# A Pedagogical Continuum: The Journey from Face-to-Face to Online Teaching

## Abstract

Higher education has embraced innovative ways of using technology to enhance learning, and online environments in particular, as a way to increase efficiencies, open educational opportunities for students irrespective of location, and to increase flexibility of learning and teaching. This chapter will describe the journey of two academics as they journey along the pedagogical continuum from teaching fully face-to-face to blended, and then, on fully online environments.  The experiences and perspectives of the teacher educators will be shared.

Data from interviews, course materials and online discussions were analysed to identify the issues and practices of the academics.  Findings present the staged progression of the academics in dealing with pedagogical, social, managerial, and technical aspects of moving their teaching online. The instructors in this study had a strong desire to enhance their teaching and student learning through innovation and reflective practice. As part of this research and through reflective practice they explored a range of innovative pedagogical practices. The teaching presence and beliefs of the instructors changed over the four years as they moved along the pedagogical continuum from face-to-face to online teaching.

## Introduction

As the number of blended and online courses rapidly increases it is essential that we have an understanding of the roles and activities that make up the work of an online instructor. The move towards web-enhanced or online learning offers new opportunities, but also new challenges for both instructors and students (Downing & Dyment, 2013). There is a need for knowledge of how to work effectively online and effective preparation of high quality

instructors is of fundamental importance to meet the diverse needs of learners. This is particularly important in the field of teacher education where the instructor is modelling appropriate pedagogical practices that may in turn be picked up by the pre-service teachers as part of their practices when teaching with technology.

A lack of instructor readiness to move from face-to-face teaching to online teaching results in instructors trying to replicate face-to-face teaching online and not capitalizing on the online setting (Bonk & Dennen, 2003; Oliver, 2001; Palloff & Pratt, 2013). Instructors often hesitate to use new technologies for learning and teaching, as they have limited technology competency, confidence and currency for both personal and professional use. Most instructors have not studied online and have an incomplete view of what it is like to learn online. When instructors begin to innovate they try new ways of thinking and acting. These new ways or innovations may not be new to the field but are new to the instructor.

This chapter will share innovative practices of two instructors as they journey from teaching in the face-to-face environment, to a blended environment and finally to teaching fully online over a four year period. It will describe their perspectives and practices as they reflected on their new approaches to teaching and the resulting student learning. As part of the research the instructors re-evaluated their values, beliefs and assumptions about teaching and learning in general but with particular reference to teaching online.

## Technology, teaching and learning

Technology has been used to enhance learning in all education sectors and environments. One might see technology enabled learning as a continua starting with traditional face-to-face teaching and finishing with fully online teaching. The pedagogical possibilities in the field of technology and teaching and learning are endless. In their research exploring online

education in the United States, Allen and Seaman (2013) used four different classifications to discuss the impact of technology on learning.

1. Face-to-face teaching where the discussions and content are only available during classes and no technology is used.

2. Technology enhanced or web facilitated face-to-face teaching and learning where Information Communication Technology (ICT) is used within face-to-face classes or the web might be used to post written information also provided in the face-to-face class.

3. Blended teaching where online and face-to-face combine together to deliver a course. Allen and Seaman (2013) suggested that between 30 and 79% of the content is available online along with some supporting online discussion.

4. Online teaching occurs when for the most part the content is available online as are the discussions.

Allen and Seaman (2013) recommended that an online course is one where 80% or more of the course is delivered online.  The other 20% may include some phone or face-to-face contact to support learning. Online instructors face novel challenges when designing and facilitating online courses while responding to the diverse needs of their students and encouraging online interaction. Successful online instructors are: flexible; open to learn from others (including their students); prepared to share control with the students; and willing to collaborate (Palloff & Pratt, 2003).

Many instructors find the shift in pedagogical practices confronting, especially if they move from a face-to-face environment which is largely teacher directed and are required to redesign their course for a blended or online environment with a more constructivist approach. Sockman and Sharma (2008) suggested there are five key lessons that instructors should consider when redesigning courses for transformative teaching and learning: "it is

easier to tell than to listen; modelling needs to go beyond a monologue; be humble and learn from the students; there are more ways to the same end; and grading the end product or acknowledging the risk" (p. 1070).

The expanded range of pedagogical possibilities and realities as instructors move to teaching online frequently results in ecoshock. That is, "[i]ndividuals who are looking to use emerging communication technologies (in teaching and learning) suffer similar difficulties and challenges as those who travel physically to different cultures" (San Jose & Kelleher, 2009, p. 471). The ecoshock concept encompasses the difficulties and challenges that learners and instructors feel both physically and virtually when moving from face-to-face to online teaching and learning environments. San Jose and Kelleher (2009) revealed that participants are likely to feel frustration, anxiety, withdrawal, nervousness and fatigue when trying to work in the new environment. This results in high stress and low motivation as they are overwhelmed by the changed learning ecology and a strong desire to return to what is familiar.  The resistance to online teaching is a natural result of ecoshock where instructors (and students) have yet to establish a comfortable way of working within the new environment.

## Instructor Role

The concept of ecoshock suggests that contemporary teaching approaches where education is transformed through the use of technology and the resulting changes in the role of educators do not align with instructor expectations of effective learning and teaching opportunities.  In the move to online teaching McQuiggan (2007) explained that instructors found differences due to the lack of lack of physical presence, the need to prepare and present content differently; and the need to comment and build relationships differently.

The application of technology in teaching can transform learning and initiate a role shift of the instructor (Reid, 2012) and that of the students. It changes the timing and nature of academics work. Online teaching within a constructivist environment requires the instructor to take on the roles beyond content expert, to that of learning facilitator which "emphasizes the primacy of intra- and inter-personal interactions, cultural tools" (Boudreau, Headley, & Ashford, 2009, p. 2077). When working online a significant part of the role is completed prior to the students entering the course.

In her guide to e-learning practitioners Salmon (2011) recommends that online instructors have the following five competencies to assist learners' in interacting with the instructor, each other, the content, and make meaning from these interactions.

1. Understanding of the online learning processes;

2. Technical skills to use the software features;

3. Online communication skills (non verbal, verbal, and written);

4. Content expertise to share with and support students personal learning; and

5. Personal characteristics such as empathy; creativity; confidence; and flexibility.

In early literature investigating online teaching Mason (1991) recommended the skills required by online facilitators "falls generally into three categories: organisational, social, and intellectual." Whereas Watson (2007) believed effective online instructors need the ability to use the technology tools and have a strong online pedagogy. His suggested key skill set to move to teaching online includes: heightened communication, (especially written communication), effective time management, ability to access or develop multimedia resources, and the capacity to respond to different learning preferences, contexts and students with disabilities (Watson, 2007). This is of particular importance because online courses reach a broader and different range of students when compared to face-to-face courses.

Garrison, Anderson and Archer (2000) established the Community of Inquiry framework to guide online instructors in their roles of selecting content, setting the learning climate, and supporting discourse to establish a quality educational experience. The framework has three and overlapping key elements: social presence, teaching presence and cognitive presence. Presence being a key function of teaching and learning online and provides participants with "the ability to automatically identify the status and availability of communication partners" (Hauswirth et al., 2010, p. 1).

Social presence was defined as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people" (Garrison et al., 2000, p. 94). Online this usually occurs through the writing process. Cognitive presence being the "extent to which learners are able to construct meaning through sustained communication" (Kanuka & Garrison, 2004, p. 33). This is the intellectual element of learning through a process of dialogue, inquiry, thinking and reflection. Teaching presence is the key presence as it impacts on social and cognitive presence. It can be defined as "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson, Rourke, Garrison, & Archer, 2001, p. 5) and has three roles: instructional design and organisation, facilitating discourse, and direct instruction.

In his analysis of instructor roles Berge (1995) has suggested online instructors embody the following four roles: pedagogical, social, managerial and technical. The roles are not isolated in that there is overlap between them. These four roles provide the conceptual framework to present and discuss the data.

The pedagogical role includes the intellectual and task based activities of the online instructor. It includes activities such as setting clear objectives, encouraging participation, questioning, providing feedback, presenting or eliciting a range of perspectives.

The social element of the instructor's role is required to create a trusting environment which assists the learners to form a cohesive learning community.  This social environment promotes trust and support among participants but also enables student to challenge others in respectful ways. Social elements can be encouraged by the instructor through welcoming messages; acknowledgment of lurkers while persuading them to participate; the use of a polite and friendly tone; private discussion regarding poor discussion behaviour; and reinforcing good discussion behaviours.

Organisational, procedural and administrative tasks fall within the managerial role of an online instructor. It is the intellectual leadership of the instructors where they set the objectives, content, create timelines, and establish rules and routines.  It requires the online instructor to be responsive to messages, be flexible, set clear expectations, and not overload the content and activities.

The technical aspect of the instructor's role is to make the students feel comfortable with the interface by providing encouragement and a range of support systems. Berge (1995) revealed that "[t]he ultimate technical goal for the instructor is to make the technology transparent" (p. 24).

## Background to the journey

This chapter describes the journey of two teacher educators as they travel along the continuum from face-to-face to blended to online teaching. Within this chapter pseudonyms are used for the instructors. The instructors were selected because of their differing competence and confidence in using technology for teaching. Both instructors were highly experienced teaching in face-to-face contexts. The first instructor was Scott who was an enthusiastic ICT user.  His professional background prior to moving to higher education was as a teacher and counsellor in P – 12 schools.  His work in teacher education focuses on

diversity in primary education and he also teaches in the Counselling domain at the post graduate level. The second instructor, Alison, had limited skill and confidence in ICT use. She was previously an early childhood teacher and this remains the focus for her work in higher education however she also teaches in courses related to movement and physical education.

The data were collected from archived online discussion forums, course document analysis, interviews and reflections from the instructors. There were three semi-structured interviews lasting 45 – 60 minutes with the two instructors over a four year period as they moved along the continuum. Data were mapped to Berg's (1995) four key roles of an instructor:  pedagogical, social, managerial, and technical as a conceptual framework. The constant comparison method (Wellington, 2000) was used to analyse the data seeking recurrent and emergent themes and also outliers within the data to identify patterns between instructors.

The following research questions guided the investigation:

- What changes in pedagogical practice did academics report after designing and implementing a blended course?
- What influenced changes as the instructor moved from face-to-face to blended mode of learning?
- How do the perceptions of instructors change over time when moving from face-to-face to blended and online teaching?
- What is the impact on future teaching when a 3$^{rd}$ party analyses online teaching and learning?

## The Journey

This section of the chapter will present an overview of the data analysis in four areas mapping to Berge's (1995) four constructs: pedagogical, social, managerial, and technical.

Each figure and explanation indicates the findings at three points in time: Stage 1, where the instructors first begin blended teaching; Stage 2, after teaching blended courses and planning for online teaching; Stage 3, after teaching their first online course, yet still teaching in face-to-face and blended modes.

**Pedagogical Role**

The pedagogical role of the instructor is the intellectual and task based activities completed prior to and during the running of the course.  It includes online facilitation duties; that is, the stimulus, activities and questions the instructor uses to engage students and gain their online discussion responses.  The student cognitive discussion responses indicate their understanding of the relevant principles or concepts.  Figure 7.1 presents the pedagogical change of the instructors at the three stages of their journey in becoming an online educator.
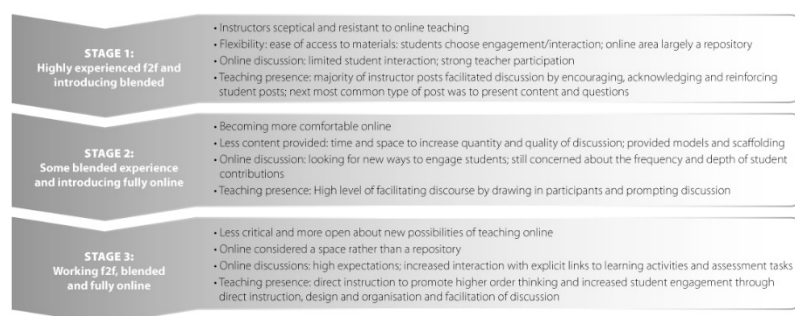


Figure 7.1:  Modifications to pedagogy

At Stage one, Scott and Alison were beginning to teach blended courses, they were sceptical and resistant to the benefits of the online environment.  This was because they were hesitant to believe that the quality of online teaching and the learning outcomes would be the same as face-to-face.  They were concerned with their ability to gaining comparable learning outcomes online when compared to face-to-face. When researching the redevelopment of face-to-face courses for blended delivery Twigg (2004) found that the redesign led to the same or better learning outcomes for students.  Other researchers (Dziuban, Hartman, Cavanagh, & Moskal, 2011; Dziuban & Moskal, 2001; Lorenzo, Oblinger, & Dziuban, 2007;

Means, Toyama, Murphy, Bakia, & Jones, 2009; Ramage, 2001; Russell, 1999) have also found that there is no significant difference between the learning of students on campus when compared to those in blended or online environments.

The online spaces developed by Allison and Scott were largely a repository of documents with incidental discussion forums. There was limited connection with what occurred in face-to-face classes and what occurred online or there was complete replication of face-to-face information online. This is not uncommon for instructors beginning to teach in a blended environment. Generally instructors at this stage have yet to "maximize the benefits of both face-to-face and online methods—using the web for what it does best, and using class time for what it does best" (Osguthorpe & Graham, 2003, p. 227). In this case, the instructors' pedagogical practices in a blended course were not yet sophisticated enough to consider how to blend the online and on-campus components of the blended course.

The instructors were fearful of the student expectations that having an online space required them to be available 24/7. They were also concerned that the online discussion space was very formal, and there was a permanent record of their responses. This changed the way they responded to questions. The online discussion forums had high instructor participation, however, limited student interaction. The forums were dominated by the instructors. There were a large number of posts however the majority of the conversations were public one-to-one conversation with the student asking a question and the instructor answering, rather than student – student discussion. The instructors responded to every student post very quickly, not providing time for other students to respond. This aligns with Vandergrift (2002) who found that "[i]t was difficult for [the] teacher not to respond immediately to a truly brilliant insight or, on the contrary, to confusion, muddled thinking, or misinformation" (p. 83). This was in contrast to the findings of Morris et al (2005) who found that instructors beginning to work online rarely provided acknowledge or feedback to the students.

The teaching presence demonstrated by the instructors within online discussions were largely those which fit into the facilitation role where the instructor encouraged, acknowledged and reinforced student posts. The next most common type of posting was where they presented content and questions or direct instruction.

Stage two occurred after teaching several blended courses simultaneously and planning for online teaching. At this point the instructors had an increased confidence in their teaching in online environments. After viewing the data collected from their initial blended course the instructors made immediate changes in their online pedagogical approach. For example, Alison decided to "sit back to see if other students responded" rather than be "quick to get in and respond to students immediately". Scott and Alison also decided that they would provide less content online to open up time and space for the students to participate. The hope was to increase quantity and quality of discussion with increased student participation in online discussion. Scott commented that "[t]he more I pour in the less room there is for others to contribute".

Scott and Alison were looking for new ways to engage students. Both instructors provided models and scaffolds for all elements of the course e.g. assessment and online discussions. The focus of the structured online activities and online discussions was to increase higher-order thinking and to promote student engagement. The instructors were still concerned about the frequency and depth of student contributions to online discussions. They found that open ended questions and contentious or real world issues stimulated more in-depth discussions online. Both instructors intentionally modelled social and pedagogical behaviours in online discussions.

The teaching presence of Scott and Alison changed during this stage; largely due to their ability to reflect on the data provided from their first blended course and then to discuss their concerns with a third person not related to the course. They now had a strong direct

instruction bent regarding online learning to resolve some of the issues they had previously experienced and were made explicit in the initial data set. For example, they made explicit reference to netiquette. When facilitating discourse they used strategies to draw in participants and prompt discussion. They continued to acknowledge student postings and started to invite students back to conversation. A sample post from Scott:

> Hi James and Matthew, I appreciate your input here. Thanks. A young woman in my tute this afternoon ... How would you respond to that Matthew given your work with intellectually impaired people?

> During Stage 2, Scott and Alison commented that they preferred to teach on campus due to the familiarity in the teaching process and expected learning outcomes and also their ability to make connections with their students. This perspective aligns with other studies (Allen & Seaman, 2006; McKenzie, Mims, Bennett, & Waugh, 2000) which also found that instructors preferred to teach on campus rather than online. They were initially impacted by emotional resistance (Sockman & Sharma, 2008) and felt they were again novice educators and that their experience in face-to-face teaching did little to support their movement to blended and online teaching, this could have resulted in a resistance to online teaching.

The instructors undertook professional reading, pedagogical conversations, and increased personal reflection with a view to improve their blended teaching and to assist them in planning new online courses. They found they were "letting go" of the old ways of teaching, they adjusted their role from content provider to learning facilitator. Volery and Lord (2000) suggested that the instructors should change their role from "intellect-on-stage and mentor towards a learning catalyst" (p. 222 – 223) or become the sage on the side (Xin, 2012). As part of the learning journey Scott sought advice from more experienced online educators, but also shared his own experiences with others.

Scott and Alison noted a paradigm shift not in philosophy but in their practice in terms of design and delivery of the course. Their reflective practice reconfirmed some of their theoretical perspectives, for example, the benefits of a constructivist approach to teaching and learning.  There was however a contradiction between their philosophy and practice where both noted that they were not profoundly behaviourist in conceptualising what effective learning and teaching might entail, however found that they were in terms of their online practice. Alison revealed that she moved from providing a detailed responses to providing "less detailed responses and invit[ing] other students to provide details from their perspectives". Their experiences shifted their practice towards more of a transformative learning process. Having the opportunity to see the analysis of their first blended teaching completed by a third party and having the opportunity to discuss it enabled the instructors to move from thought to action. The shift in practice occurred both online and face-to-face.

At the third and final stage in their journey Scott and Alison revealed there was a marked change in their online pedagogy.  They embraced the challenge of teaching online largely because they had seen "good outcomes" from their blended teaching and they developed confidence that online teaching could produce quality learning outcomes.  Their student results were as high or higher and Scott believed that the quality of peer feedback was significantly improved when moving from face-to-face peer feedback to peer feedback through online discussions.  Both Scott and Alison were now less critical and more open to experiment with both the technology and their pedagogy.  They were curious about what was possible in the online space yet more mindful of the online learner experience. At the third stage they were now looking for ways to address barriers to access and participation in the curriculum. Scott in particular was very concerned about the pedagogical design of the course to ensure that the online environment did not provide a barrier to student engagement with the resources provided, the key course content, and the other participants within the course.

The learning management system became an online teaching and learning space rather than a repository.  They now questioned what pedagogy possibilities could be applied to that space and how the curriculum can be designed in and for the online space. Scott revealed that he "needed to be mindful of the space – space makes pedagogically demands on the teacher. The online space affords and demands different pedagogies". As he gained more experience teaching online his use of the space changed from that of a repository to that of a learning space.  Scott's understand of the affordances of the online space promoted him to change his pedagogical practice within the space. His online pedagogy changed from being transmission based to more dialogical and constructive.

Scott and Alison thought they needed to teach students how to learn online. They made deliberate contact with individual students, especially, those not engaged or interacting online. The goal for online discussions was to have ongoing post/response cycle between students rather than instructor dominated or instructor led discussions.  Over time (and experience) Scott and Alison had higher expectations of themselves and their students in the online space.  The instructors articulated specific expectations of the role of forums how they could contribute to teaching and learning activities.  This had an impact on the design and management of the online teaching.

With the experiences of working in three modes: face-to-face, blended and online; Scott and Alison found that they were able to "translate learning from one mode to another". Participating in this research study had forced them to re-examine their role and practices in promoting effective learning.  Alison noted that "I have build my own capacity over time. I now have specific expectations of the role of the forums; I consider the design and management of the online space and not just the facilitation of discussion". Scott commented that his participation "exposed his practice" and that he was "embarrassed about what used to do".  Both instructors were looking for ways to improve their teaching and learning outcomes

in all modes. They used reflective practice, data from this research, conversations with peers, and attendance at professional development, as strategies for ongoing improvement of their practice. As Alison commented "My pedagogical approach has changed. I now challenge students to work at higher levels".

## Social Roles

Social presence represents the interpersonal relationships established within a learning community. The friendliness or trust established within the environment impacts on the group cohesiveness of the online experience. Kreijns, Kirschner, Jochems and Van Buuren (2011) suggest that social presence is "necessary for effective collaboration and knowledge construction" (p. 365). Figure 7.2 below presents the social presence changes of the instructors at the three stages of their journey in becoming an online instructor.



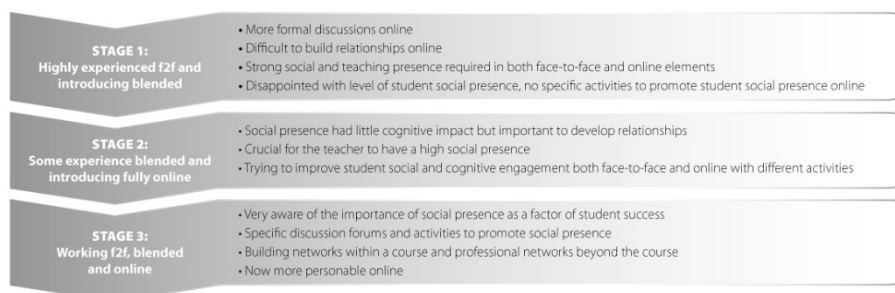| STAGE 1: Highly experienced f2f and introducing blended | • More formal discussions online<br>• Difficult to build relationships online<br>• Strong social and teaching presence required in both face-to-face and online elements<br>• Disappointed with level of student social presence, no specific activities to promote student social presence online |
| --- | --- |
| STAGE 2: Some experience blended and introducing fully online | • Social presence had little cognitive impact but important to develop relationships<br>• Crucial for the teacher to have a high social presence<br>• Trying to improve student social and cognitive engagement both face-to-face and online with different activities |
| STAGE 3: Working f2f, blended and online | • Very aware of the importance of social presence as a factor of student success<br>• Specific discussion forums and activities to promote social presence<br>• Building networks within a course and professional networks beyond the course<br>• Now more personable online |

Figure 7.2: Modifications to social presence

During Stage 1, Scott and Alison had a strong social and teaching presence in both face-to-face and online environments. They felt that an instructor must have social presence, both face-to-face and online, to help develop a sense of belonging within a community of learners. Scott remarked that "the sense of belonging and connectedness is very powerful, and impacts on students' learning outcomes". He stated that online social presence is fundamental but needed to be planned in or structured. Scott went on to suggest that as educators in the online space we "need to insert ourselves better" and that social presence "doesn't happen by accident". This finding is unlike Conrad's research (2004) who found that

first time online instructors did not comment on the importance of social aspects of online learning; nor did they comment on the need to promote a sense of community.

Alison suggested that she behaved differently online when compared to face-to-face discussions; that "I find online more formal because it *stays*". She went on to explain that "work that is online is *set in stone* and I find that it holds me back". Alison also commented that there was a difference between online and face-to-face in the way she: interacted with students; developed relationships; and used language. She also found that it differed again when face-to-face or information sessions were being recorded for students to access online at a later date. Alison commented: "I display humanness in different ways and I use different language when it is permanent".

At Stage 2, Scott and Alison's perceptions were that social presence had little cognitive impact, yet they explored activities which might improve social and cognitive engagement in both face-to-face and online modes. They still felt that it was crucial for the instructor to have a high social presence, largely because of student perceptions. Scott commented that "students sometimes feel there is no one there if there is no instructor presence". He remarked that "social presence seems to be very significant factor in the online experiences". In practice the instructors felt that they had a responsibility to respond to all student posts; although they now delayed their postings to see if other students would post.

In Stage 3, the instructors were very aware of the importance of social presence and its impact on student engagement and also teaching presence. The instructors 'gut feelings' about the importance of social presence have been born out in the research of others (Gunawardena & Zittle, 1997; Richardson & Swan, 2003) who have found that social presence is a predictor of student satisfaction in learning.

Scott commented that he no longer hid behind the technology. He makes "authentic responses, makes real life connections and uses authentic pedagogy" even within social

presence activities. Both instructors are now more personable online and they share more of themselves online. They both suggested that social presence is beyond being there (online); "it is about how you are there". Alison commented that she "tries to be more approachable". Scott uses short videos of himself to try and get a social presence, he shared that it is "not a polished performance but students get to see the real me" he also makes links to his personal webpage. Students have appreciated the Scott and Alison's social presence. One student commented that "I felt like I know you even though I've never met you".

The instructors have developed specific discussion forums and activities to promote social presence. Scott has had success using provocations in the social forum discussion space to

"ask interesting, open ended and perturbing questions which are problematic (often ethically) because it tends to tap into values and attitudes. This has opened the door for students to talk about themselves – they can respond without a lot of content knowledge and reading – then bring in the literature after".

Both Scott and Alison are concerned that there were still a considerable number of lurkers, and that students sometimes emailed personal questions or responses to the instructor rather than posting for all to see. Scott found that

[S]tudents going online to look but not contributing, this limited the different perspectives on the issues due to the lack of participation by so many students. When my students share we get multiple perspectives which are important to see patterns, outliers and contribute to collective knowledge building. Because personal experience is not the same for us all, the sharing of perspectives is important especially when trying to link professional experience with theory.

When students lurk or look rather than actively participate it might be considered vicarious interaction.  This concept  was first introduced by De Vries (1996) and occurs when the learner observes "the interactions of others" (Sutton, 2001, p. 232) rather than publicly participates in dialogue or discussion. By Stage 3, Scott and Alison used the activity reports gained through the LMS to identify which students have not engaged in the online forums. They then contacted the inactive students individually encouraging them to engage in the online discussions. In additional when they received emails from individual students they regularly referred them back to the online discussion forums.

**Managerial Role**

The managerial role of an online instructor includes establishing the content, timelines and assessment for the course.  It also includes ongoing leadership and administration of the course and the online space over time. Figure 7.3 below presents the changes in the instructors' managerial role at the three stages of their journey in becoming an online instructor. The managerial role is largely the designing and setting of the intellectual climate of the course.
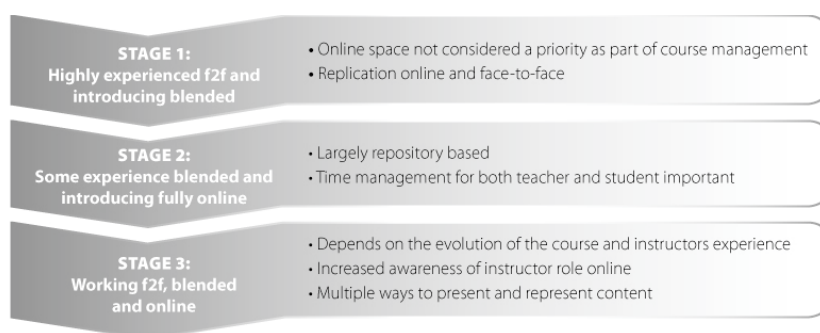


Figure 7.3: Modifications to managerial role

During Stage 1, the online space was not considered a priority as part of management of the blended course; of more consequence to Scott and Alison was the management of course content, schedule etc.  The online space provided opportunity to replicate the face-to-

face materials, discussions and activities. In addition to being a repository, providing links to formal course material, additional supporting resources and readings, and assessment; the courses also included online discussion forums.

For both Scott and Alison there were limited links between the face-to-face and online environments as a part of the design of the blended course except that the online space provided an additional space for conversation or a space to continue or extend the face-to-face discussions. In practice, the majority of online discussions for the courses were based around the expectations for assessment for the course rather that course content itself.

In Stage 2, time management for both the instructors' and students was important. Although the online space was still largely repository based providing the study schedule, assessment details and technical tips, there was an increased yet informal expectation that the online discussions would form a more integral part of the course and the participants had to find additional time to interact online. Alison mentioned her concerns about ensuring she was regularly online so that when students were frustrated and they used the online forums to publically express their feelings that she was able to respond quickly to their posts. She revealed that in the online space without visual cues "underlying issues are often not seen and you feel like you are putting out fires". This aligns with one of the online roles that Berge and Collins (2000) articulated, that of fire fighter. Proactive educators need to provide encouragement and are also required to respond to emerging issues.

It appears that the managerial aspect of a course depends on the evolution of the course and instructors experience. At Stage 3, when there had been several iterations of the course the management role was pre-set rather than organic experiences in the design of a new course or bringing an established course from face-to-face into the online realm. Over time the management became less obvious with elements such as the course objectives, content, assessment, course structure and pacing being well established. Alison reflected that the role

of the instructor online appeared to be "more about social and cognitive engagement and updating the repository with minimal management".  Scott suggested that at this stage his focus for improvement was on "exploring multiple ways to present and represent content". He used different modes to extend and expand key concepts rather than repeat content.

## Technical Role

Technical aspects of teaching in blended or online environments include knowledge of how the technologies work and some problem solving strategies for those times when they don't. It also includes the ability of the instructors to find time to learn new ICT tools and also to communicate to students about the learning tools and to respond to the students' technical problems. The two instructors had very different starting points in terms of their experience using technology for teaching and learning.  As such, Figure 7.4 presents the change of each instructor separately.
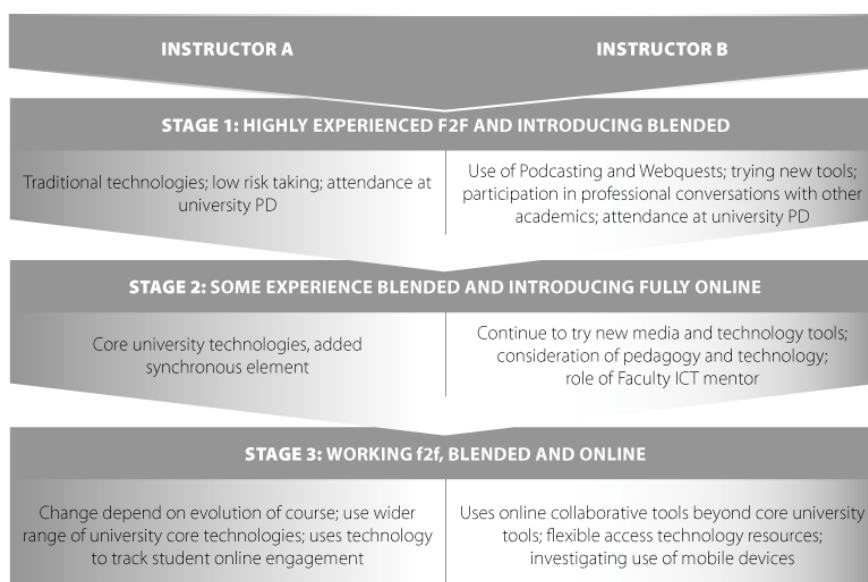


Figure 7.4: Modifications to technical role

Alison, at Stage 1, was a novice ICT user.  She used traditional technologies to enhance her teaching.  For example, she video-recorded her face-to-face sessions or guest speakers and included digital interviews to add to the resources in the online space for her course.  She

used tools that were low risk as they were supported by the university. At this stage she attended university-wide ICT workshops when possible. Alison used only the university supported and mandated tools.

Scott, on the other hand, was trying new tools, e.g. podcast, Webquest, and online quizzes. He repeatedly made the time to discuss ideas about blended and online teaching and learning with educators experienced in blended and online teaching and he regularly shared his learning and experiences with other novice educators. He also attended university-wide workshops to gain knowledge of the tools supported by the university.

During Stage 2, both Scott and Alison added new technical tools to support their teaching. Other researchers (Diekelmann, Schuster, & Nosek, 1998; King, 2004) also found that instructors changed their use of technology tools as their confidence and technical skills improved over time and with increased experience. During Stage 2, Alison used the synchronous tool of Wimba to enhance her teaching. This provided the opportunity for synchronous text chat and audio dialogue between the students and the instructor.

Scott also took the opportunity to try other things online. He had been trialling new tools to support reflection and other forms of technology and media to support student learning. He suggested that he needed to "use a variety of learning tools to engage students and provide access to what they need to be successful". He went on to comment that as an instructor "it is important to have knowledge of what is possible, and then I need a reason to change my pedagogy and try new tools and practices". During Stage 2 Scott made deliberate selections of technology tools to support what was happening in the face-to-face classes and the blended space. During this stage he became a faculty ICT mentor where his role was to assist other faculty try new ICT tools.

Scott and Alison both commented that their use of ICT tools was closely related to the evolution of the course and their experiences. During Stage 3, Alison used student posts and

questions to establish FAQ for following semesters, not just for technical concerns. She used the technology to reduce student anxiety points within the course. She had an increased confidence and competence in her ability to use ICTs for teaching and learning. Alison suggested that she "can use the technology to help understand the students, e.g. check student profile and usage statistics". She uses technology tools assist in building and maintain relationships and support of students on their learning journey. Alison advised that due to her lack of knowledge in the area of ICT she takes her lead from the institutional expectations and mandates to try new tools. She also comments that she takes the time to "be more aware of the tools available and how they might assist teaching and learning online".

Scott included wikis and online collaborative work within his online courses. He included video clips and linked to his own webpage as a resource. The discussion forums now focus on course content and their use is designed into the course rather than being an add-on. He looks at the technology to provide flexible access. For example, his Podcasts were available in different formats (e.g. Mp3, video, RSS feed, subscribe via I tunes, PowerPoint only) responding to the accessibility issues of his students. He is currently also exploring mobile devices as a new area in learning. He said that he finds the "mobile device file formats frustrating" yet he is trying to design his online course for access through mobile devices.

In this section the diffentiation of ICT skills impacted on the tools utilised in the online space, however, it did not make a major difference for how the online space was designed. In their survey of 562 academics Kim and Bonk (2006) found that "pedagogical skill was deemed more important than technological skill for effective online teaching"(p. 25) which seems to align with the experiences of the two instructors in this study. It seems that time and experience online in addition to pedagogical skills impacted on the use of different technology tools. Another technical skill that blended and online educators require is the

skill to recognize the impact of the tool on teaching and learning by identifying strengths and weaknesses different technology tools (Gunawardena, 1990), that is, investigating the "unique pedagogical affordances" (Alexander & Hammond, 2012, p. 56) different tools offer.

Scott engaged new technologies in the design of his courses; he managed his own technical learning; and then shared with others or sought assistance from others as part of his learning journey. The availability of software, tools and network access impacted on the usage of ICT tools for Alison. Scott commented that he has found "informal networks are useful to gain knowledge of new ICT tools; I need to hook into others who know". He also commented that in his role as ICT mentor he has found that "helping others has been a good way to learn new skills".

When researching the move from face-to-face to online in schools Muirhead (2000) found that teachers indicated the technical responsibility was an area where their roles and responsibilities had significantly changed. He found that the biggest changes for teachers were in "authoring of online courses" and the "requirement to provide ongoing technical support to students" (p. 322).

## The ongoing journey

Over time Alison created a deeper personal understanding of blended and online teaching and learning, she reflected that "as it is more familiar to me I'm willing to try new things". The process of being part of this research bought issues to Alison's attention. She felt that she could continue to improve her practice in the online space however she has moved along a continuum of ongoing improvement. Alison also felt that "the online space is a vehicle for collaboratively unpacking content and relating it to context." Her learning activities were created in an attempt to try to model an appreciation of different contexts and her goal was to have students delve deeper rather than stay on the surface level.

Scott came from an initial assumption where he had "considered face-to-face as being ideal" and had not considered "online as equal to, or as a more positive learning experience than face-to-face"; even though he valued the contributions of technology to enhance learning within his face-to-face courses. His perceptions changed over time and he is no longer resistant to online teaching and no longer considers online as inferior to face-to-face teaching. Scott has a broader consideration of what blended learning is and acknowledged that online learning can enhance students' face-to-face learning experiences. If it is designed and implemented effectively "the depth of the student reflection is of better quality online than in face-to-face".  He also found that "the quality of the peer feedback online tends to be better online than in face-to-face activities".

Key drivers for change for both instructors can be summarised as:

- Personal learning through research participation, reflection, collaboration and personal networks;

- Increased positive online teaching experience meant they were more comfortable with working online and resulted in a change of attitude toward the effectiveness of online teaching and learning;

- Aim for effective practice and continue to think of ways of engaging students online; and

- Professional discussions with others about teaching online an important part of professional growth, especially participation in this research.

The growth of the instructors was spiral in nature, as they gained more experience their confidence and competence improved.  It was a steep and ongoing learning curve especially as they moved from blended to fully online teaching. There was a paradigm shift in how the instructors communicated with students and initiated the act of learning online. Alison and Scott's philosophical beliefs did not change, in that they believed in student-centred learning

and social constructivism, however when becoming a novice blended and online educator their practice did not align with their beliefs.  Over time their practice and philosophy were bought back into parallel.

## Conclusion

This chapter documented the journey of two teacher educators moving from face-to-face, to blended, to fully online teaching over a four year period.  Although there were multiple data sources, the key data source being a series of interviews, to enhance validity, this research was a case study with only two participants at a regional university and the outcomes are highly individualised with limited ability to generalise. Having said that, although the instructors were both teacher educators, there is application of the findings for instructors in other disciplines in higher education. The findings can provide an opportunity for future discussions and research in the exploration of the impact on practice as instructors move to teaching online. Future research might involve other instructors across a range of disciplines and institutions; also the study might be replicated to explore of the change in role and expectations of online learners as they first move from face-to-face learning to online learning.

Moving some or all of the learning online requires an exploration of innovative pedagogical practices. The move to online teaching can be the catalyst for questioning and reflecting on one's philosophy and pedagogical practices. It can provide the stimulus for a change in nature of thinking about approaches to teaching to gain improved learning outcomes (Hativa & Goodyear, 2001).

This research explored the nature of the innovative instructional work completed by academics when moving to online teaching and learning. Participation in this research was the catalyst for two instructors to construct, deconstruct and reconstruct their pedagogical

practices in innovative ways. It required intellectual courage for the participants to have someone analyse their online discussions and courses, and then discuss the results. As a result of their participation in this research Scott and Alison re-evaluated their beliefs, and explored innovative pedagogical practices for improving their teaching and learning. This research makes clear the positive impact of critical reflection, dialogue and support when instructors are moving to online teaching.

## References

Alexander, C., & Hammond, T. C. (2012). Five-Picture Charades: A Flexible Model for Technology Training in Digital Media Tools and Teaching Strategies. *Contemporary Issues in Technology and Teacher Education, 12*(1), 55-70.

Allen, I., & Seaman, J. (2006). Making the Grade: Online Education in the United States, 2006.   Retrieved from

http://sloanconsortium.org/publications/survey/pdf/making_the_grade.pdf

Allen, I., & Seaman, J. (2013). *Changing Course: Ten Years of Tracking Online Education in the United States*. Babson Park, MA: Babson Survey Research Group and Quahog Research Group.

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teacher presence in a computer conferencing context. *Journal of Asynchronous Learning Networks, 5*(2), 1-17.

Berge, Z. L. (1995). Facilitating computer conferencing: Recommendations from the field. *Educational Technology & Society, 15*(1), 22-30.

Berge, Z. L., & Collins, M. P. (2000). Perceptions of E-Moderators about their roles and functions in moderating electronic mailing lists. *Distance Education, 21*(1), 81-100.

Bonk, C., & Dennen, V. (2003). Frameworks for research, design, benchmarks, training, and

    pedagogy in web-based distance education. In M. Moor & W. Anderson (Eds.),

    *Handbook of distance education* (pp. 331-348). Mahwah, NJ: Lawrence Erlbaum

    Associates, Inc.

Boudreau, A. Z., Headley, S., & Ashford, R. (2009). Immersive Virtual Worlds in

    Educational Practice: Introducing Educators to Second Life. In T. Bastiaens (Ed.),

    *Proceedings of World Conference on ELearning in Corporate Government Healthcare*

    *and Higher Education 2009* (pp. 2076-2081). Chesapeake, VA: AACE.

Conrad, D. (2004). University instructors' reflections on their first online teaching

    experiences. *Journal of Asynchronous Learning Networks, 8*(2), 31-44.

De Vries, Y. E. (1996). The Interactivity Component of Distance Learning Implemented in

    an Art Studio Course. *Education, 117*(2), 180-184.

Diekelmann, N., Schuster, R., & Nosek, C. (1998). Creating new pedagogies at the

    millennium: The common experience of the University of Wisconsin-Madison teachers

    using distance education technologies. *Teaching with Technology Today.*  Retrieved

    from http://www.uwsa.edu/ttt/98.pdf

Downing, J. J., & Dyment, J. E. (2013). Teacher Educators' Readiness, Preparation, and

    Perceptions of Preparing Preservice Teachers in a Fully Online Environment: An

    Exploratory Study. *The Teacher Educator, 48*(2), 96-109. doi:

    10.1080/08878730.2012.760023

Dziuban, C., Hartman, J. L., Cavanagh, T. B., & Moskal, P. D. (2011). Blended courses as

    drivers of institutional transformation. In A. Kitchenham (Ed.), *Blended Learning*

    *across Disciplines: Models for Implementation* (pp. 17-37). Hershey, PA: Information

    Science Reference.

Dziuban, C., & Moskal, P. (2001). Emerging Research Issues in Distributed Learning. Retrieved from http://pegasus.cc.ucf.edu/~rite/Presentations/Sloanwkshp.ppt

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: computer conferencing in higher education. *Internet and Higher Education, 2*(2-3), 87-105. doi: 10.1016/S1096-7516(00)00016-6

Gunawardena, C. N. (1990). Integrating telecommunication systems to reach distance learners. *American Journal of Distance Education, 4*(3), 38-46. doi: 10.1080/08923649009526715

Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *American Journal of Distance Education, 11*(3), 8-26. doi: 10.1080/08923649709526970

Hativa, N., & Goodyear, P. (2001). *Teacher thinking, beliefs and knowledge in higher education*. Dordrecht: Kluwer.

Hauswirth, M., Euzenat, J., Friel, O., Griffin, K., Hession, P., Jennings, B., . . . Polleres, A. (2010). Towards Consolidated Presence.   Retrieved from http://axel.deri.ie/~axepol/publications/hausw-etal-2010CollaborateCom.pdf

Kanuka, H., & Garrison, D. R. (2004). Cognitive presence in online learning. *Journal of Computing in Higher Education, 15*(2), 30-49. doi: 10.1007/BF02940928

Kim, K. J., & Bonk, C. J. (2006). The future of online teaching and learning in higher education. *Educause Quarterly, 29*, 22-30.

King, K. P. (2004). Both sides now: Examining transformative learning and professional development of educators. *Innovative Higher Education, 29*(2), 155-174. doi: 10.1023/B:IHIE.0000048796.60390.5f

Kreijns, K., Kirschner, P. A., Jochems, W., & Van Buuren, H. (2011). Measuring perceived social presence in distributed learning groups. *Education and information technologies, 16*(4), 365-381. doi: 10.1007/s10639-010-9135-7

Lorenzo, G., Oblinger, D., & Dziuban, C. (2007). How Choice, Co-Creation, and Culture Are Changing What It Means to Be Net Savvy: Technology and the way information is created, used, and disseminated have changed, as has the definition of "net savvy". *Educause Quartley, 30*(1), 6-12.

Mason, R. (1991). Moderating educational computer conferencing. *Deosnews, 1*(19), 91-00011.

McKenzie, B. K., Mims, N. G., Bennett, E., & Waugh, M. (2000). Needs, concerns and practices of online instructors. *Online Journal of Distance Learning Administration, 3*(3).

McQuiggan, C. A. (2007). The role of faculty development in online teaching's potential to question teaching beliefs and assumptions. *Online Journal of Distance Learning Administration, 10*(3).

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, DC: US Department of Education, Office of Planning, Evaluation and Policy Development.

Morris, L. V., Xu, H., & Finnegan, C. L. (2005). Roles of faculty in teaching asynchronous undergraduate courses. *Journal of Asynchronous Learning Networks, 9*(1), 65-82.

Muirhead, W. D. (2000). Online education in schools. *International Journal of Educational Management, 14*(7), 315-324. doi: 10.1108/09513540010378969

Oliver, R. (2001). Assuring the quality of online learning in Australian higher education. In M. Wallace, A. Ellis & D. Newton (Eds.), *Proceedings of Moving Online II Conference* (pp. 222-231). Lismore, Australia: Southern Cross University.

Osguthorpe, R., & Graham, C. R. (2003). Blended learning environments: Definition and directions. *The Quarterly Review of Distance Education, 4*(3), 227-233.

Palloff, R. M., & Pratt, K. (2003). *The virtual student: A profile and guide to working with online learners*. San Francisco, CA: Jossey-Bass Inc Pub.

Palloff, R. M., & Pratt, K. (2013). *Lessons from the virtual classroom: The realities of online teaching*. San Francisco, CA: John Wiley & Sons.

Ramage, T. R. (2001). The "No significant difference" phenomenon: A literature review. *Journal of Instructional Science and Technology, 5*(1).

Reid, S. (2012). The Changed Role of Professor in Online Courses. *International Journal of Online Pedagogy and Course Design, 2*(1), 21-36. doi: 10.4018/ijopcd.2012010102

Richardson, J., & Swan, K. (2003). Examining social presence in online courses in relation to students' perceived learning and satisfaction. *Journal of Asynchronous Learning Networks, 7*(1), 68-88.

Russell, T. L. (1999). *The no significant difference phenomenon*. Raleigh, NC: North Carolina State University

Salmon, G. (2011). *E- moder@ting: The key to teaching and learning online* (3rd ed.). New York, NY: Routledge.

San Jose, D. L., & Kelleher, T. (2009). Measuring ecoshock and affective learning: A comparison of student responses to online and face-to-face learning ecologies. *MERLOT Journal of Online Learning and Teaching, 5*(3), 469-476.

Sockman, B. R., & Sharma, P. (2008). Struggling toward a transformative model of instruction: It's not so easy! *Teaching and Teacher Education, 24*(4), 1070-1082. doi: 10.1016/j.tate.2007.11.008

Sutton, L. A. (2001). The principle of vicarious interaction in computer-mediated communications. *International Journal of Educational Telecommunications, 7*(3), 223-242.

Twigg, C. A. (2004). Improving Learning and Reducing Costs: Lessons Learned from Round III of the Pew Grant Program in Course Redesign.   Retrieved from http://www.thencat.org/PCR/RdIIILessons.pdf

Vandergrift, K. E. (2002). The anatomy of a distance education course: A case study analysis. *Journal of Asynchronous Learning Networks, 6*(1), 76-90.

Volery, T., & Lord, D. (2000). Critical success factors in online education. *International Journal of Educational Management, 14*(5), 216-223. doi: 10.1108/09513540010344731

Watson, J. F. (2007). A national primer on K-12 online learning.   Retrieved from http://olms.noinc.com/olms/data/resource/3707/National%20Primer%20on%20K-12%20Online%20Learning.pdf

Wellington, J. (2000). *Educational Research: Contemporary Issues and Practical Approaches*. London: UK: Continuum.

Xin, C. (2012). A Critique of the Community of Inquiry Framework. *The Journal of Distance Education, 26*(1), 1-14.