robustly with blended learning designs that improve the student experience and build connections between staff and students and across student groups' (Division of Academic and Student Life, 2014). Traditionally the resourcing requirements and need to ensure competence in the development of psychomotor skills has seen pre-service nursing education largely confined to on-campus metropolitan universities. The nursing workforce in rural, regional and remote locations faces unique issues (Mills, Birks, & Hegney, 2010) that are compounded by actual and potential future shortfalls in workforce numbers (Health Workforce Australia, 2012). The need to grow the health workforce in rural, regional and remote areas has seen an increase in the number of students enrolled in blended learning programs outside of urban locations. The project described in this paper has particular significance to nursing education in these locations if blended learning is to reach its potential of being a reality that reflects the rhetoric (Rafferty, Munday, & Buchan, 2013).

The study began with the ambitious application of principles for on-campus learning space design to a regional university's complex, multi-campus, multi-modal (internal-external), dispersed learning environment. Findings from the initial phases of data collection highlighted a number of shortcomings in physical and technological infrastructure that impacted on the student learning experience. While there was limited scope in this project to make physical, structural and technological changes to the campus learning spaces, the project did provide insights into the potential for using active learning strategies and blended learning design to apply the resources available for the maximum benefit to the student learning experience in the studied environment.

Subsequent phases of this research will develop, describe and evaluate interventions that address the issues discussed in this paper. A legacy of the project will be *A guide to active learning and teaching in multi-campus and distributed learning environments* (under development at the time of writing). In addition it is already evident that beyond this single institution the outcomes of the COAL FACE project have the potential to provide principles, grounded in research, for creating connected communities in multi-campus, multi-modal, dispersed and dynamic environments for some time to come.

Acknowledgements

References

ANMAC. (2012). *Registered Nurse Accreditation Standards*. http://www.anmac.org.au/accreditation-standards

Birks, M., Cant, R., Al-Motlaq, M., & Rickards, A. (2011). Increasing the pool of students in rural locations: A satellite model of nurse education. *Australian Journal of Rural Health, 19*(2), 103-104.

Birks, M., & Mills, J. (2011). *Grounded Theory: A Practical Guide*: SAGE Publications.

Division of Academic and Student Life. (2014). *JCU Learning and Teaching Blueprint 2014 - 2016* (draft). Townsville: James Cook University.

Francis, K. (2012). Health and health practice in rural Australia: Where are we, where to from here? *Online Journal of Rural Nursing and Health Care, 5*(1), 28-36.

Health Workforce Australia. (2012). *Health Workforce 2025 – Doctors, Nurses and Midwives. 1.* https://www.hwa.gov.au/our-work/health-workforce-planning/health-workforce-2025-doctors-nurses-and-midwives

Mills, J., Birks, M., & Hegney, D. (2010). The status of rural nursing in Australia 12 years on. *Collegian, 17*(1), 30-37.

Rafferty, J., Munday, J., & Buchan, J. (2013). Ten rules of thumb in blended and flexible learning: A study on pedagogies, challenges and changing perspectives. In J. Willems, B. Tynan & R. James (Eds.), *Outlooks and opportunities in blended and distance learning* (pp. 35-49). Hershey PA: Information Science Reference.

Saldaña, J. (2012). *The coding manual for qualitative researchers*. London: SAGE.

Souter, K., Riddle, M., Sellers, W., & Keppell, M. (2011). *Spaces for knowledge generation.* www.skgproject.com

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