On-campus or online: Learning resources and communities of practice make the difference

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Abstract
This paper outlines a pedagogical approach to course learning materials for students who attend tutorials on-campus and online. Reflecting upon these two modes of study, it describes a model developed for the Bachelor of Communication course at Western Sydney University. This approach sought to develop efficacy in academic staff by providing clear guidelines for engagement in learning, comprehensive and consistent pre-recorded lecture materials and virtual tutorial support. By developing the potential of virtual and in-classroom experiences this integrated design fosters shared ‘communities of practice’ for teaching staff as much as students.

Keywords
e-learning; andragogic; constructivist; communities of practice; efficacy; capacity building

Introduction
The difference between tutorials that are campus-based and those that take place as virtual meetings in online learning forums, lies in the types of community interaction and different kinds of learning they foster. Implemented by the Blended Learning Team (BLT) at Western Sydney University over the course of three years, the learning design approach described in this paper was used across diverse subjects, altering approaches to online material and uniting staff communities of learning. What took place as a result of this re-design process, which adapted online teaching materials, reveals the importance of collaboration and provides insights that contribute to strategies of best practice in online teaching and learning. These outcomes reflect some of the negotiations and operational approaches involved in building positive and productive communities of practice (Wenger 2004).

This course model was developed from 2013 onwards, in response to the strategic policy of Western Sydney University, aiming to develop flexible learning models. The Bachelor of Communication was the first course to adopt a hybrid model, where students could opt on a subject-by-subject basis to study either face-to-face or online. The degree offers the same content regardless of whether students are on-campus or online and it was necessary to implement hybrid digital learning materials that could be used by both strands. This led to a capacity-building program for academic staff that transformed the delivery of learning and teaching online.

Taking into account the fact that individual units and teaching styles across the University vary in their delivery, this project developed online virtual tutorials underpinned by ‘in-common’ rules of engagement for staff and students that were clear, accessible and established by structured digital learning materials. Regular online tutor support meetings allowed teaching staff to share practices and have been vital in the development of the project. The work done by academic staff to pre-prepare
The development of learning materials was achieved by using information on the most effective design principles for content display on a range of digital devices. A key feature has been the development of ‘lecture pods’ – short 7 to 12 minute segments that divide up lectures into smaller topics, linked to online resources and weekly activities that inform assessment. Other supporting materials included e-Workbooks, modularised weekly content on digital learning sites and closed social media networks. These virtual learning materials encouraged the development of communities of practice through shared group work – in breakout chat rooms and online discussion sites – with the added plus that these forums encouraged pre-class preparation.

As Yang and Cornelius observe, changes in the pedagogical approach to ‘constructivist’ and ‘andragogic’ learning models, like those brought in at Western Sydney, tend to alter the dynamic between teacher and student (2005, p.5). The communities of practice project developed dual approaches that integrated these models in response to the challenges created by this shift. The andragogical approach fosters relationships and reflective, engaged learning through real world problems and prompt formative feedback to support self-directed learning. The constructivist approach emphasizes scaffolding of learning and collaboration between students. Instructional design emphasizes clarity and consistency, delivered in flexible ways and expectations are clearly defined, facilitating the student’s progress through the materials, supported by appropriate technology including multimedia and online tools. Many forms of collaboration synthesise these aspects across the development of learning materials and reflection on learning activities. This is important online, where learning is self-directed and self-motivated, which in turn requires peer support. The combination of andragogic and constructivist approaches encourages students to apply and test learning through ‘real world’ interactions as part of a broader social learning environment that includes other students and staff. Habib, Miles and Pawsey (2016) argue that a combined focus on constructivist and andragogic methods in online learning enables the role of the teacher and the role of the student to be understood differently from traditional didactic and Socratic approaches often favoured in higher education. Collaborative learning is more likely to be exploratory, dialogical and socially interactive and to capitalise on knowledge networks. This combined student-centred approach builds experiential learning through student engagement with an innovative teaching and learning platform, meeting the learning outcomes of varied individual subjects, as well as course-wide graduate attributes. The model we are proposing also takes account of a variety of anxiety-related issues that have come to light as a result of the team-based collaboration of staff in building this innovative model.

**Capacity building for faculty staff**

The importance of building the capacity of academic staff – enabling them to develop a sense of efficacy in new digital learning environments – is stressed in a number of writings on digital resources, including Johnson *et al* (2015), Wilson (2007) and Williams *et al* (2011). In other projects the primary influence has been a framework developed by Wilson (2007), outlining three key methods of maximizing the potential of e-learning resources. These are to:

- communicate the academic advantages of innovation in T&L;
- demonstrate the compatibility of innovation with current practices;
- assist academic staff to acquire technical mastery and understanding of pedagogy.

(Wilson, 2007, p 132)

Within this framework, academic staff share the outcomes of scholarship by using best practice techniques designed to facilitate online delivery. Academic staff more accustomed to lectures and tutorial-based modes of delivery, need time to reflect and reconsider their pedagogical practices. As Redmond has pointed out, this requires consideration beyond finding technological means that
replicate the approaches of traditional face-to-face delivery (2011, p.1058). By bringing together both academic staff and a dedicated blended learning team (BLT), new opportunities emerged for discussion and innovative engagements with technology and communication as part of this collaborative process.

In this context of reflexive staff adaptation, provisions for teaching relief allow tutors and staff time and opportunity away from the classroom to reflect upon the differences between face-to-face and e-learning. This reflection highlights the scholarly nature of developing digital resources, altering how content is delivered, requiring insights that can only be provided by technical or curriculum advisors deeply immersed in the discipline. To gain the required skills and understanding, academics need the opportunity to innovate and fail, which takes time. As this can be a steep learning curve that is slow to start, at Western Sydney we allowed staff time away from the classroom and asked them to present their work in school forums, in order to encourage them to articulate and reflect on the success of the online materials that were created for their units. This ‘stepping through’ enabled yet more staff to develop online strategies for individual units; demonstration and discussion proved to be the best way to enable academics to understand the different pedagogy required for online learning, aligning with best practice as articulated by Redmond (2011).

**Online learning design as collaboration**

Our development of dual stream content for the Communication course initially aimed to facilitate a highly collaborative engagement with staff learning. Academics tend to be more engaged when they drive the organisation of online content, with the required technical support to realise their ideas. The project assembled a team of academic and blended learning staff who discussed uses of technology and explored options for the design of effective templates for online sites.

During the early stages of research we realised that a model for progressive learning activities was needed, in order to establish a common language. This was needed to enable discussion of the design of the virtual sites and assist academics in rethinking their approach when delivering content by transmission. Ellis and Goodyear’s model (2010) focuses on students’ responses to online learning and teaching, offering insight into curriculum development. Another example by Salmon (2013) presents a taxonomy of learning activities for online delivery with linked learning stages. A key starting point in the process involved adapting Salmon’s model to look at how unit content could be more fully adapted, developed and structured for online delivery (Figure 1).
Each staff member was asked to draft a series of linked activities that aligned with Salmon’s stages of online learning. This provided a focus for staff to conduct their own virtual collaborations in an online discussion forum – a way of simulating the online learning experience we sought to create. In response to Salmon’s model, which posits a process of learning development, staff discussions revealed the overall importance of a constructivist approach in designing a student-centred, two-strand curriculum involving face-to-face and online teaching. The same content needed to be delivered concurrently to both cohorts via the same portal, Blackboard, similar materials that would also accommodate separate learning processes. In order to address this difference and clarify the similarities and differences between the two parallel streams, we developed a new model (Figure 2), laying out these similarities and differences across the scope of the learning design.

Figure 1: Alternative model for online learning, based on Salmon’s ‘five-stage model of teaching and learning online’ (Salmon, 2013, p46).
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Figure 2: Alignment of content platforms for face-to-face and fully online.

‘Resources’, ‘Activities’ and ‘Links’ remain the same for both delivery modes, but key differences are located in ‘Interactions’ and ‘Community’. The alignment of face-to-face and virtual tutorials in ‘Interactions’ and the social media activities shared by campus and online students in ‘Community’...
offer a framework for thinking through consistency in both fields of learning. Whilst the ‘Interactions’ can be seen as comparing alternative modes of tutorial delivery (face-to-face or online), the inclusion of a ‘Community’ platform highlights the importance of drawing on existing social and communication networks that may be available on campus, or alternatively, created as closed or open social media sites for specific units of study. These activities play an important role in the creation of communities of practice for students studying both on campus, and online.

The construction of ‘presence’ within this learning design is a key aspect of the framework for self-directed learning that emerged. By separating out components of the design system and making a comparison with the face-to-face mode, our staff created content for both cohorts that took into account a variety of spaces, types of interaction and community engagement with resources, activities and links (provided through the content portal, Blackboard). Following on from Lehman’s description of presence – as being distributed across the spectrum of a learning design context – the design encompasses a holistic, andragogic experiential learning that engages the learner on multiple levels.

Presence in the online environment, which also includes the social, psychological, and emotional aspects of our perceptual process, is the result of the dynamic interplay of thought, emotion, and behavior; between the private world and the shared world; and is rooted in the interactive perceptual process […]. To design an online course with a sense of presence, it is important to consider four types of experience: subjective (a feeling of personal and psychological presence in our mind), objective (a psychological and physical feeling of being in another location), social (a sense of existing with others in the online environment), and environmental (the capability of having technical access and feeling integral to the online environment). These types of experience affect learning based on the course content and modes of presence.

(Lehman, 2010, p.2)

Staff addressed processes of efficacy in learning through linked activities (Salmon’s model). At the same time, they considered the necessity to embed presence across the design, as it needed to be reflected in all aspects – Resources, Activities, Interactions, Links, Community – and involve a ‘dynamic interplay’ of ‘thought, emotion and behaviour’ that utilised Lehman’s four types of experience.

We understood the importance of designing online resources that would be engaging, based upon research into best practice information design. Human connection and knowledge needed to be transmitted meaningfully through the scaffold of a learning management system, Blackboard, and developed ‘lecture pods’ that reworked longer form lectures into short thematically or conceptually linked videos. Our aim was to design inbuilt efficiencies and to streamline sustainable production of quality video materials by devising a system that was accessible for all staff, with clear rules and guidelines on the quality of video capture and presentation, in audience friendly formats.

We assembled a dedicated technical support team, comprising a Subject Matter Expert (SME), an information designer, a programmer and a videographer, to assist with the production of these and other learning objects, such as interactive maps or games. The technical team developed a series of templates and tools for a full range of lecture pods with step-by-step instructions. They set up a small dedicated studio in an empty academic office in order to provide consistent formats – to-camera presentation, fixed recording equipment, lighting, background, autocue, associated software and a green screen that meant a range of backgrounds could be added during editing. Other staff generated tools that were used across the project by staff and the BLT team include:
• using ScreenFlow video software;
• making lecture pod videos;
• Group Manager – an iPad app;
• a Marking Template Generator;
• PowerPoint templates for lecture pods;
• SUNSET tool instructional video;
• iPad assessment workflow videos;
• standardised presentation for BlackBoard sites;
• iPad assessment workflow videos.

As most academic staff are experienced presenters, many were able to address the camera confidently with limited practice. However, to ensure line of sight, lighting, framing and appropriate background it was more time efficient to have a camera operator, which was likewise the case with post-production and a professional editor. Staff were required to attend recording sessions with pre-prepared scripts and PowerPoint slides. The pods have design consistency that foregrounds the presenter within the screen space to engage the viewer through direct eye contact and address. Importantly, the design of these video materials needed to be accessible on a variety of media and digital devices in order to maintain presenter presence, ensuring consistent engagement that enables students to feel connected in a virtual environment, maintaining Lehman’s four types of experience: subjective, objective, social and environmental.

Feedback – face-to-face / online
Staff discussions repeatedly return to the importance of students having access to high quality constructive resources. As the experience of virtual tutorial teaching is one of co-learning that provides just-in-time support and encourages class interaction and discussion, staff are particularly concerned about managing students who do not attend online tutorials. These students appear to work in a self-directed way by accessing the materials provided and viewing recordings of the online tutorials, however, it is difficult to discern between those who do not regularly attend tutorials yet still achieve excellent results and others who are struggling and would benefit from more regular contact with peers and tutors.

Engaging students in conversation in the online space poses more challenges than the face-to-face context and I have realised that some tried and true techniques in face-to-face contexts, such as group work activities, do not translate as easily to the online context. As a result I have been trying different strategies online, and these include the use of shared documents for student collaboration in real time; allowing small ‘bursts’ of time for students to complete individual research; and more focused individual question and answer sessions.

(staff feedback 3, Sheridan Burns and Shumack, 2017).

There is anxiety amongst tutors about maintaining a didactic approach – that students need to be educated, not left to their own devices with materials. As tutor functions become more complex, shifting away from face-to-face towards facilitation of students’ online interactions, the ‘virtual tutor’ is an increasingly dispersed, performative role. This shifting role is a cause of anxiety and concern for some academic staff, who need to renegotiate many of their existing teaching delivery approaches and expectations, which can present as challenging and stressful. Some students are able to achieve good grades without regular personal contact with the tutor, but rather, as a virtual scaffolded learning experience supported by online and asynchronous communication. The role of the tutor as facilitator, and virtual presence in the learning pod materials, is distinctly different to a regular synchronous interaction between tutor and student.
Evidence of this phenomenon was explored through an analysis of the final grades for four of the units, which each offered dual campus-based and fully online modes of study is shown in Figure 3 below.

<table>
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<tr>
<th>Autumn Delivery</th>
<th>2015 Total cohort</th>
<th>2015 Total cohort</th>
<th>2015 Total cohort</th>
<th>2015 Fully Online</th>
<th>2015 Fully Online</th>
<th>2015 Fully Online</th>
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<td>D+</td>
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<td>25%</td>
<td>22%</td>
<td>33%</td>
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<tr>
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<td>33%</td>
<td>19%</td>
<td>28%</td>
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<td>15%</td>
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<td>21%</td>
<td>28%</td>
<td>85%</td>
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Figure 3: Bachelor Communication – grades/results, 2013, 2014 and 2015.

The Fail grade rate is marginally higher across all four units for the cohort who studied fully online, yet there is also a significant difference in higher grades. Online-only students in all four units achieved substantially more Distinction and Credit grades than students who were campus-based. At the same time, attendance figures for these same units show that only around a third of the fully online cohort attend tutorials regularly. This demonstrates that the materials, the recorded lecture pods and the additional forms of online community and shared peer learning, enabled many students to achieve good results independently, without attending the online tutorial.

Analysis of data on student access to the Blackboard sites that are offered to both campus-based and fully online modes is revealing (see Figure 4).

Figure 4: Average accesses per student to the online units (all faculty units).

When compared with the standard campus-based offering – fewer lecture pods or video materials and less variety of blended online resources – the figures indicate that there was a substantial increase in student interactions with units of study that are fully online, but these interaction figures also include campus-based students who have access to the same materials. This student feedback reveals that
digital resources helped them to adapt to the online context of virtual learning. These online resources and materials provide a space for learning that is clearly defined in terms of expectation about how the learning will take place as well as what is expected from them. This highlights the potential for online resources to provide students with reliable and consistent support that can be harnessed for both face-to-face and online modes.

For staff, the process of scripting and pre-recording their lectures and dividing them into smaller lecture pod segments significantly reduced the performance anxiety of delivering lectures in real time. Whilst there may be a loss of spontaneity in the pre-recorded nature of the lectures, there has been a significant increase in viewings by students on-campus and on-line. This behaviour is interesting in light of the additional increase in pre-recorded student presentations, which are then uploaded and viewed as part of the virtual tutorials, by turns minimising student anxiety about potential technology mishaps, particularly when presentations are assessed.

**Communities of practice**

For the transition to online learning to be effective, academics and teaching staff need to be prepared to implement a new curriculum, but they must also be able to do so with a strong sense of efficacy – with confidence in their ability to perform a particular activity. Efficacy is the key factor in human agency, perseverance and resilience and an individual with a strong sense of efficacy faces challenges and recovers quickly from failure, meaning their level of anxiety is reduced and sense of personal accomplishment is enhanced (Bandura, 1997, p.2-3). Literature on self-efficacy in online learning and teaching tends to focus on the technical aspects of delivering online learning (Alqurashi, 2016). Our approach revealed that engagement tools and practices such as interaction, collaboration and peer assisted learning are just as important. Central to this was the development of a community of practice around the shared experience of making online content. Four key factors define this community:

- collaborations between academic and blended learning teams;
- regular online tutor support meetings for sharing teaching practice;
- in-common clear and accessible rules of engagement for both staff and students;
- communities of practice, through peer learning and group work in breakout chat rooms.

Throughout this project, regular collaborative development meetings provided opportunities for staff to share successes and failures in delivering these new-format online materials, creating a common teaching experience through regular contact and experimentation in a supportive environment, which increased their sense of efficacy and confidence in providing a consistency of design that allowed both academic and BLT staff to customise content and increase their sense of agency, their ability and effectiveness in the design and delivery of high quality learning experiences for both face-to-face and online students.

Data analytics on how lecture pods were viewed across units is varied, but overall reveals high viewing numbers. Students tended to combine lecture pod viewing with online activities, discussion forums and weekly meetings – similar to those used by staff in developing the content itself.

I found that the online only lectures were a very effective resource for my learning. As they were online, I could pause and play as I wished, allowing me to copy down the notes and process what I’d just heard and also rewind back to a point I needed to hear again.

(student feedback 1, Burns and Schumack, 2017).
The online delivery of my first unit has enabled me to transfer my own skills of adaptability; an attribute that I nurture in my students and value as an asset in the dynamic and ever shifting communications environment. I have had to rethink my approach to teaching and literally develop and enhance my skills to match up with the changing learning habits of students. In the process I have questioned the relevance of the hour-long lectures and the two-hour tutorial models that I was using in face-to-face mode.

(staff feedback 1, Sheridan Burns and Shumack, 2017).

For each unit of study the Blackboard templates had consistent features with some variations, such as weekly or modular content areas. We developed and reviewed them according to effectiveness, designing them with the perspective of the student in mind, using careful language and visual elements to signpost tasks. This involved rephrasing pedagogical terminology into plain and colloquial English, focusing on the relevance of given tasks and using simple phrases rather than academic words, especially when describing how tasks linked to assessment.

The tutor answered any questions we had from the lecture pods. I was able to engage in a critical conversation with my peers. Assessments were explained in detail, tutor provided extra support where it was required. I am able to broaden my understanding of writing.

(student feedback 2, Sheridan Burns and Shumack, 2017).

Prompts were embedded within the narrative of the Blackboard sites, to break down daunting or overwhelming tasks. The use of prepared activities – what Salmon calls ‘e-tivities’ (2013, p.93) – was another key focus, to encourage students to come virtual tutorials prepared, meaning they are more readily engaged.

Another tactic designed to create further engagement online is increasing student’s preparatory work before the class. This is an attempt to allow the students as much time as possible to prepare for the class and prevent them feeling ‘on the spot’ when discussing the topics online.

(staff feedback 2, Sheridan Burns and Shumack, 2017).

Our discussions also explored ‘break-out’ rooms for small groups, in which the tutor could set up a space and send students there during the online tutorial, before finally bringing them back to the same, shared screen. This approach to virtual meetings simulates a face-to-face tutorial, but in practice the dynamics at play in an online context are technically complex and technology dependent.

As the project has developed, more academic staff have become involved, creating a new community of teaching practice. Staff are able to draw on the pre-established design templates and expertise now embedded within the faculty as well as templates and technical support. As this content is available to campus-based students as well as those who study ‘fully online’, staff have noted that it has impacted face-to-face tutorials, which refer to online materials to orient students. These varied uses have generated valuable discourses about the role of the tutor as facilitator and peer learning strategies.

Conclusion

Feedback from both students who attended their course on-campus and those who studied on-line demonstrates the importance of connecting groups, this occurs through learning and engagement with the tutor as well as with well designed and delivered course materials. By developing the dual potential of virtual and in-classroom experiences, the integrated approach to classroom and virtual tutorials described here fostered shared communities of practice and learning amongst teaching staff as well as students. As we have described above, the building of communities of practice for staff through working together in developing online materials is a critical component of managing anxiety.
and expectations about online teaching and learning. Similarly, creating consistent and reliable platforms and resources for students provides them with added value in their learning, as they also develop communities of practice through their studies, both on campus and online.

The learning design features developed during this three year project provided clear guidelines for taking part in virtual tutorials, short instructional videos about using technology and making consistent ‘lecture pods’ and related materials. Through collaborative staff team meetings, both face-to-face and online, we planned online courses and created our own consistent model that aimed to generate presence across communication channels. Each unit of study integrated a holistic set of linked resources where weekly lecture pods informed tutorial themes and learning activities, linked to assessment tasks.

The success of the project to date, based on the analysis of available data and qualitative feedback from staff and students demonstrates the importance of quality planning and consistency in learning design. Ongoing and long-term collaborations between academic staff, the Blended Learning Team and between students in the virtual classroom, minimises staff and student anxiety in virtual learning contexts, namely anxiety about the technologies as well as their own abilities to perform in these unfamiliar settings. As this project continues to develop and foster tutor reflection, parallel data evaluations of student access to online materials continues to inform understanding about what materials work best in specific content areas. The staff collaboration fostered by this transition continues to be highly productive. It provides a space for academic staff to explore anxieties relating to the complexities of transitioning to online delivery, where they can reflect upon how they are engaged in a process of lifelong learning.

References


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Biographies

Lynette Sheridan Burns is Professor of Journalism and Deputy Dean of the School of Humanities and Communication Arts at Western Sydney University. In recent years she led a project to introduce online and blended learning in a range of disciplines across the School. This work has led to number of conference presentations and publications investigating ways to build academic capacity to take on new pedagogical approaches and methods of working. Prior to this work, Lynette has extensive experience in curriculum design and evaluation and the professional development of staff to respond to changing circumstances in the fields of media and communication.

Kaye Shumack is an Adjunct Professor of Design in the School of Humanities and Communication Arts at Western Sydney University. Her research focuses on design thinking and strategic implementation of complexity through development of communication systems and communities. This expertise has been recognised internationally in publications, and has been continuously applied to educational and governance settings and roles. As Director of Program, Communication, she was successful in building innovative cross campus teams and curriculum for both undergraduate and postgraduate programs. She led the design and operationalisation of the fully online hybrid B Communication that has since been adopted by others within the University. This innovative model received a team excellence award for learning and teaching in 2015.