# The pedagogy and practice of elearning: Looking back to redirect the flow

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### Introduction

This paper reports and reflects on a project changing face-to-face teaching material from generic classes across campus into a flexible online module. In this case, the material came from a doctoral programme that has been established for some years. The process was responsive to doctoral students' needs, one of redirection from the purely face to face medium, the physical but temporal classroom, to another, the virtual but flexi-time electronic space. We looked back at the generic doctoral programme to capture what we felt to be important in our classroom pedagogy: a sense of community; the opportunity for conversation; deep-level student-friendly content; and multiple approaches (high register, low register, for example) likely to make the resource accessible to students from across campuses and cultures. We aimed to preserve these principles in the online medium. Here we describe and reflect upon our pedagogical negotiations. In journeying back up the river of our classroom practice to enable us to redirect the pedagogical flow into an electronic medium, we discuss the experience of navigating the challenging currents and what we have learned from it for future direction. Critical factors such as time invested in design and development, expenses incurred and possible future developments for interactive student engagement influence change whenever such a "river" is exploited differently. In particular, the paper documents the transforming perspective of Susan as the teacher who initiated the change. She began with a distrust of digital educational media and then worked with educational designers who helped her redesign the material into something that far exceeded her expectations. They contribute their e-learning pedagogy. Nonetheless, the author who changed her material remains aware of the limitations and challenges of going digital.

# The Flexible Doctoral Programme (FDP): From physical to virtual space

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The personal dimension is crucial, as it always is with teaching. This paper first explains the classroom teacher's recognition of needs, and teaching aims and practices in Susan's first person narrative. The team involved with design take over the voice to give a perspective into the motivation and pedagogy that sits behind the elearning module. A significant contribution of the paper is that we stress the importance of teaching and learning principles in the translation of a classroom session for online delivery, anatomising some of the considerations that need to be made in the context of personal teaching preferences. We finish by suggesting future possibilities and sharing limitations of the project for future development. The aim of the paper is to assist others contemplating or engaged in the process of building online teaching resources to consider their own style and the needs of their students (in this case, invisible online learners).

### The teacher: Susan's perspective

As a Learning Advisor providing generic support to doctoral students, I am aware that many doctoral students can't access what I teach. They work, live away from campus, are out in the research field, have care-giving responsibilities or are on satellite campuses that have fewer events than the central campus. I know of some who feel isolated as doctoral students: for example, a mother with two small children under 3 years of age whose doctoral work maintains her sanity but whose children limit her research opportunities; a number of nurses and teachers who work full time; several students living in other cities (Palmerston North, Hamilton and Wellington) who commute to Auckland every few months; and a student in Mexico out in the field gathering data. They can't alleviate isolation by attending the academic courses provided at our institution by the UoA Doctoral Skills Programme (DSP), a suite of almost 40 classroom sessions held through the year. These are fairly solid sessions, usually two hours long.

Currently, in an institution with about 2,000 doctoral students, 284 are part time (personal communication, Francoise Godet, 8 August 2011), which usually translates to people who fit their doctorate around full time work or child/family care and are thus unable at attend workshops. Some are kept at home by dependants. Typically, those who work do so in education, medicine, and population health. According to literature, increasing numbers of students are coming mid-career as part-time students, and 'increasing numbers study at a distance' (Kamler & Thomson, 2006, p.9, citing evidence from Australia - Evans, 2002; Evans & Pearson, 1999; McWilliam et al., 2002 - and from Canada: Smyth et al., 2001). It seems likely that New Zealand follows the Australian doctoral trends of increased distance learners cited by Kamler and Thomson (2006). Increased part-time students make flexible access to online resources and networks increasingly useful.

Despite my hesitancy at stepping into a dimension where I lacked expertise, I decided to put together an electronic version of some of the core courses in a flexible doctoral module to cater for doctoral students with restricted access to the classroom sessions.

I felt that this was something I could contribute to the institution. It would be useful to supervisors, too. As an academic advisor teaching doctoral students across campus, although these students are my main concern, I need to keep good relationships with academics who supervise.

I'm also empathetic to their pressures. Supervisors find it hard to face increasing time demands (explained depressingly well by Austin, 2002; Acker & Armenti, 2004). There is pressure on them for success with candidates, with doctoral attrition a spectre (another depressing reality, analysed by Bair & Haworth, 1999). Particularly those who supervise students amongst the primary target group for my digital site, part-timers (for whom isolation is a problem, as discussed by Ali and Kohun, 2007), should find this site helpful for its links to rules and regulations, and to forward to students. Any interested academics would be able to check the digital version of my sessions for themselves, and assure themselves of just exactly what we did in the generic session.

However, having recognised a need and accepted the responsibility to meet it, I had reservations. In terms of studying individually, I personally prefer reading print as a way of learning to using digital media. Websites often seem insultingly light-weight (the superficiality of website on depression depressed me, for example, with its deadpan foot-ball star icon, John Kerwin). Equipped with fairly total ignorance and, even, suspicion, I wanted to build something that did justice to the intellectual level of my classroom sessions. I also feel that the contact and discussion with other doctoral students, the active community of practice (Wenger, 1998) aspect of the sessions, was of significant benefit in my classroom teaching. In every class I take, I make space for focussed student discussion, often in pairs, as well as in a group. Sitting alone in front of a screen did not seem able to be equivalent to eye contact and personal affirmation, however cheerful the screen might be. For doctoral students who work alone there is sustenance in the interdependence of the DSP classroom; Bruffee's (1999, p. 267) efficacious 'ennested' communities of practice is a particularly pertinent concept for the practice of doctoral students. Their various communities over the three to four years of the doctorate are nested within departments, disciplines, and through the Doctoral Skills Programme, the wider doctoral community at this institution (as well as in the active dimensions of their lives outside of academia). Some of this collegial sharing would need to be enabled electronically.

I was aware of discourse on elearning pedagogy. Milne and Dimmock (2005) propose a set of principles for the design of effective elearning in New Zealand tertiary institutions: that they are learner-centred; collaborative; innovative; cater for diversity; support sharing of best practice; and are sustainable. These ideals align with my personal teaching philosophy.

## From concept to prototype

This section explains the logic of the prototype content. Initially, I decided to begin with four sessions I saw as central, because they covered challenges of the doctoral journey that affect all and are bothersome to many: thesis proposals, the literature review, starting to write the thesis, and preparing for the oral examination. I listed the intended learning outcomes for each, which I had never actually articulated for the classroom sessions but felt might be helpful in communicating to the elearning experts who would be helping me teach in a medium with which I was unfamiliar:

- 1. Thesis proposals: After this course students will know
  - what to include in their thesis proposal;
  - how to negotiate the cognitive challenges of writing one;
  - what to emphasise in each section of the proposal;
  - what criteria will be used to evaluate their proposal; and
  - the expectation for thesis proposal tone, style and clarity.
- 2. Literature Review: After this course students will be aware of the need to
  - synthesise their literature in relation to their own research project;
  - identify and discuss important variables in their subject;
  - find strategies for the process that preserve sanity;
  - establish the context of their research questions through the literature; and
  - identify and discuss any contestations in their subject.
- 3. They will also be able to
  - evaluate where in the thesis their literature will be reviewed;
  - use the past, present continuous and present tense appropriately in review of literature;
  - select accurately nuanced verbs; and
  - knowingly privilege authors or facts.
- 4. Starting to Write: After this session students will be aware of
  - the importance of writing early;
  - the sections of the thesis that could be started in the first year;
  - strategies for overcoming writer's block;
  - various approaches to writing;
  - strategies for learning to enjoy writing; and
  - the opinions from several academics on a panel giving advice about writing in the early stages of the thesis.
- 5. The Oral Examination: After this session students will know

- the oral examination purpose as identified by literature;
- the process at this institution around examination reports and committee considerations;
- who will be present at their oral examination;
- how long the examination should take;
- what the possible outcomes are;
- predictable kinds of questions in the examination;
- what to expect;
- how to prepare;
- strategies for presenting well on opening; and
- strategies for responding to questions.

Classroom handout material for these courses would form the basis for material adapted for interactive on-line delivery. I speculated that possibly different learning styles (Kolb, 1984) would be better accommodated with an interactive electronic delivery. Yet, the value of interdependent learning (Bruffee, 1999) might be somewhat reduced simply because it could be more difficult for some to hold meaningful conversations when not physically together. I believe that much of good teaching relies on its response to student body language and expression as well as their comments, and it also entails getting them relating content to their own work by talking to each other. These things occur in classroom space; I was uneasy about how body language and expression may be compromised in the digital media. I was also unsure about how much time responding to student emails might take when I offered my contact address on the website. If easier access to the material meant more uptake, would it mean that I might get dozens of emails daily? My time is a limited resource: was I setting myself up for more than I could handle?

I decided to start with the Oral Examination session because most students get justifiably anxious as they approach this hurdle. Given that I am able to facilitate each class only two to four times annually, students often want an individual appointment to get guidance on their approaching oral examination. Currently in our Centre there is concern that individual appointments are time expensive and there is some pressure for us to try to pull back from this way of working. I was aware of interest in examiner discussion of the oral examination (Carter, 2008): students and academics are morbidly fascinated by the secret closed door process of the viva voce. It seemed likely that accounts from students who had been through the experience would be of interest, so of use to personalise advice through links, video clips, and individual bitesized comments.

The next two sessions would be the Research Proposal and the Literature Review. I surveyed Departmental Graduate Advisors (DGAs) in 2008 and found that these were the two sessions they most wanted for their students (Brailsford & Carter, 2010). Their prioritisation choice confirmed the implications of classroom attendance rates: where 15 is the annual average of our individual sessions, 89 students attended the Literature Review sessions and 82 the Research Proposal sessions in 2008, with the

next most popular session attracting far fewer (42). Initially we offered all courses equally frequently, but now the most popular are scheduled more often to cope with interest. Both DGAs and students clearly find these two the most useful. They work in tandem for all students beginning their doctorate. They address our institution's claims that doctoral graduates would have "an advanced capacity for critical appraisal of relevant scholarly literature [and] an advanced ability to initiate [and] design...research" (University of Auckland, 2009); sometimes I use the institutional graduate attributes as endorsement for the sessions we provide, since we teach the skills needed for these attributes.

With a draft plan, and some sense of what I wanted (and what I wanted to avoid), I approached Claire and Ashwini, eLearning Group colleagues in the Centre for Academic Development who had the expertise I so conspicuously lacked.

# From first concept to engagement with elearning pedagogy elearning designers: Ashwini and Claire

In this section we describe the *process* of developing the FDP in collaboration with Susan, and the current version of it (i.e. the first prototype of the FDP's course website). Our description weaves back and forth between *pedagogical* and *technological* considerations, showing their interplay during a typical learning design project.

# The process

When Susan first approached us about this project, we embarked on an iterative learning design process. This typically involves stages of needs analysis, and the design and development of small, representative sections of the course. These "prototypes" or early versions are trialled with users and other stakeholders. The results of these trials inform the on-going development of further parts of the course in a cyclic pattern (Gunn & Donald, 2010), as shown in Figure 1.



Figure 1. A typical iterative development process for elearning projects

Pedagogical considerations

#### 1. Establishing the need

The purpose of any needs analysis is to obtain a thorough understanding of the goals of the project from the perspective of all stakeholders, and then to translate these goals as educational requirements into a set of recommendations for the design and development of the resource. During the needs analysis, Susan provided much of the detailed information we needed about the students' learning needs, the teaching context, and the goals and intended learning outcomes of the new FDP. We also studied the content of the existing DSP, and observed the teaching of some of the oncampus sessions to gain first-hand knowledge of how students interacted with staff, the materials and resources, and with one another.

#### 2. Reviewing existing content for re-purposing

We also reviewed what online resources had been developed elsewhere. Susan was aware of what some Australian universities provided for their doctoral students online, and we surveyed online resources for postgraduate study from tertiary institutions internationally. We discussed which features of these would be relevant at our university, and an early design brief began to emerge.

#### 3. Designing in response to the need and requirements

We used the 'community of inquiry model' (Figure 2) to direct our initial design. The community of inquiry theoretical framework represents a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements - social, cognitive and teaching presence (Garrison, Anderson, & Archer, 2000). We needed to balance the online provision of content (e.g. prose) with opportunities for student engagement (e.g. through online discussion and collaboration) to motivate students to become a part of a dynamic learning community (Datt, Donald & Carter, 2011). The focus on the differences between the 'cognitive', 'social', and 'teaching' presences that constitute the educational experience in this model helped us to match the technological possibilities to the educational requirements, and to prioritise our learning design tasks. For example, in designing for learning with 'cognitive presence', we were planning for a variety of learning opportunities that ranged from simple templates for the thesis to comprehensive blog-type log-books for supervisory meetings, and links to cross-campus support. In thinking about the 'social presence,' we needed to provide opportunities for students to interact with one another via discussions or phdchat on twitter. The discussions page would need 'teacher presence', but at the same time in such a way that students would realise that the subject matter expert, while available, is not on tap 24/7 like the content.



*Figure 2*. The community of inquiry model (Adapted from Garrison, Anderson & Archer, 2000)

Excitingly, there is the potential to develop generic cross-campus doctoral support in a variety of directions: as a wiki that students can contribute to, or by incorporating Aropa, a peer-review system developed in the Department of Computer Science at the University of Auckland. Aropa enables students to give and receive critical commentary on parts of their work, such as their abstract. We have links to other websites, including the statutes and guidelines found at our own institution's web pages, and websites linking doctoral students in an international community. Film clips of supervisors and successful doctoral students giving stories and advice establish a sense of community. All of these aspects could be taken further.

Figure 2 shows a model of educational experience which might give an ideal digital media resource, because the benefits of the classroom, teaching, social and cognitive presences should enable engagement.

#### Technological considerations

It was soon clear that the FDP needed to address two main requirements:

- 1. to provide relevant, flexible online resources; and
- 2. to stimulate and support the development of an online community of dispersed, postgraduate students studying in a wide range of disciplines (and, increasingly, working across disciplines).

Using the materials and resources that Susan used in her face to face workshop sessions, we started developing the first prototype of the online resources. We then used this prototype to integrate particular online communication and collaboration

functions for testing with the staff and students. A key decision was made at this stage to develop the online resources within a course website, which could eventually be used in conjunction with the university's learning management system. There were five main reasons for this decision:

- 1. The university's learning management system would support the significant online student administration requirements for the programme for the 2000 doctoral students currently at the university.
- 2. Students and staff would need a range of online communication services (e.g. discussion forums, announcements, reflective journals, and possibly blogs and wikis).
- 3. The prototype of the FDP had to be within a secure online environment (i.e. password protected and behind the university's firewall) at least until we fine-tuned it in response to user feedback.
- 4. The course website would need to provide the range of online resources (text, images and videos) in an engaging, interactive format to supplement the on-campus sessions clearly and unambiguously.
- 5. The development environment (i.e. the web editing tool and the learning management system) was sufficiently user-friendly to allow Susan to edit and modify much of the content independently of the elearning designers and web developers. This was a significant advantage, not only for Susan to maintain her own "teaching voice" across the range of different online resources and on-campus sessions, but so that she and colleagues could provide for on-going maintenance of the content of the FDP when our collaboration on this project ends.

# The Prototype

#### Pedagogical consideration

The importance of equitable access for distance doctoral students was a key driver of our design efforts. At the back of our minds was the vision of a connected doctoral community of students (on-campus and distance) and educators. Not only did we need to clarify for students how the FDP was intended to supplement the Doctoral Skills Programme, so that it would deepen and enrich the existing programme, we would also show its connections with the existing resources on the University's website (e.g. doctoral policies and procedures). The media richness (e.g. video interviews and thesis examples) as elaborated in the section below helpfully collapsed the gap between doctoral students and educators through scholarly sharing of knowledge, skills and experiences. In widening the scope of classroom sessions through interactive electronic access to the FDP, we have also been improving the resources for the class attendees. The redirected flow in fact swells classroom potential too. The FDP programme will provide a place where additional examples for teaching (e.g. of introductions and conclusions, thesis proposals, etc.) could be accessed to complement the classroom teaching and materials. Workshop samples for classroom use would then be used to demonstrate and discuss theoretical points, in the knowledge that students could access samples close to their own discipline either before or after the class.

#### Technological consideration

All our pedagogical considerations influenced what we provided on the web pages, (i.e. the content), and how we structured the material, so that the format, arrangement, chunks of text, images, videos and modular segments linked clearly to the existing oncampus offerings of the DSP. The screenshots of pages (still in development) given below illustrate these points (see Figures 3, 4, and 5).



Figure 3. The Flexible Doctoral Skills overview page

In the overview page (Figure 3), Susan introduces the FDP by explaining (currently in writing) that it is intended to be used in a number of ways: either in lieu of attending the on-campus session, as a primer before attending a session on campus, or for revision and reflection after attending a session. To add a more personal touch, this introduction will be presented as a video later on. An introductory video clip by one of the experienced doctoral supervisors who have contributed to this project puts the

doctoral thesis into some perspective and demonstrates how this resource epitomises collegial, scholarly sharing of knowledge, skills and experiences for learning.

| Doctoral Skills: Citing and Avoiding Plagiarism |  |
|---|--|
|   | Doctoral Skills Websites 💌   |
| Introduction<br>Definition                      | Referencing styles   |
| Problematics of<br>referencing                  | You need to decide which referencing system you will use and then use it consistently. Endnote will make this easier by doing referencing electronically.  |
| Referencing styles                              | If you want advice on specific aspects of referencing, such as in-text citation, you should bookmark as a favourite and use Referen©ite, found at <u>www.cite.auckland.ac.nz</u> .   |
| Acknowledgement<br>pages                        | The precise rules of even the two main systems, APA and MLA, are too lengthy to discuss here. However, the information as to how they work is fairly readily available. You could begin by looking at the <u>Referen@ite website</u> .   |
| Resources                                       | Many doctoral students cite unusual material, some of which is unpublished. Some of this will have an established protocol, such as letters, personal conversations, newspaper articles, or radio show script. Should you ever cite something that is so unusual as to be outside the advice given by the style manuals, use your common sense and logic: look at how others in your field have done this and follow a similar layout. Your supervisor may be able to give advice too.   |
|   | How do you choose your referencing system out of the many available? Preference for a particular style tends to be discipline specific. Generally the fact that journals have styles informs the choice that doctoral students make about style. Arts Humanities subjects usually use MLA or Chicago, Sciences and Social Science, APA. Some departments have their own preference, such as History which prefers Harvard. You should check with your supervisor as to which referencing system is conventional for your discipline if you are not sure that you already know this, but you could consider for yourself which one is best by thinking about some of the underpinning issues. |
|   | Theoretical underpinnings of APA and MLA   |
|   | Understanding disciplinary conventions   |
|   | Case study   |

Figure 4. Referencing styles page

Throughout the website, there are links and references to existing resources (Figure 4) within the university website to give the students a more holistic experience (e.g. Referen©ite website for the Citing and Avoiding Plagiarism module. This is a fifth module which is being added to the original four). In the classroom sessions we refer to some of the sites, but if students are using the Flexible Doctoral Skills modules at home, they will be able to pace themselves steadily through those links they find helpful, rather than taking a quick glimpse in a classroom session.



Figure 5. Oral examination candidates advise page

Figure 5 shows peer-mentoring collegiality, where experienced students who have recently gone through the process of completing a doctoral degree share their experience and advice with current and potential students. Attrition is a major doctoral challenge, making psychological support an important component of successful doctoral pedagogy. The communal sharing of experiences, especially challenges and how they were overcome, is crucial to Susan's core work. Diverse perspectives, with potential to widen this pool over time with more video stories, make it likely that the material will cater for diverse students. One of the video clips is likely to be of someone who the watching student will know, and also someone with whom they will empathise and identify as similar to themselves.

If Susan began with a sense of ambivalence about the electronic medium, she remains pressingly aware of limitations as well as keen to develop its exciting potentials.

## Into the future: the rapids ahead

Having packaged together existing material, links to other resources and examples, and video clips, we now need to extend the set of FDP resources and allow students to become active contributors and navigate through the resources at their own pace. More examples of literature reviews and thesis proposals could be gathered, and analyses of these could be provided to identify the mechanics of critical evaluation of literature, or show the links between research questions, theory and methods. It would be great to build exercises that encouraged students to generate their own doctoral writing in response to what the teaching material and examples show. As well as having some ideas of our own, we intend to rigorously evaluate the current prototype to inform future developments. Potential to expand this dimension of teaching and learning is exciting, and as a teacher, Susan feels the motivational inspiration of that 'plus ultra' impulse that drove Renaissance ambition: let's go further.

However, the countering 'non plus ultra' caveats are clearly evident as we go towards the rapids of the future. Susan is aware of being considerably more dependent as a teacher in the digital medium: self-sufficient in her classroom teaching, she regularly needs help when she is building her website. Those considering venturing into the production of a digital artefact should also think about their own competencies and sources of assistance, aware that someone who builds teaching software needs to consider pedagogy, and the quite different way that material is presented and engagement maintained. Additionally, when software changes, the electronic resource needs to be updated and kept current.

Susan's successful application for a Teaching Improvement Grant in 2011 meant that she was able to pay someone so an additional 400 hours could go into this project along with considerable time from her and her colleagues. This grant has now been spent, and she will need to maintain the site herself or ask for help from colleagues. The web development tool that we used was chosen with this requirement in mind. Coursebuilder is a web development tool designed specifically for teachers to develop their own online resources independently (with help when needed). Nonetheless, with this site already built, an artefact, Susan is finding it difficult to crib time for its maintenance.

Susan's role as an Academic Advisor makes her teaching a little different from discipline teaching. Some of what she teaches is similar: principles, definitions, strategies. But some aspects are more about sharing lived experience, coping with the psychological challenges to doctoral work. Elearning is flexible in that students can access it at any time and navigate through the site in any direction, but classroom sessions make it possible to teach responsively, slowing down if students want to go into the emotional challenges of the work.

Some things about teaching never change: time is Susan's main concern. How much new work will this redirection entail, and how much time will it save? Will it be problematic to open the site to student contribution without watching it closely? She will be evaluated annually on her publication, her service, and her teaching. Work in an additional medium may mean more time needed on maintaining both classroom material (handouts and Power Point slides) and electronic pages. Institutional policy and practice is updated occasionally, and fresh literature emerges to inform her teaching. When she is on research and study leave, she can organise her classes to be covered, but may have to accept that the electronic site will be a responsibility that she will have to take with her.

## Conclusion

Redirection of pedagogical flow and medium began as a response to student need with a sense of loyalty to what was being achieved in the classroom. Susan was aware as a Learning Advisor (teaching generic sessions with a significant pastoral element) that the challenge was not simply putting facts and theories online. Susan wanted reasonable intellectual depth within elearning principles: community of practice sharing, learner-centred; collaborative; innovative; catering for diversity; and sharing of best practice strategies (Milne & Dimmock, 2005). She is pleased that some degree of success with these goals has made the project a really satisfying teaching experience, but there remains anxiety about negotiating the rapids ahead in the future.

To close with the evocative power of the conference metaphor, 'river', we suggest that redirection from class to digital media has been both beneficial and costly. Norman Maclean's (1993) novella, *A River Runs Through It* closes with the following reminder of the nature of rivers: "The river was cut by the world's great flood and runs over rocks from the basement of time. On some of the rocks are timeless raindrops. Under the rocks are the words, and some of the words are theirs." We suggest that doctoral new knowledge is always built on previous human wisdom, some of which comes from 'the basement of time.' The basement rocks remain, even when a great flood cuts the river. In this case, the river is pedagogy, the flood, the new dimension of elearning. Each doctoral student adds new knowledge and understanding to the river of human experience. Their thoughts, advice and encouragement are added to the pedagogical river that will carry future students. Is our rendition of the ways of best negotiating academic requirements for swelling the river, and for lodging words securely within the rocks, meaningful to students? This remains to be seen. Early feedback from colleagues and students has been encouraging.

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