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The Conceived, the Perceived and the Lived: Issues with 21st Century Learning and Teaching

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A bespoke course design framework was implemented in an Australian university to help academics convert face-to-face courses to blended or online offerings in response to increasing demand for universities to offer 21st century learning environments. While the design framework was grounded in evidence-based approaches that exemplify quality delivery, these course designs have had variable reactions from students in their implementation. As such, a student dimension to the evaluation of the framework was added and the findings from the initial pilot are reported here. It has been found that students may not be as ready for 21st century learning and teaching practices as current rhetoric implies. This paper begins to formulate a theory to help resolve this through an exploration of ideas through the lens of Lefebvre's *production of space* (1991).

Keywords: Course Design, Student Expectations, Blended Learning, Higher Education

Introduction

Nationally and internationally universities are striving to attract and retain students through offering flexibility in study options as a response to the ever-increasing competitive environment. This idea of flexibility centres on the idea of study occurring at "any time, any place" allowing students to "balance" study with work and other life commitments. The increasing demand for flexibility in study options has seen a growth in online and blended learning offerings of courses (or units) within university programs. In the 21st century, one defined by rapidly advancing and ubiquitous digital technologies, it is now assumed that academics should be able to naturally incorporate these technologies into their teaching and learning practices (Koehler & Mishra, 2005). However, it has been found that the development of quality blended and online courses represents for many academics the need to not only acquire technical expertise but new pedagogical expertise (Caplan & Graham, 2004) as these learning models and frameworks have yet to be widely adopted by the academic community (Roby, Ashe, Singh, & Clark, 2012). Therefore the challenge facing many universities now, and in the future, is how to provide academics with the professional learning necessary to acquire these new skills so that the quality of course design is not adversely affected and rapid development can be achieved with little specialist support.

As blended and online learning designs proliferate the success of these learning environments rely more and more on students accepting responsibility for their role in the learning environment. Research has shown, unfortunately, that as course designs move towards a blended approach students equate less time on campus with less time on task (Vaughan, 2007). We have found a dissonance between student expectations of their learning experience and their demand for flexibility. These divergent student perceptions are problematic given that, in design terms, flexibility relies on a move to student-centred approaches that use technologies to facilitate successful learning.

"Designing Online Courses" Framework

In 2012-13, the professional learning module "Designing Online Courses" was developed to provide a just-in-time support resource that encompasses both the pedagogical and technological perspectives of the course design process as it is argued that the process of design is the best environment for academics to learn new pedagogies because it allows them to adapt ideas to their own contexts (Bennett, Thomas, Agostinho, Lockyer, Jones, & Harper, 2011). This module serves to support academics in the process of converting a face-to-face delivery mode to an online one by giving them a strong pedagogical perspective on the curriculum design process thereby enabling them to make appropriate technological decisions when implementing the design. While this was originally conceived to apply to online courses we have found that the design framework is equally useful to

those employing blended designs.

The first step in developing the module was to ground it in the theoretical frameworks that encompass quality online course design. The two frameworks selected were Community of Inquiry (COI) (Garrison, Anderson, & Archer, 2000), and Technological, Pedagogical, Content Knowledge (TPACK) (Mishra & Koehler, 2006) as they are well documented in educational research on quality online course design (Anderson, 2008; Garrison & Kanuka, 2004; Koehler & Mishra, 2005; Rubin, Fernandes, & Avgerinou, 2012; Wiesenmayer, Kupczynski, & Ice, 2008). It was also important that the content of the module was consumable for academics by providing practical examples that illustrate the theory in practice. This was a deliberate design choice as it has been acknowledged that academics generally do not have the time to take advantage of educational research (Price & Kirkwood, 2013) instead they rely on personal experiences or their conversations with colleagues (Dondi, Mancinelli, & Moretti, 2006; Macdonald & Poniatowska, 2011; Price & Kirkwood, 2013; Spratt, Weaver, Maskill, & Kish, 2003) to improve their practices.

The primary objective in the module development was to break down the design process that is required to build courses into achievable steps. As such we defined five distinct, but ultimately interlinked, areas to stage the framework: Getting Started, Curriculum Design, Interaction Design, Assessment Design and Site Design (Barac, Davies, Duffy, Aitkin, & Lodge, 2013). These stages are designed and articulated purposefully to help academics see how content, interactions, activities, sense of community, assessments and teacher presence work together to ensure quality and effectiveness in online courses (Finch & Jacobs, 2012; Roby et al., 2012). The framework would therefore produce courses that would provide students "the time to think deeply and not speed over enormous amounts of content" (Vaughan, Cleveland-Innes, & Garrison, 2014, p. 20).

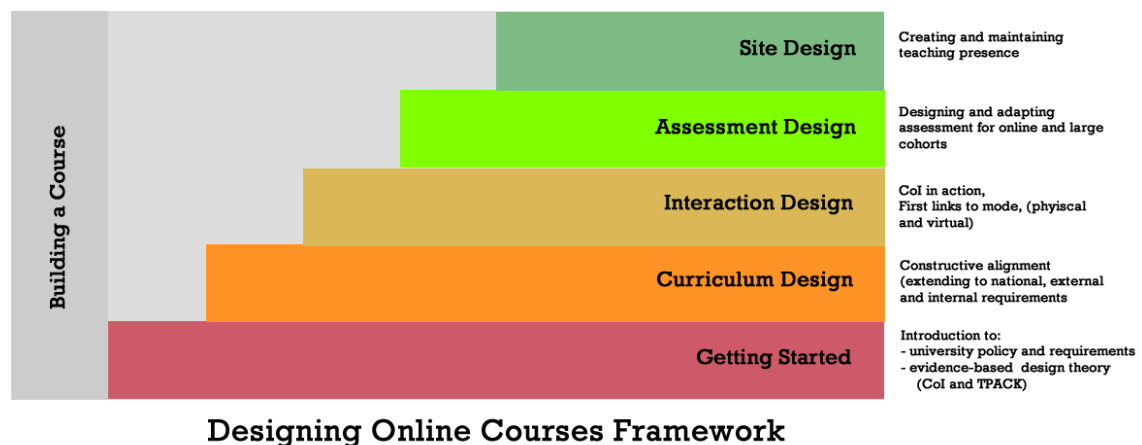Designing Online Courses Framework

Figure 1: Design Framework

Once the module was designed and the content developed it was initially tested and piloted with a number of small groups of academics and it has now been deployed within the large faculty group at an Australian university. In 2014 the first courses designed under this framework were released to students with varying results particularly in those courses employing a fully blended approach. One academic reported to the project team that even though during the semester students were responding favorably to the teaching directions (that the staff had been encouraged to employ to make the environment successful) they nevertheless exhibited very strong negative reactions in the University's end-of-course evaluation. It is for this reason that a student dimension was added to the evaluation plan for the module and framework that would evaluate the extent students were responding to the quality design factors employed in these courses in addition to the University's process.

Methodology

Amundsen and Wilson (2012) found in their meta-analysis that the evaluation of academic development activities in higher education is still a developing field. Perhaps, because it is still a developing field there appears to be some gaps in the current literature: firstly, there seems to be a

concentration of evaluations being centred on participant satisfaction with the activities (Pierson & Borthwick, 2010) rather than investigating the content or application of the activities on their academic practice after completion (Desimone, 2009) and secondly, many of the studies lack rigor of research design (Lawless & Pellegrino, 2007). Consequently, the module evaluation uses a design-based research methodology to address these concerns as this paradigm is increasingly gaining acceptance in evaluating "learning in context" (The Design-Based Research Collective, 2003, p. 5). As a methodology Design-Based Research aims to refine educational theory and practice (Collins, Joseph, & Bielaczyc, 2004) by studying learning designs in action to connect "intended and unintended outcomes" (The Design-Based Research Collective, 2003, p. 7).

As such the evaluation is multi-faceted and is being conducted as an iterative cycle of design, evaluation and re-design to align with this paradigm (Wang & Hannafin, 2005). It employs mixed-method approaches that involve both the academics participating in the professional learning module and the students that are enrolled in the courses that have been designed and delivered under the framework. The academic phase of the evaluation involves an online survey, an interview and an analysis of the comprehensive course plan that they complete as part of moving through the framework and module contents. The student phase involves a pre-course and mid-course online survey that largely consists of close-ended questions. The pre-course poll consists of four questions intended to gather students' study goals for the course. (This poll also serves as a teaching activity that helps orientate the students to their role in the learning environment and gives the teaching team information they can feed into learning activities.) The mid-course poll has seven questions that deal directly with the online and blended components of the course design. This paper describes the student phase of the evaluation.

Pilot Study

A pilot study was conducted with a large first year undergraduate Law course in semester one of 2015 to test the mid-course survey instrument that will be used to gather data on student expectations and experiences within all courses designed under this framework. The pilot course was designed as a blended learning offering that had significant online content (videos, readings and quizzes) to be completed before the weekly workshop while some on-campus lectures were retained at key points in the semester to check-in with students. An online survey was deployed within the Blackboard course site in the last four weeks of semester. The total number of respondents was 123 students, which represented a 24% response rate from that cohort. Simple descriptive analysis was used on the quantitative questions while the qualitative comments where coded and analysed for themes and frequency using NVIVO.

Findings

The quantitative questions resulted in 123 responses while the open-ended comments question yielded 63 comments for analysis. In Table 1, the quantitative questions range of scores is reported. The majority of student responses show that students seemed to be largely satisfied with most components of the course. But there was also an alarming level of neutrality when answering the questions related to the blended and online components of the course. The use of the weekly formative quizzes that allowed students to test their knowledge of the content received 76% in the *agree* and *strongly agree* range. This is in line with the literature on online course design, which encourages the use of formative checkpoints with instant feedback loops to keep students on track.

In an attempt to explore current students study goals in their courses the survey included a question on the number of hours a week they studied in the course. It was found that only 9% of respondents were studying 8-10 hours a week on this course. In fact, 68% of the students sat in the 3-8 hour range per week range, which is well below the university standard of 10 hours per week for a 10-credit point course (Griffith University, 2015). This is interesting, in light of the first result in Table 1 where the students reported high agreement on the guidance on their role in the course. A key component of this guidance was to embed messages on the study-time requirements of this course. This suggests that students may have a fundamental misunderstanding of the time commitment a university degree requires even when direct reference is made to the fact.

Table 1: Quantitative Results

Question	Agree – Strongly Agree	Neutral	Disagree – Strongly Disagree	Unanswered
There was clear guidance about my role as the learner, in the learning process in this course.	74%	16%	8%	2%
The blend of face-to-face and online learning and teaching is effective for my learning in this course.	50%	31%	18%	1%
The use of online technologies helps me learn in this course.	53%	28%	18%	1%
This course effectively uses online assessment (e.g. quizzes) to help me learn.	72%	16%	10%	2%
This course engages me in learning.	62%	25%	13%	-
There was clear guidance about the role of the L@G site for learning in this course.	74%	16%	8%	2%
The teaching team members effectively communicate and connect with students.	76%	16%	8%	-

Analysis of the quantitative questions in comparison to the short answer comments reveals that students may hold conflicting ideas about the nature of learning and teaching in higher education. It was found that while 62% of respondents agreed or strongly agreed that *the blend of face-to-face and online learning is effective for learning in this course*, the qualitative comments contained more references to traditional forms of learning than those about flexibility or the blend of the learning environment. In fact, of the 63 comments supplied by the respondents there were 35 mentions of lectures, with nearly all centered on their reinstatement: -

> *"I think I would have preferred to have a lecture every week, because I like the traditional mode of learning – i.e. face-to-face."*

> *"I really enjoyed the workshops each week, but would have preferred a weekly lecture too!"*

> *"I believe that more lectures would have assisted my learning Maybe have lectures once a fortnight"*

In fact one student even went as far to request the reintroduction of *"weekly lectures & do away with the online video* [even if it was to] *show the videos during weekly lectures so students can gain a grip on the material"*. While the students were largely calling for the return of the traditional model there were some positive comments around the nature of blended learning and in particular where they felt it was better suited in the program structure. It was felt that the "*independent learning structure … would be better suited for integration in second or third years*." This is something for universities and program design teams to take note of, as it suggests that blended learning can be well received if the students are properly scaffolded through the experience by gradually implementing these strategies.

Following with the theme of lectures it was also extremely interesting to find that the mention of lectures was rarely connected to the online videos or vice versa. Comments such as the following show a disconnect between the ideas of "lecture", "content" and "teaching" in today's students: -

> *"As a foundational subject, I think it is a wrong decision to only have sporadic lectures when this subject should be laying a solid, in depth foundation of law"*

"I just felt like we skimmed over topics because of the lack of lectures."

"I would like to see more lectures as i [sic] *feel the workshops were not enough. I didn't like the workshops or the online videos. I often thought the workshops were ineffective. I would prefer a lecture every week where the content and information taught was clear."*

This failure to connect the online videos and activities with "lecture" material, (or even teacher presence), is particularly concerning and could severely limit the successful implementation of blended learning with today's students.

Discussion

In an effort to explain this dissonance between the academic-driven ideas of "quality" 21st century learning and the reality of current student expectations let us explore Lefebvre ideas of space – space as a construct of the conceived, perceived and lived (Lefebvre, 1991). These ideas were first posed in terms of urban design but have been appropriated by educational researchers as conceptual tools (Middleton, 2014) it appears that this paper is one of the first to apply Lefebvre's model as a concept to help explain the issues surrounding the application of technology-enabled pedagogies in higher education.

Lefebvre expanded the idea of space from its geometric definition as an 'empty area" to that of a mental construct linked to the physical. This model of space is one into which we bring our own ideas; or others define the meaning for us; or is a reality that we construct by participating together as members of a society. In particular he sought to code and explain the "interaction between 'subjects' and their space and surroundings" (Lefebvre, 1991, pp. 17-18). He saw this as being an interaction of the *conceived* space, *perceived* space and the *lived* space or the theoretical, the mental and the social. Specifically, the conceived space is the mental and abstract enclosures constructed by "professionals and technocrats" (Middleton, 2014, p. 11).

In our context of learning and teaching space, our subjects are the academics and students, where academics operate and control the conceived realm through their course designs and delivery. The perceived realm incorporates the pre-conceptions and expectations the different subjects have within the environment and the lived is the reality of the subjects operating within that space. Ideally, the three are interconnected states that allow subjects to move from one to the other without confusion. The three domains are seen to constitute a whole "when a common language, a consensus and a code can be established" (Lefebvre, 1991, p. 40). Figure 2 attempts to conceptualise the different pathways (positive and negative) that subjects can take through these realms and where breakdowns might happen.
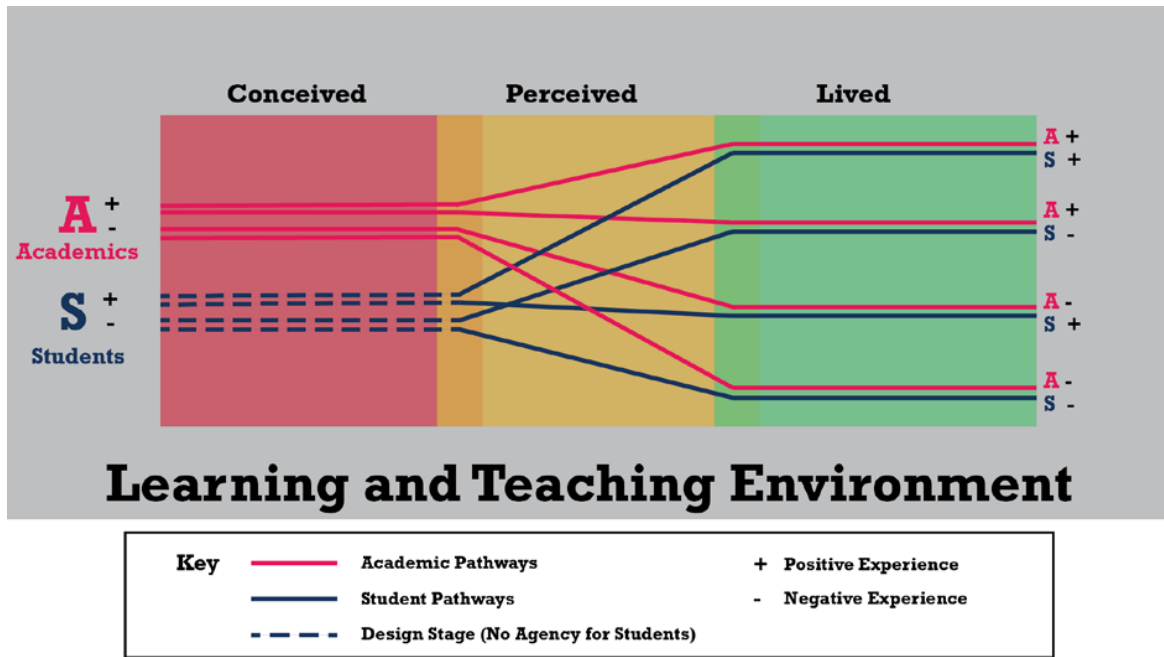
Figure 2: Conceptualising Academic and Student Paths through Lefebvre's Realms

Optimally both academic and student pathways will be positive if there is a shared understanding between the conceived and the perceived. However, from our current exploration of the data we can see that academics and students are not in this state of the interconnected whole within the learning and teaching environment. It would seem a schism could occur when the pathways cross the conceived into the perceived that can result in a negative experience for the students where academics believe positive outcomes should be occurring. In particular, at this point in time it does not seem that academics and students share a common language or consensus in what the optimum learning environment should be.

Future Directions

Based on this analysis and exploration through Lefebvre's lens it would seem more work is needed to close the gap between the conceived and the perceived for academics and students in 21st century learning and teaching spaces. We need to foster a common understanding through language, symbols and signs. One such way we believe we can help foster this is through the incorporation of infographics into our course designs that help to break down student (and academic) preconceptions of the higher education learning environment and orientate them to the new design frameworks. These infographics will serve to highlight student and staff responsibilities in the learning and teaching space and to raise the awareness of how contact and independent study has been transformed from the traditional lecture/tutorial model. The following image is a prototype we are developing to help orientate students to the nature of teacher-student contact in a blended learning space and that the online content (i.e. videos) is in fact a form of teacher presence.
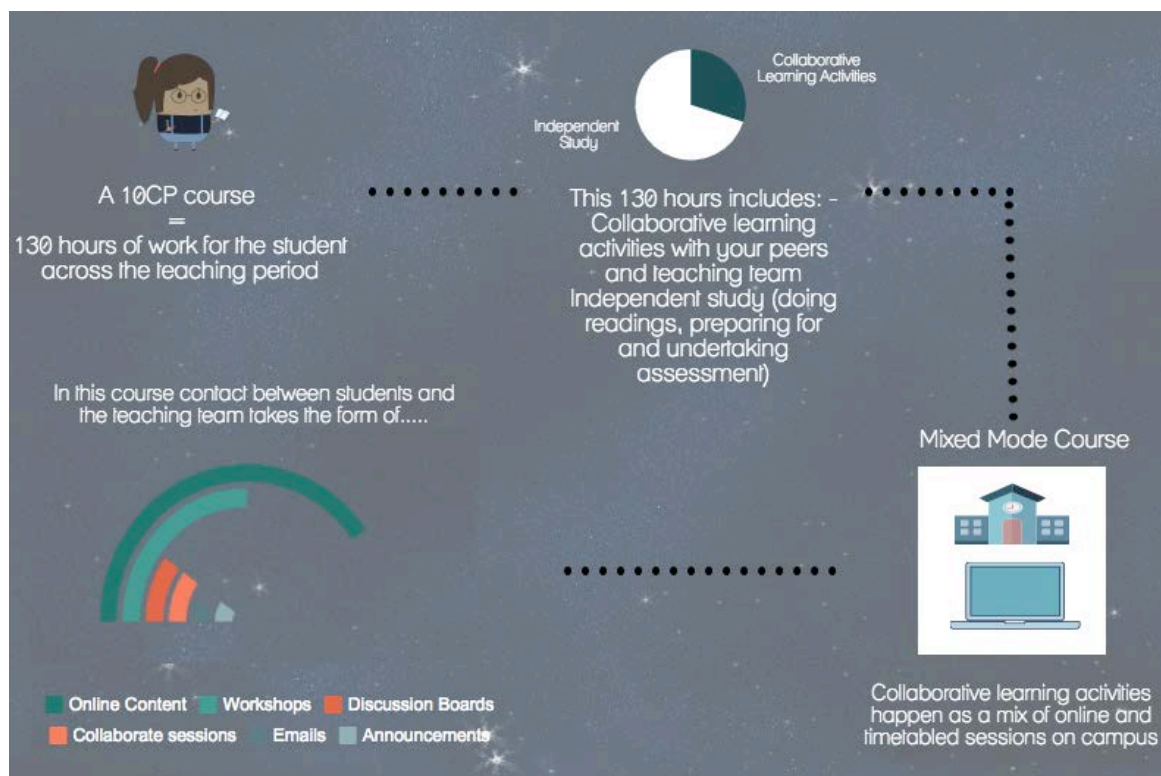
Figure 3: Student Infographic Prototype (Student-Teacher Contact in a Blended Learning Course)

There are currently 89 academics actively using the "Designing Online Courses" framework as a professional development activity. There are currently 19 courses that are specifically being designed under this framework with our specific guidance (and evaluation procedures) that will be implementing these infographics for 2016. Data collection will continue within these courses to provide more data to validate these ideas. Excitingly, the university will be implementing a learning analytics system in 2016 that we have identified as an opportunity to explore the lived experience of the course sites that may provide additional context to university student experience surveys.

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